

**Formative assessment in England:
Multi-site case-studies exploring the effects of using
an audio device during the Key Stage 3 group
composing process.**

By

Nikki Booth

A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy in Education at Birmingham City University

October 2022

Faculty of Health, Education and Life Sciences



Acknowledgements

There are many people I would like to thank who have inspired and supported me through my PhD journey. First, to my amazing supervisors, Professor Martin Fautley and Dr. Victoria Kinsella. I have loved every coffee- and tea-fuelled supervision meeting we have had over the past six years. You have been there for me every step of the way, advised and inspired me to think more critically, and encouraged me when I needed it. I could not have reached this point without you both! Victoria, it was an absolute pleasure to co-author an article with you and I am so pleased our work was accepted for publication. Here's to many more co-authorships to come!

Second, I would also like to thank my fantastic BCU colleagues, Dr. Anthony Anderson and Emma Nenadic. Anthony, I always enjoy and look forward to our conversations and love that every time we speak you push my thinking even further. It was also such a pleasure to co-author the Chartered College's Assessment Literacy article with you, and I am so pleased they accepted it as part of their Chartered Teacher and Leader courses. Again, hopefully lots more co-authorships to come! Emma, having started our PhD journeys at the same time, it has been great to share this journey with you. I have loved our "Skype Socials" and I am so grateful you have been there when I wanted to talk through complex ideas. You have been amazing in helping get my thinking clear.

Third, to my brilliant colleagues Phil Tapp and Jon Lesniewski. Thank you both for allowing me to reduce my school time so that I had more time and space to embark on this journey. It has been great to discuss my research with you along the way. Thank you for being amazing school leaders and, despite your very busy schedules, always finding time to read through my work (including my publications) and discussing the complexities of assessment – sometimes for hours – with me. I hope that you have also found our conversations useful!

Fourth, I would also like to thank other researchers who have introduced me to new areas of literature. To Martin and Victoria for presenting the delights of Activity Theory to me; to Professor Dylan Wiliam for introducing me to the work of Lee Cronbach which has had a significant impact on my assessment thinking; to Professor Marilyn Leask who suggested I read into Threshold Concepts; and to Professor Ray Land for taking the time to read through, and provide such thoughtful comments on, the Threshold Concepts article I co-authored with Victoria.

Fifth, to my family and friends for your support and never-ending encouragement. In particular, I would like to thank my wife, Helen, and daughter, Jessica. Thank you both for allowing me to “escape” when I needed to and for providing me with many cups of tea, coffee, and snacks to keep me going.

Sixth, to Gary Spruce who kindly agreed to read my thesis before submission. Gary, thank you so much for your time and thoughtful comments in helping me towards the finishing line.

Finally, to the music teachers and students who took part. Thank you all for taking the time to be involved in the research. Put simply, this thesis would not exist without you!

Abstract

Exploring formative assessment and the effects of using an audio device during the Key Stage 3 (ages 11-14) group composing process is currently an under-researched topic within music education literature. In order to address this gap from multiple and diverse perspectives, quantitative and qualitative data were collected and analysed from music teachers (n=4) and focus group students (n=16) across a composing unit-of-study (n=16 composing sessions) from four state-funded, comprehensive case-study schools located in the English midlands.

Several key findings emerged which can be considered important to both music education research and music teachers. First, through episodic sequencing (Fautley, 2002; 2004; 2005) of video recorded composing sessions, two additional phases were identified during the composing process. Second, through systematic observation discourse analysis (MacDonald, Miell and Morgan, 2000), summative assessment, through teachers and students giving comments, was found to occur in every composing session. Contrary to previous research, however, these summative comments were being given as a means of support, encouragement, and positive praise. Third, through further observation and systematic observation discourse analysis (MacDonald, Miell and Morgan, 2000), formative assessment, as defined in this thesis, was found to occur in most case-studies. Despite their occurrence, however, the formative process was often found to be strengthening the performance of the composition rather than developing the groups' composing. Fourth, through applying a phenomenological lens to post-study interviews to better understand participants' lived experiences, the audio device should not be considered a replacement for live teacher feedback. This is important so that feedback can be understood, digested, engaged with, and acted on, with teacher support as appropriate, for it to enhance musical learning further. Fifth, during live feedback interactions, teachers should be cautious about giving some groups too

many proposals; despite their good intention, they may well reduce students' need to think creatively for themselves. Teachers can afford, where appropriate, to take a more laissez-faire (Fautley, 2002; 2004) pedagogical approach. Sixth, through applying and utilising Bourdieu's (1971) Field Theory, students who had more symbolic and/or cultural capital were not only deemed to be the leader of the group by their peers but were also found to share more formative comments in developing the composition further. Seventh, through a modular integration of Activity (Engeström, 1987) and Field (Bourdieu, 1971) theories, several contradictions, both emergent and historical, were identified and were found to have impacted on the composing process. The audio device was found to help resolve some of these tensions. This led to a proposed extension of the 3-Dimensional Activity Theory model. Finally, through Thematic Analysis (Braun and Clarke, 2006) of pre- and post-study teacher and focus group interview data, the audio device was found, overall, to be a valuable teaching and learning tool. For students, including those with a Special Educational Need and/or Disability, it was a valuable aide memoire which provided them with increased autonomy and independence. For teachers, it afforded them the time and space to 'step back' to engage in reflection with regards to current practices of classroom-based composing whilst maintaining a positive workload balance.

Contents

Acknowledgements.....	2
Abstract.....	4
List of Tables.....	10
List of Figures.....	13
Chapter 1: Introduction.....	15
1.1: The research context.....	15
1.2: Locating the study.....	16
1.3: The research questions.....	18
1.4: Thesis structure.....	19
Chapter 2: Literature Review.....	21
2.1: Assessment.....	21
2.1.1: Defining “assessment”.....	22
2.1.2: Purposes and modalities of assessment.....	24
2.1.3: The consequences of national examinations on policy and practice.....	27
2.1.4: In-lesson summative assessment.....	32
2.1.5: In-lesson formative assessment.....	35
2.1.6: Validity and reliability within in-school assessment.....	46
2.1.7: Threshold Concepts.....	51
2.1.8: Feedback.....	56
2.1.9: Section summary and implications for the present study.....	60
2.2: Creativity and group composing.....	61
2.2.1: Defining “creativity”.....	62
2.2.2: The paradigms of creativity research and theory.....	66
2.2.3: Models of novice composing.....	71
2.2.4: Composing processes.....	76
2.2.5: Group composing processes.....	82
2.2.6: Section summary and implications for the present study.....	91
2.3: Group organisation and activity.....	92
2.3.1: Demographics of group organisation.....	93
2.3.2: Activity Theory (1).....	98
2.3.3: Group discourse.....	107
2.3.4: Section summary and implications for the present study.....	114
2.4: Pedagogies.....	115

2.4.1: Some current pedagogical approaches and debates in education	116
2.4.2: Issues with teaching composing	120
2.5.3: Section summary and implications for the present study	122
Chapter 3: Methodology	123
3.1: Case-study	124
3.2: Mixed-methods	125
3.3: Phenomenology	128
3.4: Interpretivism	130
3.5: Activity Theory (2)	131
3.6: Field Theory	135
3.7: Chapter summary and implications for the present study	141
Chapter 4: Methods	143
4.1: Sampling	145
4.2: Observations	151
4.3: Interviews	155
4.4: Triangulation	159
4.5: Reflexivity of my own positionality as a researcher	162
4.6: Data analysis	166
4.7: Ethical considerations	174
4.8: The impact of COVID-19 on the present study	182
4.9: Chapter summary and implications for the present study	184
Chapter 5: Results	186
5.1: Case-Study 1 context – School A (Pilot Study)	188
5.1.1: RQ1	191
5.1.2: RQ2	203
5.1.3: RQ3	212
5.2: Case-Study 2 context – School B	223
5.2.1: RQ1	226
5.2.2: RQ2	240
5.2.3: RQ3	252
5.2.4: RQ4	265
5.3: Case-Study 3 context – School C	273
5.3.1: RQ1	276
5.3.2: RQ2	286
5.3.3: RQ3	298

5.3.4: RQ4.....	306
5.4: Case-Study 4 context – School D.....	317
5.4.1: RQ1.....	321
5.4.2: RQ2.....	331
5.4.3: RQ3.....	341
5.4.4: RQ4.....	357
Chapter 6: Discussion	367
6.1: Critical reflection	368
6.2: Expanding the group composing process.....	370
6.3: The identification of Threshold Concepts within the group composing process.....	379
6.4: Teacher intervention strategies and audio recorded feedback	383
6.5: Student language as assessment within the group composing context	391
6.6: Additional reported benefits of using audio devices during the group composing process.....	397
6.7: Reframing classroom-based assessment	399
Chapter 7: Further analysis and discussion.....	404
7.1: Modular integration.....	406
7.2: Unpicking “contradictions”.....	408
7.3: Historical <i>dissonances</i> and <i>obstacles</i> from case-study data.....	410
7.4: Emergent <i>dissonances</i> and <i>obstacles</i> during the composing process	434
7.5: Towards a typology of contradictions.....	450
7.6: How the extended model can support classroom practice	466
Chapter 8: Conclusions	470
8.1: Coda	486
References.....	491
Appendix 1: Semi-structured interview questions	528
Appendix 2: Example of coding from interview data	532
Appendix 3: Original ethical approval	536
Appendix 4: Participant information and consent forms	537
Appendix 6: Original and adaptations to MacDonald, Miell and Morgan’s (2000) verbal codes and operational definitions.....	569
Appendix 7: School A Teacher Intervention dialogue with group which did not relate to the focus of the study	571
Appendix 8: Group composing recording and teacher feedback sheet.....	572
Appendix 9: School C Composition Task.....	573
Appendix 10: School D Composition Task.....	574

Appendix 11: An example of the whole-school stanine-based assessment system in School B	575
Appendix 12: List of publications and presentations given during PhD study (2016-2022)	576
Appendix 13: Follow-up responses from case-study Music Leads.....	581
Appendix 14: Accompanying CD of each group's composition	585

List of Tables

Table 1: Characteristics and definitions of a Threshold Concept (TC).	52
Table 2: Types and definitions of troublesome knowledge (derived from Perkins, 1999).....	53
Table 3: Current Threshold Concept literature base within music education.	55
Table 4: Fautley’s (2005) model of the composing process.	83
Table 5: Mercer’s (2004) typology of talk.	108
Table 6: Major’s (2007: 170) Typology of pupil talk about composing (1).....	110
Table 7: Major’s (2007: 171) Typology of pupil talk about composing (2).....	111
Table 8: Advantages and disadvantages of phenomenological research (Denscombe, 2005: 105-106).....	129
Table 9: Engeström’s (1987) typology of contradictions.	131
Table 10: Gedera’s (2016) Clarified Activity Theory terminology for use in educational contexts.	133
Table 11: Data collection methods and amount of data to be analysed.....	144
Table 12: Case-study school sample details.	147
Table 13: Case-study music teacher and composing group sample details.	149
Table 14: Advantages of conducting interviews (Denscombe, 2005).	156
Table 15: The application of Denzin’s (1978) types of triangulation in the present study. .	160
Table 16: Non-transactive categories (Miell and MacDonald, 2000: 368-369, italics in original).....	171
Table 17: Transactive categories (Miell and MacDonald, 2000: 369).	172
Table 18: Students’ instrumental/vocal backgrounds (School A).....	189
Table 19: The length of each video recorded composing session (School A).....	190
Table 20: Quantitative details for the Auditory Research phase (School A).....	198
Table 21: Quantitative details for the WIPR phase (School A).....	200
Table 22: Quantitative details for the WIPL phase (School A).....	201
Table 23: Discourse analysis showing summative ‘I’ (School A).....	204
Table 24: Discourse analysis showing summative ‘I-PV’ (School A).....	205
Table 25: Discourse analysis showing summative ‘I-NV’ (School A).	205
Table 26: Discourse analysis showing formative ‘P- <i>stat</i> ’ (School A).....	206
Table 27: Discourse analysis showing formative ‘P- <i>info</i> ’ (School A).	207
Table 28: Discourse analysis showing formative ‘TQ’ (School A).....	209
Table 29: A summary of the types of feedback following the WIPR and WIPL phases identified (School A).....	210
Table 30: A summary of formative and summative utterances separated by gender (School A).	211
Table 31: TI #1 teacher-group dialogue – Session 1 (School A).....	213
Table 32: TI #3 teacher-group dialogue – Session 1 (School A).....	214
Table 33: TI #4 teacher-group dialogue – Session 2 (School A).....	215
Table 34: TI #5 teacher-group dialogue – Session 2 (School A).....	215
Table 35: TI #8 teacher-group dialogue – Session 4 (School A).....	216
Table 36: TI #6 teacher-group dialogue – Session 3 (School A).....	217

Table 37: TI #7 teacher-group dialogue – Session 4 (School A).....	218
Table 38: The length of each interview and video-recorded composing session (School B).	224
Table 39: Quantitative details relating to the WIPR phase (School B).	235
Table 40: Quantitative details relating to the WIPL phase (School B).....	236
Table 41: Modalities of revision identified following a WIPL phase (School B).....	237
Table 42: The amount of composing time the focus group spent on discussing lyrics (School B).....	238
Table 43: Discourse analysis showing summative ‘I’ (School B).....	240
Table 44: Discourse analysis showing summative ‘I-PV’ (School B).....	241
Table 45: Discourse analysis showing formative ‘P’ (School B).	242
Table 46: Discourse analysis showing formative ‘P- <i>stat</i> ’ (School B).....	244
Table 47: Discourse analysis showing formative ‘P- <i>info</i> ’ (School B).....	246
Table 48: A summary of types of feedback following WIPR and WIPL phases identified (School B).	249
Table 49: A summary of formative and summative utterances separated by gender (School B).....	250
Table 50: RTI #1 teacher feedback – Session 2 (School B).	254
Table 51: RTI #2 teacher feedback – Session 3 (School B).	256
Table 52: RTI #3 teacher feedback – Session 4 (School B).	257
Table 53: RTI #4 teacher feedback – Session 5 (School B).	258
Table 54: Summary of types of recorded feedback made by the teacher (School B).....	264
Table 55: The length of each interview and video recorded composing session (School C).	274
Table 56: Summary of previous and current instrumental experiences for the focus group (School C).	275
Table 57: Quantitative details relating to the WIPR phase (School C).	283
Table 58: Quantitative details relating to the WIPL phase (School C).....	284
Table 59: Discourse analysis showing summative ‘I-PV’ (School C).....	287
Table 60: Discourse analysis showing summative ‘I-NV’ (School C).....	287
Table 61: Discourse analysis showing formative ‘P’ (School C).	288
Table 62: Discourse analysis showing formative ‘P- <i>info</i> ’ (School C).....	291
Table 63: A summary of types of feedback following WIPR and WIPL phases identified (School C).	295
Table 64: A summary of formative and summative utterances separated by gender (School C).....	296
Table 65: RTI #1 teacher feedback – Session 2 (School C).	299
Table 66: RTI #2 teacher feedback – Session 3 (School C).	300
Table 67: RTI #3 teacher feedback – Session 4 (School C).	301
Table 68: Summary of types of recorded feedback made by the teacher (School C).....	304
Table 69: The length of each interview and video recorded composing session (School D).	318
Table 70: Summary of previous and current musical experiences for the focus group (School D).	320

Table 71: Quantitative details relating to the WIPR phase (School D).	328
Table 72: Quantitative details relating to the WIPL phase (School D).	330
Table 73: Discourse analysis showing summative ‘I-PV’ (School D).	332
Table 74: Discourse analysis showing summative ‘I-NV’ (School D).....	332
Table 75: Discourse analysis showing formative ‘P’ (School D).	333
Table 76: Discourse analysis showing formative ‘P- <i>stat</i> ’ (School D).....	334
Table 77: Discourse analysis showing formative ‘P- <i>info</i> ’ (School D).	336
Table 78: A summary of the types of feedback following the WIPR and WIPL phases identified (School D).....	338
Table 79: A summary of formative and summative utterances separated by gender (School D).	339
Table 80: LTI #1 teacher-group dialogue – Session 1 (School D).	344
Table 81: LTI #2 teacher-group dialogue – Session 2 (School D).	345
Table 82: RTI #1 teacher feedback – Session 2 (School D).	349
Table 83: RTI #2 teacher feedback – Session 3 (School D).	351
Table 84: Summary of types of live feedback made by the teacher (School D).....	354
Table 85: Summary of types of recorded feedback made by the teacher (School D).....	355
Table 86: Defining the sub-contradictions of <i>dissonances</i> and <i>obstacles</i>	408
Table 87: A summary of School B’s dissonance.	413
Table 88: A summary of School B’s obstacles.	422
Table 89: A summary of School C’s obstacles.	426
Table 90: A summary of School D’s obstacles.	432
Table 91: A summary of dissonances identified during the composing process.	448
Table 92: A summary of the obstacle identified during the composing process.	448
Table 93: A summary of resolved and partly resolved obstacles identified during the composing process.	449
Table 94: A key of symbols and colours used in Figures 55 to 58.	452
Table 95: Establishing a hierarchy of contradictions.	461

List of Figures

Figure 1: Location of the study.....	16
Figure 2: Teaching and assessment (Booth, 2019: 412).....	25
Figure 3: Teaching <i>within</i> assessment (Booth, 2019: 413).....	26
Figure 4: Google NGRAM search of assessment terms from 1980-2019.....	45
Figure 5: Structure of Intellect (SI) model (Guilford, 1967).	67
Figure 6: Systems model of creativity (Csikszentmihalyi, 1999).....	70
Figure 7: Swanwick and Tillman’s spiral sequence of musical development (1986: 331). ...	71
Figure 8: Wallas’s (1926) stages of the creative process.....	76
Figure 9: Webster’s creative thinking process in music (2002: 12).	78
Figure 10: Linear composing pathways (Burnard and Younker, 2002: 253).	79
Figure 11: Recursive composing pathways (Burnard and Younker, 2002: 255).....	80
Figure 12: Regulated composing pathways (Burnard and Younker, 2002: 256).	81
Figure 13: Fautley’s (2005: 48) second part of the pre-generative stage.	82
Figure 14: Fautley’s (2005: 46) model of group composing in the classroom.....	85
Figure 15: Routes taken by one composing group (Fautley, 2002: 135).....	86
Figure 16: Vygotsky’s (1978) Activity Theory (first-generation) model.....	99
Figure 17: Engeström’s (1987) Activity System (second-generation) model.	100
Figure 18: Engeström’s (2001: 136) Activity System (third-generation) model.....	102
Figure 19: Example of Engeström’s (2001) Activity System (third-generation) model in the context of group composing.....	103
Figure 20: Henley’s (2009: 209) three-dimensional activity system model.....	105
Figure 21: Anderson’s (2019: 194) three-dimensional activity theory model.....	106
Figure 22: The principle of triangulation (adapted from Newby, 2014: 131).	161
Figure 23: An iterative approach to data collection and analysis.	166
Figure 24: The total number of times each composing phase was visited (School A).....	191
Figure 25: Total amount of time (%) each composing phase was visited (School A).	192
Figure 26: Trajectory of composing phases for Session 1 (School A).	194
Figure 27: Trajectory of composing phases for Session 2 (School A).	195
Figure 28: Trajectory of composing phases for Session 3 (School A).	196
Figure 29: Trajectory of composing phases for Session 4 (School A).	197
Figure 30: The total number of times each composing phase was visited (School B).....	227
Figure 31: The total amount of time (%) each composing phase was visited (School B)....	228
Figure 32: Trajectory of composing phases for Session 1 (School B).	230
Figure 33: Trajectory of composing phases for Session 2 (School B).	231
Figure 34: Trajectory of composing phases for Session 3 (School B).	232
Figure 35: Trajectory of composing phases for Session 4 (School B).	233
Figure 36: Trajectory of composing phases for Session 5 (School B).	234
Figure 37: The total number of times each composing phase was visited (School C).	276
Figure 38: The total amount of time (%) each composing phase was visited (School C)....	277
Figure 39: Trajectory of composing phases for Session 1 (School C).	279
Figure 40: Trajectory of composing phases for Session 2 (School C).	280

Figure 41: Trajectory of composing phases for Session 3 (School C).	281
Figure 42: Trajectory of composing phases for Session 4 (School C).	282
Figure 43: The total number of times each composing phase was visited (School D).....	322
Figure 44: The total amount of time (%) each composing phase was visited (School D)....	323
Figure 45: Trajectory of composing phases for Session 1 (School D).	325
Figure 46: Trajectory of composing phases for Session 2 (School D).	326
Figure 47: Trajectory of composing phases for Session 3 (School D).	327
Figure 48: An extended version of Fautley’s (2002, 2005) original model of the group composing process.	378
Figure 49: The formative assessment process (<i>intention</i> and <i>action</i>).....	401
Figure 50: Example of Engeström’s (2001) Activity System (third-generation) model for School B with historical dissonances identified.	414
Figure 51: An excerpt from School B’s Assessment and Feedback policy.....	417
Figure 52: Example of Engeström’s (2001) Activity System (third-generation) model for School B with historical obstacles identified.....	423
Figure 53: Example of Engeström’s (2001) Activity System (third-generation) model for School C with historical obstacles identified.....	427
Figure 54: Example of Engeström’s (2001) Activity System (third-generation) model for School D with historical obstacles identified.....	433
Figure 55: A visual representation of School B’s collective historical and emergent dissonances and obstacles.	453
Figure 56: A visual representation of School C’s collective historical and emergent dissonances and obstacles.	455
Figure 57: A visual representation of School D’s collective historical and emergent dissonances and obstacles.	457
Figure 58: A visual representation of School A’s emergent dissonances.....	459
Figure 59: A 3-Dimensional, third-generation activity system.	463
Figure 60: A collective and generic model of the typologies of contradictions surrounding the composition activity.....	465

Chapter 1: Introduction

1.1: The research context

In England, where this study is located, music is a foundation subject within the National Curriculum. Although guidance from the Department for Education (DfE, 2014) states that, for state-funded schools, the National Curriculum is compulsory for all students from ages 5-14:

changes in school structures [for example, academisation] [have meant] that the National Curriculum is not statutory in academies. They are not required to follow the national curriculum (Daubney, Spruce and Annetts, 2019: 10).

At the time of writing this thesis, the most recent report by the National Audit Office (NAO, 2018) stated that 27% of primary and 72% of secondary state-funded schools in England had converted to academy status. In reality, this means that these schools are not obliged to follow the National Curriculum. In the present study, although two of the four schools had already converted to being an academy at the time the research took place, they continued to follow the National Curriculum as specified by the DfE (DfE, 2014).

One of the aims of the Music National Curriculum is for all students to compose music with others (DfE, 2014). The notion of group composing, therefore, is central to this thesis. This is important because an in-depth survey of the literature (Chapter 2) identified that an exploration into group composing, particularly at Key Stage 3, remains an under-researched area.

1.2: Locating the study

A review of music education literature was conducted within the broad areas of assessment, creativity, group activity, and pedagogies, and then within the more focused subsidiary domains of formative assessment, composing, discourse, and inquiry-based learning. These broad areas and sub-domains are shown in Figure 1 and are discussed in more depth in Chapter 2. The locus of this study, exploring the effects of using an audio device, is at the centre of the overlapping circles.

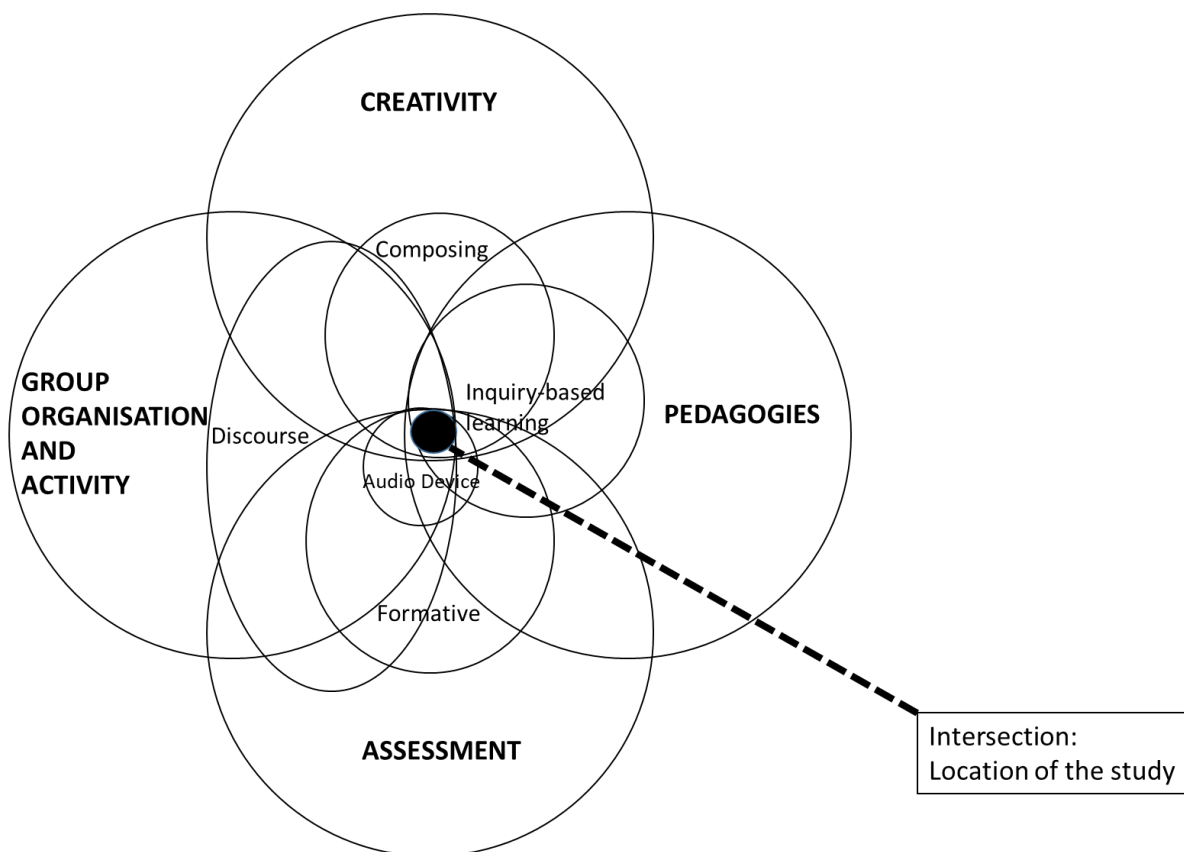


Figure 1: Location of the study.

This study takes place within a composing context where it is considered to be a creative act. This links with an inquiry-based pedagogical method where composition tasks can often be

free choice and/or open-ended and a teacher's interaction with students can be a mixture or "stop-and-question" and "laissez-faire" (Fautley, 2002, 2004) approaches. During Key Stage 3, composing is normally done as a group activity. Discourse, particularly teacher-group and within group feedback, can be important for moving each group's composing forward and has significant connections with formative assessment.

Having conducted an in-depth literature review of the areas and sub-domains presented in Figure 1, which are discussed in detail in Chapter 2, it became clear that the focus of exploring the effects of using an audio device during the Key Stage 3 group composing process is an under-researched aspect of music education and therefore gives this research a unique position.

1.3: The research questions

Having located the study, four research questions were then identified and formed the basis of inquiry for the present study. These questions were:

1. How does the inclusion and use of an audio device influence the group composing process?
2. What are the effects of using an audio device on group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio devices when composing?

Analysing observational data of composing sessions across a composing-focused unit-of-work was a key method used in this study. Through analysing these data, I was able to investigate if and how the inclusion and use of an audio device influenced the group composing process as well as what the effects it had, particularly from a formative assessment perspective, on both group-led and teacher-led feedback. Pre- and post-study teacher and focus-group interviews were also important in order for me to be able to uncover participants' perceptions of using an audio device. These interviews provided valuable insights for better understanding the lived experiences of using the tool during the composing process, and to what extent it was found to support teachers and students in formative assessment.

1.4: Thesis structure

This thesis presents the findings of a six-year research project exploring the effects of using an audio device within Key Stage 3 group composing. The structure of the thesis is as follows: Chapter 1 begins with an outline of the research by introducing the research context, locates the focus of the research investigated, and states the research questions. Chapter 2 presents a detailed, focused, and critical review of literature across the aforementioned (Section 1.2) broad areas and subsidiary domains. Gaps within the literature are identified throughout the chapter along with how the focus of the present study, and subsequent research questions, can help to address these gaps. In order to ensure the chapter covered sufficient understanding and depth of the topics being discussed, similar and relevant literature were also included and discussed.

Chapter 3 presents how the methodological lenses of phenomenology, Field Theory (Bourdieu, 1971), Third Generation Activity Theory (Engeström, 1987), and a mixed-methods, case-study approach were important to the present study's research design. Where relevant, limitations with regard to these methodological approaches are considered with responses to what they meant for the present study included. This leads to Chapter 4 where data collection methods (observations and pre- and post-study interviews) and data analysis tools (thematic analysis, systematic discourse analysis, and episodic sequencing of composing phases) used to support the methodological approaches chosen in order address the research questions are stated. The chapter also foregrounds the ethical considerations made to the research design.

The findings of the present study are shown in Chapter 5 where each case-study, and each research question is dealt with in turn. Data are analysed and presented from a mixed-methods perspective, where both quantitative and qualitative analyses are employed, and

where participants' phenomenological experiences of the research focus – the audio device – are stated. Drawing on these methodological lenses and data collection methods, Chapter 6 then provides an in-depth discussion of the present study's data findings where links to previously cited literature are made, and contributions to music education literature established.

Chapter 7 provides a space for further analysis and discussion of data collected drawing on the modular integration of Bourdieu's (1971) Field Theory and Engeström's (1987) Third-Generation Cultural Historical Activity Theory, focusing specifically on his notion of "contradictions". Further contributions to music education literature are established.

Chapter 8 closes the thesis where conclusions are drawn, implications for policy and classroom practice are discussed, and recommendations for further research are made.

Chapter 2: Literature Review

2.1: Assessment

Introduction

Assessment is complex, multifaceted, and is one of the most debated areas of educational discourse (Fautley, 2010). It covers a wide variety of purposes and uses ranging from the evaluating and grading of schools to lesson-by lesson, even minute-by-minute, observations and conversations that teachers and students engage themselves in.

Within music education, ‘... music has been the most assessed of disciplines, both in the school context and beyond’ (Philpott, 2007: 210). It could be argued, though, that assessment of instrumental and vocal performance has received more attention leaving other, equally important, areas receiving less attention (Fautley, 2010). Assessment within composing at Key Stage 3 (ages 11-14) is a case in point.

This section discusses: how assessment can be defined; the uses and purposes of school-based assessment; the influence of national examinations on school-based policy, practices, and music education; in-lesson summative assessment; in-lesson formative assessment; the validity and reliability of summative and formative notions of assessment; threshold concepts; and audio feedback. The section ends with a brief summary including reference to implications for the present study.

2.1.1: Defining “assessment”

There is some debate as to the exact origin of the word “assessment”. For example, the Oxford English Dictionary traces it back to the Latin *ad sedere*, whilst other literature, for instance Conner (1991) and Wiliam (2020), trace it back, to the Latin word, *assidere*. Despite the slight differences, these two terms seem to translate the same – “to sit beside” or “to sit with”. Sousa (2015) posits that this meaning could relate to the time of Socrates who would sit beside, or sit with, a student and, during the learning process, check their level of understanding through oral questions and conversations, and whether the student’s responses were right or wrong, it would lead to more dialogue, more insights, and greater depth of understanding. As such, in some international educational research, this approach is referred to as the “Socratic method” (for example, Acim, 2018; Jarvis, 2002; Rapanta, 2018).

Wiliam (2020), however, points out that it is usually the case that ‘the origin of the word often bears no relationship to its current usage’ (Wiliam, 2020: 21). As a case in point, Madaus (1993) writes:

... whatever noun you choose, assessment, exhibition, examinations, portfolios, or just plain test, they all rest upon the same basic terminology, that is, you enlist a small sample of behaviour from a larger domain of interest, such as algebra or aptitude, to make inferences about a person’s probable performance relative to the domain, and on the basis of inference, you classify, describe, or make decisions about individuals or institutions (Madaus, 1993: 5).

In contrast to the “Socratic method”, the list of synonyms provided by Madaus (1993) suggest that the word “assessment” can be defined as the completion and submission of a

“product” at the *end* of a learning period (American Educational Research, American Psychological Association, and National Council on Measurement in Education, 2014).

From the differing viewpoints cited above it is clear that the term “assessment” is complex, multifaceted and possesses different meanings.

Reframing “assessment”

To help clarify the term “assessment” this thesis takes the ontological stance that it is perhaps better described as a procedure for making inferences (Cronbach, 1971). In other words, as Wiliam (2020) states:

We give students things to do – such as tasks, activities, tests and so on – and we collect evidence from the students, from which we draw conclusions (Wiliam, 2020: 22).

Within the context of composing, for example, these conclusions could be about the status of a group of students, or an individual student, for instance, “this group knows how to compose a piece of Rock ‘n’ Roll music” or “this pupil is likely to be a successful composer in the future”. Alternatively, it could be inferences about informing next steps in the teaching and learning cycle, such as, “this group needs more practice composing using the Blues scale on C”, or “this learner needs some more attention on lyric writing”.

When assessment is thought of as a procedure for making inferences this means that the same assessment information collected could be used for differing purposes including status, informing what to do next, or both.

2.1.2: Purposes and modalities of assessment

In 1988, at the time the first National Curriculum for England and Wales was introduced, the Task Group on Assessment and Testing (TGAT, 1988) specified four modalities as to how assessment information was to be used, all of which are still relevant for schools today. These modalities were:

- **diagnostic assessment** to identify students' learning needs so remedial help and guidance can be provided;
- **formative assessment** to support and encourage learning through the discussion of next steps;
- **summative assessment** to record overall achievement of a student;
- **evaluative assessment** which is directed at assessing the quality of provision in institutions, and the system as a whole, which, can be reported on.

Of particular interest to classroom-based assessment, and to the present study, are formative and summative modalities of assessment. It should be pointed out that, although reported separately in the list above, “diagnostic assessment” is thought nowadays to be a key component within formative assessment rather than separate to it (William, 2000). However, these key terms are somewhat problematic and require unpicking.

Issues surrounding summative and formative assessment

Understanding what assessment is, as commented on in Section 2.1.1, has implications for school-based practice. For example, for some educators, assessment could just be viewed as being separate from (Graue, 1993), and more likely to occur *after* the teaching and learning cycle (Fautley and Savage, 2008; James et al., 2006). Fautley (2010) labels this separation of

assessment from the teaching and learning process as the ‘folk view of assessment’ (Fautley, 2010: 3) which, within the classroom setting, can represent a series of fixed points throughout the school year in order to determine learner progression. In the case of the music classroom, for example, this form of summative assessment might be referred to as “assessment week” or “the assessment lesson” where, at the end of a half-term, students may undergo an end-of-unit listening test or have their performance or composition pieces recorded for teacher marking and grading. An illustration as to what this might look like is shown in Figure 2.

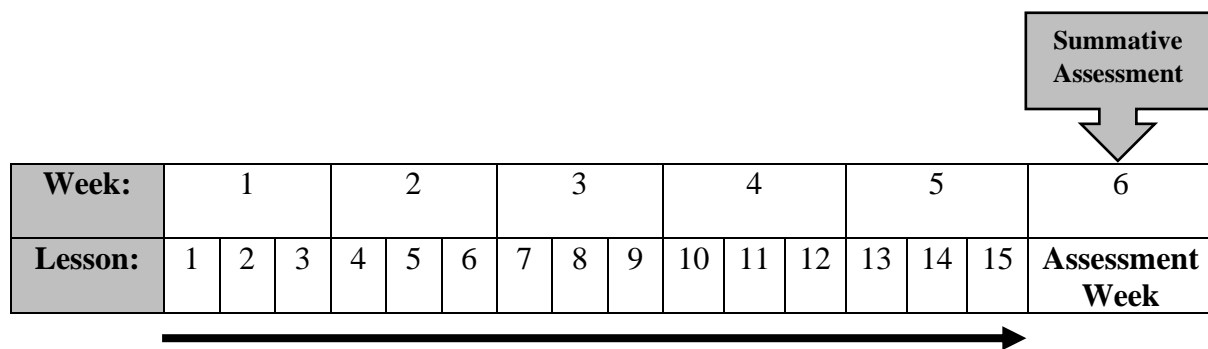


Figure 2: Teaching and assessment (Booth, 2019: 412).

On the other hand, Figure 3 shows how formative assessment (through ongoing and lesson-by-lesson observations of and learning conversations with students, for instance) can be considered essential to pupil progress (Wiliam, 2011). Seen from this perspective, ‘to teach is to assess’ (Swanwick, 1988: 149) and it therefore becomes impossible to separate assessment from the teaching and learning cycle. Furthermore, as Figure 3 shows, assessment *within* teaching becomes a key part of lesson-by-lesson learning as it can be ‘... used to help students learn and to improve instruction rather than being used only to rank students or to certify the products of learning’ (Shepard, 2000: 31).

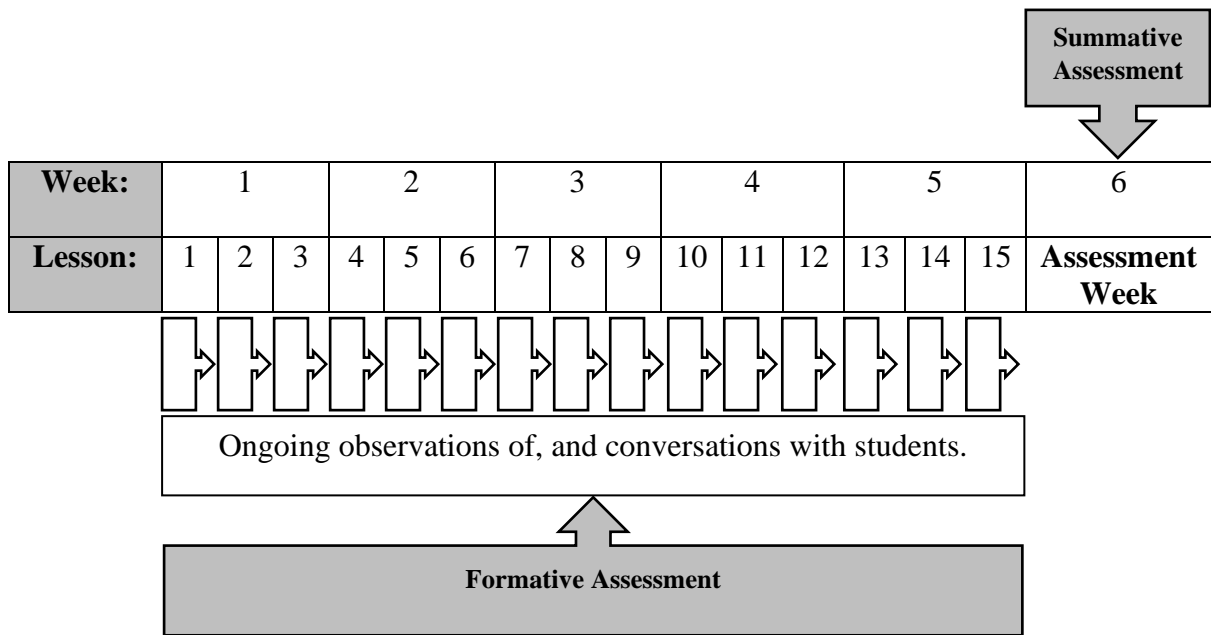


Figure 3: Teaching *within* assessment (Booth, 2019: 413).

2.1.3: The consequences of national examinations on policy and practice

High-stakes accountability

Increasing school effectiveness has been a key driver of educational policy for over 50 years (Donaldson, 2021). Through ranking schools and school districts on nationally reported league tables, results from national tests and examinations have become a key measure to establish a school's success (Mansell, 2007), or to 'identify so-called failing schools and, in some cases, failing teachers within schools' (Biesta, 2010: 10-11). Ball (2003) refers to the concept of "performativity" with external examinations as a mark of a school's "quality":

The performances [non-musical] (of individual subjects or organizations) serve as measures of productivity or output, or displays of 'quality', or 'moments' of promotion or inspection. As such they stand for, encapsulate or represent the worth, quality or value of an individual or organization within a field of judgement (Ball, 2003: 216).

As such, they can be seen as "high-stakes" within a managerial and neoliberal approach to accountability (Biesta, 2010).

Within the secondary school setting, although these national examinations (for example, GCSEs and A-Levels) take place for students at ages 16 and 18 (Key Stages 4 and 5), their "high stakes" nature has, in some schools, washed back and led to teachers and schools adopting undesirable practices, including during Key Stage 3 (ages 11-14) where no national tests or examinations take place. It should be pointed out, however, that such examples of consequences of examinations are not actually a recent problem; writing about written examinations in the 19th century, White (1888) comments:

... they have occasioned and made well nigh imperative the use of mechanical and rote methods of teaching; they have occasioned cramming and the most vicious habits of study; they have caused much of the overpressure charged upon schools, some of which is real; they have tempted both teachers and pupils to dishonesty; and last but not least, they have permitted a mechanical method of school supervision (White, 1888: 519).

Washback

The term “washback” (or backwash) can be defined as when ‘teachers and learners [and schools] do things they would not necessarily otherwise do because of a test (Alderson and Wall, 1993: 117). As a result of “high stakes” examinations and how examination results are being used as a performance measure, one notable consequence within the context of Key Stage 3 (ages 11-14) is the reduction of curriculum time.

The reduction of secondary school music provision

Research (for example, Brill et al., 2018) has shown that some schools reduce their curriculum and focus on getting students to perform well on subjects and content that will be examined at the expense of mastering new knowledge on a broad range of subjects. As the National Association of Headteachers (NAHT) (2018) have observed:

The nature and wealth of the accountability system has encouraged schools to focus on those areas that are critical as school performance indicators such as ... Ebacc [English Baccalaureate¹] or “Progress 8²” (NAHT, 2018: 9).

Such narrowing of the curriculum to focus teaching and learning on key performance measures has also been noted by Ofsted (2018):

... Some secondary schools were significantly shortening their key stage 3 in order to start GCSEs. This approach results in the range of subjects that young people study narrowing at an early stage and means that they might drop art, history or music, for instance, at age 12 or 13. At the same time the assessment objectives from GCSE specifications were being tracked back to as early as year 7, meaning many young people spend their secondary education learning narrowed and shallow test content rather than broader and more in-depth content across a subject area (Ofsted, 2018, n.p.).

As a result of school accountability measures, league tables, and performance measures in England it has been found that, within the secondary school context, many teachers focus (or are asked to focus) more closely on the high-stakes nature of testing rather than on tracking the development of other initiatives, including creativity (Donaldson, 2018; Lucas, Claxton and Spencer, 2013; Odena and Welch, 2007; Wiliam et al., 2004) and music education (Daubney, Spruce and Annetts, 2019; DfE and DfCMS, 2011).

¹ The English Baccalaureate (EBacc) comprises of a small number of subjects including: English, mathematics, science, a humanities subject (history or geography) and a modern foreign language.

² This a measure of students’ progress across their eight best qualifications since their last national examination. In the case of GCSE examinations, the previous national examination was the Key Stage 2 Standard Assessments Tests (SATs) taken at the end of Year 6 (ages 10-11).

For example, a large-scale research study (Daubney and Mackrill, 2017) found a very small number of schools³ (2.4%) did not offer any curriculum time to the study of music. The research also found a number of timetable arrangements which meant the reduction of a music curriculum. One particularly common arrangement was to have music on a carousel with other subjects during Key Stage 3. The study found that between 2015/16 and the following year the number of hours of curriculum music had decreased from 20.8 to 17.5 hours per year with one carousel example giving students only 25 minutes, each week for six weeks, in a school year. Another problematic arrangement was the increasing number of schools making music an optional subject in Year 9, rather than in Year 10. In other words, as a result of accountability measures, many schools were found to be starting their Key Stage 4 curriculum a whole year early.

Further to this, Savage (2021) states that schools becoming (or being required to become) an academy has also added to the reduction of national curriculum subjects, including, among others, music:

Schools now have legal freedoms to design and implement their own curriculum arrangements. Whilst in theory these schools are still required to meet the outline principles and content of the National Curriculum, how they do this is entirely within their control. There are few checks or balances to temper their approach (Savage, 2021: 471)

Whilst it is clear that ‘Music education is in crisis [and that] [t]he Government must act quickly to ensure music does not become the preserve of a privileged few’ (Daubney, Spruce and Annetts, 2019: 29) three of the four case-study schools that took part in the present study offered music for at least 50-minutes a week, for the whole school year, to all Key Stage 3

³ From a sample of 700 secondary schools including academies, local authority-maintained schools, free schools, and independent schools, 80% of which had an Ofsted rating of “good” or “outstanding”.

students. The fourth case-study (School D) offered students one 50-minutes lesson every two weeks.

2.1.4: In-lesson summative assessment

Defining “summative assessment”

The principal purpose of summative assessment (also commonly referred to as Assessment of Learning) is to sum-up learning (Broadfoot, 2008; Devaney, 2018; Fautley and Colwell, 2018; Fautley and Savage 2007; 2008; Harlen 2007; Thorpe, 2015) with some suggesting that its core purpose is to ‘certify pupil achievement’ (Fautley, 2010: 8) at particular points in time (Andrade and Heritage, 2018; Broadfoot, 2008; Harlen, 2007). In music, the certification of a student’s achievement can be said to come from the producing and sharing of a mark, level, or grade following, for example, an end-of-unit listening test, final performance, or the submission of a compositional product. From this perspective, the modality of summative assessment can typically be thought of as occurring *after* learning has taken place and, therefore, ‘looks back on achievement’ (Fautley and Savage, 2008: 27). There are, however, several reported consequences of the use of summative assessment in lessons.

The reported effects of in-lesson summative assessment

Research surrounding the effects and consequences of regular in-lesson summative assessment (summaries below) is somewhat contradictory. For example, Madaus and Clarke (2001) found that in-lesson summative assessments in the form of regular tests:

- do not have a positive effect on teaching and learning in the classroom;
- do not motivate the unmotivated; and
- increase high school dropout rates – particularly among minority populations.

Similar consequences were later found and added to by Harlen and Deakin-Crick (2003) who reported:

- they encourage teachers to adopt transmission teaching;
- they drive classroom activities and priorities;
- practising tests reinforces low self-esteem among lower-achievers;
- students react to a “performance” ethos;
- students can become increasingly anxious;
- students’ effort is affected by their perceived sense of achievement;
- students adjust their future effort in response to feedback;
- students become increasingly extrinsically motivated and grade obsessed; and
- girls and lower achievers are more negatively affected.

From these two lists it is clear that doing regular (low stakes) tests, even if they are done in the classroom, seem to have ‘a significantly damaging effect on the day-to-day business of learning’ (Broadfoot, 2008: 123). Their frequent use in lessons, however, is perhaps unsurprising; due to pressures set upon secondary schools to do well in national examinations (discussed previously in Section 2.1.3), current practice, in some schools, seems to be the need for teachers to show senior leaders that students are making regular and “visible” progress (Harlen, 2008; Popham, 2006) from one summative assessment point to another.

To contend the reported consequences of the effects of regular testing identified above, some cognitive science research (which also seems currently important in official thinking) argues that regular testing is beneficial for long-term learning (for example, Dunlosky et al., 2013; Ebbinghaus, 1885; Roediger and Butler, 2011; Roediger and Karpicke, 2006; Rosenshine, 2010), particularly for developing storage and retrieval strength (Bjork and Bjork, 1992). Furthermore, a recent meta-analysis has shown, in secondary and college settings, student

achievement is higher when students are tested frequently, especially when the scores in those tests count towards the final grade (Sotola and Crede, 2020).

2.1.5: In-lesson formative assessment

The origins of formative assessment

It is widely believed that Scriven (1967) first used the term “formative” where its role was to evaluate the ‘on-going improvement of the curriculum’ (Scriven, 1967: 41). Shortly after, Bloom (1969) applied this thinking to classroom-based testing where:

By formative evaluation we mean evaluation by brief tests used by teachers and students as aids in the learning process. While such tests may be graded and used as part of judging and classificatory function of evaluation, we see much more effective use of formative evaluation if it is separated from the grading process and used primarily as an aid to teaching (Bloom, 1969: 48).

He went on to say:

Evaluation which is directly related to the teaching-learning process as it unfolds can have highly beneficial effects on the learning of students, the instructional process of teachers, and the use of instructional materials by teachers and learners (Bloom, 1969: 50).

In work which followed, Bloom continued to use the term “formative evaluation” whereas “formative assessment” was principally used within higher education contexts within the United Kingdom where it was used to describe any sort of assessment leading up to the final one (William, 2014). William (2014) states that during the 1970s and 1980s, the terms “formative evaluation” and “formative assessment” were not subject to much research and when they were (for example, Fuchs and Fuchs, 1986), the general consensus was that they referred to procedures, such as tests, for informing future teaching.

Sadler (1989) argued that the term “formative assessment” should be intrinsic and integrated *within* teaching. He stated:

[f]ormative assessment is concerned with how judgements about the quality of student responses (performances, pieces, or works) can be used to shape and improve the student’s competence by short-circuiting the randomness and inefficiency of trial-and-error learning (Sadler, 1989: 120).

He also asserted that formative assessment should not be the sole responsibility of the teacher, but also requires changes in learners, too:

The indispensable conditions for improvements are that the student comes to hold a concept of quality similar to that held by the teacher, is able to monitor continuously the quality of what is being produced during the act of production itself, and has a repertoire of alternative moves or strategies from which to draw at any given point. In other words, students have to be able to regulate what they are doing during the doing of it (Sadler, 1989: 121).

The notion of formative assessment being something different from forms of testing was also emphasised by Torrance (1993) who posited that:

research on assessment is in need of fundamental review. I am suggesting that one aspect of such a review should focus on formative assessment, that it should draw on a much wider tradition of classroom interaction studies than has hitherto been acknowledged as relevant and that it should attempt a much firmer basis of evidence about the relationship of assessment to learning which can inform policy and practice over the long term (Torrance, 1993: 341).

It seems clear that the origin of what is called “formative assessment” is indeed complex and it is also somewhat problematic as to how it can be effectively applied in the classroom

setting to support teaching and learning. As such, this has affected how the term has been defined and used in practice.

Definitions of “formative assessment”

Internationally, there is no agreed upon definition as to what the term “formative assessment” is (Anderson and Palm, 2017; Baird et al., 2014; Bennett, 2011; Dunn and Mulvenon, 2009; Filsecker and Kerres, 2012; Good, 2011; Wiliam, 2011b). For example, as discussed above, some believe it to be a product with tests taken at regular intervals (Marshall, 2005), some argue that the term can only be applied when it is integrated into the process of teaching and learning (Popham, 2008; Shepard, 2008), and others see it as a combination of product and process (Bennett, 2011).

Not only this, but there are also differing views surrounding formative assessment and the role of the teacher and the learner. For instance, in early formative assessment research, some behaviourist researchers placed the teacher in the foreground (for example, Bloom, 1969), whereas other scholars who have promoted constructivism, socio-constructivism, and socio-culturalism have emphasised the importance of learners in the process, also (for instance, Assessment Reform Group [ARG], 2002; Black and Wiliam, 2009; Klenowski, 2009; Ramaprasad, 1983; Wiliam, 2011). The notion of ipsative assessment, for example, where a student not only sets their own learning goals (Freeman and Lewis, 1998), but ‘self-references their achievements, comparing them with their previous ones’ (Fautley, 2010: 17) can be viewed as an important part of involving students in the assessment process.

In the United Kingdom, the term “formative assessment” tends to be built upon the work of Black and Wiliam (1998) as well as the ARG (1999; 2002; 2006; 2009). Having researched the effects of formative assessment practice as an update of Natriello (1987) and Crooks’s

(1988) work, the oft-cited definition of formative assessment by Black and Wiliam (1998) is that it is:

all those activities undertaken by teachers and/or their students, which provide information to be used as feedback to modify teaching and learning activities in which they are engaged (Black and Wiliam, 1998: 7-8).

Subsequent research investigating formative assessment practice in schools, however, found that there was a general lack of understanding by teachers of what formative assessment was and how it could be implemented successfully into the classroom (Bennett, 2011; Carter, 2015; Department for Education, 2015; Gardner et al., 2010; James et al., 2006; LKMco/Pearson, 2017). This is one possible reason why formative assessment ‘has [had] no (or at best limited) effect on outcomes nationally’ (Coe, 2013: 10). This understanding and effective implementation into classroom-based practice is important because there is approximately 50-years-worth of research evidence (for example, Andrade and Heritage, 2018; ARG, 1999; Black and Wiliam, 1998; Bloom, Hasting and Madaus, 1971; Broadfoot, 1998; Crooks, 1988; Gardner et al., 2010; Gipps, 1999; Scriven, 1967; Wiliam, 2011; 2016) to suggest that when information is used *formatively* it can have a significant impact on teaching and learning.

Why formative assessment has not had the impact it promised

There are several reported reasons as to why formative assessment has not had the impact it promised in the United Kingdom. The first relates to confusion over the term “formative assessment”. As the ARG (1999) explain:

The term “formative” is open to a variety of interpretations and often means no more than that assessment is carried out frequently and is planned at the same time as teaching. It may be formative in helping the teacher identify areas where more explanation of practice is needed. But for the pupils, the marks or remarks in their work may tell them about the successes or failures but not how to make progress towards future learning (ARG, 1999: 7)

This point is exemplified further by Wiliam who, in an interview published in the *Times Educational Supplement*, stated, ‘the big mistake Paul and I made was calling this stuff “assessment” ... because when you use the word assessment, people think about tests and exams’ (Stewart, 2012, n.p).

Second, Harlen and James (1997) posited that one of the main influences on teachers’ difficulty in implementing formative assessment was the lack of understanding on how to differentiate assessment for summative and formative purposes. Due to this lack of understanding, the task of using it effectively in the day-to-day classroom has been found to be a challenge (Dixon and Williams, 2003; Harris and Brown, 2009; Taras, 2008).

Third, it could be argued that in Western countries, including England, many teachers have been taught and trained to become teachers when behaviourist approaches significantly influenced teaching, learning, and assessment (Perumanathan, 2014). As such, many teachers have been caught in a paradigm shift from a behaviourist teacher-centred approach on the transmission of knowledge to a more facilitative, interactive and student-centred one (Clarke and Hollingsworth, 2002).

Finally, with reference to the influence of national examinations (Section 2.1.3), Fautley and Savage (2008) acknowledge that in some secondary schools there is pressure on teachers and students, presumably by senior leadership teams, to produce high levels of attainment in the

form of marks or grades from assessments. As such, what can happen in schools is that the end *products* of learning (for example, mini-quizzes and end-of-unit tests to determine student progression) are the main areas of attention, leaving the learning *process* to be largely ignored (Leon-Guerrero, 2008).

Defining formative (and summative) assessment in music education and classroom-based composing

‘Music teachers have long been using formative assessment as a key element of their work with pupils’ (Fautley, 2010: 9) by means of a dialogue between the teacher and student about:

- the music which is being produced;
- what the student needs to do to improve; and
- how they are going to take their learning on to the next stage.

In fact, in the original exemplification of good formative assessment practice to all subjects, the Department for Education and Skills (DfES) chose music to represent such practices (2002; 2004).

The terms “summative” and “formative” in relation to music education and, in particular composing, also have specific meanings which need to be clarified. A summative assessment often refers to a finished composition, or a compositional *product*, whereas formative assessment normally relates to the process of composing which learners undergo in order to achieve the final product (Fautley, 2010).

At the end of (usually) two-years’ study on a Key Stage 4 GCSE (ages 14-16) and Key Stage 5 A-Level (ages 16-18) course in music, students receive, as part of their overall qualification, a grade from the submission of a composition. This grade does not take into

account any of the composing processes the student has undergone in order to achieve the final product. At Key Stage 3 (ages 11-14), however, where this thesis is focused, this should not be the case, and although finished compositions can be seen as important, developing students while they are composing is the main area of attention (Fautley, 2010).

In their research into composing within Key Stage 3, Fautley and Savage (2011) voiced their suspicions that what music teachers were calling formative assessment might have been the formative use of summative assessment and, therefore, could not be considered to be ‘true formative assessment’ (Fautley and Savage, 2011: 63). This hybrid form of assessment might be viewed as problematic for learning as ‘any attempt to use formative assessment for summative purposes will impair its formative role’ (Gipps, 1994: 14). Whilst Fautley and Savage’s (2011) findings might be true, there is also the need to consider that it may not only be teachers’ confusions between formative and summative terminology that is causing problems. Perhaps consideration should also be given to the requests from Senior Leadership Teams for teachers to produce evidence of products which demonstrate high learner attainment which, depending on the frequency of the requests, may have resulted in teachers consciously neglecting their true formative practices (Black et al., 2003; Black and Wiliam, 2003; Looney, 2009) and beliefs (Brophy, 2000; DeLuca et al., 2012) in favour of summative assessments (Bennett, 2011; Wiliam, 2006), albeit mini ones, to meet such requests for teacher accountability (Darling-Hammond and McCloskey, 2008; Klenowski, 2011; OECD, 2005) and data tracking purposes (Fautley, 2012; Winters, 2012) in the name of assessment *for learning*.

Clarifying “Assessment *for* Learning” (AfL)

The term “AfL” seems to originate from Mittler (1973) in his book *Assessment for Learning in the Mentally Handicapped*. Black (H. Black, 1986) later used the term as the title of his chapter in the book *Assessing Educational Achievement*, however it was James (1992) who seems to have brought AfL to a wider audience as the title for her paper, called *Assessment for Learning*, at the 1992 New Orleans annual conference of the Association for Supervision and Curriculum Development. AfL, though, is not defined by James (1992); the presentation focuses on how assessment can be integrated to support learning and makes frequent reference to formative assessment.

In a presentation for the Southend Education Trust, Wiliam (2010) unpicks some of the issues with the effective implementation of AfL, by the then Labour government, and how it impacted on day-to-day classroom practice. He stated:

When the government wanted to do assessment for learning they tried to do it very quickly by rolling it out as a strategy. I heard David Miliband and Charles Clarke at the time talking about this and it was very clear what they had in mind for assessment for learning. ... [For example,] in many secondary schools now there is usually a Deputy Head[teacher] in charge of the spreadsheet ... they think they are doing AfL because what they are doing is tracking student progress and using it to predict their results. ... The second kind of take on AfL by the government was this idea that children should know what [National Curriculum] level they are at. ... This is further undermined by Ofsted who think they can go into a classroom and ask students what level they are at (Wiliam, 2010: time reference 2:23-5:01).

This quick-fix approach of focusing on tracking students’ progress on spreadsheets and asking students what “level” they are at presents a problem because numerous publications

(for example, Anderson and Palm, 2017; Baird et al., 2014; Baird et al., 2017; Bennett, 2011; Fautley, 2010; Gardner et al., 2010; Stobart, 2008), including assessment-focused, music education literature at PhD-level (for instance, Devaney, 2018; Thorpe, 2015), use the terms “AfL” and “formative assessment” interchangeably. As such, given that both these key terms are not clearly synonymous, this thesis will continue to use the term “formative assessment”, however further unpicking and clarification towards its definition (as well as summative assessment) is required.

Redefining formative assessment

As stated previously, in the United Kingdom, formative assessment tends to be built upon the work of Black and Wiliam (1998) who define it as:

all those activities undertaken by teachers and/or their students, which provide information to be used as feedback to modify teaching and learning activities in which they are engaged (Black and Wiliam, 1998: 7-8).

It can be argued that formative assessment actually requires two key ingredients: *intention* and *action*. For example, the quote: ‘which provide information *to be used*’ (Black and Wiliam, 1998: 7, emphasis added) signifies that information has to be collected or shared via a strategy (for example, questioning, giving comments), with the intention it will be acted on, with: ‘*to modify* teaching and learning activities’ (Black and Wiliam, 1998: 7-8, emphasis added) being the actual acting upon the information elicited by the teacher and/or the student(s). These are important distinctions and could be of significant use when thinking about effective formative assessment practice. To illustrate this further, even though a teacher might give comments to a composing group on how they might improve their work-in-progress piece (formative *intention*) if these comments are either ignored or just not acted

upon (formative *action*) then the process of *formative assessment* is unlikely to have taken place since there is no modification of the learning activity in which students are engaged.

Interest in formative assessment research

A Google NGRAM search shows an overall surge of interest in formative assessment (as opposed, it appears, to assessment *for* learning, summative assessment, or assessment *of* learning) since, approximately, 1988. This is shown in Figure 4. This interest could have stemmed from the time of the newly implemented National Curriculum for England and Wales, as well as the TGAT (1988) listing formative assessment as a key purpose of assessment for supporting (rather than auditing) learning. Since this time, other key groups and publications have also focused on the importance of effective assessment procedures, particularly formative assessment, at national policy-level as well as school and classroom-based practice. Such publications include, for example: *Inside the Black Box: Raising standards through classroom-based assessment* (Black and Wiliam, 1998b); *Working inside the Black Box* (Black et al., 2002); and the *Final report of the Commission on Assessment without Levels* (DfE, 2015) along with the ARG (1996-2010) whose aim was to ‘ensure that assessment policy and practice at all levels takes account of relevant research evidence’ (Nuffield Foundation, 2020: n.p.).

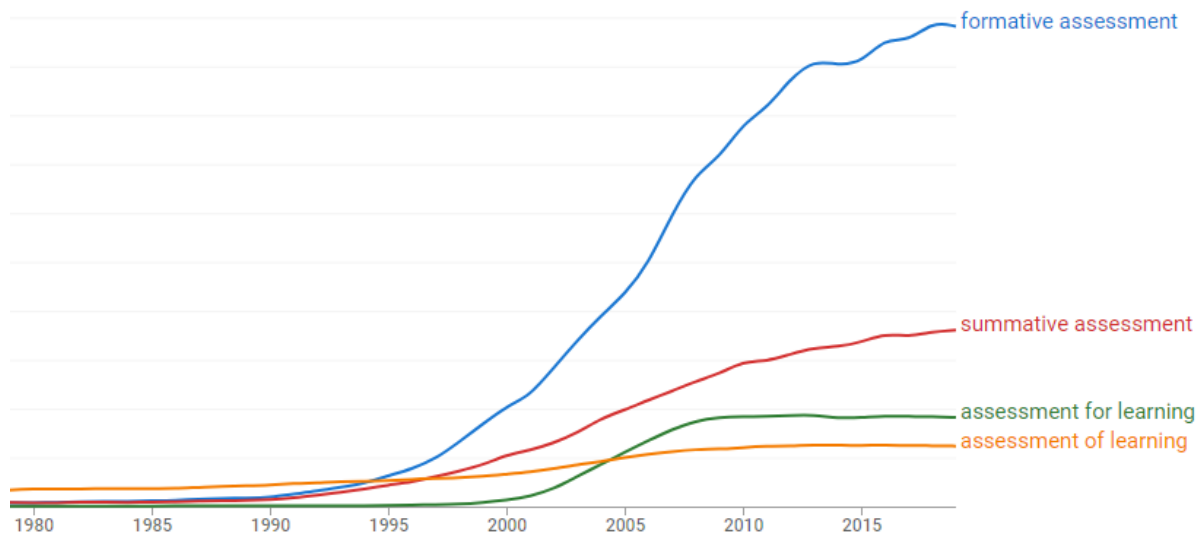


Figure 4: Google NGRAM search of assessment terms from 1980-2019.

Despite the wide interest in formative assessment, literature seems to have concentrated more on the school subjects of English, mathematics, and sciences with very little research being done, by comparison, in other domains (Hattie and Donoghue, 2016; Kingston and Nash, 2011), especially the arts (Andrade et al., 2014). Given that formative assessment practices should be tailored to the particular domain in which it is used (Bennett, 2011; Wiliam, 2006), it is of central importance that such practices are not just thoughtlessly transferred into other domains.

Several music education researchers have discussed formative assessment concepts and strategies (for example, Fautley, 2010; Hale and Green, 2009; Pellegrino, Conway and Russel 2015; Scott, 2012), however, there is still the need for a greater epistemological focus on the use of formative assessment in music education, particularly within composing (Fautley and Savage, 2011) and is, therefore, a justification for the present study.

2.1.6: Validity and reliability within in-school assessment

Validity

The term “validity” is said to derive from the Latin *validus* meaning “strong” or “worthy” (Newton and Shaw, 2014) and is of central concern to any assessment procedure (Asmus, 2010; AERA/APA/NCME, 2014; Colwell, 2006; Koretz, 2008; Stobart, 2009).

There are examples of published literature (for example, Newton, 2012; Weeden, Winter and Broadfoot, 2002), including assessment-focused music education research at PhD-level (for example, Devaney, 2018), that define validity as the ‘degree of which a test or examination measures what it purports to measure’ (Ruch, 1924: 13). This definition, which is not discussed any further in the literature cited above, can be considered problematic because, in Cronbach’s view: ‘[o]ne validates, not a test, but an *interpretation of data arising from a specified procedure*’ (Cronbach, 1971: 447, italics in original). What this means, as Wiliam (2020) helps clarify, is that:

... there are two problems with [Ruch’s original] definition. The first is that assessments do not purport anything. The purporting (if there is such a word) is done by humans ... The second problem ... is that an assessment can be valid in some circumstances but not others (Wiliam, 2020: 23).

As assessments themselves are not believed to purport anything, Wiliam (2020) adopts Cronbach’s (1971) definition cited above to conclude that ‘validity [therefore] is not a property of assessments but of *inferences*’ (Wiliam, 2020: 23, italics in original). When validity, like assessment (Section 2.1.1), is thought of as a means of making types of *inferences*, Wiliam’s (2020) second point raises important issues relating to the threats to validity.

Threats to validity

Exposing threats to validity is important when discussing assessment; it can affect the inferences that are made. Both Messick (1989) and AERA/APA/NCME (2014) state two important threats to validity: *construct-irrelevant variance* and *construct under-representation*.

Construct-irrelevant variance can be seen when irrelevant variants within the construct of interest are assessed. In other words, the assessment is ‘too big’ (William, 2020: 25). For example, in an end-of unit listening test in music, questions with a high reading demand are likely to favour students who are good readers, with those who are less-good at reading possibly struggling to access some of them. Making valid inferences from the assessment information as to how students did (summative assessment) and where teaching and learning should go next (formative assessment) should be done with caution because students who scored low might have done so because of reading issues not necessarily *musical* ones.

Another example is given by Fautley (2010) who comments that, at the end of a unit-of-work focusing on developing students’ composing skills, the final “assessment lesson” might well focus more on students’ ability to perform on their instruments rather than the actual composition.

Construct under-representation can be seen when an assessment is under-representing the construct of interest. In other words, the assessment is ‘too small’ (William, 2020: 25). For example, at the end of a six-week unit-of-study, the final listening test during the “assessment lesson” will only be able to assess a small amount of the domain taught and learned. This can be said to be an issue with all timed tests and examinations because ‘no test can cover all the learning that is set out in the curriculum [or, indeed, a complete unit-of-work]’ (Harlen, 2007: 23). As such, making valid inferences regarding how well students have learned the work

undertaken in the final test (summative assessment) and informing where teaching and learning should go next (formative assessment) based on the test alone would be difficult because it has not been able to assess other equally important content taught and learned during the six weeks. This can also be true of group composing where a final composition could, in fact, be largely the work of one individual. This might be considered construct under-representation because, during the performance of the piece in the final “assessment lesson”, the inferences made about how well these students have composed (summative assessment) and where the teacher can take these students’ composing skills to next (formative assessment) could actually be under-representing the *actual* composing skills and/or contributions of the other members of the group.

Reliability

Reliability is not a separate notion to validity (Andrade and Heritage, 2018; Gipps and Stobart, 1993; Stobart, 2009) and can refer to the quality of the assessment procedure (Harlen, 2000; James, 1998; Koretz, 2008) whereby results can be made more consistent (Asmus, 2010; AERA/APA/NCME, 2014; Newton and Shaw, 2014).

For some assessments (for example, a theory or listening test in music) a Margin of Error (also commonly referred to as a Standard Error of Measurement) considers the degree of uncertainty that a single test or examination might represent between students’ “observed scores” (the scores gained from taking a test) and their “true scores” (the average of the individual’s scores if the same test was administered several times) (Koretz, 2008). In the case of assessing live, classroom-based group composing at Key Stage 3-level (during an “assessment lesson”, for example) there are also other important aspects to consider which

may affect the reliability of a student's performance on the day of the assessment and the overall outcome of the group's final "product". For instance:

1. The student themselves:

- Due to lack of sleep or stress a student may happen to feel particularly tired on the day which could affect their performance (Newton, 2009).
- Due to low retrieval strength (Bjork & Bjork, 1992) a student may not recall some content during the event (for example, notes in the composition) but it might come back to them after the assessment has finished.

2. The teacher-assessor:

- There can be variability between different assessors' scoring decisions (for example two or more teachers working in the same department), particularly where more subjective judgement is needed (Black, 1998; Ofqual, 2018).

Being open about the limitations of testing is important because, as Black and Wiliam (2006) point out:

... the public in general and policy-makers in particular do not pay attention to reliability. They appear to have faith in the dependability of the results of short tests when they are in fact ignorant of the sizes of inescapable errors that accompany this and any other measure (Black and Wiliam, 2006: 119).

What this can mean, therefore, is that a grade from a test can be described as:

... an inadequate report of an inadequate judgement by a biased and variable judge of the extent to which a student has attained an undefined level of mastery of an unknown proportion of an indefinite material (Dressel, 1983: 12).

It is clear from this section that there are some key issues with classroom-based testing as a form of summative assessment.

Using formative assessment to remedy the issues surrounding validity and reliability of in-school assessment

The ontological position of this thesis is that when formative assessment becomes a focus of the teaching and learning cycle, issues such as the threats to validity and problems with reliability can start to be remedied. For example, when teachers are gathering regular, lesson-by-lesson information, for example, by means of observations of and conversations with students, a greater coverage and more varied understanding of learning can be integrated into the teaching and learning cycle (Black and Wiliam, 2007; Harlen, 2007; Weeden, Winter and Broadfoot, 2002; Wiliam, 2001; 2003).

As such, a focus on formative assessment, which this thesis has, can be said to increase the validity and reliability of any assessment inferences teachers make when compared to tests as a means of summative assessment because '[formative assessment] has the effect of lengthening the test' (Wiliam, 2007: 1). In other words, as Brookhart et al. (2019) put it: a test provides a "snapshot" whereas a focus on formative assessment offers a "photo album".

2.1.7: Threshold Concepts

Defining a Threshold Concept

Defining a Threshold Concept (TC) can be problematic. According to Meyer and Land (2003), who are credited with doing the original work on TCs, it:

can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress (Meyer and Land, 2003: 1).

From this initial definition, several additional characteristics have been identified to help clarify a TC (Flanagan, 2020). These characteristics are: *transformative, liminality, probably irreversible, integrative, bounded, discursive, reconstitutive, and troublesome*, and are outlined in Table 1.

Threshold Concept Characteristics	Definition
Transformative	Once understood, the effect creates a significant shift of perception of a subject on learning and behaviour (for example, a transformation of personal identity, an altered view of values, feelings, or attitude).
Liminality	An unstable space where learners are between extant and emergent understandings.
Probably irreversible	Where the change in the individual's perspective is unlikely to be forgotten and is very unlikely to be unlearned without considerable effort.
Integrative	Previously hidden relationships with something can be made.
Bounded	It is possible, though not essential, that a TC can be bound within a particular discipline.
Discursive	Crossing a TC can incorporate an enhanced and extended use of language.
Reconstitutive	Crossing a TC may involve a shift in a learner's subjectivity, which is implied through the transformative and discursive aspects as noted above. Such reconstitution is initially more likely to be recognised by others.
Troublesome	Where a concept is difficult to grasp.

Table 1: Characteristics and definitions of a Threshold Concept (TC).

The *troublesome* characteristic was based on Perkins' (1999) work which can be deconstructed further into different types of knowledge which were found to be troublesome for learners. They are: *ritual*, *inert*, *conceptually difficult*, *alien*, *tacit*, and *emotionally challenging*, and are defined in Table 2.

Type of troublesome knowledge	Definition
Ritual	When a learner follows but does not understand a conceptual rule.
Inert	Where information is known by the learner but is rarely used and has no associated meaning.
Conceptually difficult	Knowledge might involve several different pieces of information.
Alien	When the information goes against what is believed in the learner's understanding.
Tacit	When it can be difficult for experts in the domain to explain and communicate it to less-expert learners.
Emotionally challenging	According to Cousin (2006), the learner may feel uncomfortable or it might be that the learner is not in a position emotionally to deal with the information at that particular time and this may cause difficulty in learning.

Table 2: Types and definitions of troublesome knowledge (derived from Perkins, 1999).

Despite the characteristics and definitions shown in Tables 1 and 2, Meyer and Land's TC framework has received criticism by Rowbottom (2007) and O'Donnell (2010) on the grounds that the descriptive criteria of what characterises a TC are too ambiguous.

Furthermore, although Meyer and Land state that '[TCs] cannot be described as an essentialist, definitive list of characteristics' (2010: 205), other researchers (for example Rodger, Turpin and O'Brien, 2015) suggest that all of the characteristics must be present if the concept is to be considered a TC. This is in spite of the fact that earlier research (for instance, Irvine and Carmichael, 2009) found that very few TCs actually met all of the characteristics. Further problems arise when some researchers (for example, Taylor, 2008 and Cartensen and Bernhard, 2008) assert that whether a concept is *troublesome* or not is the key

criteria for identifying a TC. This approach to defining a TC needs serious consideration; others (for example Barradell, 2013) point out that:

the implication that troublesomeness is the most critical characteristic may not always be true since it implies that anything that is conceptually challenging could be treated as a threshold concept (Barradell, 2013: 271).

What these critiques of the TC framework seem to undervalue, however, is that an important aspect of crossing a TC should produce an ontological change in the individual, where such new understandings can be ‘assimilated into the learner’s biography, becoming part of what he [or she] knows, who he [or she] is and how he [or she] feels’ (Cousin, 2006: 135).

Of course, within the context of the day-to-day music classroom, such ontological shifts are not always immediate and, for some learners, can occur over a long period of time.

Furthermore, despite the ongoing debates cited above, what research studies do not seem to consider is that some individuals may encounter more TCs within a lesson (or series of lessons) than others depending on what their previous learning experiences have been.

The current literature base of Threshold Concept research

The notion of TCs has received international interest in recent years. Research has concentrated more on higher education focusing on the domains of, for example, Art (Blair and Fitch, 2015), Biochemistry (Loertscher et al., 2014), Biology (Taylor, 2008), Business Curriculum (Bajada et al., 2016), Computing and Electrical Engineering Curriculum (Reeping et al., 2017), Economics (Reimann, 2004; Shanahan and Meyer, 2003; 2006; Reimann and Jackson, 2006), Health Sciences (Barradell and Peseta, 2017), Paediatric

Surgical Training (Blackburn and Nestel, 2014), and Teaching Prosthetics and Orthotics (Hill, 2020).

Within the field of music education, the concept of TCs appears to be an under-researched area. Table 3 shows the currently known examples of applying TC thinking within a music education context. What Table 3 reveals is that there is a clear need for research in this area, not only within the English lower-secondary school setting, but within a group composing context, also. Moreover, with the exception of the recently published article by Booth and Kinsella (2022) which presents some of the data related to this thesis, there appears to be no known published research which explores how formative assessment, as defined in this thesis, could be a useful process to cross thresholds.

Reference	Description of research
Countryman (2012)	A pedagogical experiment of Canadian undergraduates' reflective writing.
Holland (2015)	A published article referring to TCs within the primary school music context.
Wenden (2015)	A Masters-level dissertation exploring transition from secondary to tertiary for New Zealand students majoring in performance.
Scott (2017)	An opinion piece book chapter focusing on dialogic aspects of performance and study
Booth and Kinsella (2022)	An article (published by the <i>British Journal of Music Education</i>) focusing on Threshold Concepts within the Key Stage 3 group composing process and the importance of formative assessment. This article reports findings both within and outside the parameters of this thesis.

Table 3: Current Threshold Concept literature base within music education.

2.1.8: Feedback

Defining feedback in educational settings

Feedback is significant in influencing learning (Black and Wiliam, 1998; Crooks, 1988; Hattie, 2009; Sadler, 1989; 2010) and can be said to be at the heart of the formative assessment process (ARG, 1999; 2002; Black and Wiliam, 1998; Crooks, 1988; Hattie and Timperley, 2007) where the notion of future learner performance is affected by their previous one (Swaffield, 2008).

Ramaprasad (1983) defines feedback as ‘information about the gap between the actual level and reference level of a system which is used to alter the gap in some way’ (1983: 4). This definition was later extended by Sadler’s (1989) formative assessment theory where, in order for a student to be successful, meaningful practice requires a ‘feedback loop’ (1989: 121). This feedback loop is powerful for several reasons: it informs teachers about levels of knowledge, understanding and skills attained or yet to be attained by the student; it aims to facilitate learners in being able to identify and amend a learning gap; it assists teachers in reflecting on and selecting suitable tasks or activities; and it allows teachers to modify their teaching in order to support the closing of the gap. Both Sadler (1989) and Andrade and Heritage (2018) make it clear that simply knowing how work could be improved (defined in this thesis as formative *intention*) is not feedback unless it is actively used to serve this function (defined in this thesis as formative *action*).

Audio feedback

Research into the use of audio feedback, a key focus of this thesis, has been conducted since the 1970s using cassette tapes (Anson, 1997; Huang, 2000; Klammer, 1973; Pearce and Ackley, 1995; Sommers, 1989), and as digital technology has developed, there have been additional studies looking into the effects of audio feedback. Studies focusing on audio feedback seem to have concentrated on the Higher Education context, however.

Lunt and Curran (2010), Merry and Orsmond (2008), Swan et al., (2008) and Voelkel and Mello (2014) found that, teacher audio feedback given to students was richer, with noticeably more adjectives being used compared to written comments. As a result, both teachers and students perceived that they were giving and receiving more feedback using this method.

These findings, though, are not entirely consistent with research by Cavanaugh (2014), who investigated teacher and student perceptions between audio and written feedback. In this study, teachers tended to have negative feelings towards providing audio comments whereas students seemed to portray positive feelings towards it. The findings from individual interviews revealed that teachers felt that their recordings 'lacked an authoritative quality' (Cavanaugh, 2014: 128) and they were 'concerned about the level of quality' (Cavanaugh, 2014: 128) of the comments. It was found, however, that students did not agree with their teachers' thoughts on this and commented that they found using audio comments 'a more valuable tool than written comments' (Cavanaugh, 2014: 128).

Voelkel and Mello (2014) state that there are a number of questions regarding the use of audio feedback. First, it is not clear whether using audio feedback is efficient in terms of staff time. Research findings on this seem to be inconsistent; there is some evidence that it is efficient (for example, Lunt and Curran, 2010) whereas other studies have found the opposite (for instance, McFarlane and Wakeman, 2011; Rodway-Dyer, Knight and Dunne, 2011).

Second, Voelkel and Mello (2014) report that there is no clear evidence as to whether or not audio feedback better supports learning.

The use of audio recordings in music education research has been found to be beneficial (Crowe, 1996; Montemayor and Ross, 2009) where findings have reported that students were far more able to identify errors in music when it is played back rather than performing or conducting it (Delzell, 1989; Ellis, 1989, Waggoner, 2011). Zimmerman (1989) posited that this is specific to musicians who are supposed to listen back to their own recordings in order to set realistic goals. Within performing, this notion is further supported by Hallam (1998) who asked teachers to encourage their students to listen and evaluate their work by using digital audio technology.

Within the context of composing, Fautley (2013) found that whilst recordings were being made of students' work their use, however, was solely for the grading of work and not to aid learners' progression. Furthermore, '[w]hat was slightly unusual about this instance is that it was not shared with the pupils, which was, apparently, normal practice in the school' (Fautley, 2013: 35). In discussing the formative use of classroom recordings, Fautley (2013) goes on to say:

[t]he potential for audio and/or video recording at every stage of classroom music-making for AfL purposes is significant. ... By recording work in progress performances, pupils are able to keep an accurate and up to date record of the work they have been engaged with. This can be particularly useful for composing work, where a unit of work will be spread over a number of weeks. Recording work in progress, and then listening to recordings as a starter activity in the next lesson is a logical way for this to be shared with pupils and can be used as the basis for in-depth

questioning to develop whole class learning, drawing on the class's own work
(Fautley, 2013: 37).

Although the use of audio recordings has been previously researched, studies have focused on Higher Education contexts and it seems there is no consideration for their use in other settings, for example, Key Stage 3. Within music education, previous studies in this area seem to have concentrated on score study, conducting, singing, instrumental performance, and ensemble performance. Within composing research, it is clear from Fautley's (2013) research that using audio recorders (the tool) in order for teachers and students to use the audio recordings (the tracks recorded on the device) to support musical learning during composing sessions remains a significantly neglected area and, therefore, warrants further exploration.

2.1.9: Section summary and implications for the present study

Section 2.1 has provided an overview of the research concerning assessment, focusing largely on literature relevant to the lower-secondary school setting (Key Stage 3). Formative assessment is particularly relevant to this study because it is a process which has been found to improve the teaching and learning cycle, for all involved, during teaching and learning.

The literature cited has identified that assessment from the viewpoint of being a procedure for making inferences, threshold concepts, and audio feedback are all under-researched areas within the field of music education, particularly for composing at Key Stage 3. In order to help address these gaps, the following research questions were deemed worthy of further exploration:

2. What are the effects of using an audio device on group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio devices when composing?

As can be seen, three of the four research questions (questions 2-4) have been drawn out of this section. Therefore, it has been presented first. For practical reasons pertinent to the process of data analysis these research questions begin at #2. This is because it was felt to be better to identify composing phases (research question #1) before analysing the feedback (research question #2 and #3) which took place during the phases identified as relevant to this study, and of which teacher and student perceptions could then be sought (research question #4).

2.2: Creativity and group composing

Introduction

The study of creativity has a long history with published research covering areas including the creative genius to the everyday creative individual and creative group. Because of the wealth of research into creativity there are differing views and perspectives as to what it is (Sawyer, 2003), which ‘makes it difficult for music educators to define and recognise it in the classroom’ (Kinsella and Fautley, 2021: 65). This clarification is important for music teachers since composing, the focus of the present study, is often considered to be inherently creative (Devaney, 2018; Fautley, 2002; Webster, 1990).

This section discusses: the varying interpretations as to how “creativity” can be defined and its link with composing; the “genius”, “everyday individual”, and “creative group” paradigms of creativity research; Swanwick and Tillman’s (1986) and Kratus’s (1989; 1994) models of composing; the varying approaches to creative and composing processes drawing on the research of Wallas (1926), Webster (2002), and Burnard and Younker (2002); and Fautley’s (2002; 2004; 2005) group composing model. The section ends with a brief summary including implications for the present study.

2.2.1: Defining “creativity”

There is no single, universally-agreed definition as to what “creativity” is. As Craft (2005) notes:

Creativity ... may be interpreted in many different ways, some emphasising the locus (person, collective or process), others emphasising the product (idea or physical outcome) and others emphasising impact (global or local), but all see creativity as involving the *generating of ideas* (Craft, 2005: 19, italics in original)

The notion of *generating of ideas* or the ‘capacity to bring into being something that was not there before’ (Durham Commission on Creativity and Education, 2019: 6) has been found to be a key pedagogical practice in creativity literature (Cremin and Chapell, 2019), and is an important part of the composing process (Fautley, 2002; 2004; 2005). This, however, requires further clarification, particularly when considering the originality of an individual’s creative ideas.

Boden’s P-Creative and H-Creative

Boden (1990) defines two types of creativity: the everyday *psychological* creativity, where it occurs within the individual, and creativity which has *historical* importance. Labelling these as “P-creative” and “H-creative” she states:

If Mary Smith has an idea which she could not have had before, her idea is P-creative – no matter how many people have had the same idea already. The historical sense applies to ideas that are fundamentally novel with respect to the whole of human

history. Mary Smith's surprising idea is H-creative if no one has ever had the idea before her (Boden, 1990: 32).

A similar view is given by Craft who uses the term "Little c creativity" (1996; 1997; 1997b; Craft and Lyons, 1996; Craft et al., 1997) as being distinct from "high creativity" (Craft, 2001). The latter being sometimes referred to as "Big C Creativity" (for example, Spencer, Lucas and Claxton, 2012). In a similar manner to Boden (1990), these different types of creativity are distinguished 'between creativity in the "everyday" [little c creativity] and creativity as "genius" or "eminent" [big C Creativity] (Kozbelt, Beghetto, and Runco, 2010: 23). Within the context of schools and music education in particular, composing can normally be viewed as being the "little c" variety. This is important because classroom composing, therefore, can be seen as deliberately inclusive and students' compositional utterances can be viewed as worthwhile in their own right (Fautley, 2002).

Burnard's multiple creativities

Within music education literature, Burnard (2012) challenges the "myth" of the 'isolated genius' (Burnard, 2012: 37) as well as the 'outdated misconception' of the 'single type of creativity for all music' (Burnard, 2012: 238) as suggested above. She proposes the notion of *creativities* where 'musical creativity occurs in a multiplicity of social spaces in which the contexts give and incorporate a multiplicity of meanings' (Burnard, 2012: 37). This is an important consideration; multiple creativities can arise from a focus 'on *who* is making the music, *where* it is being made and for *whom*' (Burnard, 2012: 5, italics in original), as well as deliberation to '*which* music, from *what* social, cultural activity system it arises, and *who* are the groups, musicians or artists that support and inform it' (Burnard, 2012: 23, italics in original).

Creative thinking

Within music education literature, Webster (1990), in an earlier publication to Craft (2005), also stated that the term “creativity”:

has been used in so many different contexts that it has lost much of its meaning and power, especially in terms of music and children (Webster, 1990: 22).

To problematise the loss of meaning and power, he proposed the term “creative thinking” where:

we place the emphasis on the process itself and on its role in music teaching and learning. We are challenged to seek answers as to how the mind works with musical material to produce creative results (Webster, 1990: 22).

It is within this stance that Webster (1990), like Burnard (2012), alludes to the notion of creativity as plural (*creativities*) rather than a singular concept:

This approach [“creative thinking”] demystifies creativeness, places it in context with other kinds of abilities and external influences, and-perhaps most important makes our job as educators much clearer (Webster, 1990: 22).

According to the Organisation for Economic Co-ordination and Development (OECD) (2019), “creative thinking” can be defined as:

The competence to engage productively in the generation, evaluation and improvement of ideas, that can result in original and effective solutions, advances in knowledge and impactful expressions of imagination (OECD, 2019: 8).

This is a view which is also shared by the Durham Commission on Creativity and Education (2019):

[Creative thinking is a] process through which knowledge, intuition and skills are applied to imagine, express and make something novel or individual in its contexts. Creative thinking is present in all areas of life. It may appear spontaneous, but it can be underpinned by perseverance, experimentation, critical thinking and collaboration (Durham Commission on Creativity and Education, 2019: 2).

Building on the Durham definition, the notion of *collaboration*, also considered a key part of creative thinking, is a central part of this thesis.

Within the classroom setting, when creative thinking is nurtured practically (Lucas and Spencer, 2017) with regular occasions to compose in music lessons, for example, students are provided with valuable opportunities to: become increasingly adaptive to a rapidly-changing world and are better equipped with skills that go beyond just literacy and numeracy (OECD, 2019); feel that they are becoming a larger part of the society they live in (Tanggaard, 2019); be gradually supported to interpret experiences, actions, and events in personally meaningful ways (Beghetto and Kaufman, 2007); and develop greater motivation and interest in school (Hwang, 2015). A focus on creative thinking, therefore, can be considered an important part of a young person's development (Lucas and Spencer, 2017) in achieving better outcomes (OECD, 2019).

2.2.2: The paradigms of creativity research and theory

There have been three paradigmatic perspectives of creativity research: the “he-paradigm” which has focused on the solitary genius, the similarly individualistic “I-paradigm” focusing on the everyday creative individual, and, more recently by comparison, the “we-paradigm” which has concentrated on the social and cultural aspects of creativity (Glaveanu, 2010). Each of these paradigms are discussed in turn with a particular emphasis on the social and cultural which are key foci for the present study.

The creative genius

Creativity from the “genius” viewpoint of research can be seen as exclusivist where it is hereditary (Galton, 1869) with only a few being chosen for it by nature (Galton, 1874). In other words, creativity in this paradigm is considered the highest level of creation, or what has previously been referred to as “historical creativity” (Boden, 1990). Within the context of day-to-day classroom-based music and composing it is perhaps worrying that the notion of the “genius” has been found to be still present today (Burnard, 2012), with the belief that some can do it and some cannot (Humphreys, 2006). The problem with the “genius” perspective is that it ignores an individual’s level of ordinary creativity (Bateson, 1999) and common day-to-day creative experiences (Stein, 1953) which, during a composing session, might include, for example:

periods of wild brainstorming and experimentation, ... private sketching, gazing out of the window, and quietly mulling over notes and possibilities (Claxton, 2006: 352).

The everyday creative individual

Sometimes referred to as a “democratization” of creativity (Bilton, 2007; Hulbeck, 1945; Weiner, 2000) this second paradigm suggests that every individual, regardless of their background, is capable of being creative. It is within this standpoint that Guilford (1967), through his *Structure of Intellect*, developed and used psychometric testing to identify multiple personality traits. These are shown in Figure 5. Through this research, Guilford (1967) identified two types of thinking: *convergent*, thinking towards a ‘fixed answer’ (Fautley and Savage, 2007: 2), and *divergent*, with ‘novel outcomes being generated’ (Fautley and Savage, 2007: 2). It is these novel outcomes that led to Torrance (1988) developing the Torrance Test for Creative Thinking (TTCT) which has been extensively used throughout the United States.

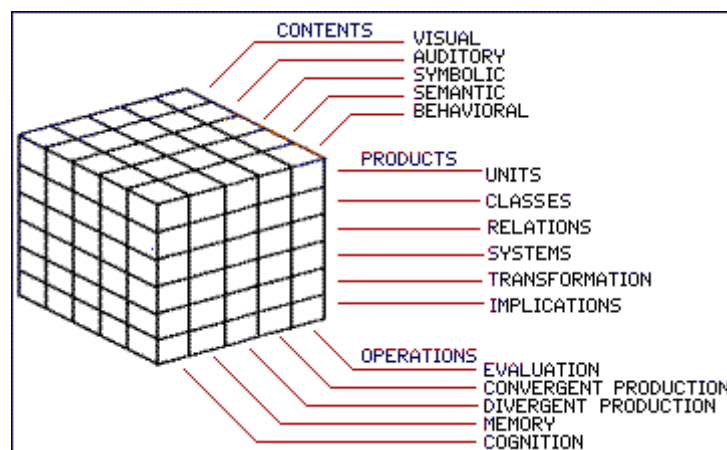


Figure 5: Structure of Intellect (SI) model (Guilford, 1967).

Gardner’s (1993) research on *Multiple Intelligences* was an emphatic move away from previous ‘measurable outcomes-based and product-linked approaches’ (Craft, 2001: 9). From this perspective, it is ‘the idea of everyone being a unique combination of separate abilities’

(Stobart, 2008: 60) where ‘the mind is product of a number of distinct inborn abilities’ (Stobart, 2008: 60). Gardner (1993) identified eight categories of intelligence⁴, one of which was music. Although, the notion of multiple intelligences has ‘freed up many schools and classrooms from the constraints of narrow teaching-to-the-test’ (Stobart, 2008: 61), Gardner himself, upon further research, began to question to notion of, for example, musical intelligence; ‘a domain such as music ... can involve any number of intelligences’ (Gardner, 2006: 31-32). In 2016, despite it being used to support policy agendas, which was not Gardner’s original intention, he asserted that the concept of multiple intelligences was ‘no longer current’ (Gardner, 2016: 169).

The creative group

Research within this third paradigm (for example, Amabile, 1996; Purser and Montuori, 2000; Stein, 1975) has investigated the role of social factors where the creative product is the result of person-person interaction, collaboration, and the environment. In other words, ‘creativity takes place within, is constituted and influenced by, and has consequences for, a social context’ (Westwood and Low, 2003: 236). This is also supported by Clapp’s (2017) notion of “participatory creativity” where it is:

a process of invention and innovations centred around the development of ideas that are generated by a diverse network of actors, each of whom contributes to the idea development process in unique and varied ways (Clapp, 2017: 45).

The notion of the creative group is of particular interest to this study because, at Key Stage 3, composing is normally undertaken as a group activity (Fautley, 2005; Odam, 2000).

⁴ The full list of multiple intelligences, as identified by Gardner (1993) are: linguistic, logical-mathematical, musical, bodily-kinaesthetic, spatial, interpersonal, intra-personal, and naturalistic.

When students are working collaboratively (in small composing groups, for example) the work they are producing can become both socially distributed (Spruce, 2021) as well as cognitively distributed (Salomon, 1993). Both can be seen to be necessary for effective group work; ‘aspects of the generation of the piece are shared among and between the members of the group’ (Fautley, 2010: 148) and this also enables the cognitive load (Sweller, 1988) to be shared among the group. As Kirschner et al. (2018) comment:

Under individual learning, all interacting elements must be processed in a single working memory of that individual. Under collaborative learning, various interacting elements can be distributed among multiple working memories (i.e. the working memories of the different group members) thus reducing the cognitive load on a single working memory (Kirschner et al., 2018: 220).

This is important for justifying group composing during Key Stage 3 because, as Fautley (2010) states:

“Two heads are better than one”, and more than two heads allows for more of the process to be distributed. This allows straightforward accessing of what might otherwise be a difficult task for pupils in schools (Fautley, 2010: 149).

Motivation is also considered an important aspect of creativity in this paradigm. For example, Amabile (1996) and Hennessey (2003) found that intrinsic motivation (doing something for its own sake) is generally associated with increased creativity, whereas extrinsic motivation (to do something for an external goal) has been found to decrease creativity. In these research studies it is not clear, though, how the social aspect affects the individual in creative performance. To help clarify this, Csikszentmihalyi (1988; 1999) proposed a *systems model of creativity*. As shown in Figure 6, this model reveals that the creative production between a

person (based on their genetic pool and experiences), a field (a social system) and a domain (a system of cultural symbols – known as the knowledge system) are connected.

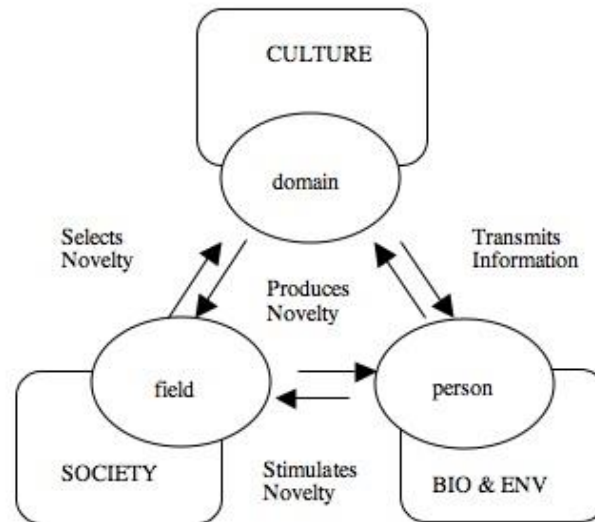


Figure 6: Systems model of creativity (Csikszentmihalyi, 1999).

2.2.3: Models of novice composing

Swanwick and Tillman's spiral model

Swanwick and Tillman's (1986) oft-cited spiral of musical development describes population-generated information on children's composing. Through collecting qualitative data on freely-composed compositional products the researchers plotted the developmental progression of students' musical thinking which moved from a focus on exploring materials, through a phase of personal expression, to focusing on structure and form (Young, 2021). As a result of their analyses, and based on the psychological concepts of Piaget (1951), Moog (1976), Bunting (1977), and Ross (1984), Swanwick and Tillman (1986) constructed a four-mode sequential helix of musical development. This is shown in Figure 7.

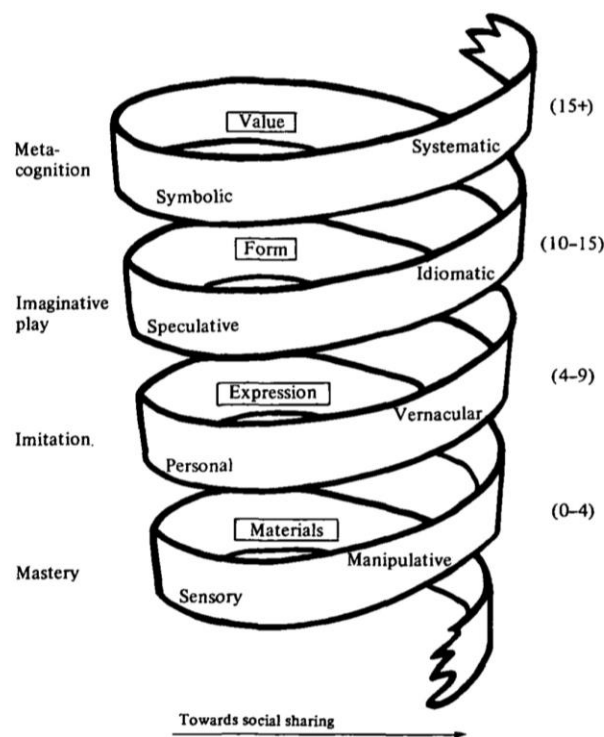


Figure 7: Swanwick and Tillman's spiral sequence of musical development (1986: 331).

Of particular interest are the “speculative” and “idiomatic” labels; the indicated ages (10-15) correspond to the age range spanning England’s Key Stage 3 (ages 11-14), the focus of this study. The characteristics of these two labels are described below:

- **Speculative:** This is when ‘imaginative deviation’ (Swanwick and Tillman, 1986: 333) occurs. Experimentation and contrast are key features of this label. In addition, the control of pulse and phrase becomes less fixed (compared to before) and novices attempt to find the “right” note or attempt to deviate, which does not work or is not yet fully integrated into the style.
- **Idiomatic:** At this stage, the music is more regarded as ‘grown up’ (Swanwick and Tillman, 1986: 333) where ‘[t]echnical, expressive and musical control begins to be established reliably over longer periods of time’ (Swanwick and Tillman, 1986: 333). It is also noted that popular music is particularly influential in this stage as students ‘seek to enter recognisable musical communities’ (Swanwick and Tillman, 1986: 333).

Kratus’s model

Exploring the compositional processes of students aged 7, 9, and 11, Kratus (1989; 1994) arrived at a similar conclusion to Swanwick and Tillman (1986) where 7-year-olds spent most of their composing time exploring ideas, and 9 and 11-year-olds tended to stay with ideas as well as repeat and consolidate them. It was suggested that younger children needed more unstructured and improvisational activities before moving on to create a compositional product, whereas older students required an explore, repeat, listen, evaluate, decide, and consolidate strategy.

Critique of Swanwick and Tillman's and Kratus's models

Both Swanwick and Tillman's (1896) and Kratus's (1989; 1994) models have been criticised for being 'one-size-fits-all' (Young, 2021: 98). For example, the "age-relatedness" of Swanwick and Tillman's (1986) model has been challenged by Davies (1992) who, in a study of students' song compositions, found that students aged 5-7 were able to work within all four modes of the developmental sequence. Contentions like this are important because, as Mills (2009) makes clear:

It may still be helpful to think of the [Swanwick and Tillman] spiral as we try to make sense of pupils' music-making. But this should be critical thinking; we should be testing the spiral, not using it as a frame of reference. ... Being the best model around is not enough. If we don't spiral-shaped blinkers, we may miss something even better (Mills, 2009: 103).

That said, Swanwick was clear to point out that, although the age-relatedness aspect of the model had come into question, 'there was no suggestion of a rigid timetable' (2001: 236); Swanwick and Tillman (1986) actually said:

...it would be unwise to be too dogmatic about identifying broad developmental changes to a fairly standard timetable, especially to generalise this to 'almost *all* children' (Swanwick and Tillman, 1986: 306, italics in original).

As well as:

We should also wish to draw attention on the approximate age specifications. They are to be by no means taken as rigid, nor is it to be assumed that individuals may not fall outside these general boundaries. Ages have been indicated merely to point out

the relationship between our model and the data, to give a feeling of reality to this complex and difficult enterprise (Swanwick and Tillman, 1986: 334).

Mills's comment: 'we should be testing the spiral, not using it as a frame of reference' (2009: 103) is indeed important. To support the spiral model, Swanwick (1991) replicated the original study. Although Swanwick and Tillman's (1986) study has been rightly critiqued for including developmental labels for children's compositions over the age of 11 with no supporting evidence (Anderson, 2019) this was not the case with Swanwick's (1991) replication. In this later study, over 600 recordings of Cypriot children's compositions were collected from four age groups (4/5, 7/8, 10/11, and 14/15) with seven primary and secondary music teachers being asked to independently assign each composition to one of the original criterion statements. The findings showed a clear and ascending relationship between a student's age and the order of the criteria with high levels of inter-judge agreement.

Hentschke's (1993) PhD research also applied the model to investigate pupils' perception as audience listeners. The findings showed a similar sequence that that of the composing contexts.

Mills also comments that the 'use of a spiral mode for assessment is fraught with difficulty' (2009: 103) with reference to 'where, spirally speaking, they [the students] are' (Mills, 2009: 103). Although Mills (2009) does not expand further on this it can be argued that this is the case for summative assessment but not formative assessment. For example, inferring summatively that a pupil's musicking is "age appropriate" is problematic since the modes identified within the specific ages are approximate and are, therefore, by no means generalisable to 'almost *all* children' (Swanwick and Tillman, 1986: 306, italics in original).

This is not the same with formative assessment. Here, regardless of wherever a pupil is on the spiral the focus of formative assessment is not their location on it (that is, their status), but 'on what the next [musical] steps are on an individual [whether an individual student or

individual group of pupils] and personal level’ (Booth, 2017, cited in Kinsella and Fautley, 2021: 73). Therefore, within the context of formative assessment, the visualisation of the “spiral” (Bruner, 1960; Swanwick and Tillman, 1986) can still be appropriate because as Fautley and Daubney (2019) state:

A spiral means that pupils can go back and forth, up and down ... over time. Often as learners encounter a new situation their apparent attainment can be perceived as dipping, but by invoking the notion of a spiral this does not mean that their actual attainment has worsened, merely that in the specific instance in question the pupils have shifted location on the spiral (Fautley and Daubney, 2019: 8).

2.2.4: Composing processes

Wallas's stages of the creative process

A prominent figure in the development of identifying and labelling stages in the creative process was Wallas (1926) who broke it down into four stages: preparation, incubation, illumination, and verification. *Preparation* refers to the individual's use of analytical skills to define the problem to be solved. The *incubation* stage is when the individual takes a break from the problem to be solved in order to offer the individual some space. An *illumination* can be seen as the "aha!" moment where an idea seems to flourish. The final *verification* is the stage of evaluation and refinement of the creative idea. Wallas's (1926) stages, shown in Figure 8, have been criticised by some (for example, Sawyer, 2003b; Webster, 2003) who argue that the notion of creativity does not occur in clear and linear stages.

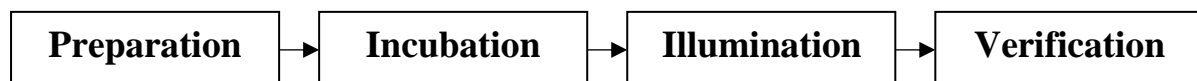


Figure 8: Wallas's (1926) stages of the creative process.

Webster's creative thinking model

Within music education literature, Webster (2002) was influenced by Wallas's (1926) stages, developing it to represent a 'dynamic process' (Webster, 2002: 11) at the centre of an individual's creative thinking where non-linear and circular stages can move clockwise as well as anti-clockwise. This is shown in Figure 9. Webster (2002) is clear to note how he developed his previous model of creative thinking (Webster, 1987) based on Wallas's (1926)

original stages. Although Webster (2002) acknowledges that the adapted model needs further data for validation, he comments:

... I no longer use the traditional notion of “preparation, incubation, illumination, verification” that grew from my endorsement of the Wallas model created some years ago. I still am quite sure that stages operate in the creative process and have retained the notions of preparation, verification, and incubation (though I have renamed this “Time Away” which seems to make more conceptual sense to me). I have come to believe that illumination is not as much a stage as a qualitative event that occurs many times in the creative process. I also feel that the notion of verification is best reserved for the final polishing stage of the creative processes that are more reflective in nature. The idea of “Working Through” is attractive because it functions both in terms of reflective thinking and “in the moment” thinking. It is this stage, too, that likely occupies the greatest percentage of creative time and is the most indicative of convergent/divergent thinking in combination (Webster, 2002: 14).

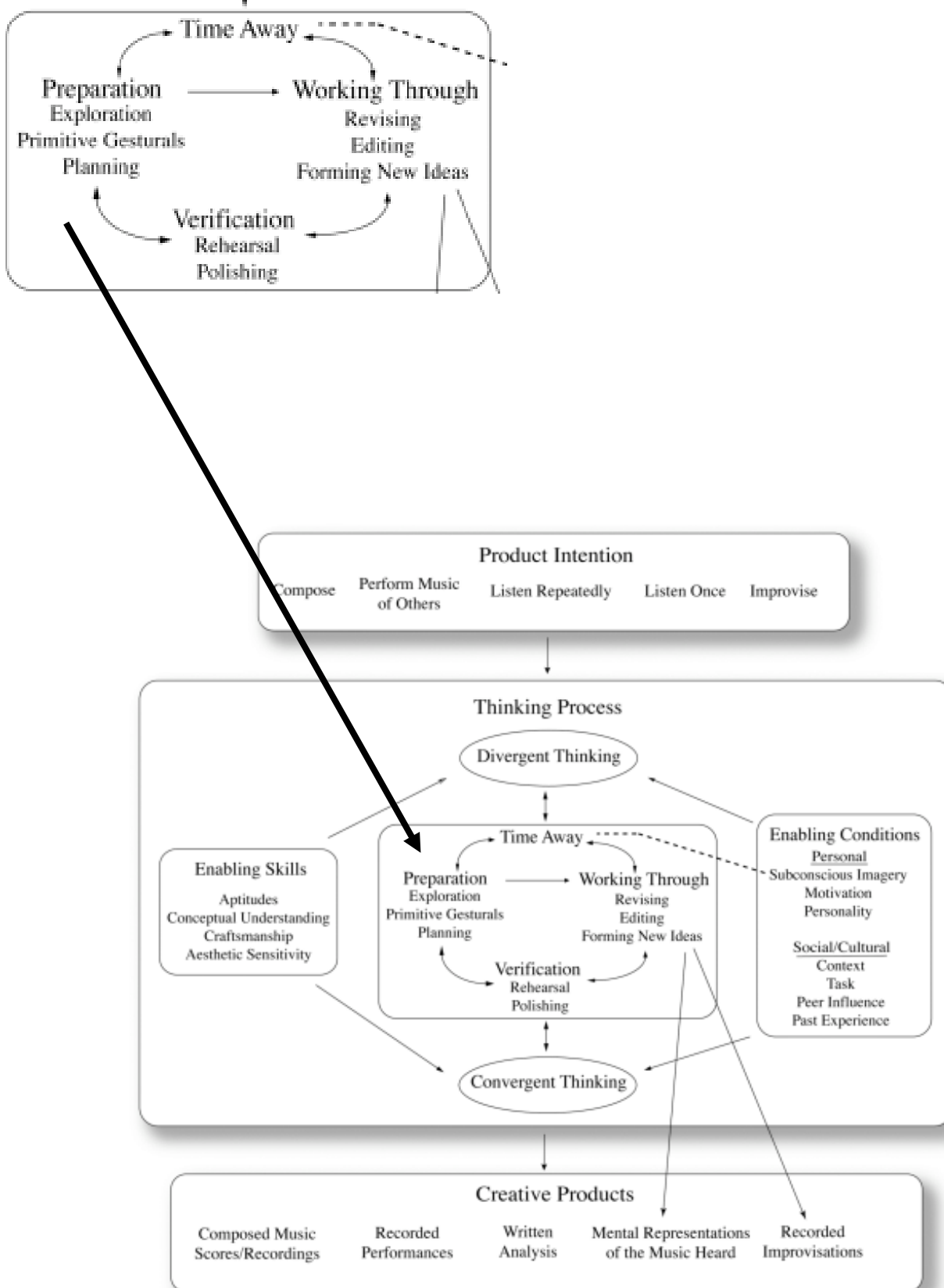


Figure 9: Webster's creative thinking process in music (2002: 12).

Burnard and Younker

Burnard and Younker (2002) investigated how English, Australian, and Canadian students, from varied backgrounds, encountered composition. Using Wallas's (1926) stages as an initial base, they found a diverse range of composing pathways including linear, recursive, and regulated.

As shown in Figure 10, students ($n= 2$) who followed the *linear* pathway:

shared a minimal conception or vision of the possible outcome. They displayed minimal movement between, and representations of, divergent and convergent thinking, that is, incubation, illumination and verification. As a result, these pupils imposed minimum constraints on their decision-making moments (Burnard and Younker, 2002: 253).

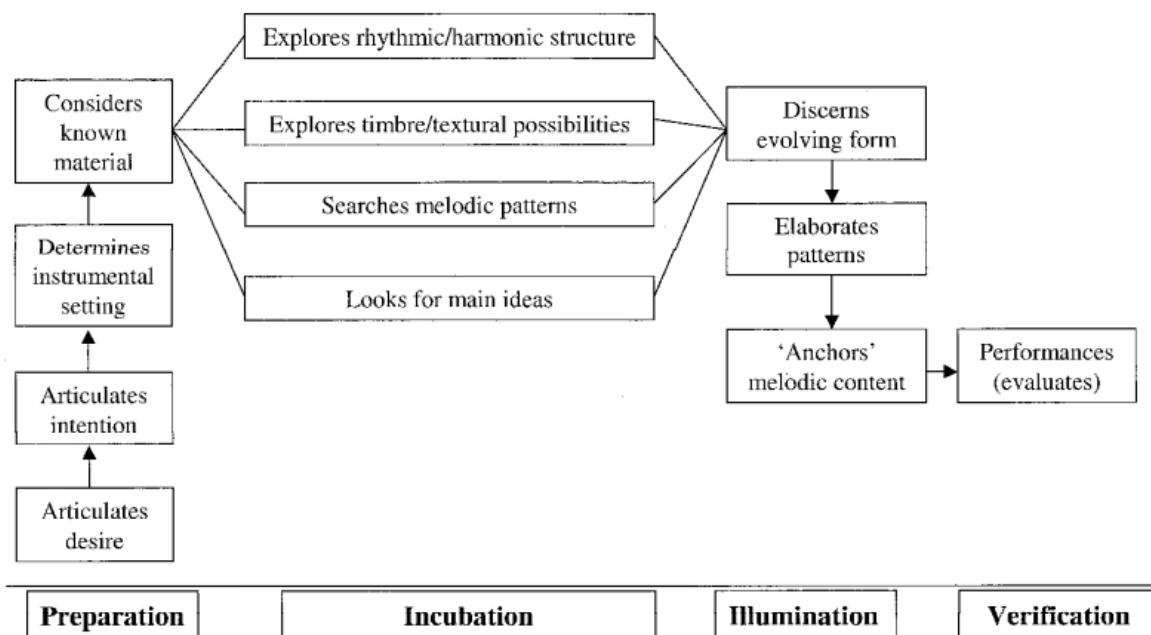


Figure 10: Linear composing pathways (Burnard and Younker, 2002: 253).

In contrast, as shown in Figure 11, students ($n= 2$) who followed the *recursive* pathway:

displayed significantly more movement across and within the four creative thinking stages, particularly between the incubation and illumination stages. Hence, the interaction with divergent and convergent thinking was more involved and resulted in the students imposing a greater number of constraints on their decision-making moments (Burnard and Younker, 2002: 254).

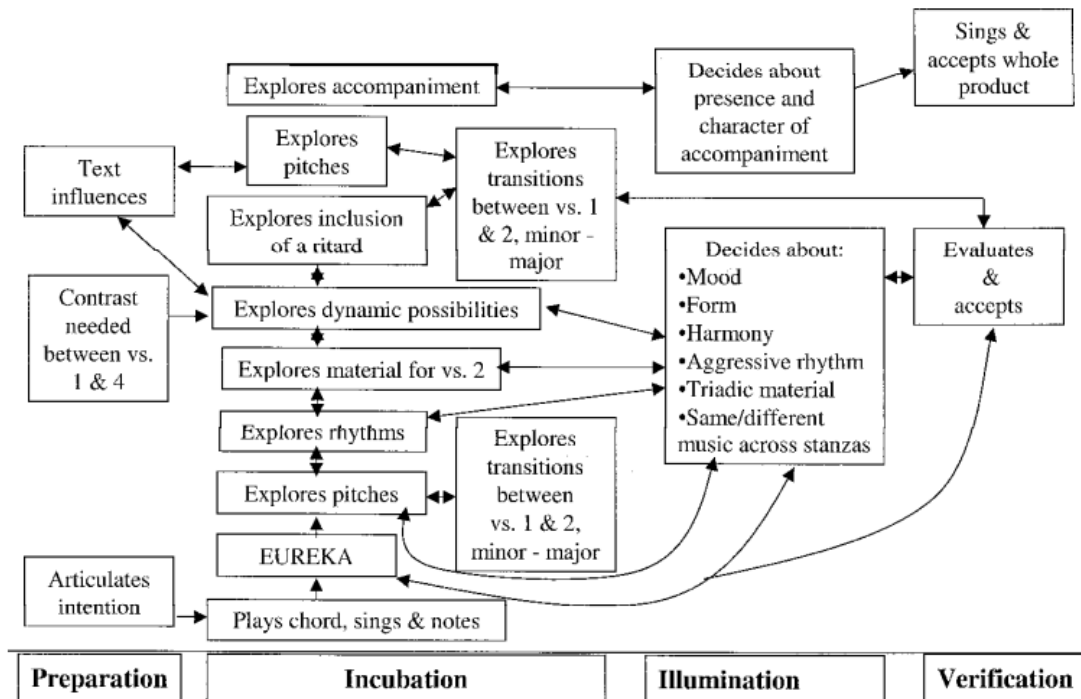


Figure 11: Recursive composing pathways (Burnard and Younker, 2002: 255).

Finally, as shown in Figure 12, students ($n= 2$) who followed the *regulated* pathway:

displayed a strong conception of the whole composition after thinking divergently. Much of this thinking involved exploring possibilities to generate possible solutions, and then evaluating and verifying musical choices made. The conception and whole complex structure resulted from constraints imposed by the student and provided a framework within which to compose. Both students displayed much movement within

and across the four creative thinking stages while making musical decisions about their compositions (Burnard and Younker, 2002: 257).

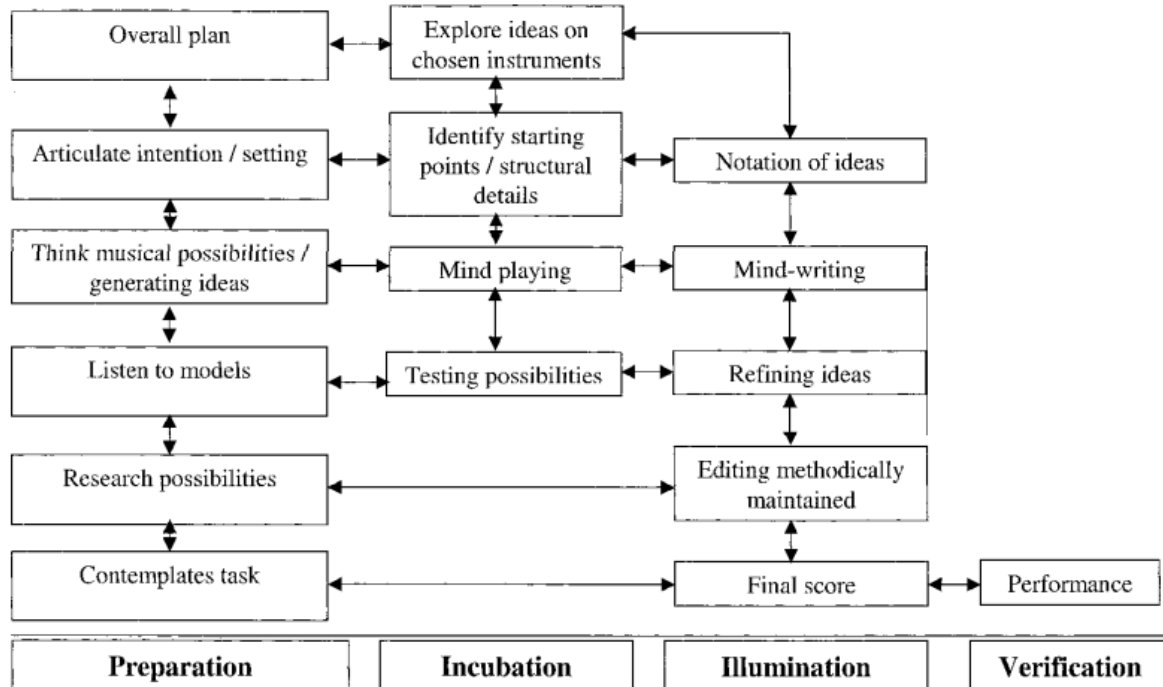


Figure 12: Regulated composing pathways (Burnard and Younker, 2002: 256).

Although the research studies cited above have played an important part in developing our understanding of the creative and composing process, it has been argued that these approaches focus on the stages rather than the actual *processes* within the stages (Cross, 2000). Furthermore, an important point to note is that these studies focus on creativity and composing by the individual rather than within a group context, which is a key focus for this thesis.

2.2.5: Group composing processes

Fautley's model of the group composing process

In exploring the group composing process of Key Stage 3 students, Fautley's (2004; 2005) articles reveal a clear breakdown of the composing process. These were publications based on his earlier PhD work (Fautley, 2002). To begin with, Fautley categorised the composing process into three overall stages: *pre-generative*, *generative*, and *post-generative*.

The *pre-generative stage* is separated into two parts. The first part follows the giving of the composition stimulus or brief and is when students 'begin to consider what form their responses will take' (Fautley, 2005: 47). The second part of this stage, shown in Figure 13, concerns students' knowledge, experience and awareness at the point when ideas are originated. "Musical knowledge" comprises of a number of separate variables including, for example, the cumulative nature of classroom work, as well as previous composing influences and experiences. "Aesthetic awareness" can refer to one's prior knowledge and experience from, for example, general cultural familiarity and personal preferences. Finally, the "repertoire of composing techniques" relates to the musical techniques and composing strategies students have acquired through their previous composing experiences during, and prior to, Key Stage 3.

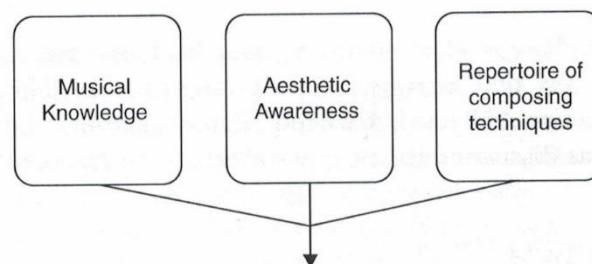


Figure 13: Fautley's (2005: 48) second part of the pre-generative stage.

Fautley’s (2002: 2004; 2005) *Generative* and *Post-generative* stages consist of a total of nine phases. These are listed and summarised in Table 4. In addition to these phases, Fautley (2004) also coded two non-composing related ones: “off-task activity” (phase 0) and “teacher interventions” (phase 10).

Generative Stage	Phase 1	Initial confirmatory phase (ICP)	When students discuss the task
	Phase 2	Generation	The production of ideas.
	Phase 3	Exploration	When ideas are explored, accepted or rejected.
	Phase 4	Organisation	When ideas are organised and placed into some sort of order.
	Phase 5	Work-in-progress performance (WIPP) ⁵	A run-through of their piece. This could be a complete run-through or just a rehearsal of parts of it.
Post-generative stage	Phase 6	Revision	When existing material is revisited.
	Phase 7	Transformation and modification	When existing ideas are changed/altered.
	Phase 8	Extension and development	When existing ideas are built on or taken further.
	Phase 9	Final performance	The presentation of the finished composition.

Table 4: Fautley’s (2005) model of the composing process.

⁵ Fautley (2005) goes on to say that the WIPP can be separated further into two sub-parts:

1. An informal WIPP organised by the students; or
2. A formal WIPP organised by the teacher.

Fautley (2005) provides a useful, visual model of the composing phases. This is shown in Figure 14. What this figure illustrates is the complexity and multifacetedness of the group composing process. For example, even though the phases rise sequentially, the arrows in clearly show that this does not mean that the composing group has to arrive at each phase in turn; they might “jump ahead” as their composition develops. Similarly, the arrows in the model highlight that a group working within the “higher” phases (for instance, phases 7 or 8) may, indeed, return to an earlier phase.

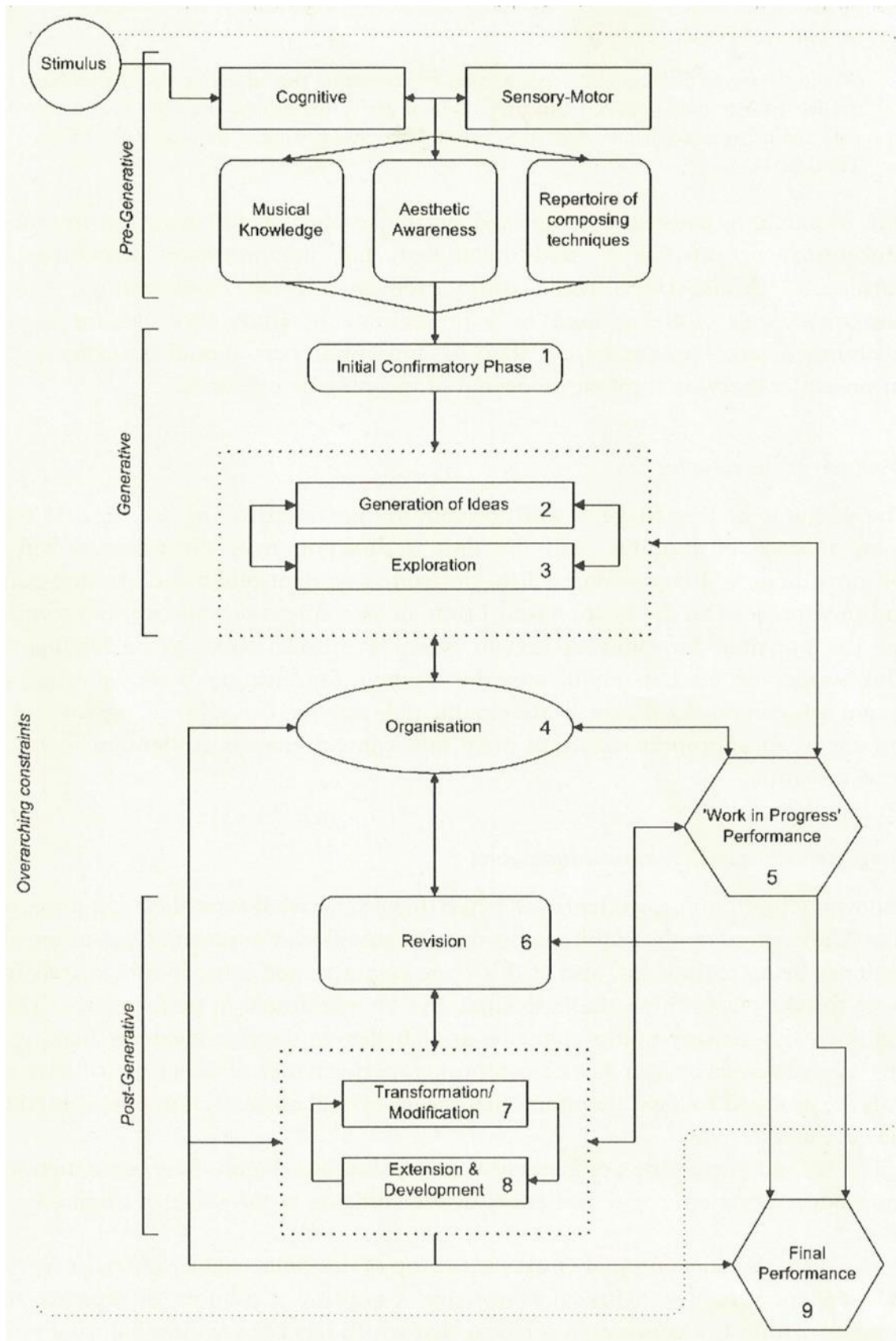


Figure 14: Fautley's (2005: 46) model of group composing in the classroom.

To illustrate this point further and to reveal the sheer complexity of the composing process beyond Fautley's (2005) published visual representation (Figure 14), a similar representation in Fautley's (2002) earlier PhD thesis clearly shows the 'multiplicity of pathways which occur[ed]' in one of his case-studies (2002: 135). This is shown in Figure 15.

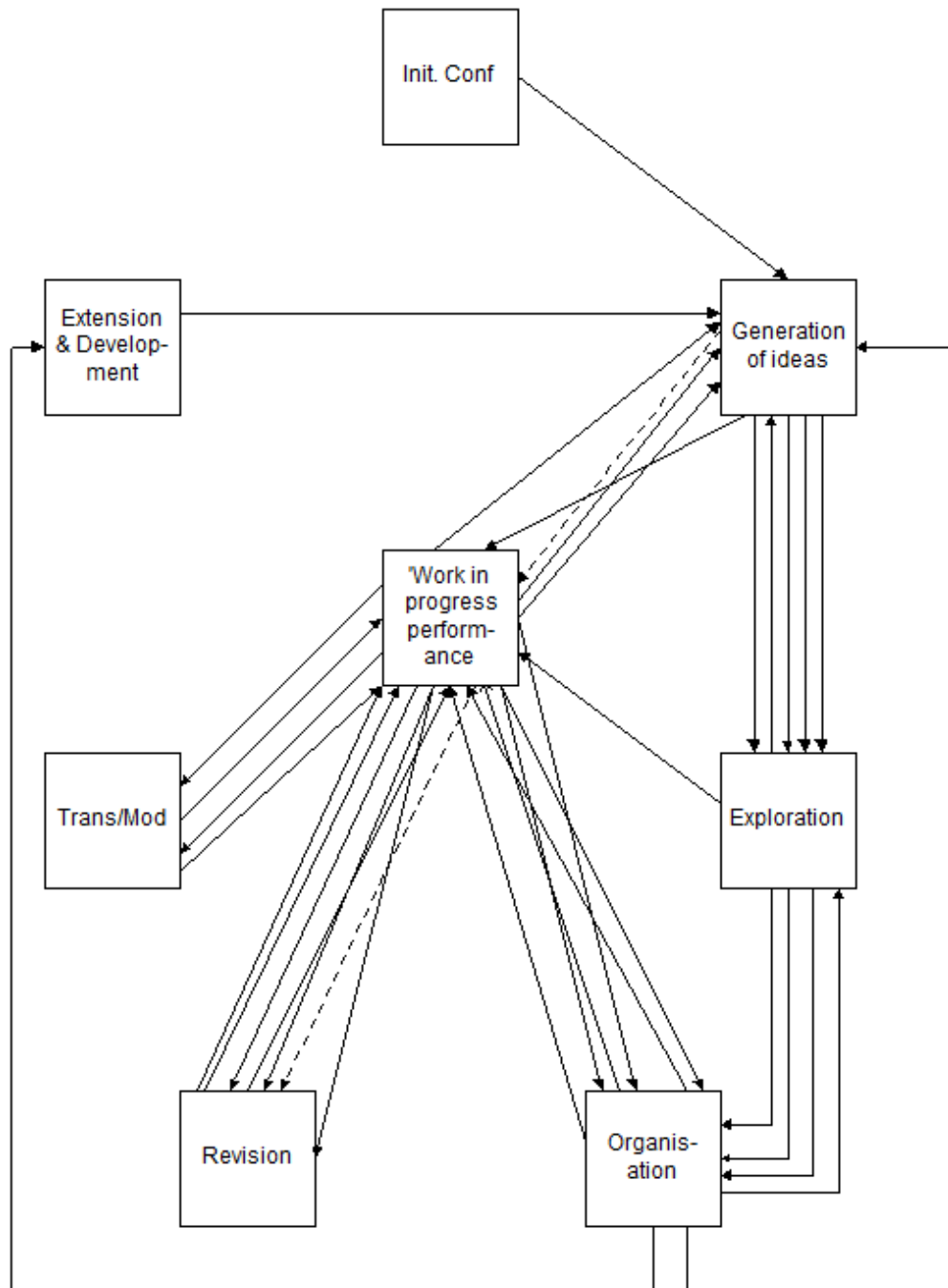


Figure 15: Routes taken by one composing group (Fautley, 2002: 135).

What Figure 15 also makes clear is that the Work-In-Progress Performance (WIPP) phase is an important part of the group composing process. In fact, as Fautley (2002) states:

In each of the [four] case-studies the work-in-progress performance was central to the way in which the pupils worked, and was used by both pupils and teachers as a major factor in taking the composing forward' (Fautley, 2002: 354).

As such, as Fautley (2002) continues, the WIPP could be described as the 'heart of what they [the students] do' (2002: 355) as it is through this "hinge-point" that the group can return to the *generative* stage, or continue into the *post-generative*.

Critiquing the critique of Fautley's model

Fautley's (2002; 2004; 2005) model of the Key Stage 3 group composing process has received little attention in an attempt to validate the model or extend or develop it. One exception, though, was made by Hopkins (2018) who found challenges with the model and, in light of these challenges, critiqued Fautley's (2005) approach and sought to modify it. There are several issues with Hopkins's (2018) critique, though, which need unpicking.

First, Hopkins (2018) states that a limitation of Fautley's (2005) research design was that the 'study was the trialling of the proposed model with a single group of four students in the Midlands within the UK' (Hopkins, 2018: 2). Whilst this is true for the 2005 published article, the same composing model was published in an article a year earlier (Fautley, 2004). In this earlier publication, there were four groups of students and four music teachers from four different schools based in the English Midlands. The focus here, however, was that of teacher intervention strategies during the group composing process. This earlier publication (Fautley, 2004) seems to have not been identified in Hopkins's (2018) article. That said,

although the same model of group composing was being used, Fautley's (2004) article was not cross-referenced in his own 2005 article either.

Second, Hopkins (2018) comments that, in his research of the model, the identification of the composing phases was done by four observers. These observers, though, were not music teachers (as they were with Fautley's (2002) PhD research) but two were music education graduate students and two were undergraduate seniors. In his case-study, it is unfortunate that Hopkins (2018) does not appear to have drawn on any expertise of the participant teachers. Although there might be a claim that the reliability of the identification of the composing phases student participants had undergone had increased, because it was being done by the same team of observers, this was not how Fautley (2002) had intended it to be used. Fautley's (2002; 2004; 2005) model of the group composing process was designed with the music *teacher* in mind where the model was 'welcomed by classroom teachers as an aid in the identification and labelling of phases in the composing work of their students' (Fautley, 2005: 55).

Finally, perhaps the biggest issue with Hopkins's (2018) application of Fautley's (2005) composing model is one of construct. For example, during the coding phase of the research process, the observers in Hopkins's (2018) study found it difficult to pinpoint which composing phase was occurring when. As such, this led Hopkins (2018) to report that:

Initial coding of the video data using Fautley's (2005) model resulted in levels of inter-observer agreement of Kappa⁶ = .20 to .29, representing a fair level of agreement. Reliability was negatively impacted by (1) disagreements among

⁶ In his article, Hopkins (2018) goes on to say that 'Inter-observer agreement using Kappa statistic can be interpreted as follows: 0.01-0.20 is slight agreement, 0.21-0.40 is fair agreement, 0.41-0.60 is moderate agreement, 0.61-0.80 is substantial agreement, and 0.81-0.99 is almost perfect agreement' (2018: 6).

observers regarding the categories in which to code the observed behaviour, and (2) observed behaviours for which no category existed in the model (Hopkins, 2018: 7).

Upon further study the fact that observers had difficulty in identifying group composing phases is perhaps unsurprising; the same model is being used to identify phases using very different composing constructs. For example, in Fautley's original PhD research (Fautley, 2002) set in the English Midlands, group composition tasks were not required to be notated in any particular format. In one case-study, for instance, students notated melodic fragments using letter names as an '*aide-memoir*' (Fautley, 2002: 170, italics in original). This was not the case, however, in Hopkins's (2018) research study where:

the teacher asked students to notate their composition on a template containing staves for each section of the string orchestra (Violin 1, Violin 2, Viola, Violon cello, Contrabass). Students were required to write a part for each section of the orchestra (Hopkins, 2018: 4).

Given these different constructs to composing it is, perhaps, hardly surprising that 'work-in-progress performances occupied a relatively small amount of [composing] time' (Hopkins, 2018: 11) and that significantly more time, by comparison, was spent with students notating their piece.

Within the current Key Stage 3 National Curriculum for England (DfE, 2014), notation is listed as part of the subject content for this age group (ages 11-14), however it is not specifically stated that notation needs to form part of compositional activities. In fact, the only reference to "notation" is that students should be taught to:

use staff and other relevant notations appropriately and accurately in a range of musical styles, genres and traditions (DfE, 2014: 102).

What this can mean in practice, in the context of classroom-based composition activities in English schools, is that there is, perhaps, more of a focus on *composing* where students are given time to ‘compose; and extend and develop their ideas by drawing on a range of musical structures, genres and traditions’ (DfE, 2014: 102) and far less time, within the composing process, on how the composition should be *notated*.

It is surprising that there has been little research interest in developing group composing processes (Biasutti, 2012) as well as further applying and verifying Fautley’s (2002; 2004; 2005) model. As such, given that this research focuses on Key Stage 3 group composing, it seems most appropriate to apply Fautley’s (2002; 2004; 2005) model where not only can it be applied into additional Key Stage 3 case-study school contexts for further validation, but potentially extended through the use of audio devices during the group composing process.

2.2.6: Section summary and implications for the present study

This section has provided an overview of the research surrounding creativity and group composing, focusing largely on Key Stage 3. The notion of Boden's (1990) P-Creativity in relation to composing is particularly relevant to this study because it means that composition activities are inclusive for all students. In other words, this thesis takes the position that composing is for every student and is something which every individual can contribute to.

The literature cited in this section has identified that research into group composing, particularly at Key Stage 3, is an under-researched area. As such, the application of Fautley's (2002; 2004; 2005) model of the group composing process into different Key Stage 3 group composing contexts will provide the opportunity for the present study to further validate the model as well as offer the potential for it to be expanded or modified with the inclusion of audio devices as a useful strategy during the group composing process. With this in mind, the following research question was deemed appropriate for further exploration:

1. How does the inclusion and use of an audio device influence the group composing process?

2.3: Group organisation and activity

Introduction

Composing during Key Stage 3 is normally undertaken as a group activity (Fautley, 2005; Odam, 2000). This method of working can be said to be beneficial for developing students' musical learning. For example, as Kutnick and Rogers (1984) comment:

... shared perspective taking with groups increases the likelihood of cognitive understanding; the effective use of small groups promotes greater achievement through co-operation than do comparative whole-class and individualised grouping approaches (Kutnick and Rogers, 1984: 4).

Similarly, as Cowie and Rudduck (1990) posit:

One of the strengths of group work is that it encourages pupils to take their own thoughts, and those of their peers, more seriously. It can also make them feel confident about expressing their own point of view while taking into account the feeling and perspectives of others (Cowie and Rudduck, 1990: 27).

As such, given these benefits, establishing how teachers can organise composing groups to elicit effective working practices from students could be considered highly beneficial.

This section discusses: the organisation of classes by attainment; the demographics of group organisation, within smaller groups, including friendship groups and gender; Activity Theory; and Mercer (2004) and Major's (2007) typologies of group discourse. The section ends with a brief summary with implications for the present study.

2.3.1: Demographics of group organisation

The notion of the “group” has already been used numerous times throughout this thesis having drawn upon previously published research on creativity and composing. Students working in a group has particular implications for music education because, as has been stated previously, composing at Key Stage 3 is typically undertaken as a group activity (Fautley, 2005; Odam, 2000). Since composing in groups is a key focus for this thesis, it would be beneficial to understand how secondary schools typically “sort” students into classes as well as the common approaches taken by teachers to arrange them into smaller groups in music lessons.

Sorting classes by attainment

In many English schools, particularly within the secondary context, it is common to “sort” (or “set”) students in core subjects (for example, English, mathematics, and science) by using a prior attainment measure⁷ (Dunne et al., 2006; Francis et al., 2016; Ireson and Hallam, 2001; Kutnick et al., 2005). Despite its popularity, though, numerous research studies have shown that setting classes by attainment has little impact on student outcomes (for example, Burris and Welner, 2005; Higgins et al., 2015; Ireson, Hallam and Hurley, 2005; Nomi, 2009; Slavin, 1990), and where gains are evidenced for students in the highest sets, students in the lower sets achieve significantly poorer outcomes (Boaler and Wiliam, 2001; Buris and Welner, 2005; Higgins et al., 2015; Wiliam and Bartholomew, 2004). Furthermore, research studies have also shown that students in the lower sets can have issues with self-confidence

⁷ For example, Key Stage 2 prior attainment in reading and mathematics. These are the national tests taken in Year 6 (age 10-11) at the end of primary school.

(Francis et al. 2016) as well as deleterious effects on individual opportunities, identities and wider-life outcomes (Boaler and Selling, 2017). This is, perhaps, unsurprising since students in the lower sets, particularly boys, do not like being there (Archer et al., 2018; Boaler, Wiliam and Brown, 2000; Hallam and Ireson, 2007; Zevenbergen, 2005).

In music (along with other subjects like art and humanities, for example), it could be considered more common to arrange students in mixed-attainment (sometimes used interchangeably with “mixed-ability”) classes (Hallam, Rogers and Ireson, 2008; Kutnick et al. 2005). Despite this arrangement, though, there appear to be differing views held by music teachers on whether this is an effective method of working. For example, in a study of 45 mixed-gender secondary comprehensive schools in England, Hallam, Rogers and Ireson (2008) found that:

49% of teachers preferred to have classes in mixed ability groups in years 7, 8 and 9, while at the other extreme, 21% indicated that they preferred [classes] to be setted in all three year groups (Hallam, Rogers and Ireson, 2008: 16).

Of those that preferred setted classes, some teachers of Key Stage 3 music (along with teachers of Physical Education in this case) ‘agreed equally strongly that bright children were neglected or held back in mixed-ability classes’ (Hallam, Rogers and Ireson, 2008: 9).

Hallam, Rogers and Ireson (2008) go on to explain that, in their study, music teachers in favour of setting may prefer this method because of the group-based nature of musical activities and teachers would prefer to have students working in smaller groups of a similar level of expertise. Furthermore, they also go on to say that, in composition and performance activities:

teachers may feel that the work of the whole group [that is, the smaller group rather than the whole class] is held back if some members have fewer musical skills (Hallam, Rogers and Ireson, 2008: 16-17).

As such, if, as Hallam, Rogers and Ireson (2008) suggest, some teachers prefer organising students into similar levels of musical ability, the number of students within a composing group also needs to be considered.

Group size

In England, a typical composing group might have between three to six students in it (Biasutti, 2012; Fautley, 2004, 2005; Hopkins, 2018; Philpott, 2001; Swanwick, 1999). It is believed, particularly for composing, that if there are too many in a group then ‘it is possible for pupils to get “lost” during group work and thus achieve little’ (Philpott, 2001: 75). As such, to prevent groups of students from becoming “lost”, and to ensure groups can work effectively, it would be important to consider the research evidence relating to groups based on additional demographics of friendship as well as gender.

Friendship groups

Some literature (for example, Fautley, 2002; Philpott, 2001) has indicated that composing groups can be arranged on a friendship basis. Whether this strategy is an effective way of students working, though, appears somewhat contradictory. For example, when investigating pairs of students, both MacDonald, Miell and Mitchell (2002) and Miell and MacDonald (2000) found that students working with their nominated best friend produced compositions rated as superior to those working with an acquaintance. This was because the pairs of friends

spent more time actually playing music and their verbal and musical communication was believed to be more conducive of good-quality collaboration. Similar findings, including increased motivation and co-operation, were also found in other research with composing groups of more than two students (for example, Hallam, Creech and McQueen, 2011).

In contrast, Hopkins (2015) found that, in friendship-arranged composing groups, groups were:

prone to high levels of OTT [off-task-talk] and social loafing, in which some students allowed others to do all the work (Hopkins, 2015: 420).

Single- and mixed-sex groups

Like with the notion of friendship-arranged composing groups discussed above, whether composing groups work better arranged as single- or mixed-sex also seems problematic in research literature.

For example, Morgan's (1998) PhD thesis found that 'mixed gender groups are less effective than single gender groups⁸' (1998: 148). Upon further analysis, it was also found that, within mixed-sex groups, girls dominated verbally over the boys. For Morgan (1998) this was a key finding; this was in stark contrast to previous research in this area (for example, Swann, 1992) where it was found that boys would dominate the most "verbal space" in mixed-sex groups.

⁸ Morgan (1998) also points out that, within this key finding: 'as the differences in productivity only reached significance in one of the studies, any conclusions based on this should be made with caution' (1998: 148-149).

The notion of girls dominating verbally and taking control during music tasks was also found by Burland and Davidson (2001) and Morgan, Hargreaves and Joiner (1997) but has been contested by Hopkins (2015). In his study:

mixed-gender groups had high ratings for their compositions and had high levels of collaboration. The two weakest collaboration scores were in all-female groups (Hopkins, 2015: 420).

This was not the case, though, in Baek and Taylor's (2020) research where: 'Female groups demonstrated a significant difference with higher scores when compared to mixed gender groups' (2020: 325).

Hopkins (2015) asks researchers to 'continue exploring the topic of gender grouping in collaborative composing' (2015: 420). In the present study, although the construct of composing groups is not a primary focus, how music teachers arrange students into small composing groups (for example, whether friendship or "setted"; mixed- or single-sex) are appropriately acknowledged.

2.3.2: Activity Theory (1)

Kinsella (2015) writes that the art and design classroom ‘has to account for different identities, intelligences, modes of learning and pedagogical processes’ (Kinsella, 2015: 36). This can also be true of the music classroom (Daubney, 2017). As such, the notion of Activity Theory (also referred to as Cultural Historical Activity Theory (Cole, 1996)) has been found to be a useful framework (Kinsella and Fautley, 2017) which helps deconstruct (Kinsella, 2017) and explain the ‘complex interactions and relationships (Engeström and Miettinen, 1999) within social settings (Daniels, 2016).

The concept of Activity Theory, however, has undergone significant development since its inception, leading to three generations of Activity Theory being created. Each one is discussed in turn.

First-generation Activity Theory

Activity Theory is rooted in the work of Vygotsky (1978) whose focus was on a triadic interaction between the *subject*, *object* and *tool(s)* (also referred to as *artefacts*). This is shown in Figure 16.

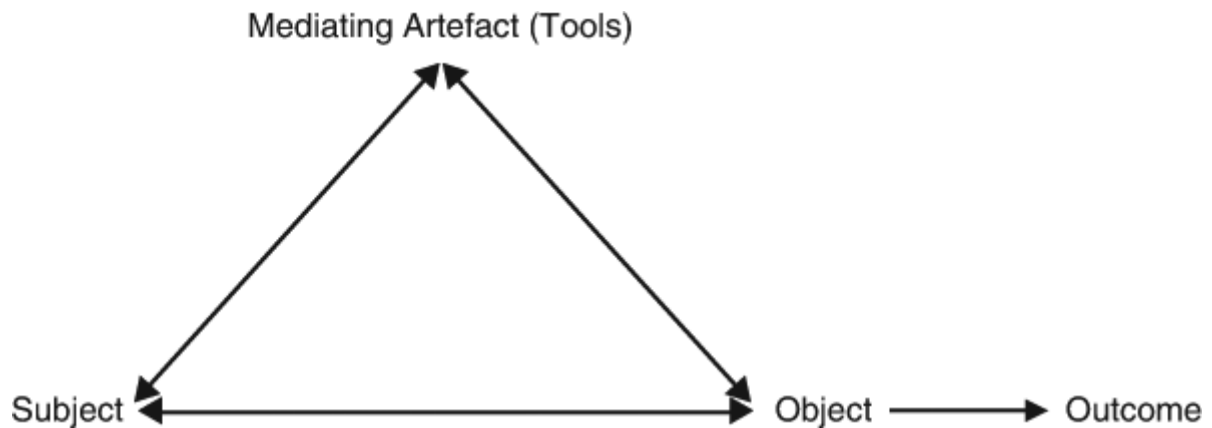


Figure 16: Vygotsky's (1978) Activity Theory (first-generation) model.

Within the triangular model:

- the *subject* represents a person whose perspective is the focus;
- the *object* is the goal of the activity system; and
- the subject and objects are influenced by *tools* (mediating artefacts).

Vygotsky's (1978) original Activity Theory model provides a framework in which social and cultural practices can be considered with regards to how individuals learn by engaging in these practices as well as how tools (for example, physical tools such as writing, technology, or a musical instrument, or mental tools like gestures, expressions or language via questioning and/or discussion) are mediated to shape human activity.

Some might argue (for example, socio-constructivists) that we are not individuals who 'interact with our environment on a purely biological basis' (Wilson, 2014: 21), but that we engage and interact with our environment based on the mediation of other people and the context in which we live (Wilson, 2014). As such, from this perspective, a second-generation Activity Theory framework was developed.

Second-Generation Activity Theory

Following Vygotsky, an “Activity System”, shown in Figure 18, was developed by Leont’ev (1978) and subsequently Engeström (1987). This was because ‘mediation by other human beings and social relations [were] not theoretically integrated into the [original] triangular model of action’ (Engeström and Mietinen, 1999: 4), nor did it suitably present the complex interactions of an activity system (Asghar, 2013). This is particularly the case within the classroom setting which, as stated above, has to account for ‘different identities, intelligences, modes of learning and pedagogical processes’ (Kinsella, 2015: 36). Within this extended system, Leont’ev distinguished between “action” and “activity”, where “action” is conducted by an individual, and an “activity” is undertaken by a community to fulfil a goal (Bakhurst, 2009), for example a group composition.

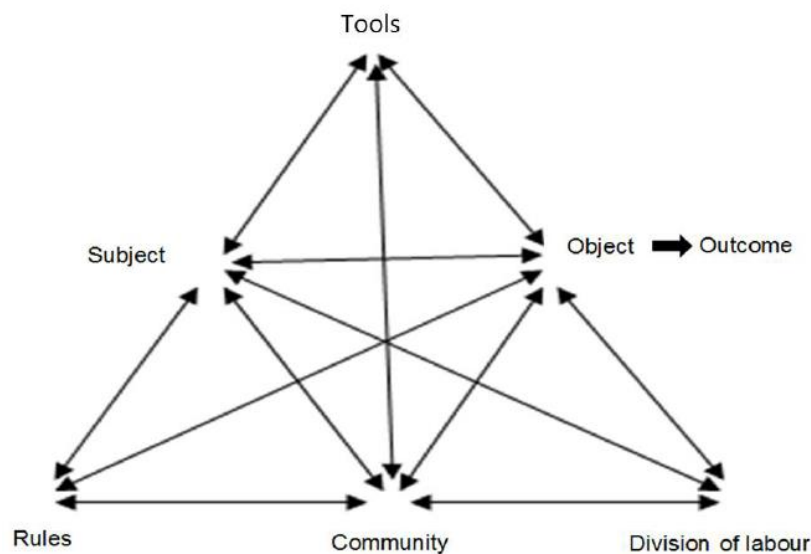


Figure 17: Engeström’s (1987) Activity System (second-generation) model.

In addition to *subject*, *object* and *tools* described in the first-generation Activity Theory above:

- the *community* is where the activity system belongs or takes place;
- the *rules* characterise the behaviours and norms (for example, the dos' and the don'ts) within the community; and
- the *division of labour* relates to hierarchical power structures and social relations within the system as well as how labour is divided.

Pohio (2016) comments that of all the nodes within the activity system *tools* arguably play the most central role in research investigations. This has also been found to be the case within some music education research. For example, Burnard and Younker (2007) found that lower-secondary school pupils (aged between 10 and 12 years) tended to focus on 'choice and use of instruments and knowledge to drive compositional ideas' (2007: 72). This was not the case, however, in Devaney's (2018) PhD research where, in composing music for accreditation towards a national qualification:

teachers expressed frustration with the examination [system] many felt obliged to TTT [teach to the test] due to high levels of accountability, even to the detriment of their students' learning (Devaney, 2018: 283).

Whilst Cole and Engeström (1993) posit that the inclusion of *rules* is important within an activity, Kinsella and Fautley (2017) warn that rules of an activity can potentially 'dominate practice' (2017: 30), with Burnard and Younker (2007) previously cautioning that *rules* could limit and constrain actions.

In the context of formative assessment, Kinsella and Fautley (2017) used the Activity System as an analytical tool. In their research, based on a multi-session project where pupils were engaged in composing for examination purposes, they found that teacher comments were far more focused on matters which were directly related to task completion, whereas comments from professional composers brought into the lessons were more grounded on the quality of

the outcome of the task. Furthermore, they found that teacher-based dialogue was more focused on keeping pupils on task by ensuring that they knew how much time they had left and what they still needed to do. Composers, on the other hand, were observed using higher-order questions relating to composing techniques and musicality.

Third-Generation Activity System

Engeström (2001) extended the model further which aimed at developing ‘conceptual tools to understand dialogue, multiple perspectives, and networks of interacting activities’ (Engeström, 2001: 135). As can be seen in Figure 18, this extended model considers the interactions between adjacent activity systems would lead to a third, potentially shared, object.

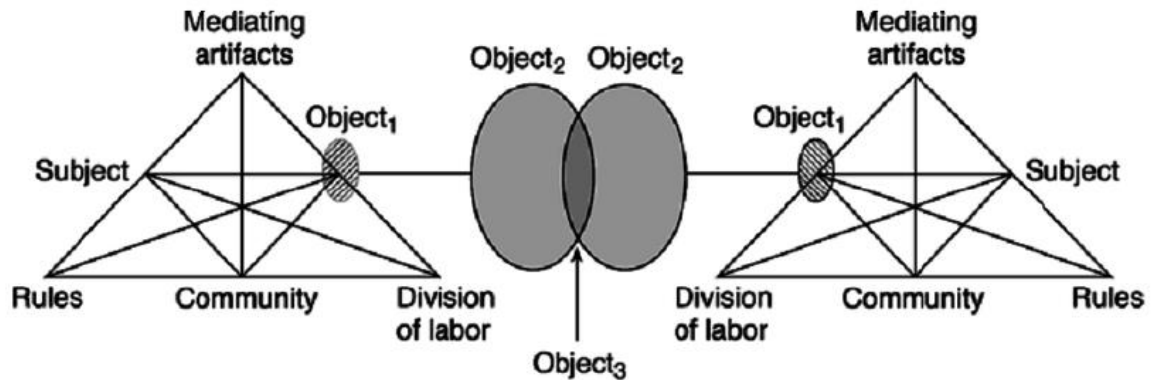


Figure 18: Engeström’s (2001: 136) Activity System (third-generation) model.

The third-generation activity system is relevant to the present study. This is because, during the group composing process, three agents can be immediately identified: the individual student working within a group (activity system 1), the collective group of students (activity system 2), and the music teacher (activity system 3). As shown in Figure 19, these three

separate activity systems are working together towards the potentially shared outcome. In the context of the present study the outcome relates to a finished composition.

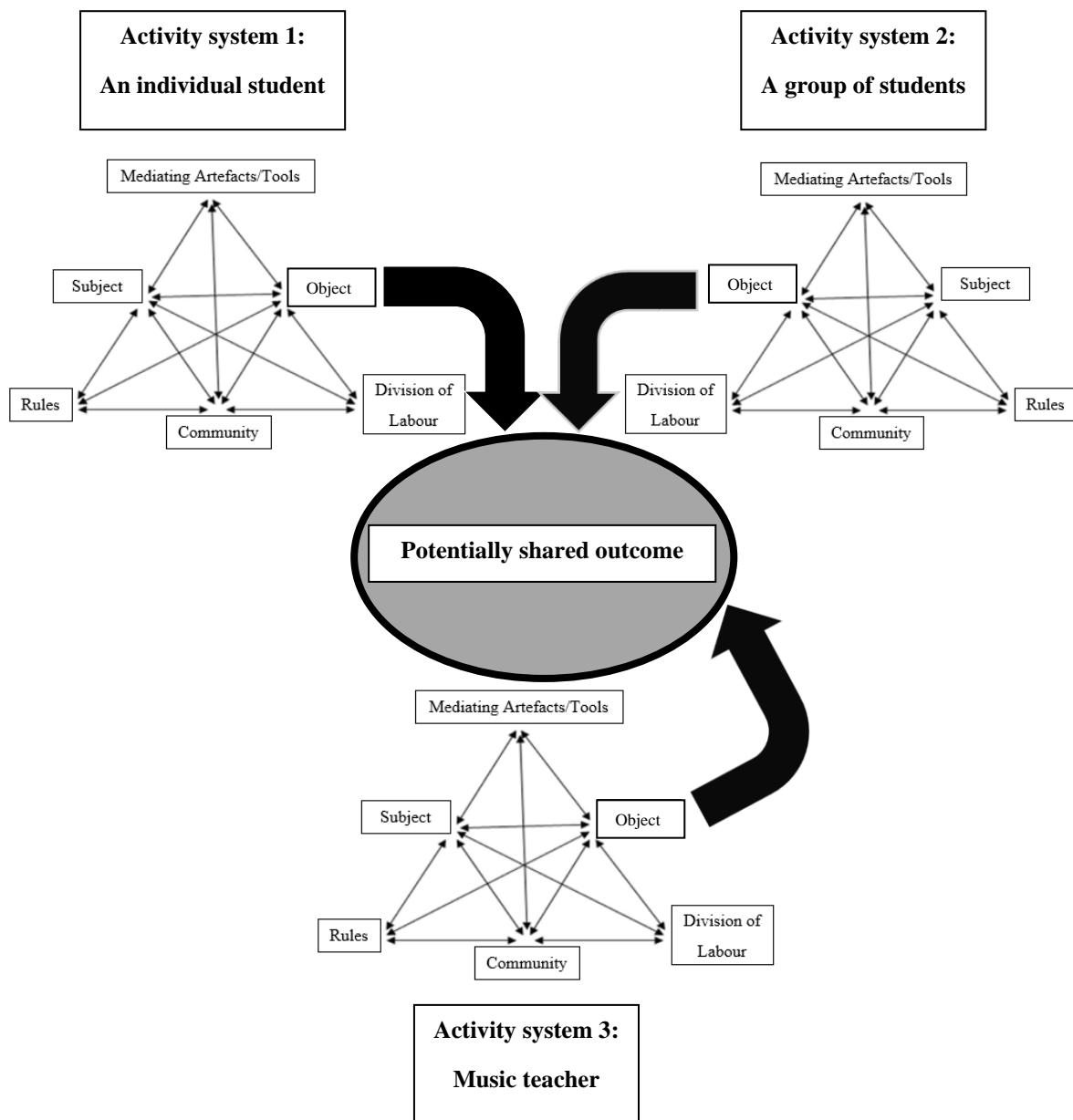


Figure 19: Example of Engeström's (2001) Activity System (third-generation) model in the context of group composing.

The application of Activity Theory in music education research

The application of the Activity Theory framework within the field of music education has received more attention in recent years with research focusing on: exploring interactions between musicians during an improvisation (Burrows, 2004); female choristers entering into an all-male voice cathedral choir (Welch, 2007); adult instrumental learners (Henley, 2008); undergraduates' perceptions of learning an instrument (Lupu, 2010); designing an online music history course (Keast, 2009); experiences of school pupils studying instrumental group music as an extra-curricular activity (Burnard and Dragovic, 2015); elementary school composing (Hogenes et al., 2016); composition for accreditation towards a national qualification (Devaney, 2018; Kinsella and Fautley, 2017; Thorpe, 2015); studying adult online music learners (Schmidt-Jones, 2018); and music teacher perceptions of curriculum design during Key Stage 3 (Anderson, 2019).

Whilst Burnard and Younker (2007) present a case-study which applies Activity Theory in the lower-secondary school setting of an urban school in the United Kingdom, the focus is that of arranging. What seems clear is that whilst Activity Theory has been found to be a successful framework for music education research (Burnard and Younker, 2007; Devaney, 2018; Kinsella and Fautley, 2016; Thorpe, 2015, Schmidt-Jones, 2018), not only can it be said that it is still an emerging concept within music education literature, but there appear to be no studies which apply it within lower-secondary school (Key Stage 3) group composing contexts in English schools. As such, for the present study, the use of Activity Theory can be considered a novel contribution to music education research.

Further developments to Activity Theory within music education research

Within some music education research, a three-dimensional visualisation has been proposed. For instance, in both their PhD theses, Henley (2009) and Anderson (2019) explored how the Activity Theory model can be better represented in a three-dimensional, as opposed to a two-dimensional, way. These two previous models, although insightful, are in need of critique.

For example, although Henley (2009) states that ‘this three-dimensional system represents the different systems of each subject position: learner, musician, non-musician, master, performer and so on’ (2009: 209) these multi-systems, as shown in Figure 20, are not clearly visible in her representation, particularly when she also considers different activity systems into the diagram.

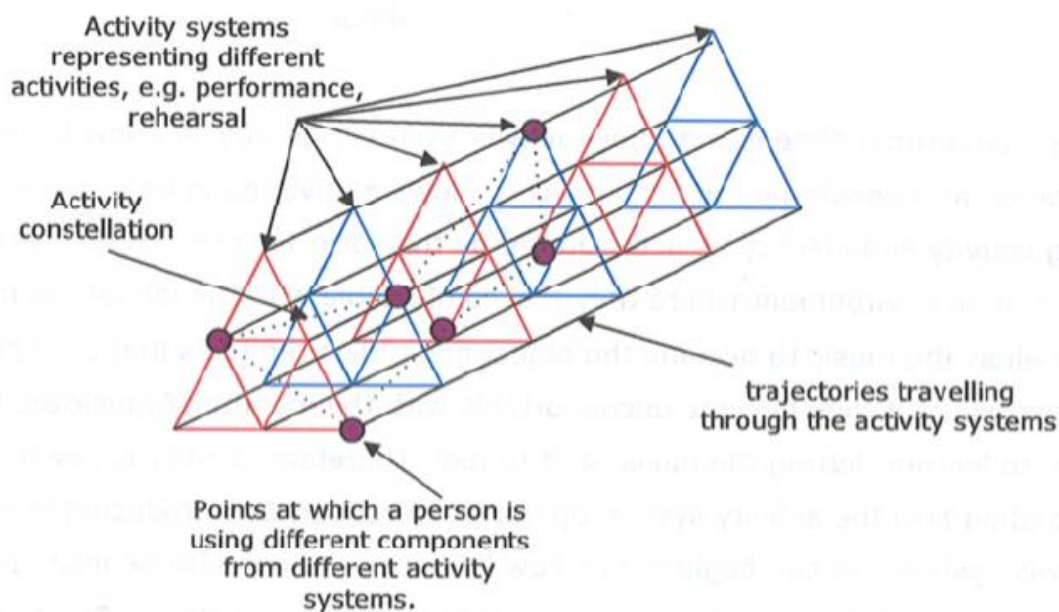


Figure 20: Henley’s (2009: 209) three-dimensional activity system model.

Anderson (2019), in his thesis on music teacher curriculum design practices, also developed a three-dimensional model to ‘enable internal multiplicities [which he calls “the zone of emerging polyphonies”] to emerge and present this for analysis within activity systems’ (2019: 193). His representation, shown in Figure 21:

allows for co-existence of activity systems and enables each to speak, but also draws developments together in meaningful analytical dialogue. It accurately represents the three-dimensional dynamics of activity interactions that two-dimensional representations fail to capture (Anderson, 2019: 194).

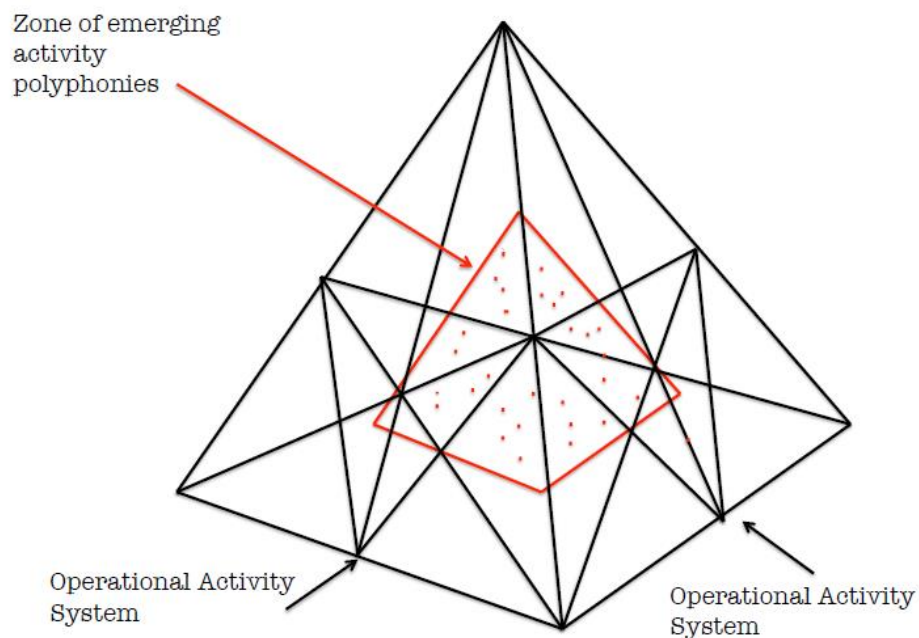


Figure 21: Anderson’s (2019: 194) three-dimensional activity theory model.

Although Anderson’s (2019) point is well-argued, his three-dimensional representation focuses on individual music teachers in curriculum design and did not need, as the present study requires, to explore other multiple “knotworking” (Engeström, 2008) of different activity systems working towards a mutually shared outcome.

2.3.3: Group discourse

For many years it has been believed that teacher-student talk is the best source to enhance student progress in the classroom (Flanders, 1970) both within primary (Mercer, 1995) and secondary (Tobin and Gallagher, 1987; van den Akker, 1998) settings. However, some research into this modality of talk has found that teachers would often dominate the conversation (Cazden, 2001; Liu and Le, 2011; Sinclair and Coulthard, 1975) with students being found to only speak for short periods in response to teacher prompts (Lefstein and Snell, 2011), for example, teacher questioning. Furthermore, Mercer et al. (2004) and Alexander (2008) found that, in England, there was a “shyness” of student-led discussions with a tendency to reduce the amount of learner participation at the expense of more teacher-led talk.

However, some research (*inter alia*, Alexander, 2008; Mercer et al., 2004; Myhill, Jones and Hopper, 2006; Nelson, 2009; Pay, 2016; Rojas-Drummond et al., 2003) suggests that student-student talk through social interaction is able to offer greater benefits including understanding, engagement, behaviour, and decision-making. Moreover, Mercer (2015) states that there are wider benefits of using student-student talk than just for attainment and progress and goes on to say that such talk can have additional benefits for formative assessment. What is not provided by Mercer (2015), though, are details as to *how* this modality of talk can be harnessed and used formatively. As this is a key focus for this thesis, this needs unpicking somewhat by drawing on relevant typologies of talk.

Mercer

Mercer (2004) devised a three-part typology on the different types of peer talk; *disputational talk*, *cumulative talk*, and *exploratory talk*. These terms are summarised in Table 5.

Type of talk	Definition
<i>Disputational talk</i>	Might involve all students within a group, but can be characterised by disagreed and individualised decision making with few attempts at constructive criticism of suggestions being made. A typical discourse here is more likely to involve commands and assertions between students.
<i>Cumulative talk</i>	When students build, uncritically, on what others have said through co-operative working, but without any criticality of ideas.
<i>Exploratory talk</i>	When students are engaged in talk which is critical but constructive of others' ideas, that is, they challenge one another's ideas. A key feature here is that all students are actively participating and all opinions and points of view are carefully considered before a joint decision is made.

Table 5: Mercer's (2004) typology of talk.

Observational research (for example, Mercer and Littleton, 2007), has revealed that although "exploratory talk" can be a powerful means for students thinking and reasoning together (for example, students questioning each other with "why do you think that?"), this talk seldom happens within group or classroom-based settings.

Although, as cited above, there are numerous studies investigating notions of group-based talk, these have concentrated more on English, mathematics, and science leaving very little work, by comparison, on student discourse within music education (Aleshinskaya, 2013; MacDonald, Miell and Morgan, 2000).

Major

Within the Key Stage 3 group composing context, Major (2007) identified six different types of student talk. These are shown in Table 6 and continued in Table 7.

Type/Characteristics	Musical Knowledge	Evidence of Change and Musical Learning
Exploratory – pupils are mainly dependent on praise and encouragement from the teacher in their comments.	Basic terminology and concepts used. Conceptual knowledge is not fully developed, often partial understanding of concepts.	Pupils are given reassurance or correction and therefore are able to ‘keep going’
Description – pupils are able to offer accounts of what they are doing – respond to questions – often briefly – heavily teacher led.	Varied musical knowledge levels but pupils with a good knowledge of musical terms and concepts sometimes have this level of appraising because of lack of engagement with their composing work.	Teacher intervention allows pupils to improve work and to change direction. Teacher help may allow them to give opinions or to identify problems.
Opinion – pupils are making statements about their work, though not necessarily linking these to musical criteria – tends to be teacher led.	Varied again in age/command of musical knowledge even at this stage. Other factors cause pupils to be appraising at this level when they might be expected to be talking with more evaluative/affective responses to their music.	Here, opinions are qualified or related to criteria. pupils consider why they think or feel something in relation to their composition.
Affective response – pupils are expressing affective qualities or responses to their work – more evidence of pupil engagement – comments may be spontaneous.	A better command of terminology and conceptual understanding together with affective engagement with the composing product produces some talk, which is interesting and productive.	Talk reinforces pupils’ affective engagement with their musical compositions giving them more confidence in their own work.

Table 6: Major’s (2007: 170) Typology of pupil talk about composing (1).

Type/Characteristics	Musical Knowledge	Evidence of Change and Musical Learning
Evaluation – pupils are making detailed evaluative comments about their work, using musical criteria – pupils are able to take some lead or work in groups independent of teacher intervention.	This level of evaluating demands a good command of terminology related to the task as well as conceptual knowledge. Also essential at this level is engagement with the composition at an affective level. Some confidence in own work.	Pupils produce effective and satisfying pieces of music that reflect previous or original intentions. There is evidence that affective involvement with the music informs their evaluations or responses. Appraising relates to the degree to which intentions are realised.
Problem Solving – pupils are able to identify problems and use group processes to negotiate solutions – groups can work independent of the teacher, or can develop single questions into extended analysis of their work.	Mature conceptual understandings and a wide background knowledge of structure, texture and unity of elements of composing. Confident of own work as being of value. Personal satisfaction in own work. Willingness to receive constructive criticism.	Identification of problems with new targets to be met which will allow a composition to change and grow. This will tend to be a more substantial piece or extended piece of work and will involve structure and unity.

Table 7: Major's (2007: 171) Typology of pupil talk about composing (2).

Although Major's (2007) typology of student talk contributes to much needed literature in this area of music education, it, as well as Mercer's (2004), warrants critique.

Critiquing the typologies

Based on Mercer (2004) and Major's (2007) research there are several issues which need to be unpicked. First, there seems to be no clear consensus as to what "exploratory talk" is, and what it looks like in context. For example, Mercer's (2004) understanding is that students critically challenge each other's ideas, whereas Major (2007) sees it as students being dependent on praise and encouragement from their teacher.

Second, the role of the teacher in the typologies can be considered problematic. For instance, Mercer's (2004) typology does not consider the role of the teacher in group-based discourse at all. It might be considered problematic to not consider the role of the teacher in group learning as a key agent in the classroom environment. At the other extreme, Major (2007) perhaps overemphasises the role of the teacher. What her typology seems to suggest is that when a teacher is not present, student discourse within a composing group is towards the "evaluation" and "problem-solving" types of talk. It could be that there is an analytical issue here; Major's (2007) single, six-point typology does not separate the codes identified from the two different constructs of data collection in the study: (i) whole class talk, (ii) talking individually and in small groups about composing. This issue is not a problem in Mercer's (2004) typology which focuses solely on one modality of discourse.

Finally, despite Mercer (2015) suggesting (as cited above) that student-student talk can have additional benefits for formative assessment, there is no consideration in Mercer's (2004) typology (nor Major's (2007)) as to the role assessment plays in group-based talk whether student-student, or teacher-group. Moreover, what also needs to be considered, especially in a

subject such as music, is what cannot, for whatever reason, be easily verbalised. For example, how observing and seeing pupils, or a teacher, “do” their musicking can support the teaching and learning process. As such, given that formative assessment has been found to be a significant process to improve student learning (for example, Andrade and Heritage, 2018; ARG, 1999; Black and Wiliam, 1998; Bloom, Hasting and Madaus, 1971; Broadfoot, 1998; Crooks, 1988; Gardner et al., 2010; Gipps, 1999; Scriven, 1967; Wiliam, 2011b; 2016) it can be of benefit to music education research to consider the role of this, as defined in this thesis, within the group composing context.

2.3.4: Section summary and implications for the present study

This section has provided an overview of the research relating to group organisation and activity. The literature cited in this section has identified that demographics of composing group organisation (for example, the effects of friendship groups and gender) is somewhat problematic. Although this is not a primary focus for the present study, how music teachers arrange students into small composing groups (for example, whether friendship or “setted”; mixed- or single-sex) are appropriately acknowledged. What is important, however, is that there is a clear need within composing-focused literature to better understand the relationship between formative assessment, as defined in this thesis, and group-based discourse including the role of the teacher where appropriate. As such, within the context of using the audio device as a tool for giving feedback, exploring these relationships and what they look like in practice can be said to relate directly to research questions 2 and 3:

2. What are the effects of using an audio device on group-led feedback?
3. What are the effects of using an audio device on teacher feedback?

2.4: Pedagogies

Introduction

There are numerous accounts of what “pedagogy” is and what it means in practice (Kirschner and Surma, 2020). Some recent debates in educational discourse have focused on “evidence-informed practice” with some arguing that a more teacher-led, direct method of teaching is preferable; it has a greater impact on student learning than an inquiry or problem-solving approach. At face value, regardless of which method can be considered the “right way”, this will always be problematic because how this works with one teacher may not work in the same way for another. Similarly, what works in one subject may not work in another (Kirschner and Surma, 2020; Wiliam, 2016).

This section discusses: the literature surrounding the debate on Direct Instruction and inquiry-learning as contrasting pedagogical methods; and the reported issues with teaching composing in the classroom. The section ends with a summary with implications for the present study.

2.4.1: Some current pedagogical approaches and debates in education

Direct Instruction

“Direct Instruction” (DI) has received increased attention in recent years with some politicians (for example, Nick Gibb, England’s Minister for Schools until September 2021) praising the model for ‘outperform[ing] a multitude of “child-centred” approaches’ (Morgan, 2020, n.p.). DI is a pedagogical method characterised by its strong teacher presence (Cullen, 2019), fast pace (Boulton, 2019), scripted presentations with tightly sequenced curricula and activities (Watkins and Slocum, 2003), and can be said to be the providing of information that:

fully explains the concepts and procedures that students are required to learn as well as learning strategy support that is compatible with human cognitive architecture (Kirschner, Sweller and Clarke, 2006: 75).

The notion of “human cognitive architecture” relates to long-term memory where:

... expert problem solvers derive their skill by drawing on extensive experience stored in their long-term memory and then quickly select and apply the best procedures for solving problems (Kirschner, Sweller and Clarke, 2006: 76).

When teachers are using DI with novice learners, cognitive load on working memory is said to be reduced (Sweller, 1988; 2021). What this suggests, then, is that students should not be left to discover concepts by themselves (Cronbach and Snow, 1977; Klahr and Nigam, 2004; Mayer, 2004; Sweller, 2021) because ‘[a]ll problem-based searching makes heavy demands on working memory’ (Kirschner, Sweller and Clarke, 2006: 77). This viewpoint can be particularly problematic for notions and definitions of creativity and creative acts, including composing.

Inquiry learning

In contrast to the DI pedagogical method, the notion of classroom-based composing can be considered “inquiry learning” (also referred to a “problem-based learning”) where, according to Philpott (2001b), composition tasks can range from:

- free choice (expression)
- to open ended tasks
- to solving specific problems in which the expressive and structural ingredients have been limited, for example a Bach chorale, or the whole tone scale

(Philpott, 2001b: 254-255).

Philpott (2001b) also makes it clear that, despite providing a conducive creative environment for composing, creativity may not always blossom:

we have to accept that *sometimes* little creative activity emerges from a situation and at times we cannot be over-critical, for there will be failures (Philpott, 2001b: 254, italics in original).

Some cognitive science researchers (for example, Cronbach and Snow, 1977; Kirschner, Sweller and Clarke, 2006; Klahr and Nigam, 2004; Mayer, 2004; Sweller, 2021) argue against “inquiry-learning” as a pedagogical approach on the basis that teachers provide minimal guidance to students who are engaged in tasks and activities. In other words, compared to a DI approach, ‘minimally guided instruction is likely to be ineffective’ (Kirschner, Sweller and Clarke, 2006: 76).

In response to Kirschner, Sweller and Clarke’s (2006) article, Hmelo-Silver, Duncan and Chinn (2007) argue that:

The authors loosely define minimally guided instruction as a learning context in which “learners, rather than being presented with essential information, must discover or construct essential information for themselves” (Hmelo-Silver, Duncan and Chinn, 2007: 99).

A central point of their argument is that, during “inquiry learning”, students are not minimally guided, but receive ‘extensive scaffolding and guidance to facilitate student learning’ (Hmelo-Silver, Duncan and Chinn, 2007: 99). Teachers – as experts – play an important role in the scaffolding of novice learners;

They guide students in the learning process, pushing them to think deeply, and model the kinds of questions that students need to be asking themselves, thus forming a cognitive apprenticeship (Hmelo-Silver, Duncan and Chinn, 2007: 101).

This is also supported in music education literature, for example Philpott (2001), who states:

[Teachers need to] be prepared to give the type of support pupils need in order to complete tasks, such as help with the technical skills which enhance the work in progress (Philpott, 2001: 255).

In Key Stage 3 group composing literature, one modality of support identified is for the teacher to “stop-and-question” (Fautley, 2002; 2004). Here, the teacher would directly intervene during the composing process and engage in questioning, and the giving of feedback, which would challenge students in their thinking or practice (Fautley, 2004). Alternatively, a teacher may choose not to intervene immediately during the composing process and may opt for a “laissez-faire” approach (Fautley, 2002, 2004). As Fautley (2004) comments:

composing should proceed with as little intervention as possible, and that issues which they [the teacher] wish to address would be dealt with later, either in post-

composing plenary sessions, or in the structure of the next composing task (Fautley, 2004: 211).

What seems clear is that a group composition task, a form of inquiry-based learning, does not mean that students are left to discover or construct essential information for themselves but can indeed be provided with valuable challenge and/or feedback to move their composing forward.

2.4.2: Issues with teaching composing

Teacher confidence and identity

The role of the teacher is an important one for students learning to compose (Berkley, 2004) with some authors noting that successful teaching of composing is most effective when teachers make explicit what composing is and what learning to compose entails (Bolden, 2009; Berkley, 2001; Gould, 2006; Odam, 2000; Regelski, 1975; Plummeridge, 1981).

Teachers, therefore, can better support students' composing when they themselves possess an understanding of the processes involved (Fautley, 2005b; Younker and Smith, 1996).

However, research has shown (for example, Barrett, 2006; Byrne and Sheridan, 2001; Francis, 2012; Mills, 2005; Winters, 2012) that many music teachers find the teaching of composing difficult, particularly if they have not studied it as part of their own school-based curriculum, or as part of their pre-service teacher training. This has been found to impact on day-to-day pedagogical practice, as Byrne, MacDonald and Carlton (2003) report:

Teachers who had composing experience tended to provide fewer opportunities for students to engage in open-ended tasks in favour of more 'correct answer', formulaic work. Teachers who did not consider themselves composers, on the other hand, provided more open-ended activities for students (Byrne, MacDonald and Carlton, 2003: 278).

Several researchers (for example, Barrett, 2006; Odam, 2000; Sheridan and Byrne, 2006; Winters, 2012) posit that both the lack of teacher confidence with their identity as a composer as well as their understanding of creative processes in music, is that they possess a much stronger background in performing. As Winters (2012) comments:

Most prospective music teachers will have a performance background: a high level of musical skill is still the background for most ITE [Initial Teacher Education] secondary music students and this gives rise to the predominance of teacher identity as a performer rather than a composer (Winters, 2012: 21).

Although the present study does not aim to alter or redress the identity of any case-study music teachers who may consider themselves more a “performer” than a “composer”, it is hoped, however, that the use of audio devices and subsequent work-in-progress audio recordings will support *all* teachers with their pedagogical practice, as a form of professional development, in this area.

2.5.3: Section summary and implications for the present study

This section has provided an overview of some research surrounding pedagogies. It shows that Inquiry-based learning is a valid and valuable way of approaching the teaching of composing. This ‘characteristic form of teaching and learning’ (Schulman, 2005: 52), when considered within the specific domain of composing, can be thought of as a “signature pedagogy”. This is in contrast to a teacher-dominated, Direct Instruction method. As such, inquiry learning is of particular relevance to the present study.

Furthermore, although the literature cited in this section has identified that teachers find the teaching of composing difficult, it is hoped that the focus of this research will support *all* case-study teachers with their pedagogical practice, as a form of professional development, in this area.

Chapter 3: Methodology

Introduction

In order to address the research questions (see Section 1.3) and gain an in-depth understanding of the phenomena under investigation – exploring formative assessment and the effects of using an audio device during the Key Stage 3 group composing process – several methodological lenses were applied. These included: case-study, mixed-methods, phenomenology, interpretivism, Activity Theory and Field Theory. This chapter discusses each of these approaches in turn and the rationale for their inclusion within the present study.

3.1: Case-study

This study adopted a case-study approach where each participating school is discussed in turn. This allowed for a deep and holistic understanding (Stake, 1995) of the research foci bound within the real-life context (Yin, 2009) of each school's Key Stage 3 group composing sessions.

Stake (2005) advocates the notion of multiple case-studies commenting that, collectively, they can raise the trustworthiness and reliability of the data collected. However, Creswell warns that: 'the more cases and individual studies, the less depth in any single case' (2013: 101). As such, in conducting multi-site case-studies, there needed to be a balance between the manageability of collecting in-depth data within the timeframe of the research (Mason, 2005). With this in mind, four case-studies (Schools A-D) were conducted within the present study which helped elicit rich data and allowed for multiple perspectives and comparisons from music teachers and students, whilst ensuring that the data collection process was manageable.

Adopting a case-study methodological approach, however, has been criticised for lacking scientific rigour on the basis that the research cannot be easily replicated and, therefore, cannot claim to have findings which are generalisable (Denscombe, 2005; Nisbet and Watt, 1984; Stake, 1995). Whilst this may be true, an important advantage, though, is that a case-study approach can establish insights into a variety of possibilities that may exist within the research being investigated (Cohen, Manion and Morrison, 2011; Day Ashley, 2017; Denscombe, 2005; Merriam, 2001). With regards to the present study, although some generalisations across the four case-study schools could be made, there were also a number of unique insights into the effects of using audio devices. These are discussed further in Chapters 5 (Results) and 6 (Discussion).

3.2: Mixed-methods

Ontologically speaking, following only a quantitative approach suggests that there is one truth and that an objective reality exists which is independent of human perception (Sale, Lohfeld and Brazil, 2002). Epistemologically, from this stance, both researcher and research participants are independent of human perception. The researcher, therefore, investigates the phenomenon without influencing it or being influenced by it. As Guba and Lincoln assert: ‘inquiry takes place through a one-way mirror’ (1994: 110). On the other hand, a qualitative ontology accepts that there are multiple truths, based on one’s social construction of reality (Berger and Luckmann, 1966), which are constantly changing. Epistemologically, researcher and research participants are interactively linked (Creswell and Plano Clark, 2007) so that research findings are mutually constructed within the context of the research which is taking place (Denzin and Lincoln, 1994; Guba and Lincoln, 1994).

The present study adopted a mixed-methods approach by collecting both quantitative *and* qualitative data (Creswell and Plano Clark, 2007; Denscombe, 2010). This was an important consideration in order to gain an in-depth understanding of the research foci for each case-study (Creswell and Plano Clark, 2007; Leech and Onwuegbuzie, 2009). Denscombe (2008: 272) adds that a mixed-methods approach to methodological design research can:

- i) increase the accuracy of data;
- ii) provide a more complete picture of the phenomena under study than would be yielded by a single approach, thereby overcoming the weakness and biases of single approaches;
- iii) enable the researcher to develop the analysis and build on original data; and
- iv) aid sampling.

Several researchers have cautioned the use of a mixed-methods methodology. For example, Chwalisz, Shah and Hand (2008) and Ponterotto and Grieger (2007) have argued that using both approaches can dilute the research design and that the researcher is trying to do too much. Similarly, Giddings (2006) and Sciarra (1999) suggest that the use of mixed-methods is illogical on philosophical grounds.

Although most researchers would agree that all methods of research have their limitations (Ponterotto, Matthew and Raughley, 2013), the ontological position of the present study is that a mixed-methods methodology can complement the research foci in sufficient depth and breadth (Anchin, 2008; Gelo, Braakmann and Benetka, 2008; Lonner, 2009). Moreover, it is worth pointing out that recent studies that have investigated formative assessment (*inter alia*, Brookhart, Moss and Long, 2010; De Lisle, 2015; Herman et al., 2015; Ng, 2014), composing (for example, Fowler, 2014; Savage and Fautley, 2011), and formative assessment within music education (for instance, Hickey, 1995; Thorpe, 2015; Valle, 2015) have all applied a mixed-methods approach to their research.

Pragmatism

Mixed-method research designs are said to ‘work beyond qualitative and quantitative exclusivity and in a “pragmatist paradigm”’ (Johnson, Onwuegbuzie and Turner, 2007: 113). Ontologically, a pragmatic lens is more practice driven than idealistic (Denscombe, 2008), allows multiple versions of the truth (Creswell and Plano Clark, 2007), and helps provide practical solutions to problems in a practical world (Creswell, 2003; Denscombe, 2008; Fontrodona, 2002; Rescher, 2000; Rorty, 2004).

Criticisms of a pragmatic approach also exist. For example, Haack (1997; 2006) and Dennet (1998) criticise the paradigm as being epistemologically relativistic and short-sighted in practicality. In other words, it does not consider the longer-term or wider issues.

The case-study approach applied to the present study allowed for multiple versions of participants' lived experiences to be reported based on the use of an audio device within group composing sessions. Although a limitation of the research might be that it only considered one composing-focused scheme of work for each case-study, the reported lived experiences are practice-driven and can indeed be applicable to the longer-term implementation within the group composing context. These are discussed later in this thesis.

3.3: Phenomenology

In order to better understand the phenomena under investigation – exploring formative assessment and the effects of using an audio device during the group composing process – a phenomenological lens was applied. This helped to provide a clear and valuable insight into the lived experiences of case-study teachers and students (Cohen, Manion and Morrison, 2011; Denscombe, 2005; Marton and Booth, 1997) and was a qualitative lens in which their individual voices could be heard first hand (Denscombe, 2005) ‘in the way that they underst[oo]d things’ (Denscombe, 2005: 99).

This thesis acknowledges that different music teachers, different composing groups, and different individuals within composing groups may have experienced things differently. Therefore, it takes the ontological position that all viewpoints, however different, are equally valid and that there cannot be one reality; rather multiple and complex realities (Creswell, 2009; Creswell and Plano Clarke, 2017; Denscombe, 2005; Newby, 2014).

Denscombe (2005) reports several advantages and disadvantages of applying a phenomenological lens to a research design which were considered carefully in relation to the present study. These are summarised in Table 8.

Advantages of applying a phenomenological lens	Disadvantages of applying a phenomenological lens
Offers the prospect of authentic accounts of complex phenomena.	Lacks scientific rigour.
A humanistic style of research.	Associated with description with no analysis.
The description of experiences can tell a story.	Generalizations from phenomenological studies.

Table 8: Advantages and disadvantages of phenomenological research (Denscombe, 2005: 105-106).

Based on the disadvantages, the present study might be considered, by some, to be less rigorous due to its lack of objectivity, analysis, and measurement (Denscombe, 2005). This is not problematic; the line of inquiry here, being based on each individual’s lived experiences, is deliberately based on subjective, descriptive, and interpreted accounts of using the audio device. With regards to generalizations, Marton (1987) makes it clear that phenomenographers do not generate findings which can be generalised; rather, as Lincoln and Guba state: ‘the only generalization is that there is no generalization’ (1985: 11) and that researchers merely generate awareness so that further inquiries and discussions can take place (Guba and Lincoln, 1989).

3.4: Interpretivism

In supporting a phenomenological approach, an interpretivist lens was also applied. This was an important consideration to this study; the multiple and complex lived experiences of each of the case-study music teachers and students were reconstructed through the interpretation of myself, the researcher (Carroll and Swatman, 2000; Guba, 1990).

Some researchers (for example, Creswell, 2003) argue that it is never possible to completely detach the researcher from the research participants. There are, however, measures that can be put in place to safeguard the influences of the researcher. For example, Gadamer (1990) and Creswell (2013) state that it is necessary for the researcher to identify personal values, assumptions, experiences, and biases from the outset. In response to this, my own positionality of values, assumptions, experiences, and potential biases are openly discussed in Section 4.5.

3.5: Activity Theory (2)

As discussed in Section 2.3.2, Engeström’s (2001) third-generation Activity System is relevant to the present study. By applying Activity Theory as a methodological lens to the phenomenological data gathered, multifaceted complexities and tensions (commonly referred to as *contradictions* within Activity Theory terminology) both within and surrounding the group composing process became “visible”.

Within Activity Theory, *contradictions* can be seen as important to ‘understand the sources of trouble’ (Engeström, 2008: 5) in order to bring about development and change (Addison et al., 2015; Engeström, 2008; Postholm, 2015). Engeström (1987) proposed four levels of contradiction which can occur within and across the activity system(s). These are shown in Table 9.

Primary	The contradictions occur within the elements of the activity system (for example, within the “community”).
Secondary	These contradictions arise between the elements of the activity system (for example, between the “community” and the “subject”).
Tertiary	These contradictions rise when the “subject” has to use an advanced method in order to achieve the “object” (goal) (for example, using a new technology).
Quaternary	These contradictions occur between the central activity system and an outside one.

Table 9: Engeström’s (1987) typology of contradictions.

Identifying contradictions, as this thesis did, can be considered important so that: ‘we can create educational environments [that are] more conducive to learning’ (Engeström, 2016: 3-4). Engeström (2001) refers to these contradictions as “aggravations” where current existing practices (or norms) are questioned, probed, challenged, and reflected on in order to develop a new viewpoint. Engeström (2008) makes it clear, however, that although contradictions play an important part for change and development:

[they] are not the same as problems or conflicts. Contradictions are historically accumulating structural tensions within and between activity systems (Engeström, 2008: 205).

Applying the language of Activity Theory into educational contexts

According to Gedera (2016), using Activity Theory within an educational context requires changes to Activity Theory terminology. This is because Engeström’s (1987; 2001) framework originated in work-related contexts and therefore, in Gedera’s (2016) view, the terminology does not translate suitably into an educational context. For example, Gedera (2016) expresses concern over the “object” node, proclaiming that “objective” is more appropriate for educational contexts even though:

Semantically this use can be considered correct; however, practically, in referring to the purpose of an activity in a classroom, this creates confusion as the term object can mean a real object (i.e. a computer or a book) ... In Activity Theory the term object means a purpose or an objective of an activity (Gedera, 2016: 59).

Gedera (2016) also asserts that, to avoid any confusion with the use of Activity Theory terminology within educational contexts, the following adaptations (shown in Table 10) are considered for clarification.

Activity Theory node		
Engeström's (1987, 2001) original	Gedera's (2016) adaption	Description (taken from Gedera, 2016)
Subject	Participant	The main participant(s) of the activity.
Tools	Tools	These can be physical (instruments), mental (a plan), symbolic (language).
Object	Objective	The purpose of the activity
Rules	Rules	These are the norms, practices and expectations that may control or influence interactions within the activity system.
Community	Community	This represents the co-participants of the activity, for example, peer-pupils.
Division of labour	Roles	The distribution of responsibilities towards the objective. Roles also refers to status and power relations.
Outcome	Outcome	This is the desired results of an activity. Objectives are transformed into an outcome through the mediation of tools.

Table 10: Gedera's (2016) Clarified Activity Theory terminology for use in educational contexts.

In the present study, although the original Activity Theory terminology is used for consistency, Gedera's (2016) advice regarding clarity of key terms is has been considered.

3.6: Field Theory

Since Activity Theory was applied as a methodological lens, it seemed appropriate to also consider Bourdieu's Field Theory. Given that, within a field of study, 'social interaction can only be understood in its own context and field' (Söderman, Burnard and Hofvander-Trulsson, 2015: 6) this consideration was important in order to gain valuable insights into the influences of teachers' and students' previous musical learning, practices, and experiences within the current 'social space' (Dwyer, 2016: 6) of group-based composing.

Within Bourdieu's Field Theory exist three key concepts: field, habitus, and capital. Although, in this section, they are discussed separately, each one does not act alone; rather that they are unconsciously related (Bourdieu, 1993). As such, Bourdieu (1986: 101) summarises this relationship as this equation:

$$[(\text{habitus}) (\text{capital})] + \text{field} = \text{practice}$$

In unpacking this further, Maton (2014) illustrates that:

one's practice results from relations between one's dispositions (habitus) and one's position in a field (capital), within the current state of play of that social arena (field) (Maton, 2014: 50).

Music is considered as part of a wider field of cultural production (Söderman, Burnard and Hofvander-Trulsson, 2015). This makes the consideration of Field Theory an important addition to an Activity Theory methodology where composing practices in each case-study school can be deconstructed and questioned (Devaney, 2018).

Field

For Bourdieu (1971), the notion of “field” (in this context referred to as *le champ*⁹) is ‘*inter alia* an area of land, a battlefield, and field of knowledge’ (Thompson, 2014: 66, italics in original) which has its own set of rules, behaviour, beliefs, values, and doxa (Söderman, Burnard and Hofvander-Trulsson, 2015). Bourdieu thought of social life as a game (Bourdieu, 1984), particularly a football game, which:

consisted of positions occupied by agents (people or institutions) and what happens on/in the field is consequently bounded (Thompson, 2014: 67).

The analogy of the football field, in Bourdieu’s view, is competitive, where agents can use different strategies to either improve or maintain their position within the space. What this means, therefore, is that there is not a level playing field within the social space because, as Thompson (2014) explains:

players who begin with particular forms of capital [discussed later] are advantaged at the outset because the field depends on, as well as produces more of, the capital. Such lucky players are able to use their capital advantage to accumulate more and advance further (be more successful) than others (Thompson, 2014: 67).

In other words, within such an ‘arena of production’ (Burnard, Hofvander-Trulsson and Söderman, 2015: 231), there are some with a ‘specific gravity’ (Wacquant, 1992: 89) who can be “dominant” and those who have decision-making powers in which the field functions. As such, each field (that is, each composing group) can be different; ‘they have their own rules, histories, star payers, legends and lore’ (Thompson, 2014: 67).

⁹ As opposed to *le pré* (also meaning “field”) which refers to a meadow (Thompson, 2014).

Habitus

“Habitus” is, perhaps, one of Bourdieu’s most cited concepts (Maton, 2014) and is considered to be:

central to [his] distinctive sociological approach, “field theory” and philosophy of practice, and it is key to his originality and contribution to social science (Maton, 2014: 48).

Despite *habitus* being an oft-cited notion it ‘is also one of the most misunderstood, misused and hotly contested of Bourdieu’s ideas’ (Maton, 2014: 48). In defining the term, Bourdieu states that a *habitus* comprises of a ‘structured structuring structure’ (1984: 170). According to Maton (2014), this means that it is:

“structured” by one’s past and present circumstances, such as family upbringing and educational experiences. It is “structuring” in that one’s habitus helps to shape one’s present and future practices. It is a “structure” in that it is systematically ordered rather than random or unpatterned (Maton, 2014: 50).

In other words, a *habitus* can be viewed as a means of expressing how an individual ‘becomes themselves’ (Burnard, Hofvander-Trulsson and Söderman, 2015: 232). It is also a concept which cannot be considered fixed; but viewed as something which is constantly evolving throughout our lives (Butler, 2019; Dwyer, 2016; Hodkinson, Biesta and James, 2008; Reay 2004) through ‘change and self-revision’ (Dwyer, 2016: 16).

The notion of *habitus* has been explored within music education literature. For example, Burnard (2012) discusses the notion of musical habitus which:

is acquired in the family as the product of early childhood experiences, along with schooling. It provides a general disposition, within which creative practices and

narratives exteriorize themselves as subtle descriptions, which involves unwritten ‘rules of the game’ (the range of possibilities inscribed in the field), and which can be analysed independently of the characteristics of the occupants (Burnard, 2012: 267).

Such “subtle descriptions” can be described, according to Butler (2019), as one who believes themselves to be *musical* or *unmusical*.

In a study of teacher practice in the Irish primary school context, Stakelum found that music teachers had a ‘legacy of cultural practices on which to draw’ (2008: 99). Furthermore:

Their [the teachers’] attitude to these cultural practices were shaped by their own formative experiences and ranged from negative to positive. From this legacy they have selected which of these cultural practices and skills are worth reproducing in their practice. They tended to reproduce the practices which they valued as relevant in their own lives, and considered to have cultural capital for the pupils they teach (Stakelum, 2008: 99).

Similarly, within the Australian secondary school context, Dwyer found that ‘teacher’s [current] values and beliefs were based on aspects of their own experience of school music education’ (2016: 134), therefore ‘demonstrat[ing] the influence of the teachers’ habitus on their classroom practice’ (Dwyer, 2016: 134).

Such “values”, in Bourdieusian terms, can be referred to as *doxa* which refers to a:

set of core values and discourses which a field articulates as its fundamental principles and which tend to be viewed as inherently true and necessary (Burnard, Hofvander-Trulsson and Söderman, 2015: 231).

In education, the notion of *doxa* can be important when considering teaching practices, for example, because the concept of tradition can be silent (Bourdieu, 1977), and ‘what is

essential goes without saying because it comes without saying' (Bourdieu, 1977: 167). In other words, teaching practices and pedagogies may often be taken for granted (Bourdieu, 2000) and, therefore, become 'unanimously unquestioned' (Deer, 2014: 115).

Capital

According to Moore, capital can be understood 'as the "energy" that drives the development of a field through time' (2014: 102). Moore (2014) goes on to unpick different forms of capital. For example:

In one form, capital is *objectified*. It is materially represented in things such as art works, galleries, museums, laboratories, scientific instruments, books, and so on – artifacts of various kinds. In another form, capital is *embodied*. Here, the principle of the field is incorporated within the corporality of the person as principles of consciousness in predispositions and propensities and in physical features such as body language, stances, intonation and lifestyle choices (Moore, 2014: 102, italics in original).

A third type of capital is also identified in the form of *habitus* (Moore, 2014). Here, this form of capital 'does not have a material existence in itself in the world since it includes attitudes and dispositions' (Moore, 2014: 103). An individual's *habitus* can transform through acquiring further capital which can lead to a 'change of position within the field' (Butler, 2019: 57).

Bourdieu (1989) identified four types of capital: economic (financial), social (affiliations, networks, family, religious), symbolic (qualifications, education), and cultural (knowledge, taste, aesthetic and cultural preferences, language, and voice). Cultural capital is considered

to be Bourdieu's most well-known contribution to literature (Hanquinet and Savage, 2016) and is considered to reflect 'both the value of art works and the capacity of gifted individuals to appreciate them (Butler, 2019: 59). It has been referred to as 'being in the know' (Burnard, 2015: 199) and is considered to have 'symbolic value in the way it "buys" social distinction' (Grenfell and Hardy, 2007: 44).

Gaining capital enables social advancement within a particular field (Devaney, 2018; Dwyer, 2016). Education, therefore, is considered an important means for students to gain cultural capital and thus improve social mobility (Webb, Schirato and Danaher, 2002). As Bourdieu (1986) posits:

With the academic qualification, a certificate of cultural competence which confers its holder a conventional, constant, legally guaranteed value with respect to culture, social alchemy produces a form of cultural capital which has relative autonomy vis-à-vis the cultural capital he [or she] effectively possesses at a given moment in time. It institutes cultural capital (Bourdieu, 1986: 20).

Although, Key Stage 3 does not end with an academic qualification some students within the present study had been successful in previously achieving graded performance examinations in the same instrument or vocal discipline which was also used during the group composing process. These details are given further when each case-study is discussed.

3.7: Chapter summary and implications for the present study

In order to gain a deep understanding of the phenomena under investigation – exploring formative assessment and the effects of using an audio device during the Key Stage 3 group composing process – a number of methodological lenses were applied. Combining case-study, mixed-method, phenomenological, interpretivist, Activity and Field Theory approaches provided a valuable, in-depth (Creswell and Plano Clarke, 2007; Leech and Onwuegbuzie, 2009) and pragmatic (Denscombe, 2008) understanding within, as well as across, different school settings.

The decisions made on these methodological approaches allowed for all those involved in the research, music teachers and students alike, to have their individual voice heard so that all lived experiences, however different, were treated as equally valid. The ontological position of the present study, therefore, was that one single reality did not exist; rather multiple and complex realities (Creswell, 2009; Creswell and Plano Clarke, 2017; Denscombe, 2005; Newby, 2014).

Some of the multiple and complex realities relevant to this study were identified as sources of tension, or *contradictions*. These became “visible” through the application of a third-generation Activity Theory lens and warranted further exploration and discussion due to their impact on the group composing process. It is worth noting that although the application of Activity Theory is still emerging in music education literature, research studies, as yet, do not seem to have applied this lens to Key Stage 3 group composing. As such, its application within the present study can be considered a novel contribution to literature in this area.

In supporting the application of Activity Theory, the present study also considered Bourdieu’s Field Theory in order to better understand the influence of teachers’ and students’

previous (or historical) musical learning, practices, and experiences within group-based composing. Within this context, this provided valuable insights into ‘understanding music and social life’ (Burnard, Hofvander Trulsson and Söderman, 2015: 4) which can inform of ‘new possibilities, new assemblies, new ways of seeing relationships’ (Bernstein, 1996: 136).

The ‘inter-dependent and co-constructed trio’ (Thompson, 2014: 67) of *field*, *habitus*, and *capital* which make-up ‘the structure and conditions of the social contexts Bourdieu studied’ (Grenfell, 2014: 2), in addition to an Activity Theory methodology, allowed for student and teacher composing practices to be deconstructed and questioned (Devaney, 2018).

Chapter 4: Methods

Introduction

In order to address the research questions (Section 1.3) with sufficient breadth and depth a variety of approaches to data collection were applied to each case-study. These included including pre- and post-study teacher and focus group interviews, and observational data of in situ group composing throughout the duration of a composing-focused unit of work. To support the variety of methodological lenses applied to the present study (Chapter 3), this chapter discusses each of the data collection methods used as well as reasons for their inclusion. Adaptations to the choices of data collection methods are also discussed.

Table 11 shows the amount of data analysed for each data collection method. In all, approximately 14 hours and 39 minutes'-worth of data were analysed comprising of interviews (circa 6 hours and 28 minutes) and observations (around 8 hours and 11 minutes). As the present study focuses on the *process* of group composing, it is appropriate that the largest amount of data collected comes from the observation method.

Data type	Case-study	Amount of time per case-study (hours:minutes:seconds)	Total amount of time for data type (hours:minutes:seconds)
Pre-study teacher	1. School A (pilot)		01:31:15
	2. School B	00:30:57	
	3. School C	00:31:46	
	4. School D	00:28:32	
Pre-study focus-group	1. School A (pilot)		01:51:03
	2. School B	00:39:13	
	3. School C	00:43:04	
	4. School D	00:28:46	
Observations of composing	1. School A (pilot)	01:49:14	08:11:24
	2. School B	02:34:40	
	3. School C	01:38:11	
	4. School D	02:09:19	
Post-study teacher	1. School A (pilot)		01:11:41
	2. School B	00:23:48	
	3. School C	00:25:34	
	4. School D	00:22:19	
Post-study focus-group	1. School A (pilot)		01:54:19
	2. School B	00:37:57	
	3. School C	00:32:35	
	4. School D	00:43:47	

Table 11: Data collection methods and amount of data to be analysed.

4.1: Sampling

Some consider Randomised Control Trials (RCTs) to be the ‘gold standard’ of research (Evans, 2003: 83; Hutchinson and Styles; 2010; Outhwaite, Guiliford and Pitchford, 2020; Torgerson and Torgerson, 2008) where they are viewed as ‘the only method capable of providing secure evidence about “what works” in education’ (Biesta, 2007: 3). For these reasons they are increasingly used to inform education policy (McPherson, Saltmarsh and Tomkins, 2020). However, this was not the approach I took in the present study. This is because RCTs prioritise more objective methodologies (McPherson, Saltmarsh and Tomkins, 2020) and give the

impression that decisions about the direction of educational policy and the shape and form of educational practice can be based solely upon factual information (Biesta, 2009: 35).

Furthermore, despite their preference, by some, what RCT methods lack is an understanding of the value of qualitative methods as well as the social complexities of educational research (Berliner, 2002; Erickson and Gutierrez, 2002). Given that the present study focuses on the notion of group composing, where social interactions can be considered crucial, including an RCT method did not seem appropriate. As such, having sought to apply an interpretivist lens to the methodological design (Section 3.4), multiple perspectives and realities of lived experiences were able to be obtained from working with a variety of schools, participants, and year groups within the Key Stage 3 context. In order to do this, selection and sampling of schools and composing groups were considered.

Convenience sampling

Schools in the present study were situated in the English midlands and chosen for their convenience (Denscombe 2010; Newby, 2014). I believed this to be a useful decision because, as Stake (1995) posits:

Our time and access for fieldwork are almost always limited. If we can, we need to pick cases which are easy to get to and hospitable for our inquiry (1995: 4).

Case-study schools were chosen for three reasons: first, because of their ease to travel to; second, given my one-day-a-week capacity as a researcher, music departments were required to teach Key Stage 3 music on a Monday; and third, at the time of the research taking place, students would normally be studying a composing-focused unit of work.

Although school selection was done through convenience sampling, I was keen to ensure that a broad range of school types were included in the data. Details regarding case-study schools are shown in Table 12. It should also be acknowledged that schools in the research sample were all non-selective, mixed-gender, mainstream schools. This was a similar approach to Fautley's (2002) PhD research which also investigated the group composing process in Key Stage 3. This was a conscious decision in order to allow the potential for a greater range and variety of teacher and pupil backgrounds, including musical backgrounds, within the data collected.

Having collected data from the Schools A (pilot study), B, and C, I was concerned that the research was focusing too much within White-British contexts. As such, School D was a valuable addition where perspectives from different ethnic groups could be included.

Case-study school	School type	Most recent Ofsted grade	School size and population	Proportion of SEN, EAL & PP ¹⁰
School A (pilot)	High School Academy	Good	Smaller-than-average Majority White-British.	Below national average
School B	Middle (deemed secondary) School	Inadequate	Smaller-than-average Majority White-British	SEN: In-line with national average PP: Below national average
School C	Middle (deemed secondary school)	Good	Average-sized Majority White-British	Below national average
School D	High School Academy	Outstanding	Larger-than-average. Proportion of students from minority ethnic heritages is well above the national average; the largest groups are from Black African, Indian and Other White backgrounds, the latter being mainly of Roma origin.	Well above national average

Table 12: Case-study school sample details.

¹⁰ School proportion of Special Educational Needs and or Disabilities (SEND), English as an Additional Language (EAL) and Pupil premium (PP).

Purposive sampling (focus group)

Subject to individual participant and parent/carer consent, one composing group within a Key Stage 3 year group was then pre-selected by the music teacher to act as a focus group for the research inquiry. Although Denscombe comments that, within purposive sampling, ‘the researcher already knows something about the specific people’ (2010: 15), this was not the case in the present study. Here, because I had no prior knowledge of students in the music classes, the music teacher was given the “power” to select a composing group they considered to be broadly representative of the class, and who normally worked together in class-based musical activities. During our initial pre-study discussions, I was keen for composing groups to be mixed-gender and mixed-ability. This was taken into consideration. This allowed for both female and male perspectives, as well as a variety of musical “abilities” to be included in the data. Initial music teacher and composing group details are shown in Table 13 and will be discussed in more depth when reporting results from each case-study.

Case-study School	Music Teacher		Composing group		
	Gender	Number of years teaching	Key Stage 3 year group	Gender split (female : male)	Any relevant non-musical information about individual students
School A (pilot)	Male	10-years	Year 9	2 : 3	N/A
School B	Female	4-years	Year 8	2 : 2	N/A
School C	Female	27-years	Year 7	2 : 2	1 student (Student 4) in the group was on the Special Educational Needs register.
School D	Male	17-years	Year 7	2 : 1	2 students (Students 1 and 3) in the group had English as an Additional Language. All students were Pupil Premium students.

Table 13: Case-study music teacher and composing group sample details.

Saturation

The notion of saturation was also considered. Taken from a Grounded Theory approach:

Saturation means that no additional data are being found whereby the sociologist can develop properties of the category. As he [or she] sees similar instances over and over again, the research becomes empirically confident that a category is saturated (Glaser and Strauss, 1967: 61).

Although common codes were identified across the different case-studies, true saturation, as defined above, was not possible on the grounds that data collection needed to be 'manageable and realistic' (Devaney, 2018: 94). Furthermore, it should be emphasised that formative assessment practices (Section 2.1.5) can be context bound (Bennett, 2011; Wiliam, 2006) and it should not be assumed that all codes identified are common to the wider population of music teachers and composing groups.

4.2: Observations

Observations are considered to be a highly effective research method; they allow the researcher to witness what happens *in situ* within the focus of the study (Cohen, Manion and Morrison, 2011; Denscombe, 2005; Newby, 2014). This is something which cannot happen by using only questionnaires or interviews since the data they elicit are based on what participants *tell* the researcher (Cohen, Manion and Morrison, 2011; Denscombe, 2005).

A particular strength of applying observations to research is that they:

[have] the potential to yield more valid or authentic data than would otherwise be the case with mediated or inferential methods (Cohen, Manion and Morrison, 2011: 456).

For example, Robson and McCartan (2015) assert that, on a day-to-day basis, what people do (theory-in-use) may differ from what they say they do (espoused theory) (Argyris and Schön, 1974). I believed this an important consideration when applying a phenomenological lens (Section 3.3) because it drew me into the:

complexity of participants' worlds; situations unfold, and connections, causes and correlations can be observed as they occur over time (Cohen, Manion and Morrison, 2011: 458).

However, one problem with observational research relates to the:

frailties of human memory and the way that we cannot possibly remember each and every detail of the events and situations we observe (Denscombe, 2005: 193).

In response to this important issue, data collected from the each of the four student focus group case-studies were video recorded throughout the duration of a composing-focused unit

of work. Atkins and Wallace (2012) identify several advantages of using video recorders to collect research data:

- They record throughout the duration of the observation;
- They make a complete transcription possible;
- They allow the researcher to construct an accurate transcription which can be checked with the participant(s); and
- They allow the researcher to evaluate their observation skills.

Whilst these advantages are also applicable to making audio recordings, a particular advantage of collecting video recorded data is that they can also record body language (Atkins and Wallace, 2012), something which would be very difficult for me to observe within a group composing context with just audio data.

The location of observations

Focus group observations of composing work occurred within a naturalistic setting where music lessons occurred during their normal timetabled slot. Burnard (2000) notes that, for optimum results, data collection is better done in a situated context. In relation to the present study, all group composing case-studies occurred in a practice room. I felt this was an important consideration because it meant that video recorded data would not be affected by extraneous noise from other composing groups. Ecological validity was upheld because groups working in available practice rooms was normal procedure in all case-study schools.

Researcher positionality: Participant observer

My original intention was to be a non-participant observer in each of the case-studies so as not to influence the direction of the research and students' work (Newby, 2014). As such, even though I was presented to all students as a music teacher and university researcher, to continue to be a non-participant observer felt somewhat fraudulent and students' trust in me might have been affected (Robson and McCartan, 2015). In particular, this might have been the case when groups asked me to listen to their work and give them feedback. Upon reflection, I moved to be a participant observer, an "insider" (Atkins and Wallace, 2012), where my dialogues with groups were consciously concentrated on the technicalities of playing instruments, positive praise, and questioning groups about their general musical interests. This position, provided the potential to gather deeper and more detailed data:

This insider role status frequently allows researchers more rapid and complete acceptance by their participants. Therefore, participants are typically more open with researchers so that there may be a greater depth to the data gathered (Dwyer and Bucklem, 2009: 58).

Through changing my observational position, the concept of a "dual role" (Humphrey, 2012; Robson and McCartan, 2015) was not problematic because the video recorder continued to record during each composing session which meant that I could engage in dialogue with composing groups, including the focus group, without fear of missing important areas of interest. This also meant that I was able to balance building a rapport with all students, and collecting rich data for analysis, whilst ensuring I did not significantly affect or influence the data, nor create ethical concerns.

It should be considered, however, that my "insider" presence within the research inquiry could have meant that the Hawthorne effect (Mayo, 1933), where something improves when

it is being observed, may have meant that students could have been working at a higher level than normal. Although this is a concern, I was conscious to treat each composing group the same (for example, same approximate time spent with each group and same sort of dialogues with groups, as specified above), so this might only have had a limited effect and would not likely have affected the focus group more than the other groups not involved in the research.

Adapting the research methods of the present study

The original intention was to gather only live data from video recorded composing sessions throughout a composing-focused unit of work. This was carried out during the pilot study (School A). Although the data elicited was rich in addressing the research questions, the data gathered lacked potentially crucial contextual information for a deeper and more holistic understanding. In other words, the data only focused on *what* happened and did not consider *why* it happened (Denscombe, 2005). As such, interviews were added as a data collection method for the main case-studies (Schools B-D).

4.3: Interviews

Both Atkins and Wallace (2012) and Oppenheim (1992) suggest that interviews have a greater response rate rather than questionnaires. With interviews respondents can become more involved and motivated; they enable more to be said about the research than is usually mentioned in the questionnaire; and they are better for handling more difficult open-ended questions. Denscombe (2005) suggests other advantages to using interviews as a data collection method. These are summarised in Table 14.

Advantage (Denscombe, 2005)	Reason
Depth of information	Where participants can be probed, where necessary, so explanations of responses can be collected in sufficient detail.
Insights	Where the researcher can gain valuable insights into how participants perceive reality.
Equipment	Interviews only require limited equipment and conversation skills to build and extend on information given.
Informant's priorities	Interviews allow for participants to prioritise what they see is important to them, with supporting opinions and ideas.
Flexibility	Interviews allow for adjustments in lines of inquiry, even during the interview itself.
Validity	Interviews allow for direct contact with a participant and also the checking of information given for accuracy.
High response rate	Interviews which are pre-scheduled at a convenient time and location for the researcher and the participant help ensure a high response rate.
Therapeutic	Compared to questionnaires and observations, interviews allow for a more personal element of data collection and provide the opportunity for participants to talk through their thoughts and ideas to a person whose purpose is to listen and not be critical.

Table 14: Advantages of conducting interviews (Denscombe, 2005).

Within the present study, pre- and post-study interviews were conducted with each case-study's music teacher as well as each student focus group involved in the research. Details regarding sampling of schools, teachers, and student composing groups were previously discussed in Section 4.1.

Semi-structured interviews

According to Robson (2002), semi-structured interviews include:

... predetermined questions, but the order can be modified based upon the interviewer's perception of what seems appropriate. Questions/wording can be changed and explanations given; particular questions which seem inappropriate with a particular interviewee can be omitted, or additional ones included (Robson, 2002: 270).

Semi-structured pre- and post-study interviews were conducted in the present study as these allowed for flexibility (Robson, 2002; Robson and McCartan, 2015) where participants were able to develop ideas and speak more widely on the issues they raised (May, 2001; Mears, 2017), particularly for open-ended questions. As with observational data gathered, individual music teacher and student focus group interviews were video recorded to allow for the identification of any non-verbal cues which may have occurred (Atkins and Wallace, 2012) as well as to provide clarity as to the individual speaking within the student group interview. To capture non-verbal cues during an interview was considered important; as Robson and McCartan (2015) note, they have the potential to change or even, in some cases, reverse meaning of what an interviewee might be trying to express. Recordings were transcribed following the interviews and checked with interviewees for their accuracy.

Since interviews were not included in the pilot study, an important part of the planning stage for semi-structured interviews was to trial the pre-determined questions (Mason, 2005). As such, teacher interview questions were piloted to ensure their clarity and flow with two music teacher colleagues not involved in the research. Similarly, student group interview questions were tested with small groups of pupils, again not involved in the research, covering a variety of learning needs (including students with English as an Additional Language and those who

were identified as having a Special Educational Need and/or Disability), and year groups, within classes of the two music teacher colleagues.

Student group interviews

In the present study, student interviews were conducted in groups. This was an important consideration because it meant that the data collected were consistent to the observational data gathered. A particular advantage of a group-based interview is that it provides the opportunity for students to interact with each other. As Lewis (1992) states:

Group interviews have several advantages over individual interviews. In particular, they help to reveal consensus views, may generate richer responses by allowing participants to challenge one another's views, may be used to verify research ideas of data gained through other methods and may enhance the reliability of ... responses (Lewis, 1992: 413).

Despite the advantage of gaining richer data, an important disadvantage of group interviews to consider is the potential “drowning out” of the, potentially, more quieter students in the group; some students in the group may dominate the talk (Denscombe, 2005). Another disadvantage could be that the perceived viewpoints are common to all in the group when, in actual fact, there may be a contrasting opinion which a student has kept quiet about. To problematise these during the process of group interviews, I was mindful to allow every student to contribute as well as to ask for any contrasting viewpoints to provide the opportunity for all students' voices to be heard.

4.4: Triangulation

Triangulation is important to support the credibility and accuracy of the research findings (Biesta, 2017) and is often referred to as an advantage of using a mixed-methods approach (Gorrard and Taylor, 2004; Greene, Caracelli and Graham, 1989; Tashakkori and Teddlie, 1998) which was discussed previously in Section 3.2.

Denzin (1978) is commonly cited as one of the first researchers to relay the importance of triangulation, citing four types:

1. Data triangulation (the use of a variety of data sources in a study),
2. Investigator triangulation (the use of several different researchers),
3. Theory triangulation (the use of multiple perspectives to interpret the results of a study),
4. Methodological triangulation (the use of multiple methods to study a research problem).

(Cited in Tashakkori and Teddlie, 1998: 41)

As Table 15 shows, the present study applied numbers 1, 3 and 4 of Denzin's (1978) types of triangulation. As I was the sole researcher for the present study number 2 was not relevant.

Type of Triangulation (Denzin, 1978)	Triangulation Example	How it was applied in the present study
Data triangulation	Data collection methods	Pre- and post-study interviews, observations.
Theory triangulation	Locations and participants	Multi-site case-studies, music teachers and student focus-groups.
Methodological triangulation	Methodological lenses	Mixed-methods

Table 15: The application of Denzin’s (1978) types of triangulation in the present study.

As previously stated (Section 4.1), the present study was conducted in four case-study schools all of which were located in the English Midlands. This multi-site approach allowed for comparisons to be made, including similarities and differences, within the research findings from multiple perspectives.

Figure 22 illustrates that the sequential use of pre-study interviews (teacher and student focus group), in situ observations throughout the composing unit-of-work, and post-study interviews provided the opportunity for triangulation where any potential discrepancies could be identified between what was said in the interview and what actually took place during the composing sessions.

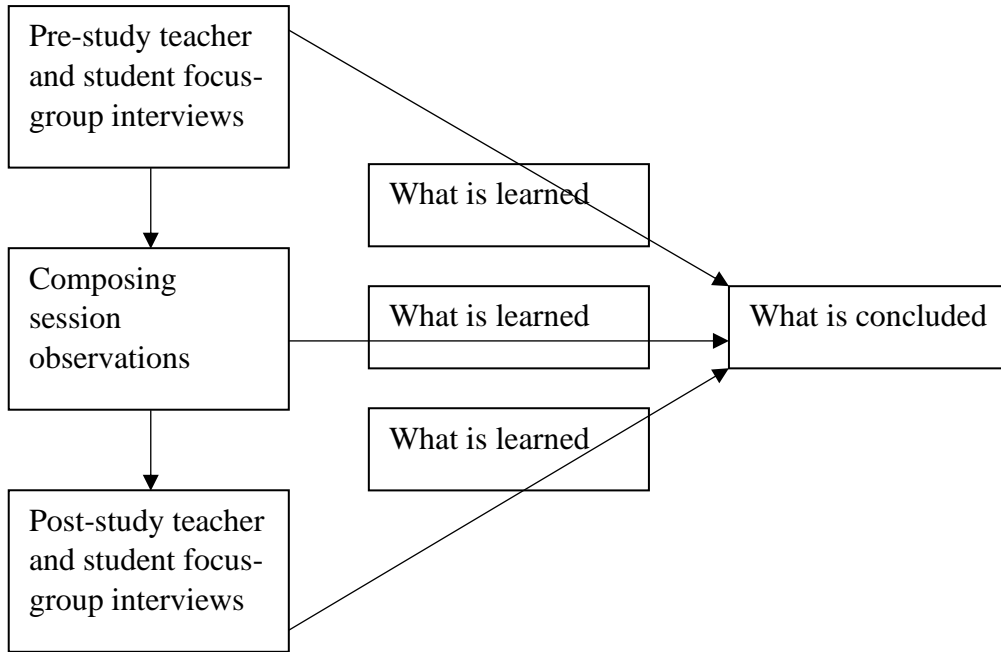


Figure 22: The principle of triangulation (adapted from Newby, 2014: 131).

4.5: Reflexivity of my own positionality as a researcher

Interpretation is a process in which our preconceptions and prejudices evolve in reciprocal interaction with the data and text we consider [...]. Without prejudices, we cannot even begin to approach the data; without data we cannot begin to alter our preconceptions (Gadamer, 1990: 236).

In light of the statement from Gadamer above, the notion of reflexivity is thought to be essential (Merriam, 2001; Stake, 2005) and offers the opportunity for researchers to self-reflect on any biases and perspectives (Schwandt, 2001). As I was the primary (and only) instrument of data collection and analysis for the present study, the possibility to engage in self-critical reflexivity was important.

Being part of a research study will carry with it certain advantages (Hockey, 1999). In the case of the present study, it enabled me to develop an understanding of the research from multiple perspectives and in different contexts. Despite this, it could be considered naïve not to also acknowledge the potential limitations (Labree, 2000). For example, a common criticism against the researcher as an “insider” is their closeness to the participants which can, potentially, lead to bias (Peshkin, 1988), thus representing a threat to the impartiality of the study. The danger is potentially being too influenced by particular perspectives or, indeed, empathising with a particular group so that data are interpreted as ‘seeing what we want to see’ (Wragg, 1999: vii).

Miles and Huberman state that it is important for researchers, ‘to be explicit about [their] biases’ (1994: 4). This position is supported by other researchers (*inter alia*, Denzin and Lincoln, 2000; Maxwell, 2005; Simons, 2009) who, despite arguing that qualitative methods

are inherently subjective and that it is impossible to eliminate subjectivity completely, stress that every effort should be made to minimise such threat. Furthermore, researchers who include qualitative data as part of their research design, as this study did, should also relay the increased importance of the need for reflection on their positionality as a researcher within the field (Berger, 2015; Erun and Erdermir, 2010; Ezzy, 2010; Humphrey, 2007; Mannay, 2010; Soni-Sinha, 2008; Taylor, 2009; Turner, 2010).

Therefore, in search of my own intrinsic subjectivities (Peshkin, 1988; Savage, 2007), I found it highly useful to reflect upon the following chronological points which, I believe, have been an important influence in my life:

The musician as performer I

Music has been a huge influence in my life. Despite coming from a musical family, I did not begin clarinet lessons until the age of 14 with piano lessons approximately a year later. The discipline of practice and performance, particularly on the piano, allowed me to succeed in graded examinations, diplomas, and competitions leading to university and conservatoire placements. Following years of expert tuition from an international concert pianist, I have been able to engage in professional concerts including solo recitals, ensemble performances, concerto performances, and performances for the BBC.

The musician as composer I

Having grasped a knowledge of the sonorities of the clarinet and the piano, I have enjoyed writing pieces of my own. I have never had any “formal” training on how to compose, even during my early years at school. Instead, I would listen to some of my favourite composers (for example, Beethoven, Piazzola, Schoenberg, among others) and attempt to mimic their style. From my performing side, I have given several performances of my own compositions to audiences around Leicester, where I am originally from.

The classroom teacher I

Ever since I began clarinet and piano lessons, I have always wanted to be a music teacher. As such, I gained my PGCE in secondary music from Birmingham City University in 2010.

Although I then moved to Manchester, my first teaching post was, in fact, in Birmingham. I have always relished the chance to share my knowledge with younger students and develop them into musicians. Although performing and listening and appraising are key components of the National Curriculum, I have always made sure that I spend a good amount of lesson time getting students to compose – partly because this was not instilled in me as a young musician.

The leader I

This is where I can relate to Peshkin's (1988) notion of the pedagogical-meliorist. As a former middle leader (Head of Music and Head of Modern Foreign Languages) and now senior leader (currently Head of Assessment and responsible for teacher development), when I engage in lesson observations, I sit at the back of the classroom watching teaching and learning unfold, and may sometimes think of how the students could indeed suffer as a result of the teaching. While I could never undermine a teacher during the lesson taking place, I, like Peshkin (1988), want 'to remedy the [potentially] poor teaching I observed' (1988: 20). Whilst this would normally take place in the feedback which follows an observation, I have to confess to the desire to intervene as teaching and learning takes place.

The staff governor I

For several years, I have been a staff governor at my present school which has led to me maintaining my current leadership position within our Multi-Academy Trust. As a staff governor, I am the only representative for all staff members within the Trust of schools and, therefore, I have the role of bringing forward a staff-viewpoint and perspective to discussions

and debates at meetings. The role of staff governor is a unique one; given the role of a teacher, I am involved and partly responsible in the day-to-day running of the school and yet the role of a governor (including staff governor) is to put this to one side and to be a “strategic manager”.

The early career researcher I

Having completed a Masters in teaching and Learning (MTL), with Birmingham City University, one of the more enjoyable moments was disseminating my research findings to my colleagues at work. Some of my previous research inquiries included: the effectiveness of teacher written comments on students’ work; an analytical study of the lesson observation process; and investigating the main causes of stress for Year 11 students when being prepared for public examinations. Whilst I was proud to share my research (all of which were based on findings from my current school), I particularly enjoyed questioning the school’s policy documents and seeing how my inquiries have resulted in significant changes to policy decisions.

4.6: Data analysis

In applying a mixed-methods lens (Section 3.2) to the chosen case-study data collection methods (Sections 4.2 and 4.3), data analyses throughout the present study were ‘not a *linear* process’ (Braun and Clarke, 2006: 16, italics in original), but iterative. A visual representation of this is shown in Figure 23.

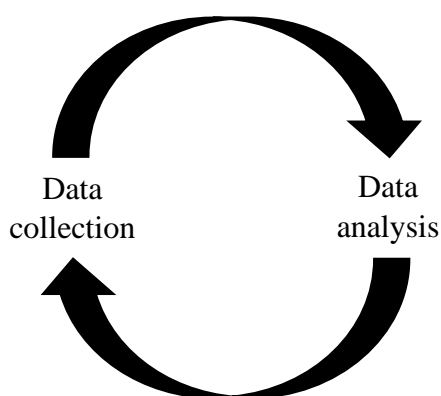


Figure 23: An iterative approach to data collection and analysis.

This present study applied different data analyses for different data collection methods. For example, pre- and post-study teacher and focus group interview data (Semi-structured interview questions are shown in Appendix 1) were analysed and coded using Thematic Analysis, whereas in-process observational data of group composing sessions were analysed and coded using Systematic Observation Discourse Analysis and Episodic Sequencing. In all, the variety of methods used were found to be highly beneficial in providing sufficient depth in answering the research questions (Section 1.3). Each of these chosen analytical methods are discussed in turn.

Citing Attride-Stirling (2001), Braun and Clarke state that it is important to be explicit about the ‘process and practice’ (2006: 7) of the research method(s) chosen because:

If we do not know how people [researchers] went about analysing their data, or what assumptions informed their analysis, it is difficult to evaluate their research, and to compare and/or synthesise it with other studies on that topic, and it can impede other researchers carrying out related projects in the future (Attride-Stirling, 2001), cited in Braun and Clarke, 2006: 7).

Although my own potential biases and perspectives have been discussed in Section 4.5, the following sub-sections clarify how each analytical method was used, with reasons for doing so, in the present study.

Sociocultural discourse analyses

In the present study, the discourse analyses detailed below can be surmised as being sociocultural rather than linguistic (Mercer, 2010). This is an important distinction because the interest of the analyses was on the ‘content, function, and the ways shared understanding [was] developed, in social context, over time’ (Mercer, 2010: 9), and less concerned with the ‘organizational structure of spoken language’ (Mercer, 2010: 9). In the present study, there were two types of methods used to analyse discourse: Thematic Analysis and Systematic Observation Discourse Analysis.

Thematic analysis

Braun and Clarke posit that Thematic Analysis is a ‘rigorous’ (2006: 2) and ‘systematic framework for coding qualitative data, and then using that coding to identify patterns across the data set in relation to the research question[s]’ (Braun and Clarke, 2014: 1-2). It is a deliberately ‘flexible method’ (Braun and Clarke, 2006: 2) of analysis and:

offers a really useful qualitative approach for those [researchers] doing more *applied* research ... or when doing research that steps outside of academia, such as into the policy and practice arenas. TA [Thematic Analysis] offers a toolkit for researchers who want to do robust and even sophisticated analyses of qualitative data, but yet focus and present them in a way which is readily accessible to those who aren't [sic] part of academic communities (Braun and Clarke, 2014: 2, italics in original).

Thematic Analysis was a relevant analytical method for the present study for two reasons: first, in light of the quotation from Braun and Clarke (2014) above, the focus of the present study was indeed considered “applied research” which investigated the effects of audio devices on teaching and learning practices during the group composing process; and second, given that summaries of case-study findings were to be disseminated and shared with those involved both directly and indirectly in the research (including pupils, parents, music teachers, Senior Leadership Teams and Governors/Trustees, for example), it was important that themes identified could be understood by non-academic audiences, whilst still ensuring an in-depth and sophisticated analysis overall.

According to Braun and Clarke (2006), Thematic Analysis consists of six phases:

1. Familiarisation with the data;
2. Generating initial codes;
3. Searching for themes;
4. Reviewing themes;
5. Defining and naming themes; and
6. Producing the report.

They continue:

[It] is not a linear process where you simply move from one phase to the next. Instead, it is more *recursive* process, where you move back and forth as needed throughout the phases (Braun and Clarke, 2006: 16, italics in original).

The first phase of *familiarisation with the data* involved immersing myself in the data through ‘repeated reading’ (Braun and Clarke, 2006: 16). Through becoming more familiar with the depth and breadth of the data collected, initial patterns were found. Transcription of verbal data was also an important part of this phase and supported the familiarisation of the data. As Mercer (2004) asserts:

For all kinds of discourse analysis, it is important that the transcription of speech is a faithful representation of what is actually said, to the extent that speakers’ utterances are not misrepresented and as much information relevant to the analysis is included as is practically possible (Mercer, 2004: 147).

In response to this, transcripts of pre- and post-study teacher and student focus group interviews were shared with research participants to check for their accuracy.

Following this, during phase two, *initial codes* were generated, and this involved searching for ‘as many potential themes/patterns as possible’ (Braun and Clarke, 2006: 19). An example of this is shown in Appendix 2. During phase 3, where themes were sought, the list of initial codes from phase two was then re-focused to identify broader themes. It was here that codes were analysed and considered into how different codes might be combined to form an overarching theme. During phase four, themes were further refined where some themes ‘collapse[ed] into each other’ (Braun and Clarke, 2006: 20), or that other themes were broken down further. Themes were defined and named during phase 5 and were then presented in the final analysis of data (Chapter 5). Phase six is the final write-up of the report (or thesis).

For meaningful Thematic Analysis to take place, it was important to consider what constituted a “theme”. According to Braun and Clarke (2006), it:

captures something important about the data in relation to the research question[s], and represents some level of *patterned* response or meaning within the data set (Braun and Clarke, 2006: 10, italics in original).

A ‘data set’, therefore, refers to the entirety of the data collected. In relation to the present study, the data set referred to the complete data collected from *all* pre- and post-study interview case-studies, not just a single case-study. As such, although codes were generated from separate case-study data, themes were not identified, refined, and named until all case-study data had been analysed.

Systematic Observation Discourse Analysis

Coding of oral utterances during group composing sessions was undertaken drawing on the work of Miell and MacDonald (2000) and MacDonald, Miell and Morgan (2000). More specifically, this type of analysis can be identified as a ‘systematic observation’ of data (Mercer, 2010) because analysis was initially conducted on pre-defined categories or codes. As an analytical approach in previous research, this method has been found to be highly useful in analysing group-based discourse (for example, Bennett and Cass, 1989) including research into the group composing process (for instance, Fautley, 2002). The application of this method of analysis in the present study was appropriate because Miell and MacDonald’s (2000) and MacDonald, Miell and Morgan’s (2000) research is both specific to the domain of music education and was conducted in both paired and small group contexts of Key Stage 3 (Year 7: ages 11-12) students; both points of which are highly relevant to the focus of the present study.

Although Miell and MacDonald’s (2000) original non-transactive (Table 16) and transactive (Table 17) categories were used to analyse both the type (qualitative) and frequency (quantitative) of utterances during each composing session, it was also necessary to move away from the notion of Systematic Observation Discourse Analysis and extend the original categories in light of research findings in relation to the study’s focus. These adaptations are drawn out in more detail when presenting the results of each case-study (Chapter 5).

Code	Description
P	When the child <i>proposes</i> something – asserts/suggests it.
R	When the child <i>reiterates</i> something – repeats without substantial alteration.
I	When the child provides <i>information</i> about something.
A	When the child expresses explicit <i>agreement</i> about something.
D	When the child expresses explicit <i>disagreement</i> about something.

Table 16: Non-transactive categories (Miell and MacDonald, 2000: 368-369, italics in original).

Code	Description
TS	Transactive statements are spontaneously produced critiques, refinements, extensions or significant paraphrases of ideas.
TQ	Transactive questions are spontaneously produced requests for clarification, justification or elaboration.
TR	Transactive responses are clarifications, justifications or elaboration of ideas given in answer to a TQ.

Table 17: Transactive categories (Miell and MacDonald, 2000: 369).

In addition to the categories above, Miell and MacDonald (2000) and MacDonald, Miell and Morgan (2000) provide several categories which code musical utterances. However, it should be noted that previous research exploring the group composing process found the use of these musical codes ‘to be less helpful [by teachers] in gaining an understanding of the composing work of their pupils’ (Fautley, 2002: 151) as well as being ‘almost impossible to code effectively!’ (Fautley, 2002: 151). As such, given that the focus of the present study is also on the group composing process it seemed more appropriate to draw on the original, PhD work of Fautley (2002) where codes identifying composing phases could be identified and tracked through Episodic Sequencing.

Episodic sequencing

Fautley’s (2002) original group composing phases, which were also used in subsequent publications (Fautley, 2004; 2005), were discussed in depth in Section 2.2.5 of the literature review along with a table (Table 4, Section 2.2.5) labelling and describing each phase. For ease, each composing phase identified by Fautley (2002) is re-listed below:

0. Off-task
1. Initial Confirmatory Phase (ICP)
2. Generation of ideas
3. Exploration
4. Organisation
5. Work-in-progress Performance (WIPP)
6. Revision and Consolidation
7. Transformation/Modification
8. Extension/development
9. Final Performance
10. Teacher Intervention

Within Fautley's work 'no unforeseen aspects of the composing process occurred for which the model has not allowed' (2002: 132). This also appeared to be the case in his subsequent publications (Fautley, 2004; 2005). However, given that the focus of the present study introduced audio devices into the group composing process, adaptations to Fautley's (2002; 2004; 2005) model were required. This is discussed later when presenting the results of each case-study (Chapter 5).

4.7: Ethical considerations

The present study closely followed the British Educational Research Association's (BERA) *Ethical Guidelines for Educational Research* (BERA, 2011; 2018) to ensure that no harm, whether physical or emotional, came to any research participant. As data collection was still in process at the time of the updated 2018 version of the *Guidelines*, both editions have been referenced in this section.

Prior to beginning the research, a full review of the study's intent was conducted by Birmingham City University's Ethics Committee and was accepted to proceed (See Appendix 3). The following sub-sections discuss the thought and planning processes undergone which led to the implications on the present study in ensuring that the research was sufficiently ethical.

Informed consent

BERA (2011; 2018) emphasise that obtaining informed consent from research participants is a key part of ethical behaviour which respects the rights of individuals to take control over their lives and make decisions for themselves. Not only does this mean that participants have freedom of whether to take part, or not, in the research (Howe and Moses, 1999), but that they also have the right to be self-determined in weighing-up the potential risks and benefits before consenting to become involved in a research study (BERA, 2011, 2018; Cohen, Manion and Morrison, 2011). The right to give informed consent also implies informed refusal where participants can refuse to continue to take part once the study has begun (Frankfort-Nachmias and Nachmias, 1992), without reason (BERA, 2011; 2018).

According to Diener and Crandall (1978), informed consent is when ‘individuals choose whether to participate in an investigation after being informed of the facts that would be likely to influence their decisions’ (1978: 57). Based on this definition, Cohen, Manion and Morrison (2011) go on to say that informed consent can be said to involve four key elements: *competence*, *voluntarism*, *full information*, and *comprehension*. A research participant has *competence* if they are able to make decisions once they have been given full and relevant information. The *voluntarism* aspect relates to the fact that, when giving informed consent, it is in the knowledge that participants are free to choose whether or not to take part and that they are free to withdraw at any time without fear of consequences. *Full information* of the research implies that participants are fully aware of the details of the research. Finally, a participant will be assumed to have sufficient *competence* if they fully understand the nature of the study. As such, ‘if these four elements are present, researchers can be assured that subjects’ rights will have been given appropriate consideration’ (Cohen, Manion and Morrison, 2011: 78). The notion of fully informed consent has been found to have positive effects on the quality of data collected (Crow et al., 2006) as, given their confidence in the process of the research to be undertaken, the willingness to be more open about their views is likely to be richer (Oakley, 1981).

Additional considerations are also provided by Brook, te Reile and Maguire (2014), Dalton and McVilly (2004), Denscombe (2005), Iphofen (2011), and Thorne (1980) who suggest that, for participants to make an informed decision on their potential participation, information in addition to the details of the study should include:

- the identity of the researcher(s);
- their institution;
- an explanation of how and why the participants have been chosen to take part in the study;

- whether confidentiality and/or anonymity is promised and what steps will be taken to ensure this;
- how the data will be reported; and
- contact details for the researcher(s) involved.

Informed consent from children and notions of power

In obtaining informed consent from children (i.e. minors) Cohen, Manion and Morrison (2011) state that there are two stages which researchers must undertake: first, researchers must obtain permission from the adults responsible for them; and second, the researcher approaches the children themselves. In gaining trust and confidence from young people, in order to reduce the power distance, Pinter, Kuchah and Smith (2013) suggest the following techniques:

1. spend as long as possible getting students accustomed to your presence;
2. create a comfortable space in which the child(ren) can feel at ease, including, for example, letting them choose the time and place of the interviews;
3. use existing friendship groups for focus group interviews;
4. ensure the children are clear about the reasons for an interview;
5. be patient in allowing “wait time” after asking a question;
6. use concrete stimuli (for example, “Draw your teacher and talk about him/her”; Talk about a teacher you had in the past); and
7. ask about specific learning instances (for example, “My best lesson”) rather than generalities.

(Pinter, Kuchah and Smith, 2013: 486)

Obtaining informed consent from children, however, can be seen as being more ethically sensitive and complex (Brook, te Reile and Maguire, 2014). This could be because, due to their age, children can be seen as being more “vulnerable” and potentially powerless in their social status within society. In order to restore “power” to children within research, Alderson (1990; 1995) argues that children should be seen as competent decision makers, and, therefore, be treated with the same human rights as other participants.

Parents/carers are also responsible for giving consent for their child to take part (Heath et al., 2007). However, using adults as “gatekeepers” for younger participants has come into question because of their adult-centred and normative views (Albon and Rosen, 2014; Danbury and Farrell, 2004; Harcourt and Conroy, 2011). Furthermore, it can be argued that the need for parental/carer consent is an infringement of the child’s right to be heard (Brooks, te Reile and Maguire, 2014) especially, for example, if the child is keen to participate, but adult consent has refused. In response to this, given that ‘[p]arents have the responsibility to care for their children and therefore to protect them’ (Mortari and Harcourt, 2012: 238), I considered it unwise for me to allow a child to participate if parents/carers were not in agreement.

‘There is evidence that children with disabilities are sometimes excluded from school-based research’ (Brooks, te Reile and Maguire, 2014: 83). This may be because there is some concern that, by participating, it might emphasise the participant’s disabilities. The nature of qualitative research, which the present study incorporates, however has the power to access the perspectives and experiences of all those included in the research by making voices heard (Nind, 2008) rather than exploiting groups leading them to disempowerment (Swain, Heyman and Gillman, 1998). Furthermore, Tuffrey-Winje, Bernal and Hollins argue that it would be ‘unethical to exclude people with more severe learning difficulties from studies that could provide insight into their experiences and help shape sensitive care in the future’ (2008: 188).

In order for a child with learning disabilities to achieve “sufficient understanding” in making informed consent, Wong et al., (2000, cited in Dunn et al., 2006) suggest that increased decision-making was simplified by presenting information as separate elements rather than in a continuous form. Dunn et al. (2006) went further to include the use of information within video formats with illustrative scenes which ‘may have helped participants to anchor knowledge into visual images recalled from the video’ (2006: 218).

Informed consent and implications for the present study

Based on the information and advice cited above, I initially sought consent from each case-study music teacher, as well as each school’s Headteacher, several weeks before each case-study began where the aims and requirements of the study were explained. In providing meaningful information for both the music teacher and the Headteacher to make an informed judgement as to whether the study could go ahead, I followed the advice given by Cohen, Manion and Morrison (2011), who assert that such discussions should:

identify the aims of the research; its practical implications, if any, the design, methods and procedures to be used, the nature and size of the samples or groups, ... what activities are to be observed, which subjects [participants] are to be interviewed, observational needs, the time involved, the degree of disruption envisaged, arrangements to guarantee confidentiality with respect to data, ... the role of feedback and how findings can best be disseminated, the overall timetable within which the research is to be encompassed, and finally, whether assistance is required in the organization and administration of the research (Cohen, Manion and Morrison, 2011: 82).

Once initial consent, by both parties, had been given, the music teacher was then asked to choose a Key Stage 3 music class which they would be happy for the research to take place with, and would be studying a composing unit-of-work at the time of the study on a Monday. As previously stated in Section 4.1, this choice of day was to coincide with my PhD research day. Once decided, the music teacher was then asked to choose a group of students who would act as the focus group for the research. The notion of sampling, with reasons, has already been discussed in Section 4.1.

An important consideration for students (and their parents/carers) in giving informed consent was to invite them to voluntarily attend a short information session led by myself with the music teacher also in attendance. This event was beneficial because it was an opportunity to introduce myself as the researcher and share my musical background, explain the details of the research to be undertaken, and answer any questions that students and those responsible for them may have (Fine and Sandstorm, 1988). Participation information sheets and consent forms (see Appendix 4) which summarised the details of the research as per Brook, te Reile and Maguire (2014), Dalton and McVilly (2004), Denscombe (1998), Iphofen (2011) and Thorne's (1980) recommendations cited above, were handed out and signed (by both the student and a parent/carer) and submitted in advance of the study taking place (Cohen, Manion and Morrison, 2011; Denscombe, 1998). One student in "School C", who was on the school's Special Educational Needs and/or Disabilities (SEND) list, received a modified information sheet (see "Student Information Leaflet (2)" in Appendix 4). This was checked with the school's SEN co-ordinator for its suitability prior to being handed out.

In keeping to BERA's *Guidelines* (BERA 2011; 2018), all participants, and where necessary their parents/carers, were informed that if they wished to withdraw from the study, they could 'withdraw at any point without needing to provide an explanation' (BERA, 2018: 9) and that I would 'accept the participant's decision to withdraw' (BERA, 2018: 18) without question.

Following the advice given by Pinter, Kuchah and Smith (2013) cited above, it was important that all students in the chosen music class (not just the focus group) were comfortable with having me within their space. To help with this, I attended several music lessons prior to the start of the study so that students could become familiar with my presence as well as for me to secure my own positionality within the research (discussed previously in Sections 4.2 and 4.5). Furthermore, all interviews took place in a space which was chosen by the interviewees: the music classroom for each music teacher, and the practice room where students worked for each focus group.

Anonymity and confidentiality, and implications for the present study

In research, the anonymity and confidentiality of participants' information is considered the norm (BERA, 2011; 2018). A participant can be considered anonymous in a research study when the researcher or another person not involved with the research cannot identify who they are from the information that is provided (Cohen, Manion and Morrison, 2011).

In the present study, the notion of any individual within the research remaining completely anonymous was problematic because all participants were interviewed by myself.

Furthermore, within the group-based interviews, 'participants [knew] who else was there and indeed what they said' (Ransome, 2013: 40). Following the advice from Frankfort-Nachmias and Nachmias (1992) and Plummer (1983), aliases (for example, "A-S1" to represent "School A", "Student 1") were used during the write-up stages (for example, when creating transcripts, thesis chapters, and case-study dissemination summaries) so it was not possible for any "outsider" to identify who had said what, and which school they came from.

Confidentiality was able to be upheld; video and audio recorded data were uploaded, kept securely, and encrypted on the Birmingham City University server. As such, at no point were

data made public. Therefore, considerations for confidentiality can be said to comply with the requirements set out in the 1988 Data Protection Act (UK Government, 2000), including General Data Protection Regulation (GDPR) (UK Government, 2018).

4.8: The impact of COVID-19 on the present study

In March 2020, a state of emergency was declared in relation to the Coronavirus (COVID-19) resulting in what would become two national lockdowns and large-scale restrictions to day-to-day life. During lockdowns, learning took place at home using online methods. The small number of students (in comparison to normal practice) who continued to learn in school were those who were considered vulnerable and whose parents/carers were seen to be “key workers”. When schools re-opened to mass capacity significant government-imposed restrictions were put in place in England including two-metre social distancing between teachers and their students, the compulsory wearing of face masks for those in secondary schools, year group “bubbles”, and front-facing seating arrangements for students.

Case-studies 1-3 (Schools A-C) were completed before the pandemic hit; however, this was not the case for School D. At this point, research activity involving face-to-face contact became suspended and alternative data collection methods had to be sought. Since the present study focuses on in-school learning this became even more problematic when close contacts of someone who tested positive for the virus would have to self-isolate at home. As a result, School D’s data collection suffered from several false-starts.

School D’s case-study took place during the summer of 2021 at a time when many of the original restrictions were lifted. As two of the original student participants had left the school, the music teacher and I decided it would be best to begin a fresh case-study with a new student focus group. Despite the lifting of many restrictions, day-to-day work and practice was still affected. These are identified and discussed in School D’s case-study (Section 5.4).

As I was not able to be present in the school, recorded online interviews via MS Teams took place instead of face-to-face ones. For the student focus group, a Teaching Assistant,

approved by the school's Principal, was also present. The recording of composing sessions remained largely unchanged with the exception that the music teacher would press record to video the group rather than myself. Video recorded data was then uploaded by the music teacher onto the school's network. I was fortunate enough to have been given restricted access to the network where I was able to analyse the data from my university laptop. Prior to taking place, these adaptations to the original data collection methods were once again approved by the Birmingham City University Ethics Committee (Appendix 5).

4.9: Chapter summary and implications for the present study

To support the range of methodological lenses (Section 3) in addressing the research questions (Section 1.3) a variety of data collection methods were used. These included: convenience and purposive sampling, video-recorded observations and semi-structured interviews. These methods allowed for the impacts of different school types and voices within each school to be heard. Following the pilot study, the inclusion of pre- and post-study interviews was particularly important as the data collected was able to go deeper into the notion of *what* happened and consider *why* it happened (Denscombe, 2005) based on the lived experiences of the research participants, as well as provide a valuable means of triangulation. In collecting such data, it was therefore important for me to engage reflexively in my varying positions as a secondary school music teacher, school leader, and early career researcher.

Having applied a mixed-methods lens to the research (Section 3.2) different analytical methods were applied. For example, the present study followed a Sociocultural Discourse Analysis approach where Braun and Clarke's (2006) Thematic Analysis (for pre- and post-study interviews) and a Systematic Observation Discourse Analysis (throughout composing sessions), based on the work of Miell and MacDonald (2000) and MacDonald, Miell and Morgan (2000) were key in establishing codes and themes relevant to the focus of the present study. In addition to this, Episodic Sequencing of group composing phases were also identified and, where needed, adapted drawing on Fautley's (2002; 2004; 2005) work in this area.

Ongoing ethical conditions were considered and reflected upon throughout each case-study. These considerations included informed consent (including informed consent when working with children), power relations, and anonymity and confidentiality.

Finally, as a result of the impact of COVID-19 and school-based restrictions, adaptations to the original data collection methods were required where interviews took place in an online format.

Chapter 5: Results

Introduction

In order to investigate the effects of using an audio device during the Key Stage 3 group composing process, four research questions were formulated. For convenience, these are re-presented here:

1. How does the inclusion and use of an audio device influence the group composing process?
2. What are the effects of using an audio device on group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio devices when composing?

In order to address these research questions, appropriate methodological lenses (Chapter 3) and data collection methods (Chapter 4) were applied.

The results from the four case-study schools are presented in this chapter. The chapter is structured so that each case-study is dealt with separately. A short contextual introduction begins each case-study before dealing with each research question (RQ) in turn.

For RQ1, Episodic Sequencing was applied using Fautley's (2002, 2005) original model of the group composing process. As an audio device was introduced into the composing process adaptations to this model were required where new phases were identified. These new phases are presented within each case-study.

When addressing RQ2, group-based feedback via utterances and comments which surrounded the newly identified Work-in-Progress Recording and Work-in-Progress Listening phases were initially analysed using MacDonald, Miell and Morgan's (2000)

codes¹¹. Where required, codes were unpicked further in order to provide better clarification and insight into the notions of summative and formative inferences of assessment.

Adaptations of MacDonald, Miell and Morgan's (2000) codes are discussed throughout RQ2 sections and compiled for convenience in Appendix 6.

For RQ3, regardless of whether the teacher's feedback was live (School A), recorded (Schools B and C), or both (School D), utterances were analysed in the same way as RQ2 by using MacDonald, Miell and Morgan's (2000) codes with similar adaptations made where necessary. Since notions of formative and summative assessment were also being explored, this decision was an important one for consistency.

To present teacher and student focus group perspectives, RQ4 (Schools B-D) draws primarily on data from the post-study interviews. Using Thematic Analysis, data were coded to identify themes which were then arranged to reveal overarching ones.

Although this thesis investigates the group composing *process*, a recording of each focus group's final composition (the *product*) has also been included. Musical examples of students' compositions can be found in the accompanying CD¹².

¹¹ In Section 4.6 it was stated that analysis of spoken dialogue will be undertaken by also using Miell and MacDonald (2000). Since both sources draw on the same codes only one reference point is made from this point onwards.

¹² Please note that, for School B (Track 2), the town where this school is located was included within the group's lyrics. To uphold anonymity, this section of the track has been edited.

5.1: Case-Study 1 context – School A (Pilot Study)

Introductory contextual details for School A, the Music Lead, and Year 9 (ages 13-14) student focus group participants have already been presented (Tables 12 and 13 in Section 4.1). For convenience, this information is re-presented in the footnote below¹³. In this school, music lessons took place once-a-week and lasted for 50-minutes. Composing groups were organised by students on a friendship basis, as was normal practice in this school. The research took place during the second part of the Spring Term.

At the start of the case-study, students were asked to write down any information which described their musical background. Students provided information relating to their instrumental/vocal tuition. This information, which suggests that students brought a wide variety of musical expertise to the group, is shown in Table 18.

¹³ School A is a smaller-than-average High School Academy. The majority of the student population is White-British and the proportion of SEND, EAL and PP learners is below national average. At the time the case-study took place the music teacher (male) was working in a single-person music department and had been teaching for 10-years in total. The female-male gender ratio for the focus group was 2 : 3.

	Instrumental/vocal background
Student 1 (male) (A-S1)	I play and piano [and] I have been self-taught by following YouTube videos and finding out chords on the internet for about 3 years. Last September[,] I started music lessons so I can read a bit of music.
Students 2 (female) (A-S2)	I am currently a Grade 7 in musical theatre and [I] am working towards my Grade 8. I have been having singing lessons for 4 years and [I have] achieved 3 distinctions and 1 high merit in all my gradings.
Student 3 (male) (A-S3)	I have had keyboard lessons for 5½ years and [I] am Grade 5. I have also taught myself [the]guitar for 2 years and [I] am probably about the same level, although I do not take grades. I can also play bits of bass [guitar], drums, mandolin and saxophone.
Student 4 (male) (A-S4)	I play the drums and [I] have been having lessons (outside of school) for 5 years and I'm currently doing grade 3.
Student 5 (female) (A-S5)	My main instrument is guitar and I started having lessons in Year 2 and finished in Year 8 but still playing now. I can play a bit of piano and I like to sing.

Table 18: Students' instrumental/vocal backgrounds (School A).

Data collection for analysis

Key findings from data analysed and coded for School A were identified through video recordings of four composing sessions. In total, there were approximately 1 hour 49 minutes-worth of data to be analysed. Table 19 shows the length of each composing session.

Data collection method	Approximate duration for analysis
Composing session 1 video recording	25 minutes 24 seconds
Composing session 2 video recording	18 minutes 47 seconds
Composing session 3 video recording	26 minutes 33 seconds
Composing session 4 video recording	38 minutes 30 seconds

Table 19: The length of each video recorded composing session (School A).

Composition task

The composition task was to compose a piece of music, in any style or genre, in Rondo form. This information was provided orally by the teacher and no further information was given at this stage.

5.1.1: RQ1

Identification of new composing phases

In School A, three additional phases were identified. These were: Auditory Research, Work-In-Progress Recording (WIPR), and Work-In-Progress Listening (WIPL).

Figure 24 shows the total number of times each phase (including Fautley's (2002, 2005) original phases) occurred spanning the four composing sessions. In this case-study, the Teacher Intervention (visited 8 times) and Off-Task (which arose 6 times) phases were the most frequent. Figure 24 also reveals that the group visited the majority of phases within the Generative Stage. Within this stage, the new WIPL (visited 6 times) and WIPR (which occurred 5 times) phases were the most frequent. The new Auditory Research phase was identified twice.

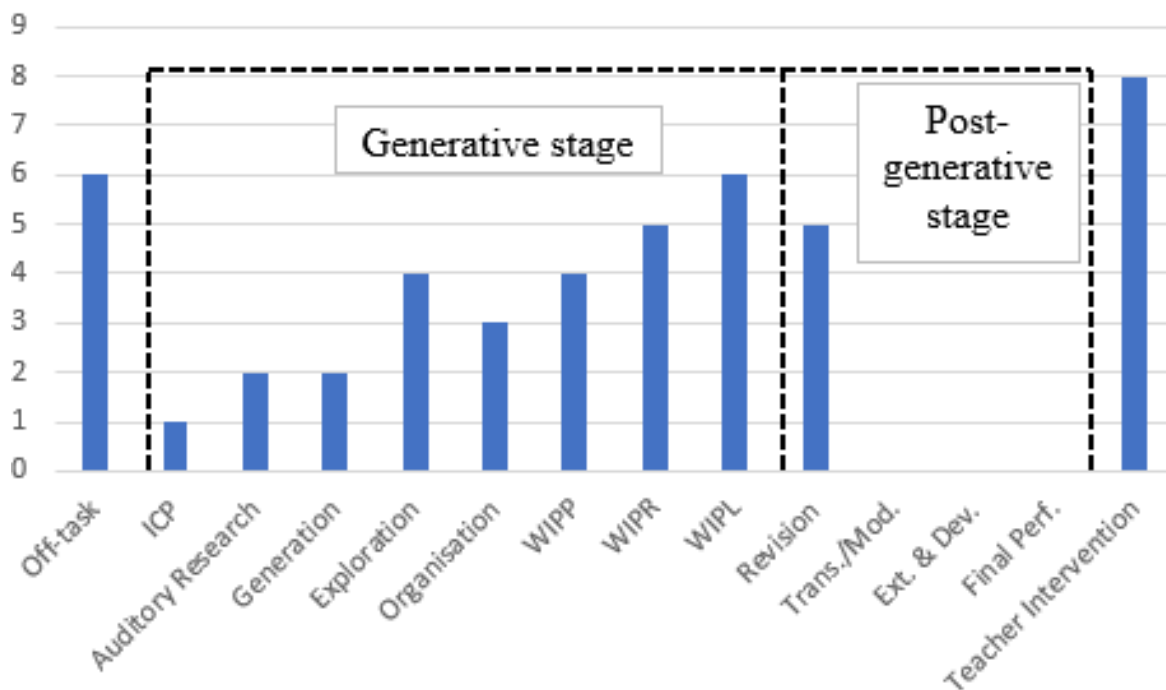


Figure 24: The total number of times each composing phase was visited (School A).

Despite Figure 24 showing the group's most frequently visited phases this does not fully correlate with where the group spent most of their composing time. For example, Figure 25 reveals that only 10% of students' overall composing time was spent in the Teacher Intervention phase with the majority of time being Off-Task (23%). When the group was on-task, however, the most amount of composing time was spent in the Exploration phase (15%), with the new phases WIPL (14%) and WIPR (12%) closely following. The new Auditory Research phase accounted for 2% of the overall composing time.

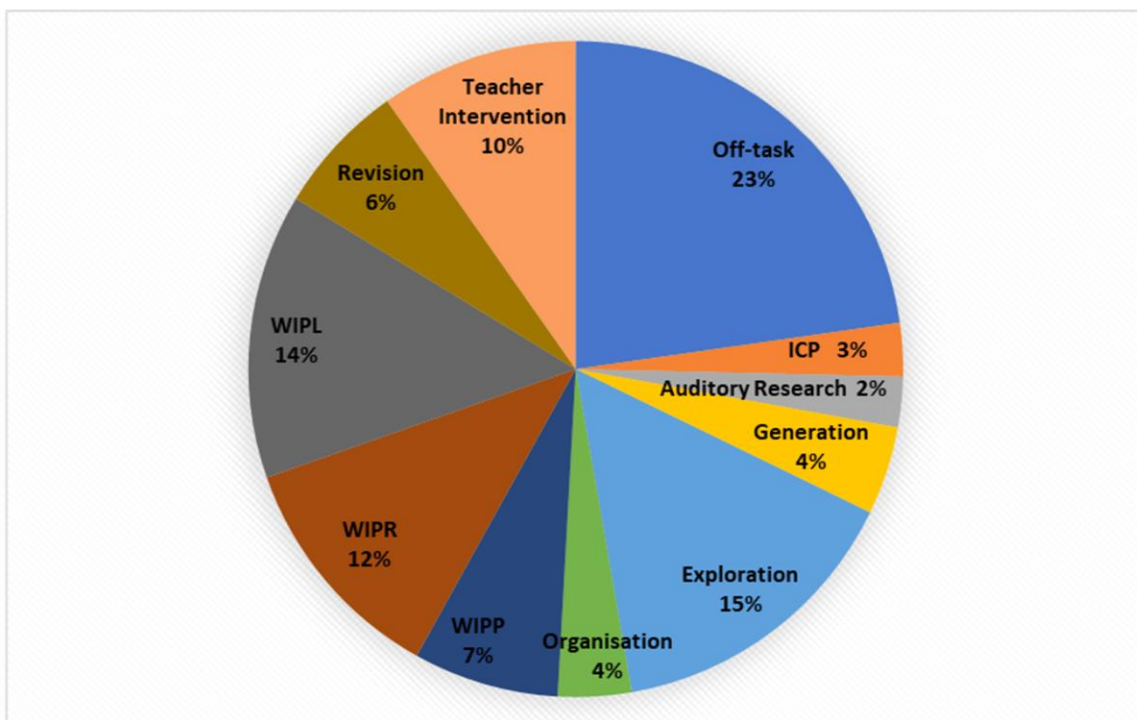


Figure 25: Total amount of time (%) each composing phase was visited (School A).

When the group's composing trajectories for each of the four sessions were analysed separately the low percentage of overall time for the Auditory Research phase (2%) could be explained; it only occurred twice and arose during the first composing session.

Figures 26 to 29 below show the group's composing trajectories for the four composing sessions. For convenience, a key detailing each composing phase is presented under each one. The phases in the key have been written in reverse-numerical order. This is so they are consistent with how the y-axis composing phase numbers have been presented in each of the figures.

To address RQ1, new composing phases have been identified and colour coded. These are: Auditory Research (**red circles** only in Session 1 (Figure 26)); WIPR (**blue circles**); and WIPL (**orange circles**). The latter two phases were identified in all four composing sessions and were found to occur largely sequentially where the group recorded a section of their composition and, usually, immediately listened back to it. One exception to this arose at the start of Session 4 (final session) where the group began the composing process by listening to the recorded track from the previous lesson. Although the WIPP phase was previously identified by Fautley (2002; 2005), it was observed that this phase usually occurred before a recording took place (Sessions 1, 2 and 4). To illustrate this, WIPP phases are shown in **green circles**.

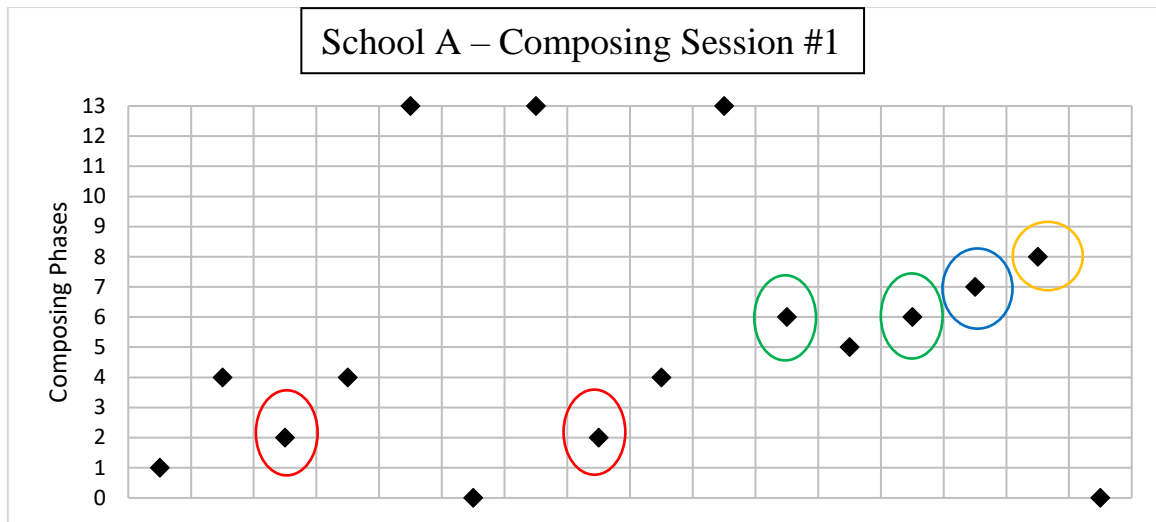


Figure 26: Trajectory of composing phases for Session 1 (School A).

Y-axis composing phase key

- 13: Teacher Intervention
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Work-in-progress listening (WIPL)
- 7: Work-in-progress recording (WIPR)
- 6: Work-in-progress performance (WIPP)
- 5: Organisation
- 4: Exploration
- 3: Generation
- 2: Auditory research
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

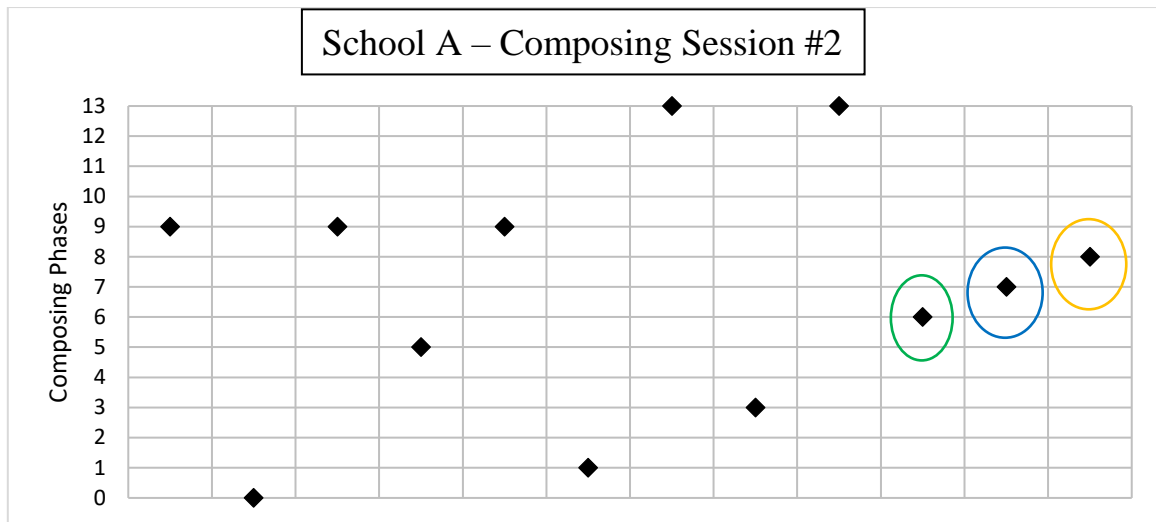


Figure 27: Trajectory of composing phases for Session 2 (School A).

Y-axis composing phase key

- 13: Teacher Intervention
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Work-in-progress listening (WIPL)
- 7: Work-in-progress recording (WIPR)
- 6: Work-in-progress performance (WIPP)
- 5: Organisation
- 4: Exploration
- 3: Generation
- 2: Auditory research
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

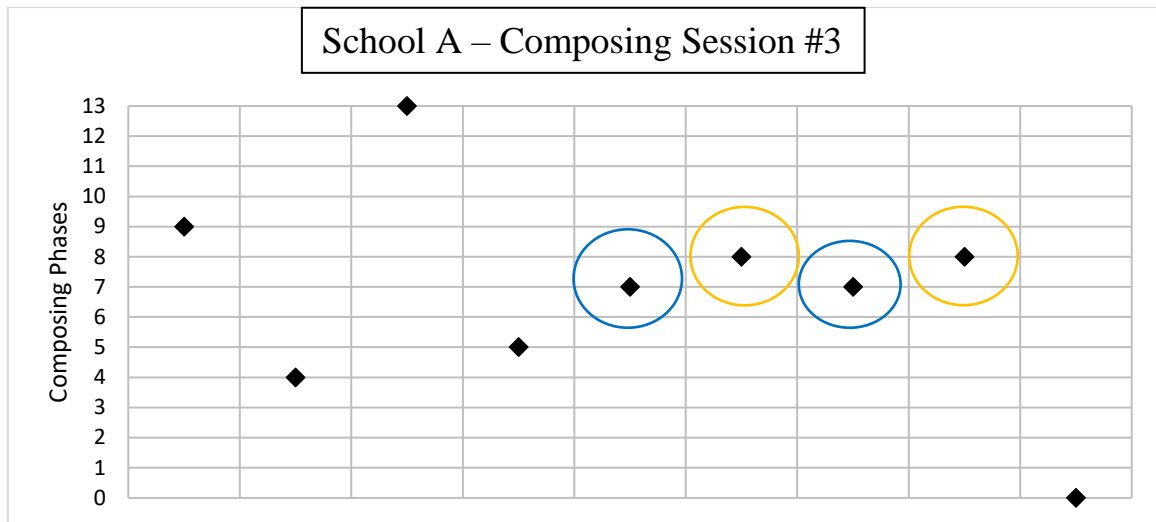


Figure 28: Trajectory of composing phases for Session 3 (School A).

Y-axis composing phase key

- 13: Teacher Intervention
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Work-in-progress listening (WIPL)
- 7: Work-in-progress recording (WIPR)
- 6: Work-in-progress performance (WIPP)
- 5: Organisation
- 4: Exploration
- 3: Generation
- 2: Auditory research
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

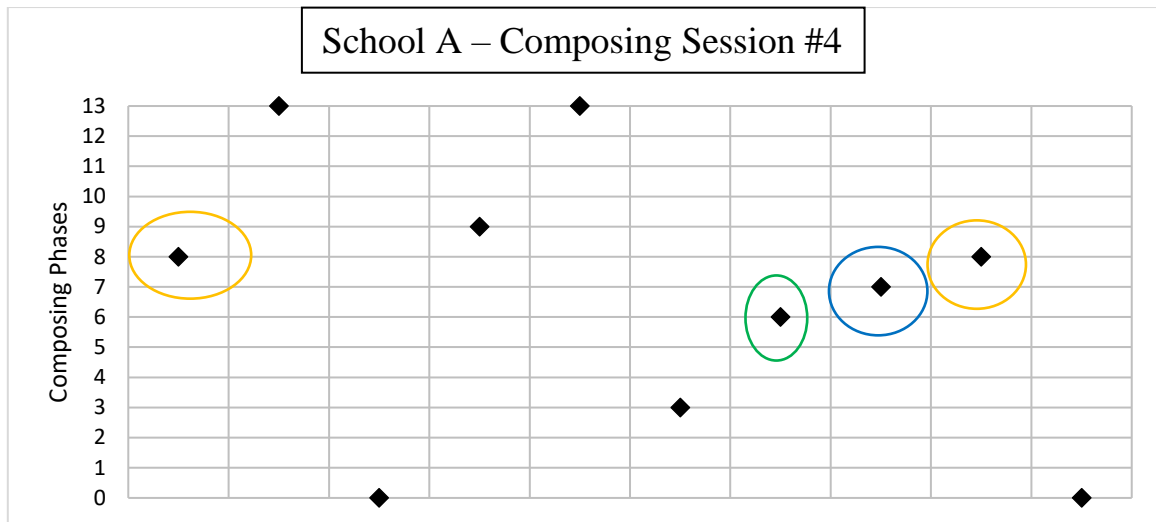


Figure 29: Trajectory of composing phases for Session 4 (School A).

Y-axis composing phase key

- 13: Teacher Intervention
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Work-in-progress listening (WIPL)
- 7: Work-in-progress recording (WIPR)
- 6: Work-in-progress performance (WIPP)
- 5: Organisation
- 4: Exploration
- 3: Generation
- 2: Auditory research
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

Auditory Research

Quantitative details for this composing phase are shown in Table 20.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Auditory Research	2	Session 1	2%


Table 20: Quantitative details for the Auditory Research phase (School A).

Although this phase only occurred twice in Session 1 and accounted for as little as 2% of the group’s overall composing time it proved to be important. At the beginning of the composing process, the group appeared to struggle deciding on what style they would compose their rondo form piece in (since this was free choice) as well as the initial ideas on which to build upon. This is indicated in the following exchanges:

Session 1 – Auditory Research phase – first occurrence:

A-S4¹⁴ (male): Ok, so what style we gonna do? Got any ideas?

A-S2 (female) & S5 (female):*(together)* No.


A-S3 (male): How about something like ( *hums to the other students*)...

A-S2 & A-S5: *(together)* No.

A-S4: No. I don’t like that style.

A-S3: Ok, how about something jazzy?

A-S2: Jazz? Ergh. Can it be something more like *(silence)*...

A-S2:  *Plays songs from YouTube on her mobile phone.*

(Students stop discussing and individually improvise on their instruments.)

¹⁴ “A-S4”, signifies: School A, Student 4. This method of coding is consistent throughout all four case-studies.

This problematic starting point to begin the composing process was aided by the inclusion of A-S2's mobile phone where YouTube was used to look up, research, and listen to pieces for inspiration:

Session 1 – Auditory Research phase – second occurrence:

- A-S2: 🎵 *Plays a rock song from YouTube on her mobile phone.*
- A-S3: 🎵 *Improvises on what he hears on his electric guitar.*
- A-S2: No, shh (🎵 *continues to play song on her mobile phone*).
- A-S3: 🎵 *Begins to improvise chords in the style just heard.*
- A-S3: *(to S2)* What do you think to that?
- A-S2: *(to S3)* Yeah, it's good.
- A-S3: *(to S4 on the drum-kit)* Have you got a beat for that?
- A-S4: *(to S3)* Yeah.
- A-S3: *(to S5 on the other electric guitar)* Can you play F sharp minor?
- A-S5: *(to S3)* Yeah (🎵 *and plays the chord to S3*).
- A-S2: *(to the group)* Ok, we're gonna try it together to see how it fits.

For this group, the Auditory Research phase, supported by formative assessment, was important in order for them to begin to generate ideas. For instance, occurring within this phase, A-S2 using her mobile phone, as an audio device to look up, research, and listen to examples of songs on YouTube can be considered formative *intention*. This is when information was being collected during this Auditory Research phase with the intent of it being used. At this specific point it might only be considered an *intention* because the information gathered may not have been accepted and used by the group to move the composing process forward. However, in this case, and indicated by the exchanges above, formative *action* took place through a short follow-up group discussion and improvised chords from A-S3 based on the rock-style music they had just heard. In his taxonomy of

methodological composing strategies, Fautley (2002) would identify this group’s piece as ‘pastiche’ (2002: 312); their original composition became based, at least initially, on a known model. As such, for this group, the new Auditory Research phase, supported by formative assessment, can be seen as an important addition to their composing process.

Work-In-Progress Recording (WIPR)

Quantitative details for this composing phase are shown in Table 21.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Recording (WIPR)	5	All sessions	12%

Table 21: Quantitative details for the WIPR phase (School A).

A WIPR phase was identified when the group used the audio device to record their work-in-progress composition. As can be seen from Figures 26 to 29 above, a WIPR (blue circle) largely occurred following a WIPP (green circle) phase. One exception, illustrated in Figure 28, was during Session 3 where a sequence of WIPR-WIPL-WIPR-WIPL took place instead. This was due to an imbalance between the instruments and so another recording was made.

The group’s composing trajectories across the four composing sessions suggest that the WIPR phase can be considered an important part of the formative assessment process. For example, the WIPR phase itself might be considered formative *intention* because the recording made could have been used in two different ways: it might have been listened to in

order to elicit some sort of action, or it might have been ignored by the group. As can be seen from Figures 26 to 29 above, each WIPR led, as a form of *action*, to a WIPL phase (**orange circles**).

Work-In-Progress Listening (WIPL)

Quantitative details for this composing phase are shown in Table 22.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Listening (WIPL)	6	All sessions	14%

Table 22: Quantitative details for the WIPL phase (School A).

A WIPL phase was identified when the group played back the music they recorded during a WIPR phase. As shown in Figures 26 to 29 above, the majority of WIPL (**orange circle**) phases occurred following a WIPR (**blue circle**). One exception, shown in Figure 29, took place at the beginning of Session 4 where the composing process began with a WIPL phase. It is likely that this phase occurred at this point because three students (A-S1, A-S2 and A-S5) were absent during Session 3 due to a school trip. This meant that A-S3 and A-S4 had to continue with the composition. As such, beginning Session 4 with a WIPL phase could be considered beneficial because, despite the intervening Teacher Intervention (phase 13) and Off-Task (phase 0) phases, video recorded data showed that *all students* were engaged in a Revision phase (phase 9). These sequential trajectories are shown in Figure 29.

In terms of formative assessment, the WIPL phase (like the WIPR previously discussed) might be considered formative *intention* because the act of listening can result in one of two follow-up actions: it can be actively used to improve the composition, or it can be ignored by the group. As shown in Figures 26 to 29 above, although recorded tracks were indeed listened to, the subsequent (and frequent) entering of the Off-Task phase suggests that there was little evidence of formative *action*. As such, it might be argued that formative assessment, within and across the four composing sessions, seldom took place. However, during Session 3, when only A-S3 and A-S4 were present, there were three examples when formative assessment was believed to take place following a WIPL phase. As these examples relate to group-based discourse, these are discussed later when addressing RQ2.

5.1.2: RQ2

The analysis which follows is based on feedback, via utterances and comments, that took place during Sessions 2-4. No discourse analysis took place for Session 1; as Figure 26 (re-presented) shows, the group moved to being Off-Task immediately following the only sequential WIPR and WIPL phases.

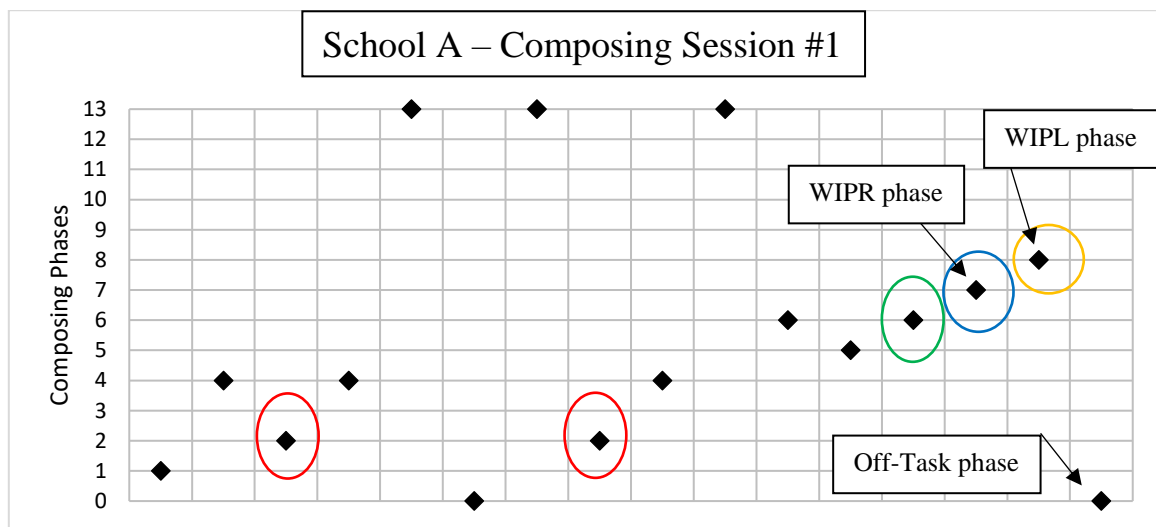


Figure 26 (re-presented): Trajectory of composing phases for Session 1 (School A).

Unpicking summative talk

Three modalities of summative talk were identified: Information (I), Information based on a positive viewpoint (I-PV), and Information based on a negative viewpoint (I-NV). These codes were identified as summative because each were found to sum-up the work-in-progress composition at that point in time.

Information (I)

Based on MacDonald, Miell and Morgan's (2000) article, 'I' codes (2000: 412) were identified. Table 23 shows examples of student comments which sum-up their views on what they have heard after a WIPL phase.

Example number	Composing session	Student speaking	Utterance
#1	2	A-S4	Your guitar was too loud.
#2	3	A-S3	This bit I messed up ... so many times.

Table 23: Discourse analysis showing summative 'I' (School A).

Information based on a positive viewpoint (I-PV) and Information based on a negative viewpoint (I-NV)

Although the comments below are also providing information, it was felt that this term, based on MacDonald, Miell and Morgan's (2000) original coding, was too broad and needed further unpicking. As such, to provide further clarification on the type of information being given, these were coded as I-PV (Table 24) and I-NV (Table 25). As with the utterances shown in Table 23 above, these comments similarly sum-up and can also be said to relate to the current status of the work-in-progress composition.

Example number	Composing session	Student speaking	Utterance
#1	2	A-S4	It doesn't sound as bad as the last one [last recording].
#2	3	A-S3	That's better.
#3	3	A-S4	Not too bad.
#4	3	A-S3	I like that recording.
#5	3	A-S3	That's better. That's alright.
#6	3	A-S4	Oh, yeah. That's good that.
#7	3	A-S4	That sounds pretty good.
#8	4	A-S5	I think it sounds good.
#9	4	A-S3	It's not sounding too bad. I quite like it.
#10	4	A-S5	That was good.
#11	4	A-S3	That was actually alright.
#12	4	A-S3	I like that.

Table 24: Discourse analysis showing summative 'I-PV' (School A).

Example number	Composing session	Student speaking	Utterance
#1	3	A-S3	That recording was awful.

Table 25: Discourse analysis showing summative 'I-NV' (School A).

Unpicking formative talk

Three modalities of formative talk were identified: Proposal as a statement (*P-stat*), Proposal with additional information (*P-info*), and Transactive Question (TQ). In comparison to the summative codes above, these codes were identified as formative; they had the potential to

inform the group on what next steps needed to be taken to improve the work-in-progress composition.

Proposal as a statement (P-stat) and Proposal with additional information (P-info)

As with the ‘I’ code above, MacDonald, Miell and Morgan’s (2000) Proposal (P) code was also felt to be too broad and in need of further unpicking. From this, two sub-types of proposals were identified: *P-stat* and *P-info*.

The comment shown in Table 26 below was identified as a *P-stat* because, although it can be considered a proposal (the *what*), it begs the question as to what is needed to be done in order to correct this (the *how*). It was for this reason that this example of a proposal was thought to be better described as a statement.

Example number	Composing session	Student speaking	Utterance
#1	2	A-S2	We really need to sort out the balance.

Table 26: Discourse analysis showing formative ‘*P-stat*’ (School A).

On the other hand, the *P-info* comments, shown in Table 27, could be thought of as qualitatively different to the *P-stat*; they provide further information with regards to the *how* and, therefore, have the potential to better inform the group, or individuals within the group as to what needs to be done. In other words, such comments could be considered to have greater formative impact.

Example number	Composing session	Student speaking	Utterance
#1	3	A-S4	I need to quieten down a lot.
#2	3	A-S4	I think we should try recording it again and I'll quieten down this time.

Table 27: Discourse analysis showing formative ‘P-info’ (School A).

From a formative assessment perspective, the *P-stat* and *P-info* codes, by themselves, could be thought of as formative *intentions*. This is because, although proposals are being made by individual group members, there is no guarantee that they will lead to formative *action*.

Video recorded data showed this was the case when the *P-stat* comment arose. As shown in Figure 27 (re-presented below), this was at the point when composing session 2 came to an end following the WIPL phase taking place. As such, formative assessment cannot be said to have taken place at this point because, despite this important comment being made with the intention it would be acted on, this was not the case.

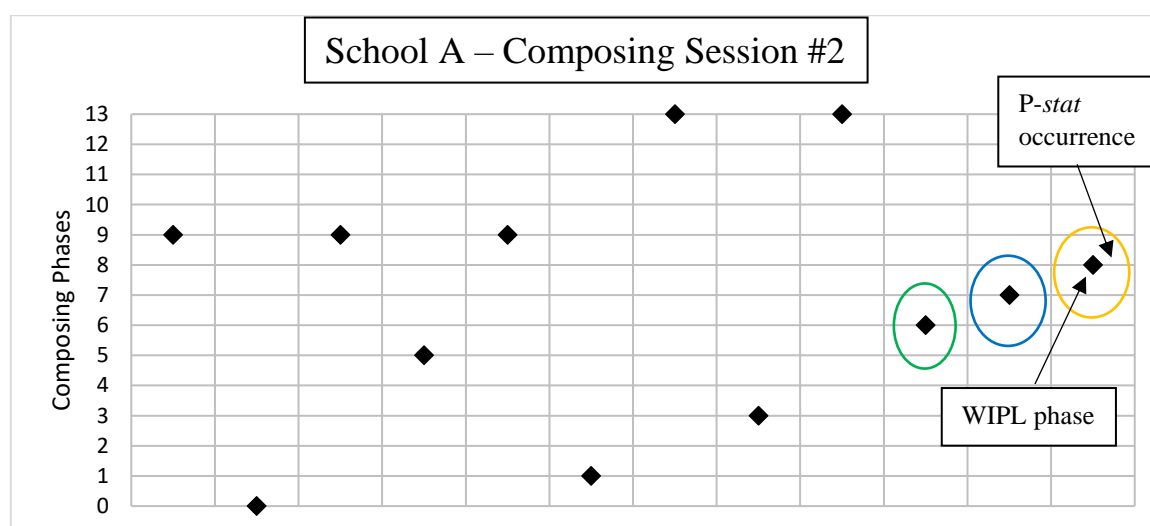


Figure 27 (re-presented): Trajectory of composing phases for Session 2 (School A).

With regards to the two *P-info* comments (both of which occurred at the same point), video recorded data showed that formative assessment did take place. The point that these *P-info* comments took place is shown in Figure 28 (re-presented below). Following the comment: “I need to quieten down a lot”, it was then proposed that another recording should be made. In this subsequent recording, A-S4 had altered his volume so there was a better balance between the two instruments.

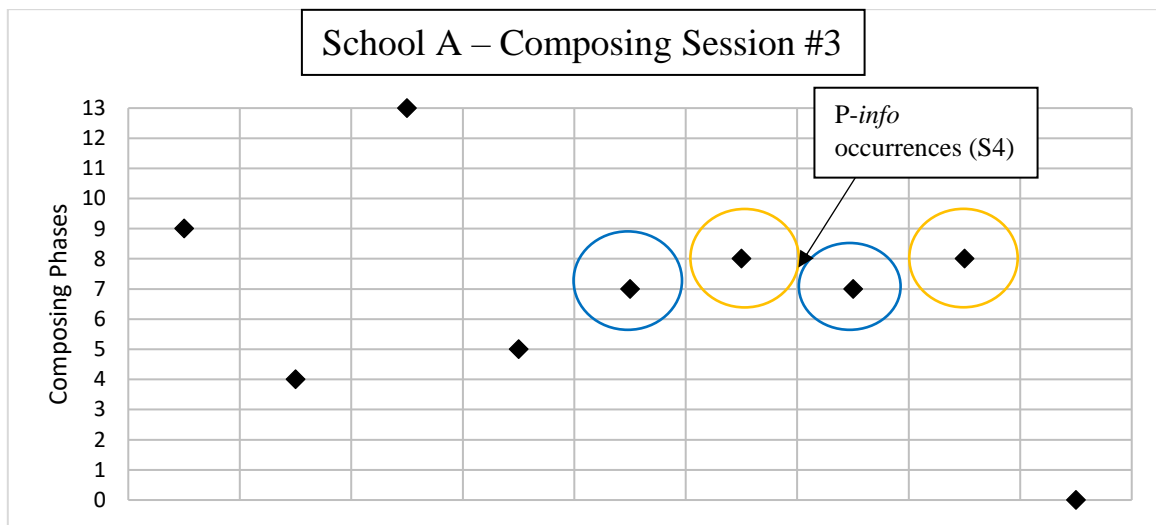


Figure 28 (re-presented): Trajectory of composing phases for Session 3 (School A).

Transactive Question (TQ)

A TQ was identified when a student asked a question to seek clarification, justification or elaboration from another student. Overall, one TQ was identified and is shown in Table 28.

Example number	Composing session	Student speaking	Utterance
#1	3	A-S3	Do you think my crunchy chords need to be more crunchy? Can we just check ... which one sounds better? (<i>plays chords on the guitar with two different effects.</i>)

Table 28: Discourse analysis showing formative ‘TQ’ (School A).

This TQ occurred during Session 3 just after A-S4’s *P-info* comments discussed above took place. This is shown in Figure 28 (re-presented below).

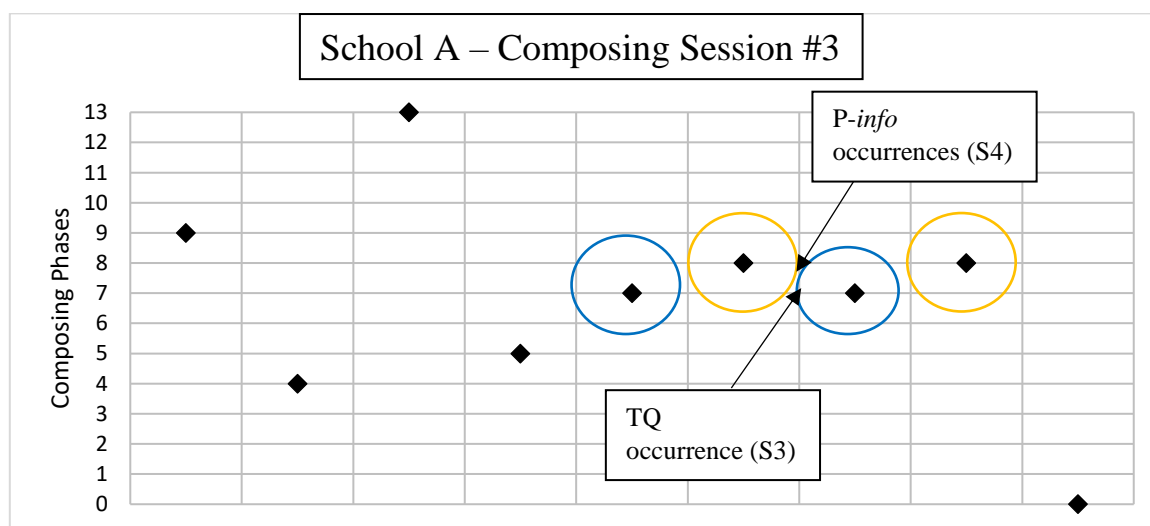


Figure 28 (re-presented): Trajectory of composing phases for Session 3 (School A).

This TQ, by itself, can be thought to be formative *intention* because a group member’s response may, or may not, lead to a change or modification. In this case, the response was found to lead to formative *action*; following the short dialogue, it was observed that A-S3 changed the guitar effect he was originally using.

Summary

Table 29 collates the types of feedback which occurred following the identified WIPR and WIPL phases.

	Summative comments			Formative comments		
	I	I-PV	I-NV	P-stat	P-info	TQ
Session 1						
Session 2	1	1		1		
Session 3	1	6	1		2	1
Session 4		5				
Cumulative total for each code identified	2	12	1	1	2	1
Cumulative total of summative and formative comments	15			4		

Table 29: A summary of the types of feedback following the WIPR and WIPL phases identified (School A).

As Table 29 shows, the majority of feedback comments could be described as summative and were largely coded as Information based on a positive viewpoint (I-PV). By comparison, there were significantly fewer formative comments. When these occurred, they mostly took place during composing session 3 when only A-S3 and A-S4 were present. It was also during this session that the identified examples of formative assessment were found. These instances included: the suggestion to make another better-quality recording and altering the sound or volume on the instruments. These cases, although clearly important to the students, can be seen as improving the overall *performance* of the composition. What these examples of

formative assessment were not found to do, however, was improve the group's ability to *compose*.

Further to the balance of summative-formative feedback, Table 30 shows that when comments were analysed and separated by gender it was found that males contributions (particularly summative utterances) significantly outweighed those of the females. That said, it should be noted that only S3 and S4 (both male) were present during Session 3, so such generalisations must be treated with caution.

	A-S2 (female)	A-S5 (female)	A-S1 (male)	A-S3 (male)	A-S4 (male)
Summative utterances		2		8	5
Formative utterances	1			1	2
Total number of utterances	1	2	0	9	7

Table 30: A summary of formative and summative utterances separated by gender (School A).

5.1.3: RQ3

As shown previously in Figure 24 (Section 5.1.1), eight Teacher Intervention (TI) phases occurred across the four composing sessions. In this case-study, these interventions followed a stop-and-question approach (Fautley, 2004) and took place during music lessons. Although all TIs were analysed and coded, 7 out of 8 were found to relate to the focus of this study. These seven are presented below. The TI dialogue which it was felt did not relate to the focus of this study (TI #2 during Session 1) can be found in Appendix 7.

Although teacher feedback was analysed in a consistent way to group-based comments shown previously in RQ2, the findings have not been presented in the same manner. This was so that the flow of the Music Lead's comments, which were very much reactive depending on the group's in-the-moment responses, would not be broken up and de-contextualised. From an analytical point, what this meant was that there were different modalities of teacher talk being identified within one TI phase. This was not a problem when addressing RQ2 where group-based comments surrounding WIPR and WIPL phases were very short. Instead, to address RQ3, each TI has been presented separately and arranged thematically according to the focus of the teacher-group discussion whilst still being able to analyse types of utterances from a summative-formative perspective. Following this approach several feedback themes emerged: how to use the audio device; using the audio device to make a WIPR; positioning the audio device; and using the audio device to elicit group-based reflection. Each will be discussed in turn.

How to use the audio device

Teacher Intervention (TI) #1, which occurred towards the beginning of Session 1, focused on the Music Lead (A-ML¹⁵) providing students with Information (I) on how to use the audio device. This was then followed-up with a Transactive Question (TQ) which served the purpose of checking with students that they had understood the information before the Music Lead left the practice room. The teacher-group dialogue is shown in Table 31.

TI	Person	Utterance	Utterance code	Utterance inference
#1	A-ML	<i>(Teacher models the use of the audio device while talking.)</i> Right, OK, this is your audio recorder. So, to turn it on just slide it down, press and hold. When you want to run through something, red button to record, square button to stop. What I'd like you to do this lesson is to make at least one recording, please.	I	Formative
	Group	Is that OK? [Together] Yeah.	TQ A	

Table 31: TI #1 teacher-group dialogue – Session 1 (School A).

¹⁵ “A-ML”, signifies: School A, Music Lead (Music Teacher). This method of coding is consistent throughout all four case-studies.

Using the audio device to make a WIPR

Four TIs (shown in Tables 32 to 35) focused on the Music Lead asking Transactive Questions (TQ) to the group as to whether they had made a WIPR. This particular focus accounted for half of the total TIs across the four composing sessions. Three of these TIs (shown in Tables 32, 33 and 35 below) also show the Music Lead indicating that the group was running out of lesson time and so completing a WIPR should be done.

TI	Person	Utterance	Utterance code	Utterance inference
#3	A-ML	Have you recorded anything yet?	TQ	Formative
	Group	No.	I	
	A-ML	OK. Well, since we're running slightly out of time, could you record something?	TQ	Formative
	Group	Yeah	A	

Table 32: TI #3 teacher-group dialogue – Session 1 (School A).

TI	Person	Utterance	Utterance code	Utterance inference
#4	A-ML	Have you recorded anything yet?	TQ	Formative
	A-S2	Not yet, Sir.	I	
	A-ML	OK, we're losing time so any chance you could get one done?	I & P	Formative
	A-S3	OK.	A	

Table 33: TI #4 teacher-group dialogue – Session 2 (School A).

TI	Person	Utterance	Utterance code	Utterance inference
#5	A-ML	Have you recorded anything yet? <i>(Students begin to argue.)</i>	TQ	Formative
		OK, OK, OK ... remember ... record it, and listen back to it.	I	
	A-S2	Sir, how do I use this [the audio device]?	TQ	Formative
	A-ML	Yeah, red button to record it, square button to stop. That's it.	TRO	

Table 34: TI #5 teacher-group dialogue – Session 2 (School A).

TI	Person	Utterance	Utterance code	Utterance inference
#8	A-ML	Have you done a final recording yet?	TQ	Formative
	A-S3	No, not yet.	I	
	A-ML	OK. Think about doing it soon as we're running out of time.	P & I	

Table 35: TI #8 teacher-group dialogue – Session 4 (School A).

Positioning the audio device

TI #6, shown in Table 36, focused on where the audio device could be positioned so that a better-quality recording (where the instruments would be better balanced) could be made. In order to initiate a discussion, the Music Lead (A-ML) began with a Transactive Question (TQ) and, as a result of listening to the students' comments, proceeded with a Proposal with additional information (*P-info*) (adapted from MacDonald, Miell and Morgan's (2000) original) on where the audio device might be better placed. As with previous utterances, the Music Lead made another reiteration for students to make a WIPR. However, in contrast to this previously identified theme, it was not stated that students were running out of time; rather that a WIPR needed to be made in order to support the absent students upon their return.

TI	Person	Utterance	Utterance code	Utterance inference
#6	Teacher:	How's everything going?	TQ	Formative
	S3:	I like it [the composition].	I-PV	Summative
		But we can't hear you (<i>points to S4</i>).	I	
	S4:	Yeah, cuz I had to be quiet because of the recording, but then we thought it would be a great idea to put it [the audio device] right next to the amp[lifier] and all we ended up with was a recording full of guitar.	I	
	Teacher:	Yeah, Ok. I think it's right you've come down in volume, but I wondered, then, whether the [audio] recorder should go somewhere like here (<i>teacher points to the table which is situated in the middle of the practice room</i>).	A P-info	Formative
	I appreciate that there are a few of you away today, but can I ask you to try and do a few recordings and listen back so then you're able to give a lot of useful feedback to the others next week.	P	Formative	

Table 36: TI #6 teacher-group dialogue – Session 3 (School A).

Using the audio device to elicit group-based reflection

TI #7, shown in Table 37, took place during the final composing session and began with the Music Lead asking a Transactive Question (TQ). In contrast to previous TQs presented above, the Music Lead appeared to engage students in a reflection of their views regarding the composition following an assumed WIPL phase. In response to this, A-S3 (one of the two students who was present the previous week) commented on how the quality of the recording was previously “distorted” but was now no longer an issue due to “placing the [audio] recorder in a different place”. It seems apparent that since it was revealed that a previous problem had been resolved, the Music Lead did not feel it necessary to engage further in dialogue with the group.

TI	Person	Utterance	Utterance code	Utterance inference
#7	Teacher:	Ok, have you listened to it [the track recorded last lesson] yet?	TQ	Formative
	S1:	Yeah, cuz the three of us (<i>points to himself, S2 and S5</i>), weren't here last week.	TRO	
	Teacher:	Ok, good. Any what are your thoughts about the recording? (<i>S2 looks away from the group and shakes her head.</i>)	A TQ	
	S3:	Well, the sound was quite distorted before, so we managed to sort that out with placing the [audio] recorder in a different place to help with that.	TRO	
	Teacher:	Ok, great. I'll leave you to carry on.	A & I	

Table 37: TI #7 teacher-group dialogue – Session 4 (School A).

Formative assessment as a result of the Teacher Interventions (TIs)

Following some TIs, examples of formative assessment were observed during this case-study.

For instance, as shown in Figure 26 (re-presented below), TI #3, which took place during Session 1, shows that after entering intervening WIPP, Organisation, and (another) WIPP phases the teacher's request to make a recording (formative *intention*) was responded to (formative *action*).

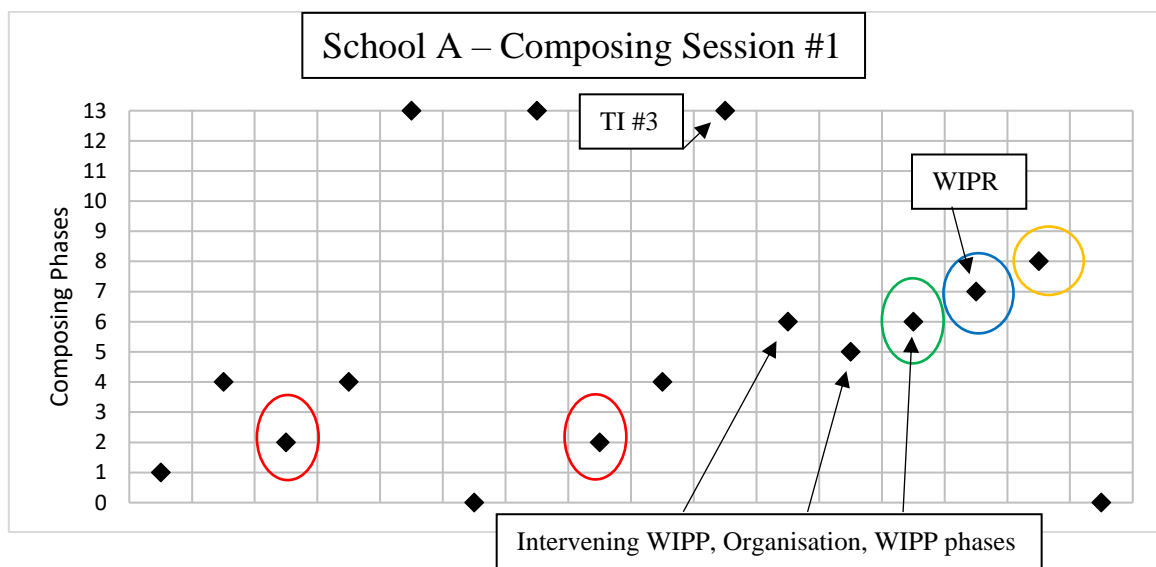


Figure 26 (re-presented): Trajectory of composing phases for Session 1 (School A).

A further example of formative assessment was observed during Session 3 in relation to the position of the audio device. In this case, as the TI #6 dialogue shown in Table 36 above shows, the Music Lead made a Proposal with additional information (*P-info*) as to where the audio device could be better positioned. Figure 28 (re-presented below) indicates that this formative *intention* was then *acted on* by the students.

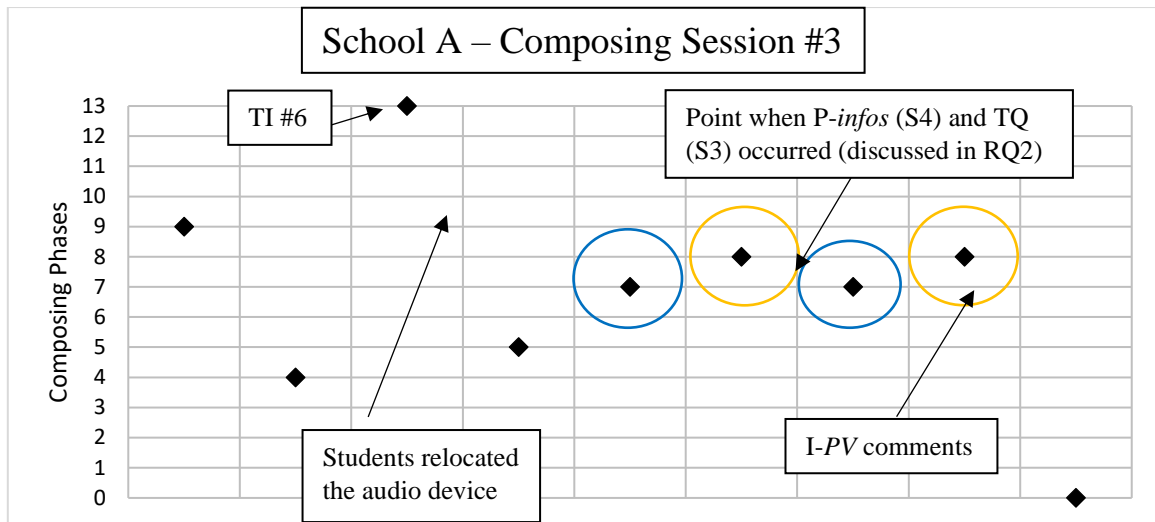


Figure 28 (re-presented): Trajectory of composing phases for Session 3 (School A).

Despite the change of the audio device’s location, it became evident after the first WIPL (orange circle) that the balance between the two instruments was still not correct. This was discussed previously when addressing RQ2. For convenience the occurrence of the students’ P-info and TQ dialogue regarding instrumental balance and sound is re-presented in Figure 28 above. Upon further sequential WIPR and WIPL phases this led to comments by the students coded as Information based on a positive viewpoint (I-PV). This was also discussed when addressing RQ2 and is also re-presented in Figure 28 above. Collectively, what these events illustrate is the sheer complexity of the formative assessment process in order to arrive, in this case, at a well-balanced recording.

In comparison to the examples above, formative *intention* requests made by the teacher were not always immediately responded to by students, however. This was evident following TI #4 during Session 2 when the Music Lead asked the group to make a WIPR as they were “running out of time”. This occurrence is indicated in Figure 27 (re-presented below).

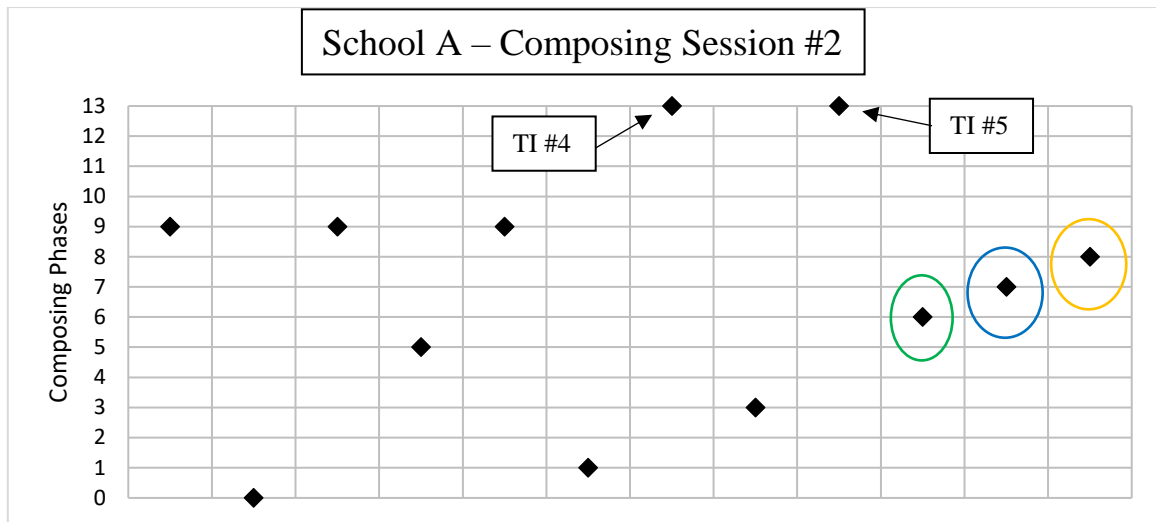


Figure 27 (re-presented): Trajectory of composing phases for Session 2 (School A).

That said, this apparent lack of *action* could have been due to the fact that students had forgotten how to record using the audio device. This was highlighted during the subsequent TI #5 when A-S2 asked for clarification on how to make a recording. This occurrence is also shown in Figure 27 (re-presented above). Once this information was re-provided by the Music Lead (formative *intention*), the group was then able to act on this (formative *action*). From this point, the group then entered the sequential phases of WIPP (**green circle**), WIPR (**blue circle**) and WIPL (**orange circle**). What this example suggests is that formative assessment could become hindered for those engaged in the process, in this case students, if they do not have sufficient information in which the process can be completed.

Summary

There are two important findings from analysing the TI data. First, the Music Lead seemed to be significantly more attentive in asking questions relating to task completion of *making an audio recording* than completing the composition *per se*. Second, although examples of

formative assessment were observed, the intention-to-action process appeared to focus more on how to use the audio device (for instance, how to record a track, and where to position it) and requesting that students made a recording before the end of the lesson. During the seven TIs, there appeared to be no examples of formative assessment found which related to developing the group's *composing*.

5.2: Case-Study 2 context – School B

Introductory contextual details for School B, the Music Lead, and Year 8 (ages 12-13) student focus group participants have already been presented (Tables 12 and 13 in Section 4.1). For convenience, this information is re-presented in the footnote below¹⁶. As with School A, music lessons took place once-a-week and lasted for 50-minutes. In contrast to School A, composing groups were organised by the Music Lead on a mixed-gender and mixed-ability basis, as was usual practice. The research took place during the second part of the Summer Term.

Data collection for analysis

Key findings from data analysed and coded for this case-study were identified through pre- and post-study teacher and student group interviews (included since the pilot study) and video-recordings of music lessons across five composing sessions. In this case-study, there were 4 hours and 45 minutes-worth of data analysed. These were broken down into the following sequential structure:

¹⁶ School B is a smaller-than-average Middle (deemed secondary) School. The majority of the student population is White-British. The proportion of SEN students is in-line with national average whilst the proportion of PP learners is below the national average. At the time the case-study took place the music teacher (female) was working in a single-person music department and had been teaching for 4-years in total. The female-male gender ratio for the focus group was 2 : 2.

Data collection method	Approximate duration for analysis
Pre-study teacher interview	30 minutes 57 seconds
Pre-study student group interview	39 minutes 13 seconds
Composing session 1 video recording	11 minutes 25 seconds
Composing session 2 video recording	26 minutes 41 seconds
Composing session 3 video recording	43 minutes 32 seconds
Composing session 4 video recording	37 minutes 00 seconds
Composing session 5 video recording	36 minutes 2 seconds
Post-study teacher interview	23 minutes 48 seconds
Post-study student group interview	37 minutes 57 seconds

Table 38: The length of each interview and video-recorded composing session (School B).

Levels of musical expertise

There were different levels of musical expertise in this composing group. For example, in the pre-study group interview, S1 commented she was actively involved in musical activities outside of school whereas S2 and S4 voiced that although they had received peripatetic music lessons (outside of normal curriculum music) in the past, they no longer continued.

Student 1 (female) [B-S1]: I've done my grade 3 singing exam for musical theatre in April and I got 92 out of 100 and I did my grade 5 in December and I got 88.

Student 2 (female) [B-S2]: ... well, I don't do much [music]. I do like keyboard when we do it in music lessons. I used to play guitar ... like I had lessons, but I stopped.

Student 4 (male) [B-S4]: I did guitar lessons in my old school but I didn't do them for long.

Composition task

Students were asked to compose a piece of music, in any style they wished, in Rondo form which also drew on the chords of C, D, F, and G majors. No further information was given at this stage. Since B-S1 was primarily a singer, the focus group chose to compose a song so that all students could be suitably involved.

5.2.1: RQ1

Identification of new composing phases

In School B, four new phases were identified; two of which were previously identified in School A. These were: Work-In-Progress Recording (WIPR), Work-In-Progress Listening (WIPL), Recorded utterance to teacher, and Recorded Teacher Intervention (RTI). The latter phase is unpicked when discussing RQ3.

Figure 30 shows the total number of times each phase (including Fautley's (2002, 2005) original phases) occurred spanning five composing sessions. In this case-study, the new WIPL (visited 22 times¹⁷) and WIPR (which arose 12 times) phases were the most frequent. Further to this, the new RTI (visited 4 times) and Recorded utterance to teacher (which occurred twice) phases also featured during the composing process. Like with School A, the majority of phases the group visited were in the Generative Stage.

¹⁷ This combines two types of WIPL phases identified. These modalities are clarified later in this section.

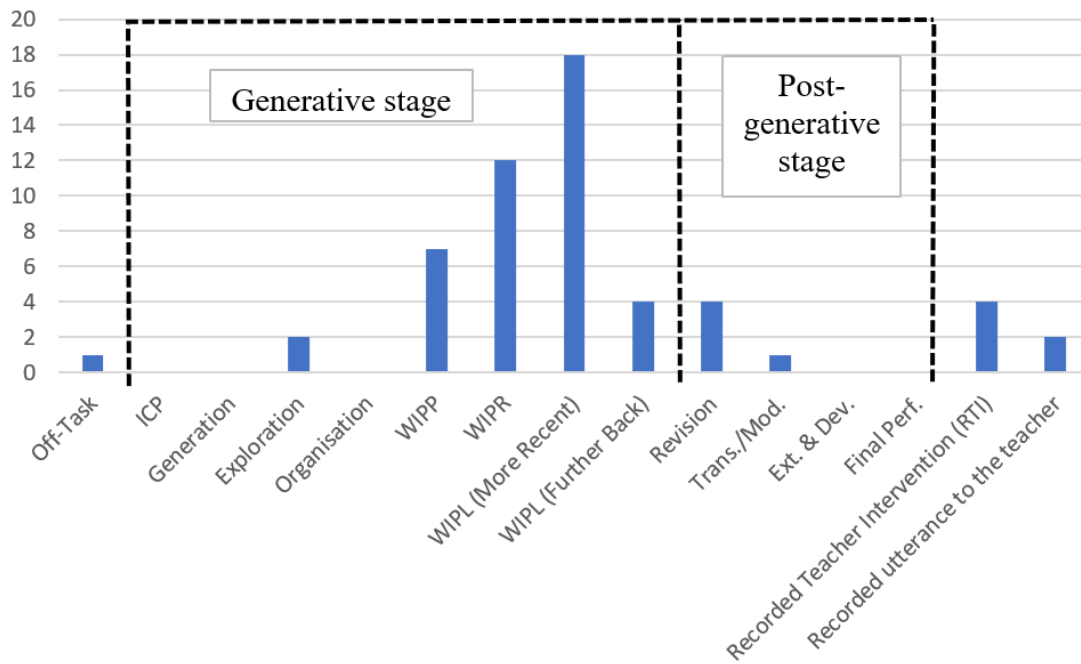


Figure 30: The total number of times each composing phase was visited (School B).

Despite Figure 30 showing the group’s most frequently visited phases, these did not fully correlate with where students spent most of their composing time. This is shown in Figure 31. One correlation was identified with the new WIPL phase which occurred most frequently and where the group spent a total of 21% of their composing time. In contrast, the WIPP (17%), WIPR (16%), Exploration (15%), and RTI (13%) phases were identified as closely following. The additional phase of Recorded utterance to teacher accounted for 2% of the overall composing time.

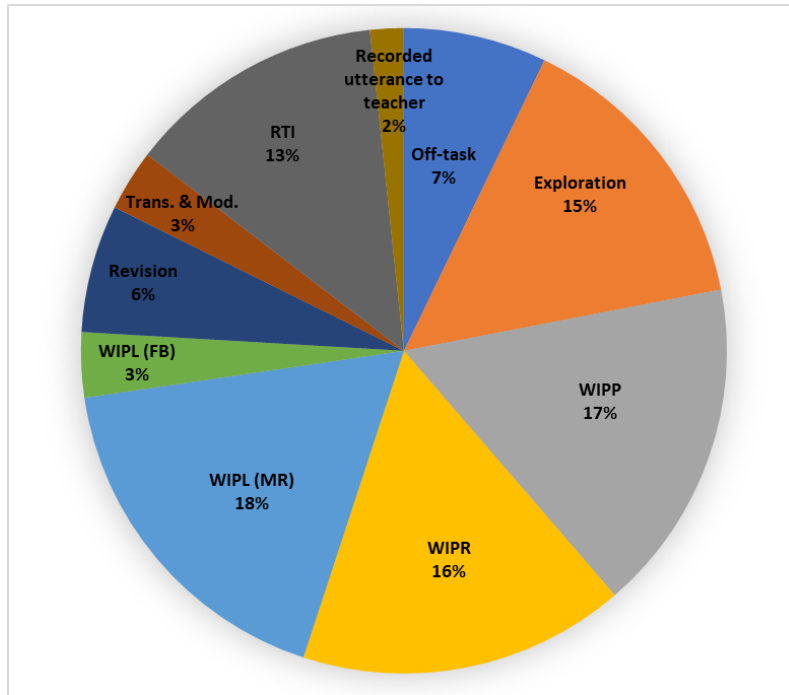


Figure 31: The total amount of time (%) each composing phase was visited (School B).

When the group's composing trajectories for each of the five composing sessions were analysed separately the low percentage of overall time for the Recorded utterance to teacher phase (2%) could be explained; it only occurred twice and arose at the very end of composing sessions 3 and 4.

Figures 32 to 36 below show the group's composing trajectories for the five composing sessions. As previously, a key detailing each composing phase is presented under each one. Again with School A, the phases in the key have been written in reverse-numerical order. This is so they are consistent with how the y-axis composing phase numbers have been presented in each of the figures.

To address RQ1, new composing phases have been identified and colour coded. These are: Recorded utterance to the teacher (**pink circles** in Figures 34 and 35); RTI (**brown circles** from Figures 33 to 36); WIPR (**blue circles**); and WIPL (**orange circles**). As with School A,

these latter two phases were identified in all composing sessions and were found to sometimes occur sequentially. This was when the group would record a section of the composition and listen back to it. Exceptions to this arose when students listened to previously recorded tracks towards the beginning of a composing session. As with School A, the WIPP phase (Fautley 2002; 2005) was also identified and was found to sometimes occur before a WIPR took place (Sessions 2, 3 and 5). To illustrate this, the WIPP phases are shown in **green circles**.

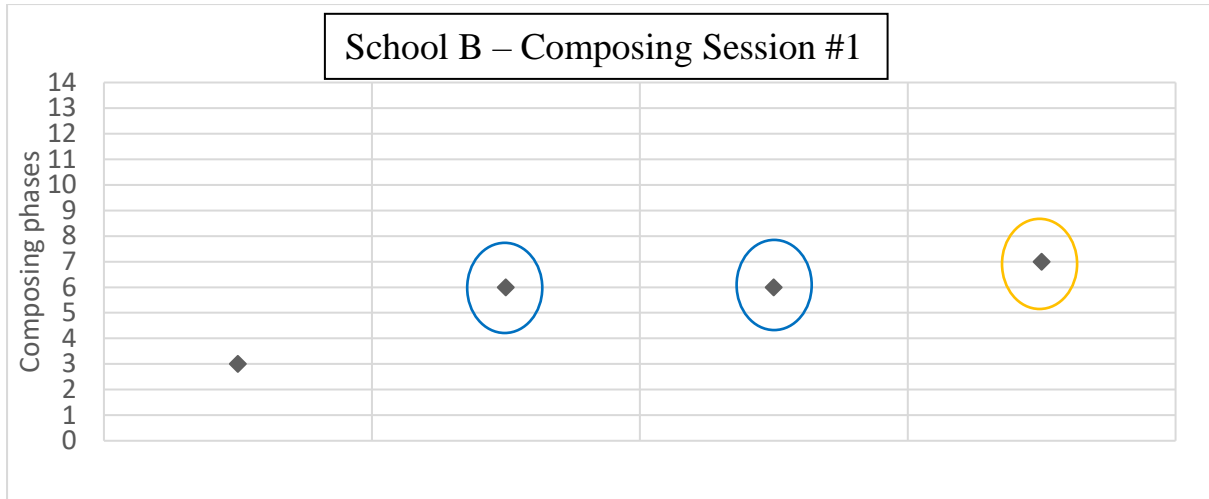


Figure 32: Trajectory of composing phases for Session 1 (School B).

Y-axis composing phase key

- 14: Recorded utterance to the teacher
- 13: Recorded Teacher Intervention (RTI)
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Further back Work-In-Progress Listening (WIPL-FB)
- 7: Most recent Work-In-Progress Listening (WIPL-MR)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of Ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

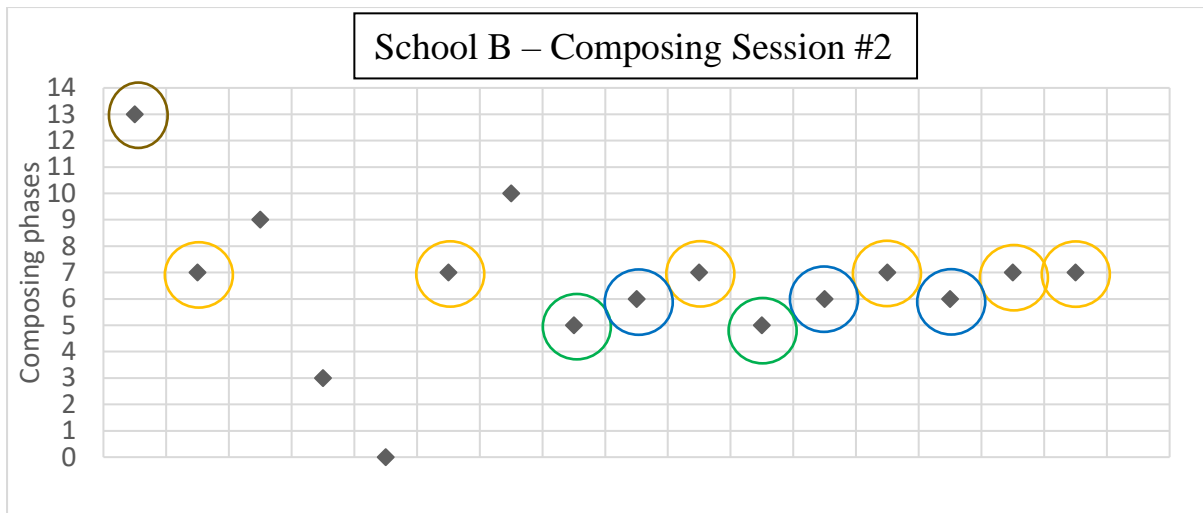


Figure 33: Trajectory of composing phases for Session 2 (School B).

Y-axis composing phase key

- 14: Recorded utterance to the teacher
- 13: Recorded Teacher Intervention (RTI)
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Further back Work-In-Progress Listening (WIPL-FB)
- 7: Most recent Work-In-Progress Listening (WIPL-MR)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of Ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

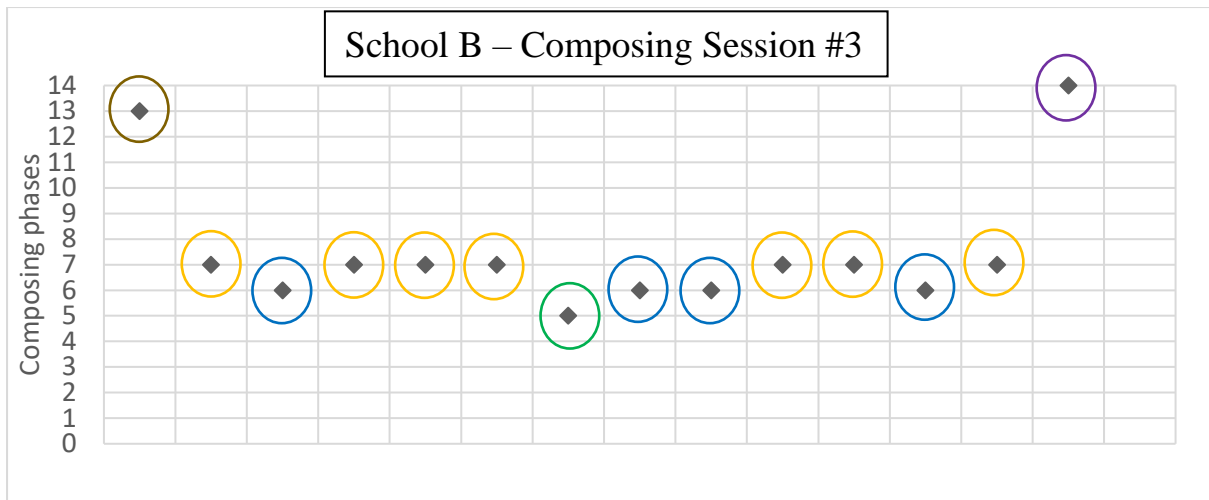


Figure 34: Trajectory of composing phases for Session 3 (School B).

<i>Y-axis composing phase key</i>
14: Recorded utterance to the teacher
13: Recorded Teacher Intervention (RTI)
12: Final Performance
11: Extension and Development
10: Transformation and Modification
9: Revision
8: Further back Work-In-Progress Listening (WIPL-FB)
7: Most recent Work-In-Progress Listening (WIPL-MR)
6: Work-In-Progress Recording (WIPR)
5: Work-In-Progress Performance (WIPP)
4: Organisation
3: Exploration
2: Generation of Ideas
1: Initial Confirmatory Phase (ICP)
0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

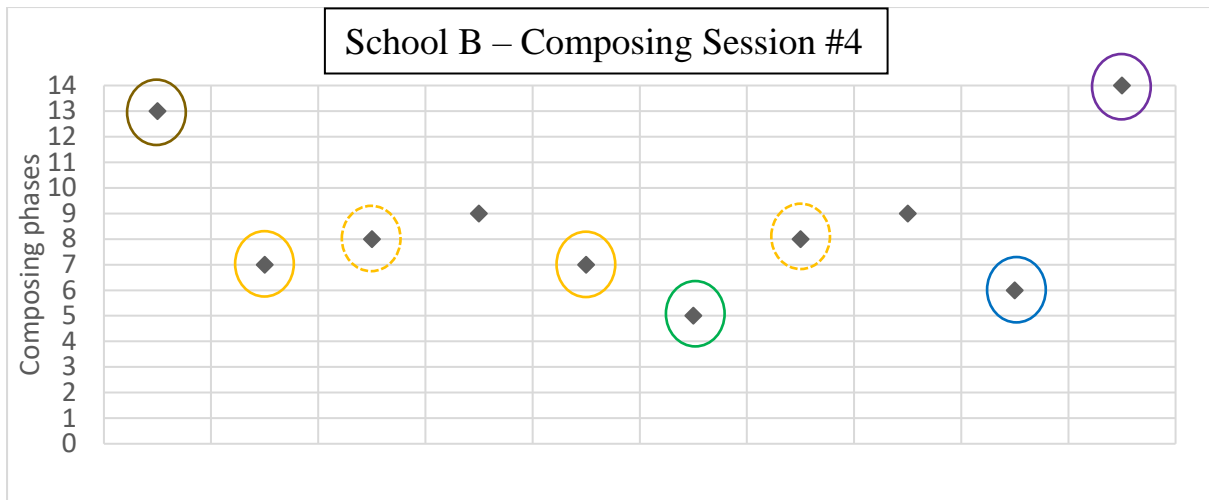


Figure 35: Trajectory of composing phases for Session 4 (School B).

Y-axis composing phase key

- 14: Recorded utterance to the teacher
- 13: Recorded Teacher Intervention (RTI)
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Further back Work-In-Progress Listening (WIPL-FB)
- 7: Most recent Work-In-Progress Listening (WIPL-MR)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of Ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

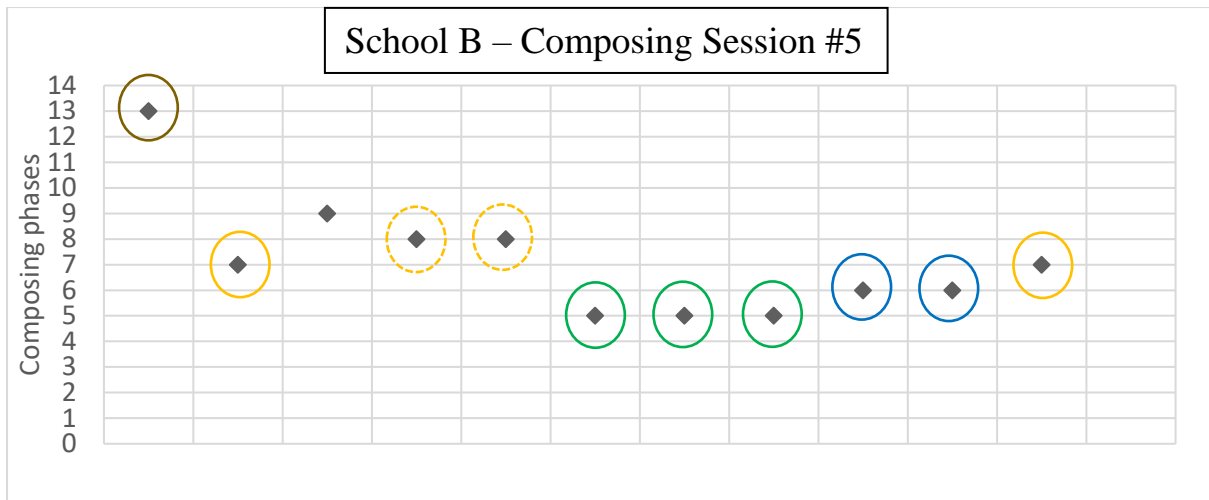


Figure 36: Trajectory of composing phases for Session 5 (School B).

Y-axis composing phase key

- 14: Recorded utterance to the teacher
- 13: Recorded Teacher Intervention (RTI)
- 12: Final Performance
- 11: Extension and Development
- 10: Transformation and Modification
- 9: Revision
- 8: Further back Work-In-Progress Listening (WIPL-FB)
- 7: Most recent Work-In-Progress Listening (WIPL-MR)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of Ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

Work-In-Progress Recording (WIPR)

Quantitative details for this composing phase are shown in Table 39.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Recording (WIPR)	12	All sessions	16%

Table 39: Quantitative details relating to the WIPR phase (School B).

A WIPR phase was identified when the audio device was used to record the group's work-in-progress composition. As can be seen in Figures 33, 34, and 36 above, a WIPR (**blue circle**) occurred following a WIPP (**green circle**). This sequence was viewed as important to the group in terms of how to organise their lesson time.

B-S1: It was just so that we didn't have to keep making loads of recordings which were going to be messed up. I think it was easier because we wouldn't then have to keep stopping and starting the recording if something went wrong.

12 WIPRs were made over the course of the five composing sessions. These sometimes occurred immediately after one another (for example, see **blue circles** in Figures 32, 34 and 36) because mistakes (for example, playing wrong notes) were evident to the group and so they made a new recording. The quality of the recordings the group made was important; a poor-quality recording may have resulted in different teacher feedback.

B-S4: It's cuz we wanted it to sound right cuz otherwise if it was a rubbish recording that would have affected the sort of feedback we might have gotten from the teacher.

These comments suggest that the WIPR phase can be considered an important part of the formative assessment process. The formative *intention* WIPR was not ignored by the group, but in almost all cases, led to a form of *action* through entering a WIPL phase (**orange circles**). The only exception to this pattern is shown in Figure 35. This change in approach might have occurred because it took place towards the very end of the composing session leaving very little time to listen.

Work-In-Progress Listening (WIPL)

Quantitative details for this composing phase are shown in Table 40.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Listening (WIPL)	22	All sessions	21%

Table 40: Quantitative details relating to the WIPL phase (School B).

A WIPL phase was identified when the group played back the music they recorded during a WIPR phase. In this case-study, two types of WIPL were identified: a WIPL-MR (**orange circles**) where the group would listen to a (more recent) WIPR track made during the lesson or the previous lesson, and a WIPL-FB (dotted **orange circles**) where tracks recorded in

lessons further back were listened to. Both of these modalities are identified in Figures 30 and 31 as well as in the group’s composing trajectories from Figures 32 to 36. The WIPL-FB phase seemed to emerge because the group chose to record fragments and sections of their composition on separate tracks. This was a different approach to the School A group who made a more complete recording each time.

Video recorded data revealed that the WIPL phase was an important concept for formative assessment to take place. For example, although, by itself, it can only be considered formative *intention*, the WIPL phase (composing phases #7 and #8) was found to lead to the Revision phase (composing phase #9) in Figures 33, 35 and 36 above. These Revision phases were an important form of *action* for the group. What was observed is shown in Table 41 below.

General theme	Type of “revision” following the WIPL phase
Retrieval practice	Student imitation of their part <i>after</i> listening.
	Student imitation of their part <i>during</i> listening.

Table 41: Modalities of revision identified following a WIPL phase (School B).

It seemed that some of the WIPL phases assisted the group to mentally retrieve work that they had done in previous sessions. In practice, what this meant was that students would imitate their part immediately after what they had just heard, or use the track as an accompaniment to play along to figure out what notes were used. In other words, what Table 41 highlights is that the previously recorded tracks were being used as an *aide memoire* (discussed when addressing RQ4) to help students remember the work they composed in previous weeks.

Recorded utterance to teacher

In this case-study, no in-person Teacher Interventions (TIs) took place. Instead, teacher-to-group feedback was recorded on the group's audio device. This notion is explored in greater depth when addressing RQ3 (Section 5.2.3). Since no live TIs took place, students were not able to ask questions directly to the teacher. Instead, when they needed assistance with moving their composing forward, they chose to record an utterance to the teacher. These phases, shown in Figures 34 and 35 as **pink circles**) occurred twice overall and can be seen at the end of composing sessions 3 and 4.

As stated in Section 5.2, the group chose to compose a rondo form song so that it included all members of the group, particularly B-S1 who was a singer. Although composing phase trajectories have been identified above, what they do not account for are the group-based discussions. This is an important consideration because it transpired that the notion of song writing was hugely problematic for the group; they spent a large amount of their composing time discussing lyrics which affected further music-making. The overall percentage of composing time used to discuss lyrics for each relevant composing session is shown in Table 42.

Composing session	Amount of composing time (%) the group spent discussing lyrics
Session 3	43%
Session 4	67%
Session 5	46%

Table 42: The amount of composing time the focus group spent on discussing lyrics (School B).

Students found the initial starting point for writing lyrics the main issue:

B-S1: ... we weren't given like a topic or anything and there's so many things you can write about.

B-S2: We didn't really know what we wanted to do and it's kinda hard just thinking about the lyrics, like to just sit down and do it.

The struggle of writing lyrics was also indicated by the Music Lead in the post-study interview:

B-ML: They just didn't know what to write about.

In an attempt to problematise this, B-S1 used the audio device at the end of Session 3 to record the question:

B-S1: Our topic name is [local area]. Miss, what other lyrics could we use?

This phase can be considered formative *intention* because the recorded track may have been missed or not responded to by the teacher in her feedback. As this relates more specifically to RQ3, this will be unpicked in Section 5.2.3.

5.2.2: RQ2

Unpicking summative talk

Two modalities of summative talk were identified: Information (I) and Information based on a positive viewpoint (I-PV). In this case-study, no Information based on a negative viewpoint (I-NV) codes were identified. These codes were identified as summative because each were found to sum-up the work-in-progress composition at that point in time.

Information (I)

Based on MacDonald, Miell and Morgan's (2000) article, Information (I) codes (2000: 412) were identified. Table 43 shows examples of student comments which sum-up their views on what they have heard following a WIPL phase.

Example number	Composing session	Student speaking	Utterance
#1	2	B-S1	Sounds a bit messy.
#2	3	B-S2	That was so out of time.

Table 43: Discourse analysis showing summative 'I' (School B).

Information based on a positive viewpoint (I-PV)

As with School A, although the comments in Table 44 below also provide information, it was felt that this term, based on MacDonald, Miell and Morgan's (2000) original coding, needed further unpicking. Therefore, to provide further clarification on the type of information being

given I-PV codes were identified. As with the ‘I’ comments presented above, these utterances can also be described as summing-up and further relate to the current status of the work-in-progress composition.

Example number	Composing session	Student speaking	Utterance
#1	1	B-S1	I quite like it.
#2	2	B-S1	That sounded quite good.
#3	2	B-S1	Ok, I like that.
#4	3	B-S1	That sounds really good.
#5	5	B-S1	Yeah, that was alright.
#6	5	B-S3	Yeah, I like that.

Table 44: Discourse analysis showing summative ‘I-PV’ (School B).

Unpicking formative talk

Three modalities of formative talk were identified: Proposal (P), Proposal as a statement (*P-stat*), and Proposal with additional information (*P-info*). In contrast to the summative comments above, these codes were considered to be formative because they had the potential to inform the group on what next steps needed to be taken to improve the work-in-progress composition.

Proposal (P), Proposal as a statement (P-stat), Proposal with additional information (P-info)

Following MacDonald, Miell and Morgan’s (2000) definition, a ‘P’ code (2000: 412) was identified when a student proposed something. In the examples shown in Table 45 below, these proposals were mainly focused on entering a WIPR phase or, as shown in example #3, what instrument might be played in the composition. Examples 1 and 2 are particularly interesting because each proposal to record was met by a counter-proposal, proposed by a different student, that the group should practise (enter a WIPP) first.

Example number	Composing session	Student speaking	Utterance
#1	2	B-S1 (<i>to B-S3</i>) B-S3	Ok, can you do what you just did before and we’ll try and record it? <i>Students 3 and 4 play at the same time.</i> Wait, can we practise first?
#2	2	B-S1 B-S3 B-S1 B-S3	Ok, ready to record? Can we just practise a bit first? (<i>B-S3 begins to play his part.</i>) OK, 3, 2, 1, go. No, wait. Let’s practise first.
#3	2	B-S3 B-S1	I think I should play the drums. You know what, that might actually work cuz we need some drums.

Table 45: Discourse analysis showing formative ‘P’ (School B).

These counter-proposals can be considered an important formative *intention* because, although they could have been ignored, the *action* they then led to was an important strategic

change in direction for the group. In other words, as Figure 33 (re-presented) below shows, the group entered the WIPP phase to practise before entering a WIPR.

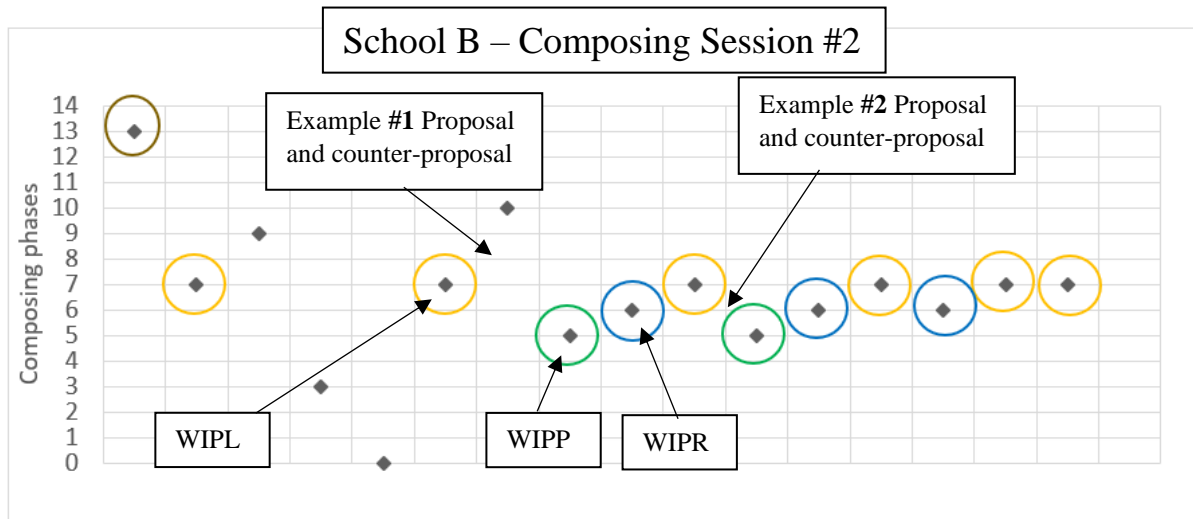


Figure 33 (re-presented): Trajectory of composing phases for Session 2 (School B).

In unpicking MacDonald, Miell and Morgan’s (2000) ‘P’ codes further, a *P-stat* was identified when a proposal was made (the *what*) but did not contain any additional information regarding what could be done about it (the *how*). Although related, these can be considered slightly different to the proposals above because the comments would require further exploration or discussion in order for them to come into fruition. Two *P-stat* examples were identified and are shown in Table 46.

Example number	Composing session	Student speaking	Utterance
#1	4	B-S3	We need to do another idea on the keyboard and maybe something on the drums.
#2	4	B-S1	We really need to get these lyrics sorted.

Table 46: Discourse analysis showing formative ‘P-*stat*’ (School B).

These formative *intentions* also contained the words “we need to” and “we really need to” suggesting that *action* should be taken. However, video recorded data showed that this was not the case. As Figure 35 (re-presented) below shows, following the point of the P-*stat* comments, the group entered the WIPP, WIPL-FB (further back), Revision, WIPR, and Recorded utterance to the teacher phases. The fact that the lyrics proposal did not occur is perhaps unsurprising; as discussed when addressing RQ1, this is something the group found highly problematic. It was because of this, therefore, that the Recorded utterance to the teacher phase was entered at the end of the composing session.

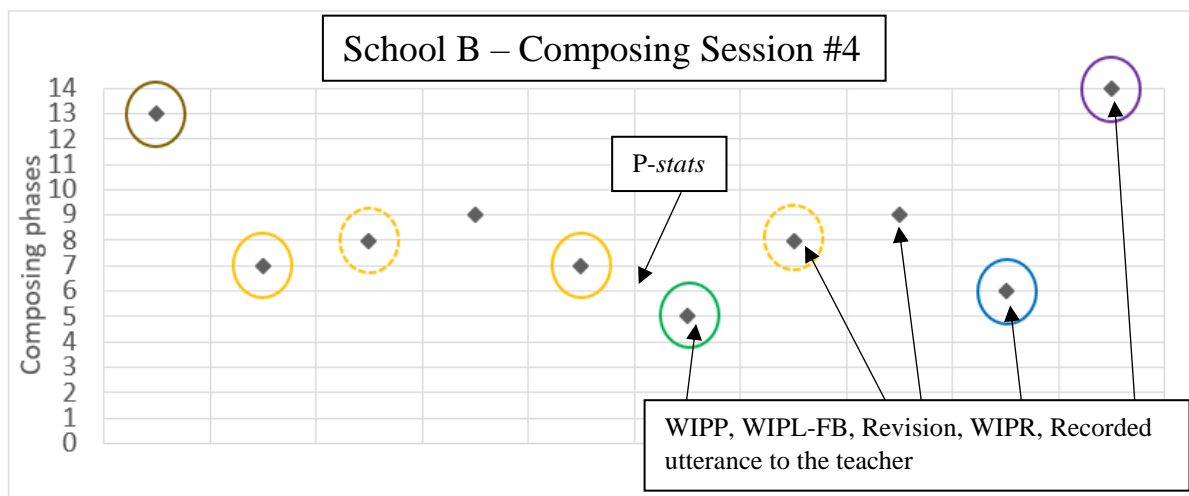


Figure 35 (re-presented): Trajectory of composing phases for Session 4 (School B).

In comparison to the ‘P’ and *P-stat* examples above, a *P-info* was identified when a proposal was made (the *what*) but additional information was also included as to what needs to be done (the *how*). Examples of *P-infos* are shown in Table 47 below. They can be considered as qualitatively different to the proposal types above because they have the potential to better inform the group as to what needs to be done. As such, these comments have the potential to make a greater formative impact.

Example number	Composing session	Student speaking	Utterance
#1	2	B-S4	I think I could do with turning my volume down (<i>adjusts volume on the keyboard</i>).
#2	2	B-S1	So, the next thing that we have to start thinking about is the lyrics like teachers or schools or something.
#3	3	B-S2	Maybe [B-S1] should sit closer to [B-S4]. That way, the two instruments should balance on the recording.
#4	3	B-S1	I think we should record a question about lyrics for Miss to listen to and give feedback on ready for next time.

Table 47: Discourse analysis showing formative ‘P-info’ (School B).

From a formative assessment perspective, these P-info formative *intentions* mostly, but not always, led to *action*. For example, video recorded data showed that after the first P-info (example #1), B-S4 adjusted the volume on their keyboard. This occurrence is shown below in Figure 33 (re-presented). It was then at this point that the second proposal and counter-proposal was made. This was discussed previously. The second P-info comment (example #2) provided additional information regarding the types of themes that the lyrics could include. Despite the intention for this to occur, this was not the case, however; the composing session came to an end.

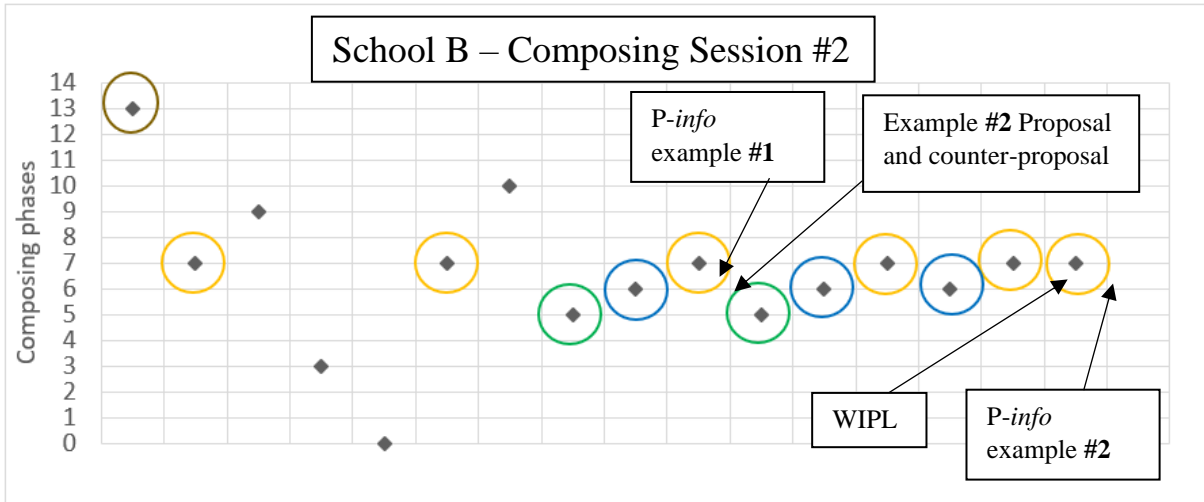


Figure 33 (re-presented): Trajectory of composing phases for Session 2 (School B).

In Session 3, formative assessment was found to occur following both P-infos. Where these occurred is shown in Figure 34 (re-presented) below. Following the identified WIPL, B-S2 proposed (formative *intention*) that two of the group members (B-S1 and B-S4) should sit closer together to get a better balance of their instruments on the audio device (P-info example #3). They did this (formative *action*). The group then entered a WIPP phase before a WIPR took place.

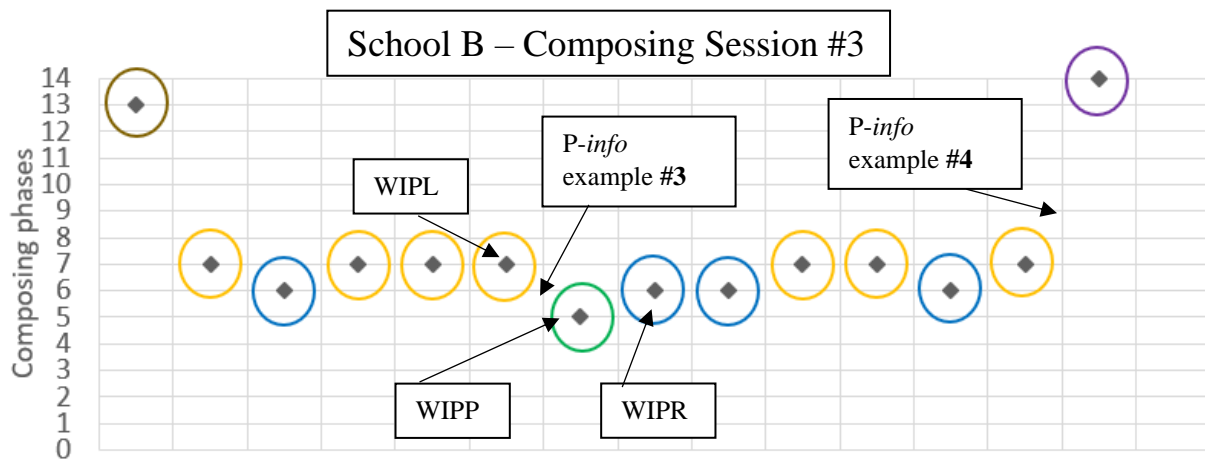


Figure 34: Trajectory of composing phases for Session 3 (School B).

Figure 34 also shows when P-info example #4 occurred. At this point, a proposal was made (formative *intention*) that a recording to the teacher should take place asking for support with the lyrics. This proposal was deemed to be a P-info because it also included information with regards to how the teacher’s response was intended to be used in the next week’s composing session. In a similar instance to what was found in School A, this particular example highlights the complexity and multifacetedness of the formative assessment process. For example, although B-S1 proposed that a recorded utterance to the teacher should take place (formative *intention*), and was acted on (formative *action*), the process has not ended here; it is still very much dependent on i) the teacher listening to this particular track and providing audio recorded and/or live feedback or support (formative *intention*), and ii) that the teacher’s response is then used by the group (formative *action*). Given that the Recorded Teacher Intervention (RTI) relates to teacher feedback, this is further discussed when addressing RQ3.

Summary

Table 48 collates the types of feedback which occurred following the identified WIPR and WIPL phases.

	Summative comments		Formative comments		
	I	I-PV	P	P-stat	P-info
Session 1		1			
Session 2	1	2	3		2
Session 3	1	1			2
Session 4				2	
Session 5		2			
Cumulative total for each code identified	2	6	3	2	4
Cumulative total of summative and formative comments	8		9		

Table 48: A summary of types of feedback following WIPR and WIPL phases identified (School B).

As Table 48 shows, a very small majority of feedback comments could be described as formative and centred around varying modalities of proposal. As was found in School A, when summative comments occurred, they were largely found to be Information based on a positive viewpoint (I-PV).

Examples of formative assessment were found in this case-study. When they arose, these instances included: counter-proposals to practise further before making a WIPR, therefore eliciting an important strategic change in direction for the group; adjusting the volume on an

instrument; students changing location to get a better balance between instruments on a WIPR; and recording a question to the teacher asking for support with lyric writing. The first three of these formative assessment occurrences, although clearly important to the group, can be thought of as strengthening the *performance* of the composition. This was also identified in School A. The fourth instance can, indeed, be related to developing composition, however, at this point, it is not immediately concerned with developing the group’s music *per se*. This is because, at this point, students were in need of ideas on which to begin writing their lyrics. As has been established previously, this was a particularly problematic concept for this group.

Further to the balance of summative-formative feedback, Table 49 shows that when comments were analysed and separated by gender it was found that female contributions (particularly summative utterances) slightly outweighed those of the males. That said, there were, overall, slightly more formative comments made by the male students (particularly B-S3) when compared to formative comments given by the females.

	B-S1 (female)	B-S2 (female)	B-S3 (male)	B-S4 (male)
Summative utterances	6	1	1	
Formative utterances	3	1	5	1
Total number of utterances	9	2	6	1

Table 49: A summary of formative and summative utterances separated by gender (School B).

The notion of female contribution dominance (primarily B-S1) could be due to the fact that she was considered, by her male peers, as the musical expert in the group due to her extra-

curricular singing and music exam achievements (shown in Section 5.2). This was revealed in the post-study interview:

B-S1: My role [in the group] was singing and ... like ... bringing everything together.

R: Ok, and why did you do that?

B-S4: Cuz she's a music person with all of her grades 'n' that.

B-S3: Yeah, she's better at music than us so we followed what she said.

5.2.3: RQ3

As stated previously (Section 5.2.1), no live Teacher Interventions (TIs) took place in School B. Instead, the Music Lead chose to listen to the group's work and record feedback using the audio device outside of the composing sessions. As such, these have been re-coded as Recorded Teacher Interventions (RTIs). For organisational purposes, I devised a sheet where the group could write down which track(s) they wanted the teacher to listen to and give feedback on. On the same sheet there was also a column for the teacher to write the track they recorded their feedback on for students to listen to. The sheet used in this case-study is shown in Appendix 8.

As with the analysis for School A, although recorded teacher feedback was analysed in a consistent way to group-based comments shown previously in RQ2, the findings have not been presented in the same manner. Again, this was so that the flow of the Music Lead's recorded comments would not be broken up and de-contextualised. From an analytical point, what this meant was that there were different modalities of teacher talk being identified within one RTI phase. This was not a problem when addressing RQ2 where group-based comments surrounding WIPR and WIPL phases were very short. Instead, to address RQ3, RTIs (which occurred towards the beginning of Sessions 2-5) have been presented separately and arranged thematically according to the focus of the feedback whilst still being able to analyse types of utterances from a summative-formative perspective. Following this approach several feedback themes emerged, some of which were found to be common. They were: positive praise; composition structure; what to do when making a WIPR; writing lyrics; and extending the composition.

Positive praise, composition structure, and using the audio device

Recorded Teacher Intervention (RTI) #1, which students listened to at the beginning of Session 2, revealed three themes: positive praise, the Rondo structure, and how students should use the audio device. The comments relating to these themes are shown in Table 50.

Feedback theme	Feedback content	Code	Inference
Positive praise	Great start, guys.	I-PV	Summative
	You have a really promising musical idea.	I-PV	Summative
Composition structure	Can I just check, are you composing your musical ideas before your lyrics?	Q-clarity	Formative
	If that's the case, you should focus on the structure so remember that it's in Rondo form, so that's A, B, A, C et cetera. So, your A section keeps repeating and you have to come up with something new for B and C.	P-info	
	Is this section A?	Q-clarity	Formative
	If this is section A, can I suggest that you have a think about how your section B will contrast, please?	P-Q	
	So, what I suggest you do today is focus on sections A and B.	P-stat	Formative
Using the audio device	What you then need to do is when you record your ideas, tell me what idea it is, like section A or B and so on, because this will help me give you some focused feedback as you go along ready for next time.	P-info	Formative
Positive praise	In all, a really good start.	I-PV	Summative

Table 50: RTI #1 teacher feedback – Session 2 (School B).

As Table 50 shows, RTI #1 began, and ended, with summative I-PV comments. Although these comments sum-up the Music Lead's views on the work-in-progress composition at this point, they can also be thought of as a valuable means for providing students with positive praise and encouragement. The Music Lead then went on to focus on the structure of the

Rondo composition. In this section there are two main types of utterance: *Q-clarity* and *proposals*. A *Q-clarity* asks for clarity. This code was felt to be different from MacDonald, Miell and Morgan's 'TQ' code (2000: 413) because, although similar, a dialogical response could not be given, if at all. Three different types of proposal were also identified: *P-stat*, *P-info*, and *P-Q*. As with previous analyses, a *P-stat* can be thought of as focusing on that *what*, whereas a *P-info* also considers the *how*. A new Proposal as a question (*P-Q*) was also identified. In the example shown in Table 50 above, the Music Lead asks the question as to whether the group could spend some of their composing time considering how their section B might contrast with section A. The third theme of this RTI feedback focused on what to do, via a *P-info*, when using the audio device to make a WIPR. In contrast to the summative positive praise comments, the utterances within these latter two themes were thought to be formative (more specifically formative *intentions*) because they were being given with the *intention* that they would be acted on.

Positive praise and writing lyrics

RTI #2, which students listened to at the beginning of Session 3, revealed two themes: positive praise and writing lyrics. The comments relating to these themes are shown in Table 51.

Feedback theme	Feedback content	Code	Inference
Positive praise	Really good start.	I-PV	Summative
	The first bit sounds really confident, so well done to all of you on that.	I-PV	Summative
Writing lyrics	I said previously [RTI #1 above] about adding lyrics, and so maybe you could think about this today if this is still something you want to do as part of your piece. You'll need to think about the kinds of words you'll want to write about.	R <i>P-info</i>	Formative

Table 51: RTI #2 teacher feedback – Session 3 (School B).

As with RTI #1 discussed above (Table 540, RTI #2 (Table 51) opens with summative I-PVs. Through bringing in a Reiteration (R), the focus moves onto lyric writing. This reiteration was perhaps necessary because, up until this session, no composing time had been spent on writing lyrics. A *P-info* as to how the group might organise themselves with this during the session was also provided.

RTI #3, which students listened to at the beginning of Session 4, also focused on positive praise and writing lyrics. The comments relating to these themes are shown in Table 52.

Feedback theme	Feedback content	Code	Inference
Positive praise	I love the idea of that topic because I think it is something you can all contribute to.	I-PV	Summative
Lyric writing	Can I suggest that you think about what you would like to say, please?	P-Q	Formative
	So, [B-S1], could you add some singing today or [B-S2], perhaps you could do something on the keyboard?	P-Q	Formative
Positive praise	I like where this is going; you have some lovely ideas.	I-PV	Summative

Table 52: RTI #3 teacher feedback – Session 4 (School B).

Like previous RTIs, it opens (and closes) with summative positive praise (I-PV) before offering proposals as questions (P-Q) with regards to writing lyrics. As this feedback relates more specifically to formative assessment, this is discussed later in this section.

Positive praise and extension

RTI #4, which students listened to at the beginning of Session 5, revealed two themes: positive praise and extension. The comments relating to these themes are shown in Table 53.

Feedback theme	Feedback content	Code	Inference
Positive praise	OK, this is sounding really good so far.	I-PV	Summative
Extension	Could you push yourselves further? If you want, you can include some additional elements of music to make it sound even more interesting, so dynamics, tempo, texture, et cetera.	P-Q P-info	Formative Formative

Table 53: RTI #4 teacher feedback – Session 5 (School B).

As with previous RTIs the Music Lead opens with positive praise. The subsequent Proposal as a question (P-Q) here is interesting because the Music Lead is suggesting the group should spend time developing their composition. This would move them from the Generative to the Post-Generative stage (Fautley, 2002; 2005). As this relates to formative assessment, this is discussed further below.

Formative assessment as a result of the Recorded Teacher Interventions (RTIs)

Following some RTIs, examples of formative assessment, were observed during this case-study. For example, after RTI #1, video recorded data suggests that the Music Lead's formative comments, perhaps particularly the P-Q to focus on how section B of the composition will contrast with section A, were acted on. Figure 33 (re-presented) below indicates that, although not immediate, the group entered the Exploration phase following RTI #1. It was at this point that the group were observed to be exploring ideas for section B of their composition.

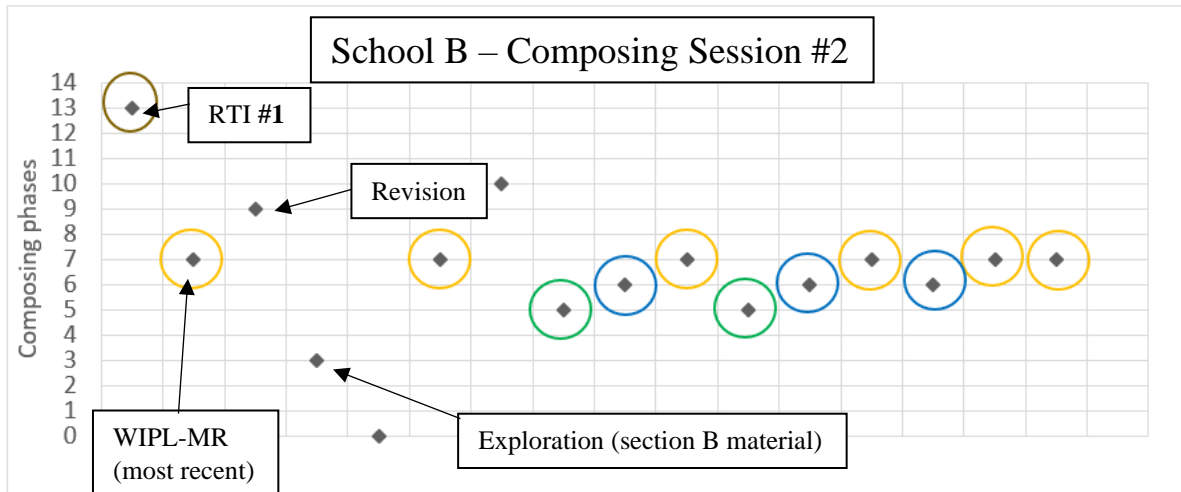


Figure 33 (re-presented): Trajectory of composing phases for Session 2 (School B).

On the other hand, formative *intentions* did not always come to fruition. For example, following the Music Lead’s P-Q and P-info to extend their composition work (RTI #4), this did not occur, and students spent the majority of their final composing session within the WIPL (both modalities), WIPP, and WIPR phases. This is shown in Figure 36 (re-presented) below.

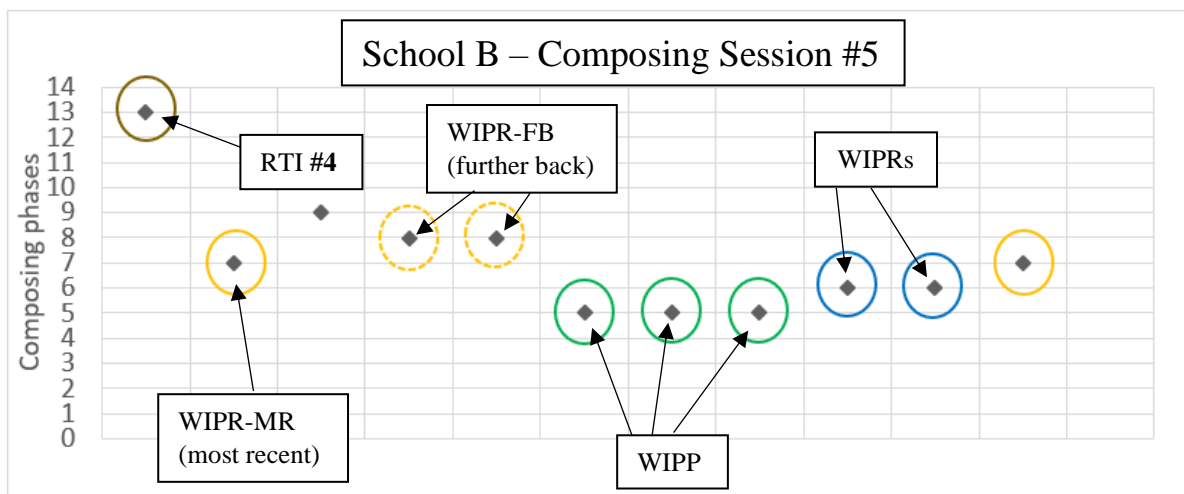


Figure 36 (re-presented): Trajectory of composing phases for Session 5 (School B).

Formative assessment and the notion of writing lyrics

As has been previously identified, the notion of lyric writing was particularly problematic for this group. In Session 3, the group spent approximately 43% of their overall composing time discussing lyrics (Table 42, Section 5.2.1). Although RTI #2 (which was listened to by the group at the beginning of the session) provided some information (*P-info*) as to how they might utilise their composing time with this, no lyrics were actually present in any of the subsequent composing phases. Instead, as indicated in Figure 34 (re-presented) below, students spent time listening to (WIPL – orange circles), practising (WIPP – green circles), and recording (WIPR – blue circles) their already existing music. In terms of formative assessment, what this seems to highlight is that although the Music Lead’s *P-info* comment (formative *intention*) to discuss lyrics was indeed acted on by the group (formative *action*), the fact that the group found this concept particularly problematic meant that the impact of formative assessment here was hindered. To help problematise this, at the end of the session, B-S1 used the audio device to engage in a Recorded utterance to the teacher (pink circle) to ask for further support:

B-S1: Our topic name is [local area]. Miss, what other lyrics could we use?

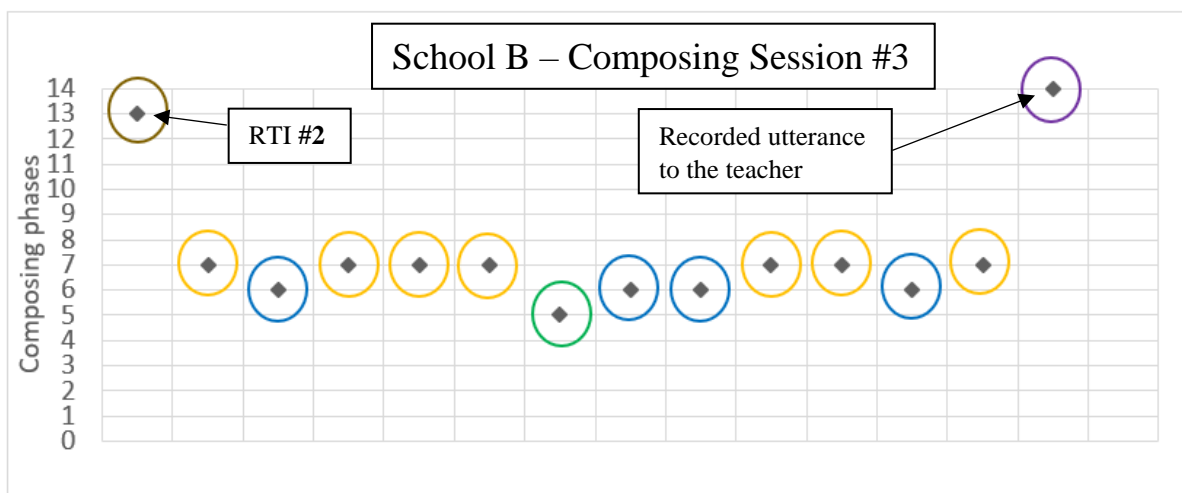


Figure 34 (re-presented): Trajectory of composing phases for Session 3 (School B).

RTI #3, in response to B-S1’s recorded question, was listened to by the group a week later (Session 4). Although the Music Lead responded positively to the group’s chosen topic, she did not actually answer their question. Instead, she made a proposal as a question (P-Q) suggesting that the *students* should think about what they would like to write about. This is an important finding with regards to the formative assessment process; although a recorded question was made by the group (B-S1: “Miss, what other lyrics could we use?”) with the *intention* it would be responded to with advice by the Music Lead, this was not actually the case. As such, this could be reason why, during Session 4, the group spent a further 67% of their composing time discussing lyrics (Table 42, Section 5.2.1). Once again, as indicated in Figure 35 (re-presented) below, this could explain why students continued to spend time listening to (WIPL – orange circles), practising (WIPP – green circles), and recording (WIPR – blue circles) their already existing music. The fact that lyrics were still not present in any of the composing phases may not be surprising since, in this example, the Music Lead did not respond to the group’s recorded question asking for support with lyrics therefore hindering this important formative assessment process.

At the end of this session, B-S1 entered the Recorded utterance to the teacher for a second time:

B-S1: I am working on the singing, Miss. Don't worry.

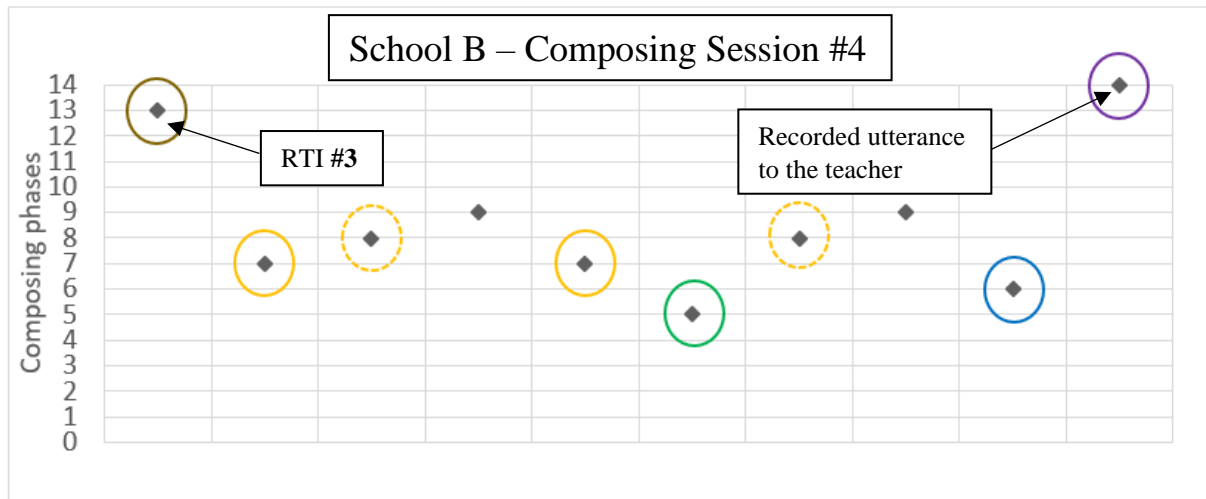


Figure 35 (re-presented): Trajectory of composing phases for Session 4 (School B).

As stated above, the group chose not to act on the Music Lead's proposal to extend their composition. In the final composing session (Session 5), 46% of the overall composing time was still spent on discussing lyrics (Table 42, Section 5.2.1). On this occasion, this proved beneficial; according to video recorded data, the group were observed to be using the consecutive WIPP phases to practise the inclusion of their lyrics before the final WIPRs (the final one of which was the group's composition submission) took place. This is shown in Figure 36 (re-presented) below.

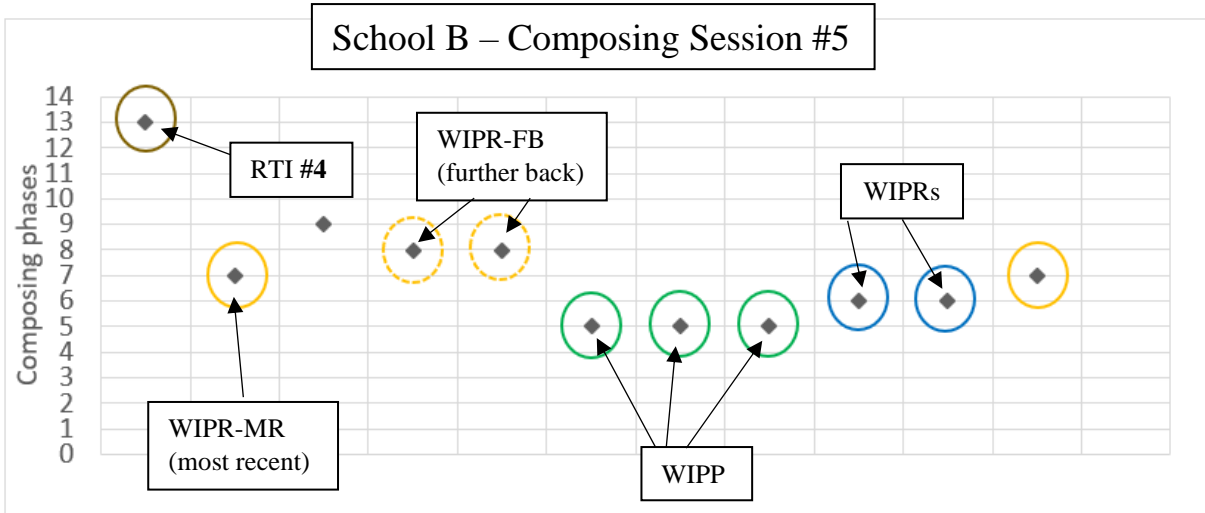


Figure 36 (re-presented): Trajectory of composing phases for Session 5 (School B).

Summary

The different modalities of feedback recorded by the Music Lead are shown in Table 54.

	Summative comments	Formative comments		
	<i>I-PV</i>	<i>P-Q</i>	<i>P-stat</i>	<i>P-info</i>
Session 2	3	1	1	2
Session 3	2			1
Session 4	2	2		
Session 5	1	1		1
Cumulative total for each code identified	8	4	1	4
Cumulative total of summative and formative comments	8	9		

Table 54: Summary of types of recorded feedback made by the teacher (School B).

Table 54 shows that, across four RTI phases, eight comments were considered as summative, and all took the form of the Music Lead giving Information based on a positive viewpoint (*I-PV*). Only a small majority of comments the group received (9 in total) were considered formative. Although they have been unpicked further, they were all types of proposal. When they occurred, the formative proposals made focused on: organising the Rondo structure (3 occurrences); lyrics (3); extending the composition (2); and what to do when making a WIPR (1). Important as these are, these proposals seldom seemed to consider developing students' *composing*. This is a finding which is somewhat consistent with School A's live teacher feedback.

5.2.4: RQ4

Using data primarily from the post-study interviews, this section presents teacher and student perceptions of using an audio device during the group composing process. Data were coded to identify themes which were then arranged to reveal overarching ones. The overarching themes found in this case-study were: learning strategy, teacher professional development, student personal development, feedback, and using the audio devices in the future.

Learning strategy

Aide memoire

From the students' perspectives the opportunity to use the audio device regularly during composing sessions meant that they could remember more of what they had done in previous weeks. Therefore, as a result, they were able to progress quicker with their composing work.

B-S2: I liked using it [the audio device] because if you did a piece the week before then instead of trying to remember what you did [a week ago], you could just replay it and just carry on from there.

B-S1: It [the audio device] just helped prompt our memory and we didn't have to write everything down and trying to work out what note was that and what the lyrics were.

B-S2: I think it [using the audio device] helped us get on with our work a lot quicker because we didn't really need that much time to sit and try and remember what we did last week, so like we were able to get straight on with our work once we listened to it.

Using the audio device as an *aide memoire* and to speed up the process of composing across lessons was particularly important from the group's perspective when one member (B-S4) was absent from a composing session due to illness:

B-S2: It [using the audio device when B-S4 was absent] was useful because since we recorded it last time, he was there [and] we had his [B-S4's] part to play again which could then be added to.

B-S1: It [using the audio device] was better than usual because if he has written his notes in [his] exercise book and he was away it would be of no use to us, but with the audio recorder we could just listen back to his part so we could just carry on. So, it didn't really affect your group work; we just carried on.

Having the group continue to compose and record a work-in-progress track was beneficial to B-S4 upon his return:

B-S4: ... I could find out what they'd done so I knew what I needed to do to fit in.

B-S1: ... we didn't have to sit and explain it all to him [B-S4]; he could just listen to the track so it made things quicker that way.

Teacher professional development

A more relaxed atmosphere

The Music Lead (B-ML) commented that giving students freedom to use audio devices during the composing process helped create a more relaxed and engaging atmosphere in music lessons, particularly where assessment was concerned:

B-ML: I think in the past I've always assessed pieces when they've performed them to me and if they make mistakes this can affect their mark. With the [audio] recorders they can record themselves as many times as they want so they can get the best possible recording of their ideas and I think students knowing this made them feel a lot more relaxed – particularly those who don't normally engage in music.

From the students' perspectives, the opportunity to be able to record several tracks in a lesson, but only indicate which tracks the teacher should listen to and give feedback on, also helped create a more relaxed atmosphere in their music lessons:

B-S1: ... it was an opportunity to show [teacher] our best work at that time whereas normally when she comes round, she would listen to us, we'd make mistakes, and she'd go away knowing about those things. It's like performance nerves or something. So, it was much better this way.

As a result of this reduced pressure to perform in lessons, students felt that their composing skills got better:

R: Would you say that using the audio recorder helped you get better at composing?

B-S3: Yeah, it did because like in normal lessons you're under a lot of pressure.

B-S2: Yeah, it helped a lot cuz, in normal lessons, when you're performing your piece in front of everyone it just scares you. It's a bit embarrassing really.

Student personal development

Developing independence and confidence

The Music Lead voiced how students using the audio devices and being able to listen back to their work-in-progress tracks enabled them to develop their independence and confidence in their lesson-by-lesson musicking:

B-ML: ... the good thing was that they weren't just waiting for me to come to them. They like that constant reassurance, but with the audio recorder they can listen to their own work and reassure themselves.

B-ML: It [the audio device] gave them a sense of ownership of their composition rather than constantly relying on me.

The notions of developed independence and confidence were also picked up by the students:

B-S1: It [using the audio device] definitely made us more confident and getting no feedback during the middle of the lesson made us more independent.

This also arose when discussing teacher-to-group feedback which, in this case-study, was audio recorded (Recorded Teacher Intervention phase) for students to listen to at the start of the next composing session:

B-ML: I thought that it was important for them to spend some time at the beginning of the lesson listening to my feedback, like as a starter, before starting any composing work because they were then aware of the specific targets I wanted them to address during the lesson.

B-ML: I thought it was also useful for developing their independence. For example, students would listen to the feedback and have a go at something first rather than them [the students] constantly relying of me to guide them.

B-ML: ... when I normally give feedback [prior to the study] sometimes five minutes later students would come up to me and ask me to repeat what I said – and by then I’ve thought about so many other things I’ve forgotten too!

This was also identified by the group in the post-study student interview:

B-S2: What I liked with the [audio] recorder was that because it was recorded you could also replay it rather than having to ask her [the teacher] again so it was much easier knowing that you could just press a button and hear it [the feedback], whereas if you didn’t, you’d have to keep going to ask the teacher, and they probably wouldn’t remember.

Feedback (teacher-to-group)

More time for better quality feedback

For the Music Lead, the ability to give feedback via the audio device meant that it presented the opportunity for more time to give better quality feedback than what was normal practice:

B-ML: Normally, I feel that the feedback I give is really rushed because I’ve got to try and get round everybody, whereas with the recorder, I took

them [the audio devices¹⁸] home, I listened to the tracks they wanted me to listen to, and I would record my feedback to them.

B-ML: It was allowing me the space to properly listen and give much more focused feedback, rather than give feedback, then I have to rush to give the next group feedback.

For the focus group, the opportunity to choose what should be listened to and fed back on meant that feedback was more personalised:

B-S3: ... recorded feedback was better because she [the teacher] was focusing on us and not just the whole class. Cuz if she's giving feedback to the whole class we don't really know if it's meant for us or not.

The Music Lead's decision to only provide feedback via the audio device (with no Teacher Interventions at all during each composing session), though, received mixed views from students:

B-S3: I think it was better cuz we didn't have to keep stopping and starting so I think we managed to get through the task quicker than normal.

B-S1: I think it was harder cuz we started something then we were told we would perhaps do something differently, but we had already finished that section [of music]. I think if we had gotten feedback in the middle of the lessons too, we wouldn't have wasted time.

¹⁸ The plural "devices" is used as all groups were given an audio device to use during their composing session. This case-study, however, only concentrates on the focus group.

A positive balance of workload

Taking the audio devices home (identified in the sub-theme above) to give feedback was discussed, particularly in relation to teacher workload. In the post-study interview, the Music Lead expressed that using the audio device to record feedback to groups did not create extra teacher workload:

B-ML: It was no bother at all. It doesn't take a long, long time because students are only recording snippets of ideas for you to feedback on.

Feedback (group-to-teacher)

Ensuring a balance of group workload

Being able to listen to a group's work-in-progress recordings helped the Music Lead identify whether student participation and workload within the group was balanced:

B-ML: I was able to make sure that when I was listening that student workload within the groups was kinda equal and that some students weren't doing all the work and others were doing almost nothing.

Through this, the Music Lead was able to identify the issue of unbalanced group work and provide feedback as necessary:

B-ML: There were a couple of groups¹⁹ in that [Year 8] class that I spotted with this [work-balance] issue and one of my feedback targets for them

¹⁹ The groups identified by the Music Lead in the post-study interview did not include the focus group.

was to work more equally as a group. I've never spotted that before and the audio recorder helped to do just that.

Using audio devices in the future

Although feedback regarding the use of the audio devices during group composing sessions was extremely positive, both the focus group and the Music Lead had the opportunity to reflect on how the audio device might be used differently in the future to enhance the quality of musical teaching and learning. The reflections made considered the notions of additional practice rooms for *all* students to work in²⁰ as well as further thought as to where the audio device should be located for a better-quality recording²¹:

B-ML: ... the only thing I would do differently with it [the audio devices] is for all students to have their own practice room. This is a bit of a problem for our facilities, but that would enable students to have a quieter space that they could listen and record their work at their pace rather than me stopping and starting the whole class and recording in turn.

B-S4: ... we could do with putting it [the audio device] a bit further away cuz some of the instruments were quite loud, particularly if we put the recorder right next to the instrument.

²⁰ Suggested by the Music Lead.

²¹ Suggested by the focus group.

5.3: Case-Study 3 context – School C

Introductory contextual details for School C, the Music Lead, and Year 7 (ages 11-12) student focus group participants have already been presented (Tables 12 and 13 in Section 4.1). For convenience, this information is re-presented in the footnote below²². As in Schools A and B, music lessons took place once-a-week but lasted for the slightly longer time of 55-minutes. Like School B, composing groups were organised by the Music Lead on a mixed-gender, mixed-ability basis, as was usual practice. The research took place during the second part of the Autumn Term.

Data collection for analysis

Key findings from School C were analysed and coded in the same way as with School B. In this case-study 3 hours and 51 minutes-worth of data were analysed. These were broken down into the following sequential structure:

²² School C is an average-sized Middle (deemed secondary) school. The majority of the student population is White-British. The proportion of SEND, EAL and PP students is below national average. At the time the case-study took place the music teacher (female) was working in a single-person department and had been teaching for 27-years in total. The female-male gender ratio for the focus group was 2: 2. In this case-study, the focus group also included a pupil on the school's SEND register.

Data collection method	Approximate duration for analysis
Pre-study teacher interview	31 minutes 46 seconds
Pre-study student group interview	43 minutes 4 seconds
Composing session 1 video recording	14 minutes 38 seconds
Composing session 2 video recording	30 minutes 49 seconds
Composing session 3 video recording	27 minutes 34 seconds
Composing session 4 video recording	25 minutes 10 seconds
Post-study teacher interview	25 minutes 34 seconds
Post-study student group interview	32 minutes 35 seconds

Table 55: The length of each interview and video recorded composing session (School C).

Levels of musical expertise

During the pre-study focus group interview, it became apparent that students had experienced a range of instruments in their previous and current musical learning. For convenience, these experiences are summarised in Table 56. At the time the present study took place, two of the group (C-S2 and C-S3) were still receiving extra-curricular instrumental tuition.

	Previous instrumental experience	Current instrumental experience	Additional experience(s)
Student 1 (male) [C-S1]	<ul style="list-style-type: none"> Used to play the electric guitar. Used to play the trumpet. 		<ul style="list-style-type: none"> Used to play in a student organised band with S2.
Student 2 (male) [C-S2]	<ul style="list-style-type: none"> Used to play the trumpet. 	<ul style="list-style-type: none"> Plays the drums. 	<ul style="list-style-type: none"> Used to play in a student organised band with S1.
Student 3 (female) [C-S3]	<ul style="list-style-type: none"> Used to play the violin. Used to play the trombone. 	<ul style="list-style-type: none"> Plays the saxophone. Plays the (acoustic) guitar. Sings. 	<ul style="list-style-type: none"> Has performed musicals with groups on stage.
Student 4 (Female) [C-S4]	<ul style="list-style-type: none"> Used to play the trumpet. Used to play the recorder. 		

Table 56: Summary of previous and current instrumental experiences for the focus group (School C).

Composition task

In this case-study, students were asked to:

Create a short piece of music in **Ternary Form** based on OSTINATO patterns. At least one ostinato must be rhythmic and one must be melodic. Think about how you will use the **elements of music** effectively.

The original and complete composition task is shown in Appendix 9.

5.3.1: RQ1

Identification of new composing phases

In School C, three new composing phases were identified, all of which have also been identified previously in Schools A and B. These phases were: Work-In-Progress Recording (WIPR), Work-In-Progress Listening (WIPL), and Recorded Teacher Intervention (RTI). The latter is unpicked further when addressing RQ3.

Figure 37 shows the total number of times each phase (including Fautley's (2002, 2005) original phases) occurred spanning the four composing sessions. In this case-study, the new WIPL (visited 15 times) and WIPR (which arose 14 times) phases were the most frequent. Further to this, the new RTI phase (which occurred 3 times) also featured during the composing process. As with the previous case-studies, Figure 37 below shows that the majority of phases the group visited were in the Generative Stage.

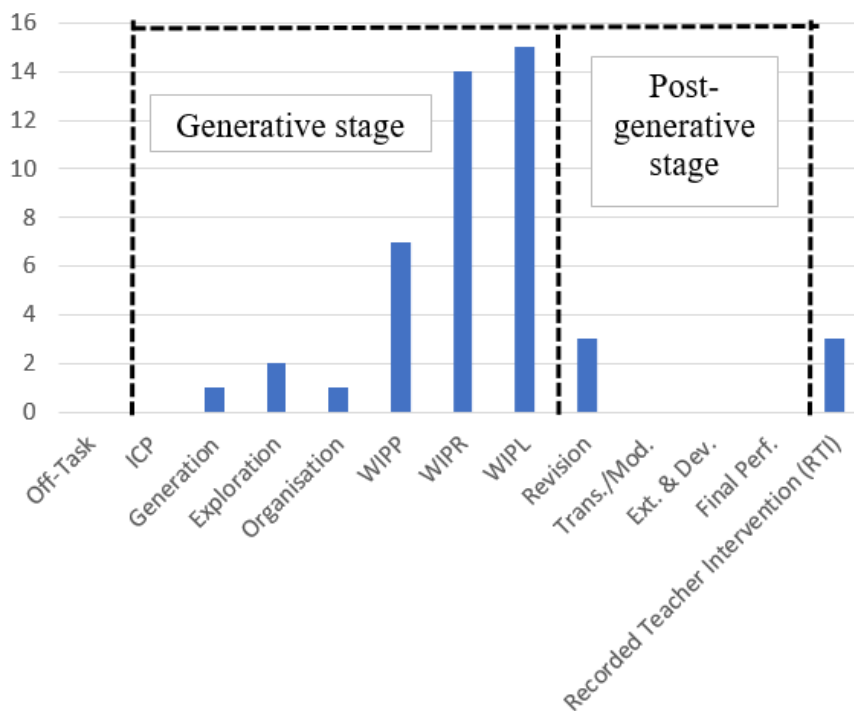


Figure 37: The total number of times each composing phase was visited (School C).

In contrast to the previous two case-studies, the group's most frequently visited phases appeared to correlate with where they spent most of their composing time. For example, Figure 38 shows that the group spent approximately 34% of their overall composing time in the WIPL phase, followed by 30% in the WIPR, and then 13% in the work-in-progress performance (WIPP). The additional phase of RTI accounted for 7% of the overall composing time.

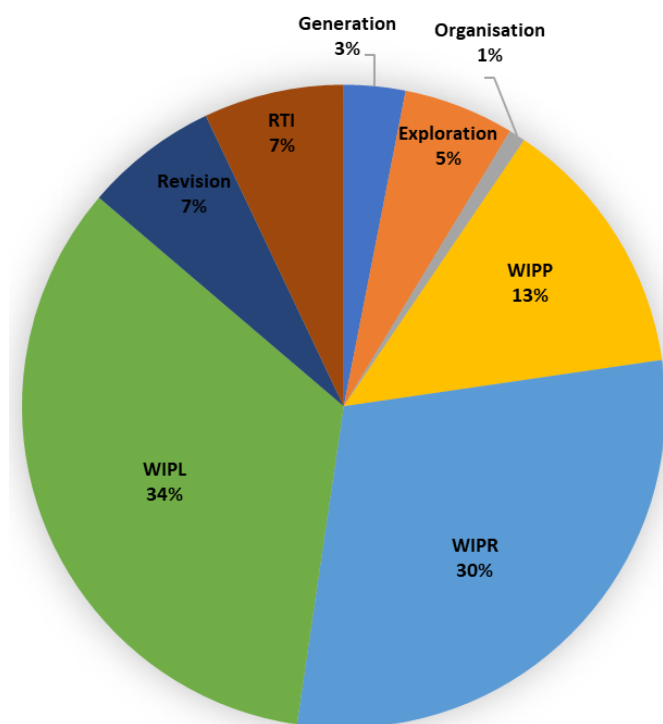


Figure 38: The total amount of time (%) each composing phase was visited (School C).

When the group's composing trajectories for each of the four composing sessions were analysed separately the low percentage of overall time for the RTI phase (7%) could be explained; it only occurred three times and arose towards the beginning of composing sessions 2, 3 and 4.

Figures 39 to 42 below show the group's composing trajectories for the four composing sessions. For convenience, a key detailing each composing phase is presented under each one. As with Schools A and B, the phases in the key have been written in reverse-numerical order. This is so they are consistent with how the y-axis composing phase numbers have been presented in each of the figures.

To address RQ1, new composing phases have been identified and colour coded. These include: RTI (**brown circles** from Figures 40 to 42); WIPR (**blue circles**); and WIPL (**orange circles**). As with Schools A and B, the latter two phases were identified in all composing sessions and were often found to occur sequentially. This sequence also appeared across composing sessions where the group would make a WIPR at the end of the lesson (**blue circle**) and then listen back to it towards the beginning of the next one (**orange circle**). As with previous case-studies, a WIPP phase (**green circles**) was found to precede a WIPR.

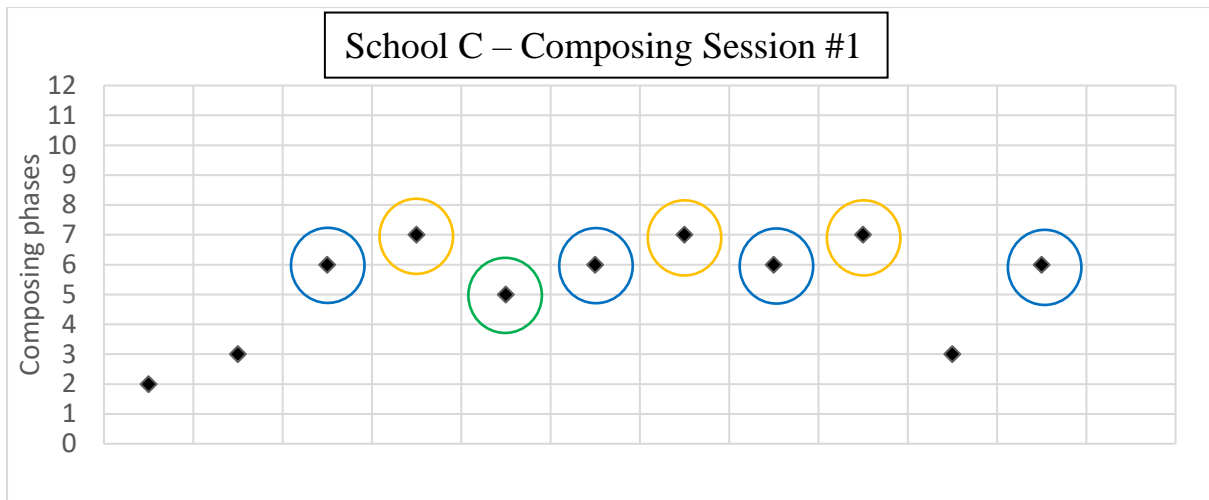


Figure 39: Trajectory of composing phases for Session 1 (School C).

Y-axis composing phase key

- 12: Recorded Teacher Intervention (RTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

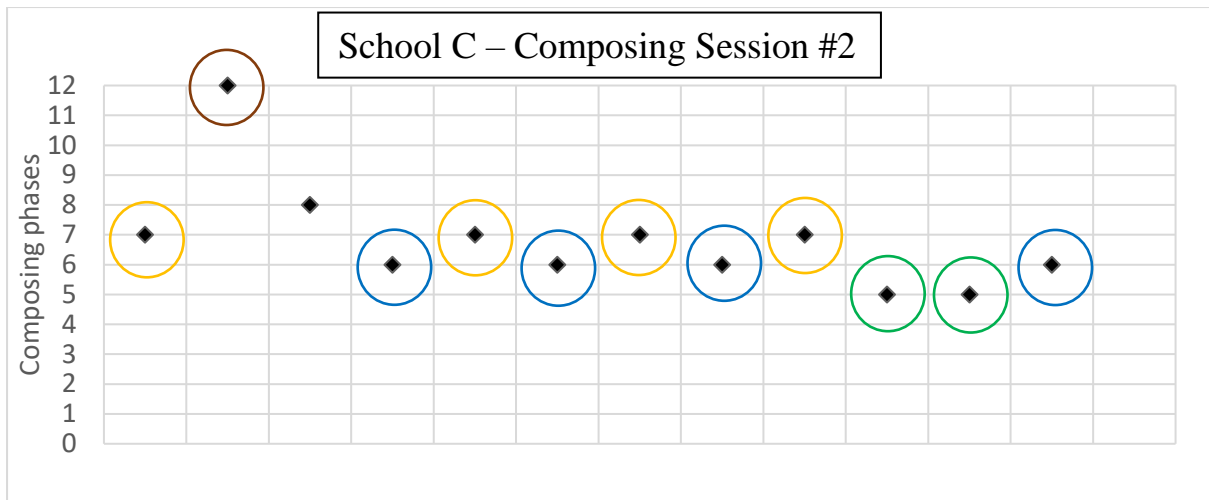


Figure 40: Trajectory of composing phases for Session 2 (School C).

Y-axis composing phase key

- 12: Recorded Teacher Intervention (RTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

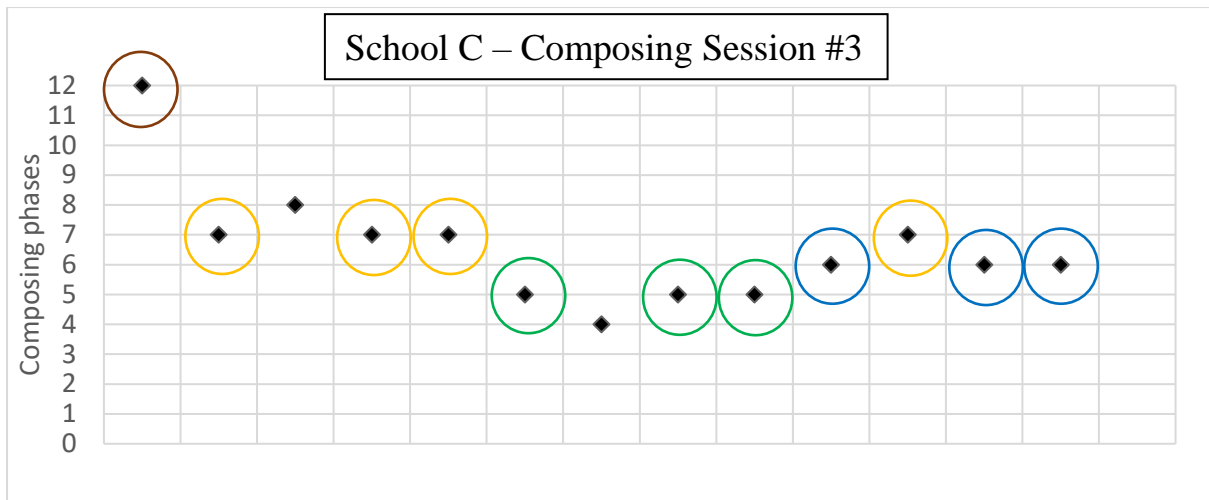


Figure 41: Trajectory of composing phases for Session 3 (School C).

Y-axis composing phase key

- 12: Recorded Teacher Intervention (RTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

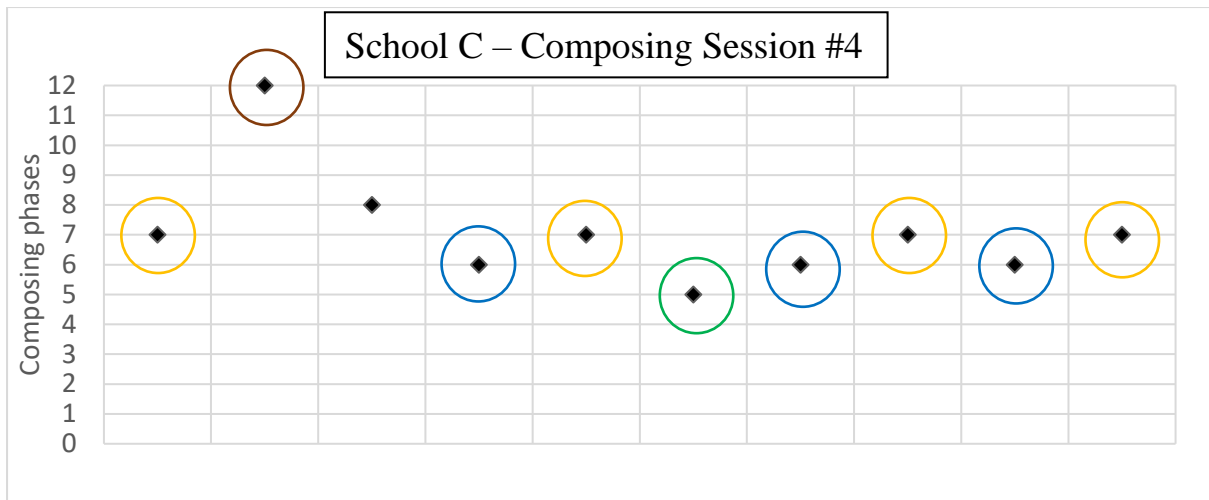


Figure 42: Trajectory of composing phases for Session 4 (School C).

Y-axis composing phase key

- 12: Recorded Teacher Intervention (RTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

Work-In-Progress Recording (WIPR)

Quantitative details for this composing phase are shown in Table 57.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Recording (WIPR)	14	All sessions	30%

Table 57: Quantitative details relating to the WIPR phase (School C).

Like previous case-studies, a WIPR phase was identified when the audio device was used to record the group's work-in-progress composition. As can be seen in the trajectories above, a work-in-progress performance (WIPP) (**green circles**) sometimes preceded a WIPR (**blue circles**). As with students' views in School B, this sequence was seen as important because, as explained by C-S4, a poor-quality recording might have resulted in different feedback from the teacher.

R: Before you recorded you sometimes rehearsed the piece first. Why was that?

C-S4: It was because we wanted to get a good recording so that we could get some good feedback from Miss. If she listened to a rubbish recording, then her feedback wouldn't really have helped us much.

The notion of "to get a good recording" in order to "get some good feedback" may account for why there were a high number of WIPRs (14), and why the group spent approximately one-third of their overall composing time (30%) in this phase. Furthermore, Figures 39, 40, and 42 also show that several WIPRs took place one after another (usually followed by a

work-in-progress listening, discussed below) because mistakes (for instance, wrong notes) or out-of-time playing were evident to the group. As a result of these errors the group made a new recording.

The composing trajectories suggest that the WIPR phase can, once again, be considered an important part of the formative assessment process. In this case study, the WIPR (considered a formative *intention*) was not ignored by the group but led to a form of *action* through entering a WIPL phase (**orange circles**). As stated above, even though some WIPRs took place at the end of the composing session, the next lesson (a week later) began with the group listening to their previously recorded work before continuing with their composition.

Work-In-Progress Listening (WIPL)

Quantitative details for this composing phase are shown in Table 58.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Listening (WIPL)	15	All sessions	34%

Table 58: Quantitative details relating to the WIPL phase (School C).

As with previous case-studies, a WIPL was identified when the group played back the music they recorded during a WIPR phase. Video recorded data revealed that the WIPL phase was an important part of the formative assessment process. For example, although, by itself, it might be considered a formative *intention*, the WIPL phase (composing phase #7) was found

to lead to a Revision phase (composing phase #8) towards the beginning of sessions 2, 3 and 4 (Figures 40 to 42). As previously identified in School B, these Revision phases were an important form of formative *action*; whilst listening to their previously recorded work students would quietly play along or mime to the recording and work out the notes and rhythms they previously used. As such, these previously recorded tracks were again being listened to as an *aide memoire* (discussed when addressing RQ4 in Section 5.3.4) to help students remember the work they composed a week before.

5.3.2: RQ2

Unpicking summative talk

In this case-study two modalities of summative talk were identified: Information based on a positive viewpoint (I-PV) and Information based on a negative viewpoint (I-NV). As with previous case-studies, these codes were identified as summative because each were found to sum-up the work-in-progress composition at that point in time. Tables 59 (I-PV) and 60 (I-NV) below are presented slightly differently to previous case-studies because they include an “occurrence” column. This was to highlight student comments which took place *whilst* they were listening to a recorded track with those that took place directly *after*.

Information based on a positive viewpoint (I-PV) and Information based on a negative viewpoint (I-NV)

Example number	Composing session	Student speaking	Occurrence	Utterance
#1	1	C-S3	After listening	Sounds good.
#2	1	C-S2	During listening	I quite like this.
#3	2	C-S2	After listening	That's not sounding too bad.
#4	2	C-S2	After listening	This sounds better.
#5	2	C-S2	After listening	That worked.
#6	3	C-S1	After listening	That was good.
#7	3	C-S2	After listening	That end bit was really good.
#8	3	C-S3	After listening	OK, I think we've got a good recording.
#9	3	C-S1	After listening	It was OK.
#10	4	C-S1	After listening	I think that was good.
#11	4	C-S1	After listening	It sounds really good.

Table 59: Discourse analysis showing summative 'I-PV' (School C).

Example number	Composing session	Student speaking	Occurrence	Utterance
#1	1	C-S3	After listening	That was awful.
#2	2	C-S3	After listening	It doesn't sound quite right.
#3	3	C-S3	During listening	It doesn't sound good.

Table 60: Discourse analysis showing summative 'I-NV' (School C).

Unpicking formative talk

Two modalities of formative talk were identified: Proposal (P) and Proposal with additional information (*P-info*). As with previous case-studies, these codes were considered formative on the basis that they had the potential to inform the group on what next steps needed to be taken to improve the work-in-progress composition.

Proposal (P) and Proposal with additional information (P-info)

A ‘P’ code (MacDonald, Miell and Morgan, 2000: 412) was identified when a group member proposed something. In the examples shown in Table 61 below, these proposals mainly focused on entering a WIPR phase. Examples 1 and 3 are interesting; each proposal was met with a counter-proposal, suggested by a different student, that the group should practise (enter a WIPP) first. This is a finding which was also identified in School B.

Example number	Composing session	Student speaking	Occurrence	Utterance
#1	1	C-S3 C-S1	After listening	Shall we record again? Wait, let’s practise first.
#2	2	C-S3	After listening	Let’s practise again.
#3	4	C-S3 C-S2	After listening	Shall we try and record it again? Wait, let’s practise first, then record.
#4	4	C-S1	After listening	OK, let’s record again.

Table 61: Discourse analysis showing formative ‘P’ (School C).

As with School B, these counter-proposals can be considered an important formative *intention* because, although they could have been ignored, they then led to an important

strategic change in direction for the group (formative *action*). In other words, as Figures 39 and 42 (re-presented) below show, the group entered the WIPP phase to practise before entering a WIPR.

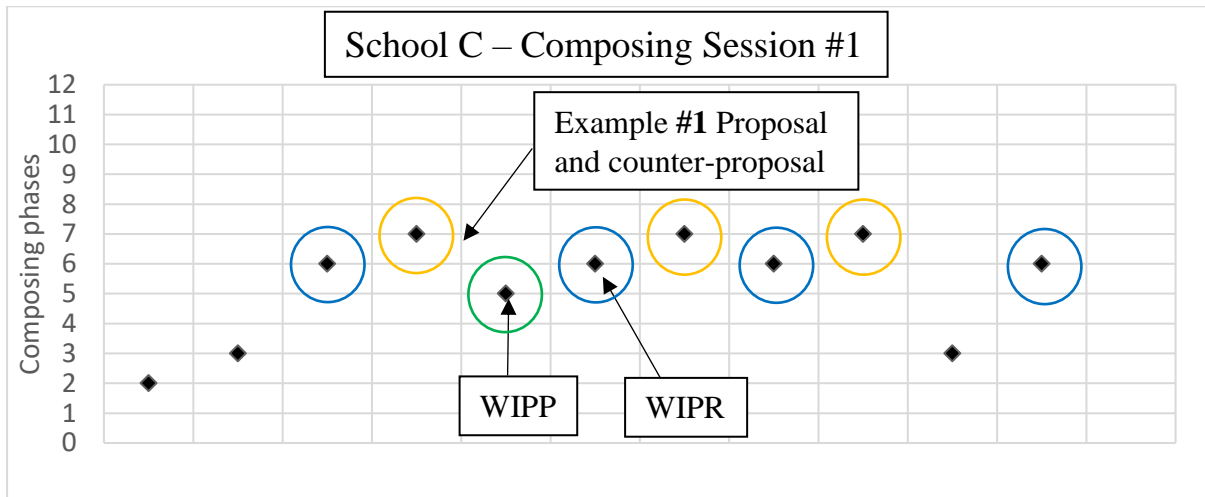


Figure 39 (re-presented): Trajectory of composing phases for Session 1 (School C).

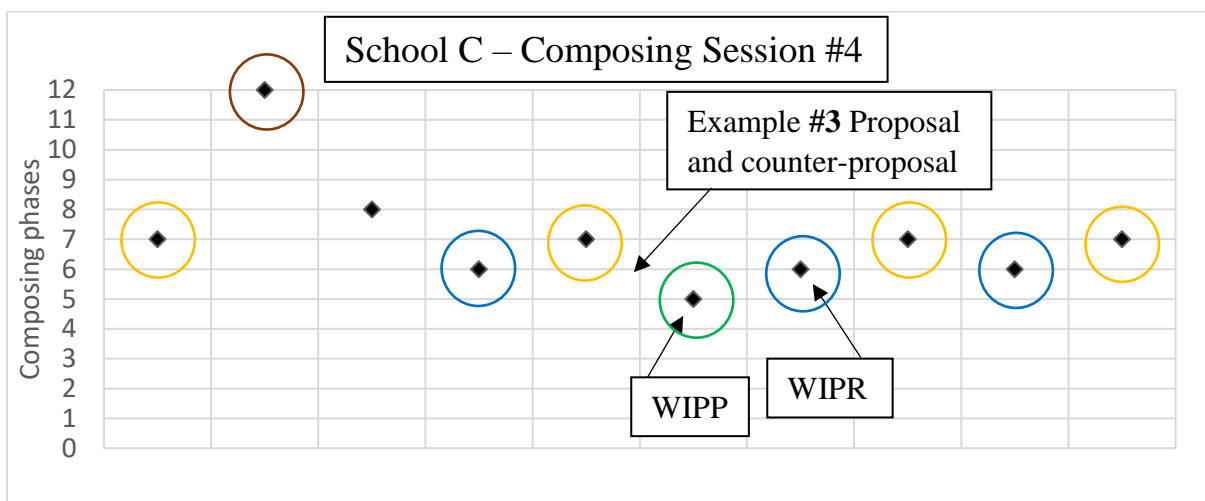


Figure 42: Trajectory of composing phases for Session 4 (School C).

A Proposal with additional information (P-*info*) occurred when a proposal was made with further information included as to what needed to be done. Examples of P-*infos* are shown in

Table 62 below. The P-*infos* shown in examples 7 and 8 require further explanation. In example #7, the P-*info* followed a Transactive Question (TQ) and response (TRO) relating to the location of the audio device in the practice room. With example #8, the dialogue begins with a P-*info* followed by a TQ to enquire that what was being done was correct. Agreement (A) followed that it was correct. These exchanges can be considered important so that the information being given could help guide necessary changes and adaptations to the composition.

Example number	Composing session	Student speaking	Occurrence	Utterance
#1	1	C-S3	After listening	What I think is that we should start like this (<i>plays continuous drumbeats</i>) and then layer that with some clapping. Then you (<i>to S3</i>) do (<i>demonstrates vocally on what she should do on the saxophone</i>).
#2	1	C-S1	After listening	What I think we need to do is something like (<i>vocally demonstrates what he means</i>) cuz that's where we went wrong.
#3	1	C-S3	After listening	[S2] try not to do this (<i>demonstrates on her saxophone</i>) cuz that's where we're losing it a bit.
#4	1	C-S1	After listening	Ok, why don't I do (<i>demonstrates vocally</i>) instead on the piano and then you (<i>to S3</i>) do (<i>demonstrates vocally</i>) on the saxophone.
#5	2	C-S2	After listening	Let's put it [the audio device] over there.

#6	2	C-S2	After listening	I think I need to show some dynamics and play quieter.
#7	3	C-S2	During listening	Where was the thingy [audio device]? [TQ]
		C-S1		It was over there (<i>points to the corner of the practice room</i>). [TRO]
		C-S1		I think you (to S2) need to play quieter [on the drums] so that we get a better balance. [P-info]
#8	4	C-S1	After listening	I think that when [S3] is playing you (S2) need to do something like (<i>demonstrates vocally</i>). [P-info]
		C-S2		What, like this? (<i>Demonstrates on the drum-kit.</i>) [TQ]
		C-S1		Yes, that's it. [A]

Table 62: Discourse analysis showing formative ‘P-info’ (School C).

From a formative assessment perspective, these P-info formative intentions can be considered important for formative action to take place. For example, during Session 1 after the first P-info (example #1), video recorded data showed that the proposal made was acted on during the subsequent WIPP. This occurrence is shown below in Figure 39 (re-presented). Formative assessment was also believed to have taken place following the fourth P-info (example #4) where the group entered the Exploration phase. Formative action following intention was not always the case, however; despite other P-infos (examples 2 and 3); there was no evidence to suggest that these were responded to by individuals or the group and the group made another, and unchanged, WIPR.

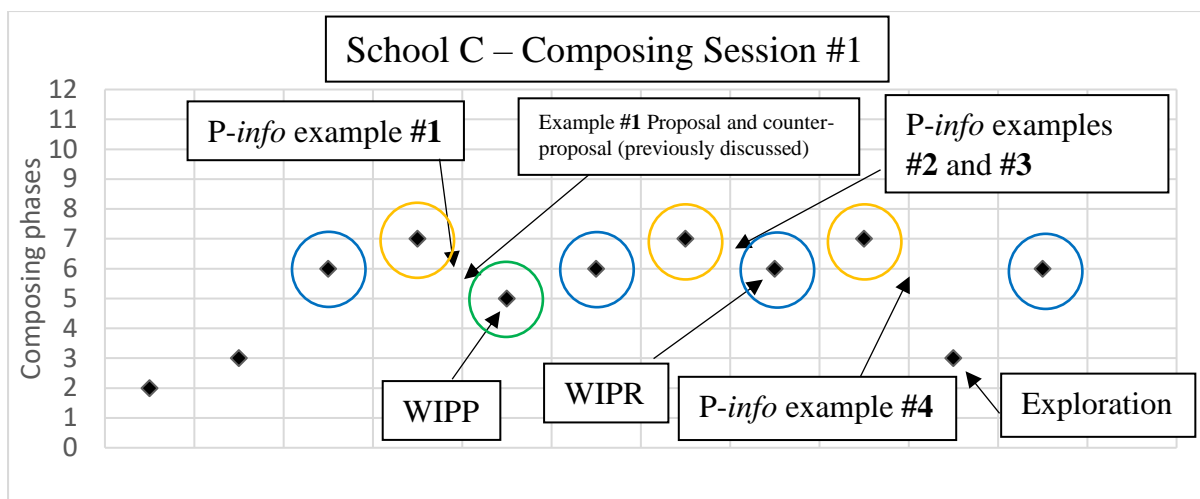


Figure 39 (re-presented): Trajectory of composing phases for Session 1 (School C).

In Session 2, formative assessment was found to occur relating to making a better-balanced recording. For instance, as indicated on Figure 40 (re-presented) below, two *P-infos* occurred (examples 5 and 6) before a subsequent *WIPR* took place. Both of these formative intentions (“Let’s put it [the audio device] over there” and “I think I need to show some dynamics and play quieter”) were acted on by C-S2 during the *WIPR* phase. Upon engaging in a further *WIPL*, these adaptations clearly helped produce a better-quality recording with C-S2 providing Information based on a positive viewpoint (*I-PV*) (“That sounds better”).

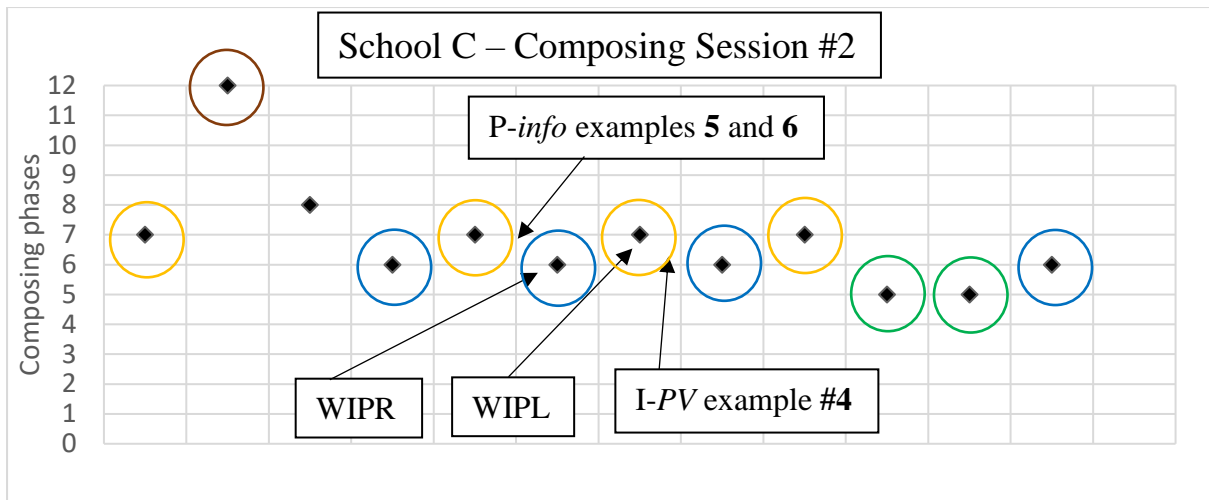


Figure 40 (re-presented): Trajectory of composing phases for Session 2 (School C).

In Session 3, and following the first WIPL phase, the question of C-S2's volume on the drum-kit re-emerged where it was once again proposed (formative *intention*) that he played quieter on the drum-kit. Following this, video recorded data showed C-S2 to immediately respond to this (formative *action*) during the subsequent Revision phase. These occurrences are shown in Figure 41 (re-presented) below.

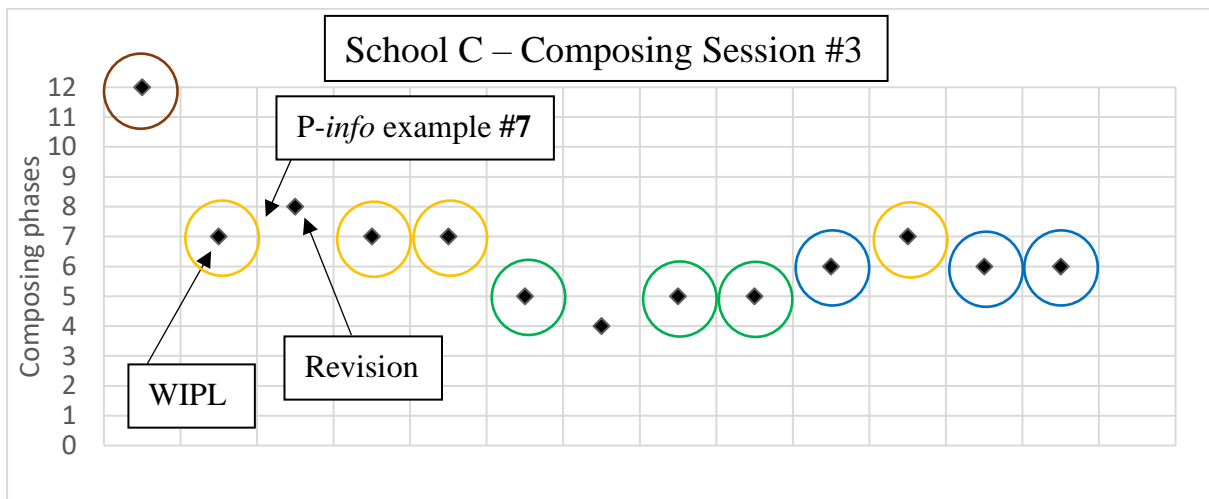


Figure 41 (re-presented): Trajectory of composing phases for Session 3 (School C).

Formative assessment was also identified in Session 4. As highlighted in Figure 42 (re-presented below), C-S1 proposes a short musical adaptation, supported by a vocal demonstration, to C-S2. In response to this, C-S2 accepts the idea and confirms whether it is correct on his instrument. C-S1 states it is. From a formative assessment perspective, C-S1's *P-info* (formative *intention*) was found to have been responded to (formative *action*) by C-S2 where, despite an intervening Recorded Teacher Intervention (RTI), the short musical adaptation was included during the subsequent Revision phase.

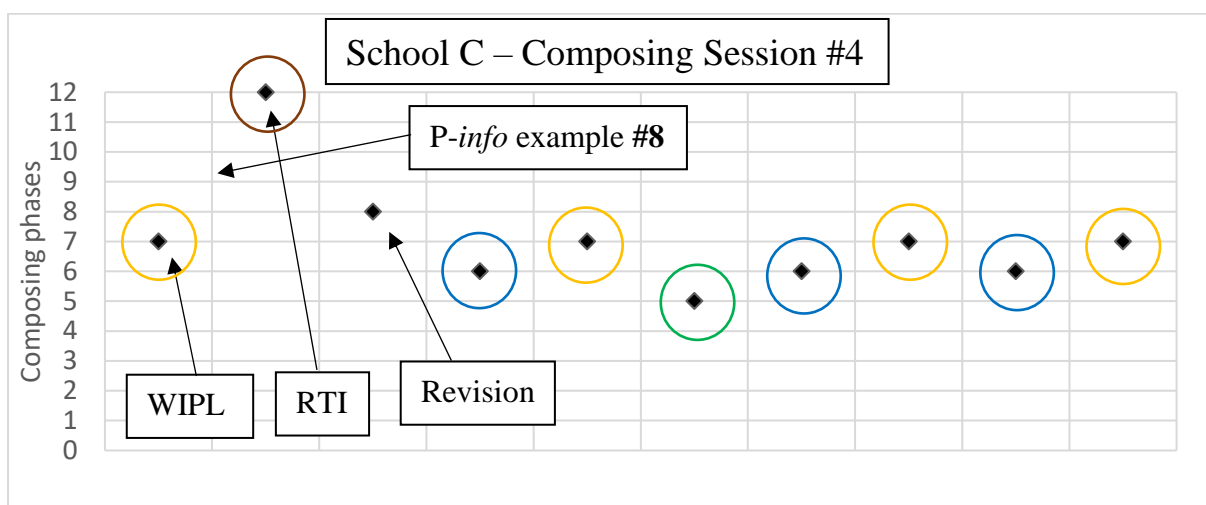


Figure 42 (re-presented): Trajectory of composing phases for Session 4 (School C).

Summary

Table 63 collates the types of feedback which occurred during and following the identified WIPR and WIPL phases.

	Summative comments		Formative comments	
	I-PV	I-NV	P	P-info
Session 1	2	1	1	4
Session 2	3	1	1	2
Session 3	4	1		1
Session 4	2		2	1
Cumulative total for each code identified	11	3	4	8
Cumulative total of summative and formative comments	14		12	

Table 63: A summary of types of feedback following WIPR and WIPL phases identified (School C).

As Table 63 shows, a small majority of feedback comments could be described as summative as centred around Information based on a positive viewpoint (I-PV). When formative comments occurred, they were found to be proposals and, more specifically, were largely Proposals with additional information (P-info).

Examples of formative assessment were found in this case-study. When they arose, these instances included: counter-proposals to practise further before making a WIPR, therefore, as was also found in School B, eliciting an important strategic change in direction for the group; moving the audio device to produce a better-quality recording; and the group developing their

composing through Exploration. As with previous case-studies, when formative assessment took place, it was largely to develop the group's *performing* of the composition rather than developing and extending their creative ideas.

Further to the balance of summative-formative feedback, Table 64 shows that when comments were analysed and separated by gender it was found that, in contrast to School B²³, contributions from males significantly outnumbered those from females.

	C-S1 (male)	C-S2 (male)	C-S3 (female)	C-S4 (female)
Summative utterances	4	6	4	
Formative utterances	6	3	5	
Total number of utterances	10	9	9	0

Table 64: A summary of formative and summative utterances separated by gender (School C).

The notion of male contribution dominance could be due to the fact that they were considered by their female peers as the musical experts of the group due to their previous musical experiences (presented previously Section 5.3). As the post-study interview revealed:

R: So, who had what role in the group?

C-S3: Well, we all had a say, but it was mainly the boys [C-S1 and C-S2] who took the lead role.

C-S4: Because they had more experience than us, like with their band work before.

²³ Although this finding is similar to School A, it should be re-emphasised that, for one composing session, only two male students attended. As such, conclusions must be made with caution.

The question of S4

Table 64 shows that C-S4 (female, SEND student) did not appear to make any contributions that were considered summative or formative. However, video recorded data showed that she made an active contribution through playing her percussion instrument and did make some comments to group discussions during composing sessions. These comments were generally in *agreement* but were not considered as either formative or summative. This highlights an important point; even though some group members may not actively contribute orally, communication via music, as C-S4 did, is equally important and can be viewed as being both democratic and inclusive.

5.3.3: RQ3

As with School B, no live Teacher Interventions took place in this case-study. Instead, the Music Lead chose to listen to the group's work and record feedback using the audio device outside of the composing session. As such, these have been re-coded as Recorded Teacher Interventions (RTIs). To help organise which track(s) the Music Lead and students should listen to the sheet I had previously devised for School B (an example of which is shown in Appendix 8) was also used in this case-study. Since the modality of giving feedback in School C was the same as School B it seemed appropriate to analyse the data in the same way. Therefore, to address RQ3, RTIs (which occurred towards the beginning of sessions 2-4) have been presented separately and arranged thematically according to the focus of the feedback whilst still being able to analyse types of utterances from a summative-formative perspective. Following this approach several feedback themes emerged, some of which were found to be more frequent than others. These were: positive praise, organisation of composing ideas, composition structure, and reflection.

Positive praise and organisation of composing ideas

Recorded Teacher Intervention (RTI) #1, which students listened to at the beginning of Session 2, revealed two themes: positive praise and organisation of composing ideas. The comments relating to these themes are shown in Table 65.

Feedback theme	Feedback content	Code	Inference
Positive praise	I really like this track.	I-PV	Summative
	I like the steady tempo with the drumbeat.	I-PV	Summative
	That was good.	I-PV	Summative
	I also really like the saxophone and piano question and answer.	I-PV	Summative
	I think that's really clever.	I-PV	Summative
Organisation of composing ideas	Can you think about working on the layering of your instruments in the first section?	P-Q	Formative

Table 65: RTI #1 teacher feedback – Session 2 (School C).

As Table 65 shows, the dominant feedback theme given to students was positive praise and was coded as Information based on a positive viewpoint (I-PV). These comments were considered summative due to their summing-up nature. The recorded feedback then moves to a different focus: organisation of composing ideas. This theme contains a Proposal as a question (P-Q) (adapted from MacDonald, Morgan and Miell, 2000) which was also identified in School B. In contrast to the I-PV comments, the P-Q code was thought to be formative; the Music Lead makes a proposal that the group should consider the instrumental laying of their current musical ideas.

Positive praise and composition structure

RTI #2, which was listened to by students at the beginning of Session 3, revealed two themes: positive praise and composition structure. The comments relating to these themes are shown

in Table 66. Although comments within the ‘composition structure’ and ‘organisation of composing ideas’ themes are similar, it was felt that they were also subtly different. For example, the ‘composition structure’ comments (Table 66 below) ask the group to consider defining a clearer structure between what is Section A and Section B, whereas the ‘organisation of composing ideas’ comment (Table 65 above) proposes that the group consider the notion of instrumental layering within just one section (Section A).

Feedback theme	Feedback content	Code	Inference
Positive praise	I like where this is going.	<i>I-PV</i>	Summative
	I really like how you start quietly on this and build up the dynamics.	<i>I-PV</i>	Summative
	That works really well, and the texture with the piano chords and the drum-kit coming in, plus the maracas,	<i>I-PV</i>	Summative
	that’s good, and this is before the sax[opphone] motif comes in.	<i>I-PV</i>	Summative
Composition structure	Can you be clearer about which is your Section A and which is your Section B?	<i>P-Q</i>	Formative
	So, what you need to do now is to stop adding in extra ideas and concentrate on a clear structure.	<i>P-stat</i>	Formative

Table 66: RTI #2 teacher feedback – Session 3 (School C).

As with RTI #1 (Table 65), RTI #2 (Table 66) shows the dominant feedback theme was summative positive praise, coded as Information based on a positive viewpoint (*I-PV*). The formative composition structure comments consist of a Proposal as a question (*P-Q*) and a Proposal as a statement (*P-stat*). Although the *P-stat* comment might be considered to be

supplementary to the P-Q, it only informs the group as to what needs to be done and does not give any indication as to how a clearer composition structure might be obtained.

Positive praise and reflection

Comments contained within RTI #3 are shown in Table 67.

Feedback theme	Feedback content	Code	Inference
Positive praise	OK, listening to track 17, it was really good to hear your piece all together from beginning to end.	I-PV	Summative
Reflection	The Section A at the end [the return of Section A] is shorter than the first one which took me by surprise because I was just getting into it and then it stopped which took me by surprise. Can you have a listen to the whole track to see if you agree with me?	I P-Q	Formative

Table 67: RTI #3 teacher feedback – Session 4 (School C).

As with previous RTIs, RTI #3, which students listened to at the beginning of Session 4, opens with summative positive praise (I-PV). The feedback then moves to the Music Lead providing Information (I) in the form of a reflection. To close, through a Proposal as a question (P-Q), she then invites the group to also listen back and reflect whether this is something they agree with.

Formative assessment as a result of the Recorded Teacher Interventions (RTIs)

The formative proposals contained within the three RTIs were being given with the intention they would be acted on. As such, they can be considered as formative *intentions* within the formative assessment process. Despite this intention, however, video recorded data suggests that they were not acted on by the group. Therefore, formative assessment, following the Music Lead’s recorded feedback, cannot be said to have taken place.

For example, during RTI #1, the group was asked to consider the layering of their instruments. According to the group’s composing trajectory, shown in Figure 40 (re-presented) below, this was not responded to; the group moved to the Revision phase before engaging in a series of work-in-progress recording (WIPR) and work-in-progress listening (WIPL) phases.

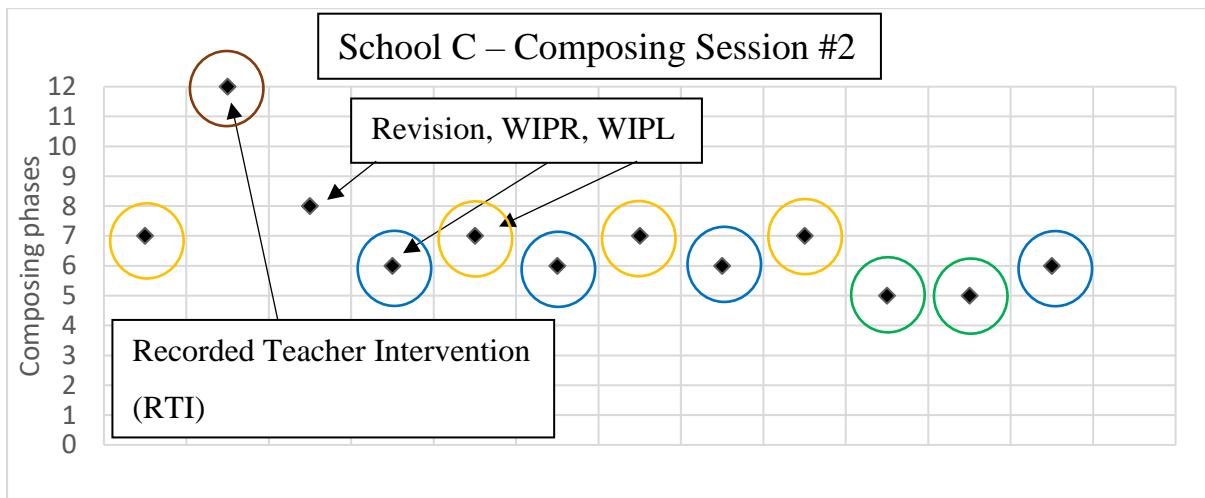


Figure 40 (re-represented): Trajectory of composing phases for Session 2 (School C).

During RTI #2, the Music Lead proposed that the piece should have a clearer Section A and Section B. Despite the intention this feedback would be acted on, Figure 41 (re-presented)

below suggests that, once again, this was not the case and, instead, the group spent time in the listening (WIPL) and Revision phases.

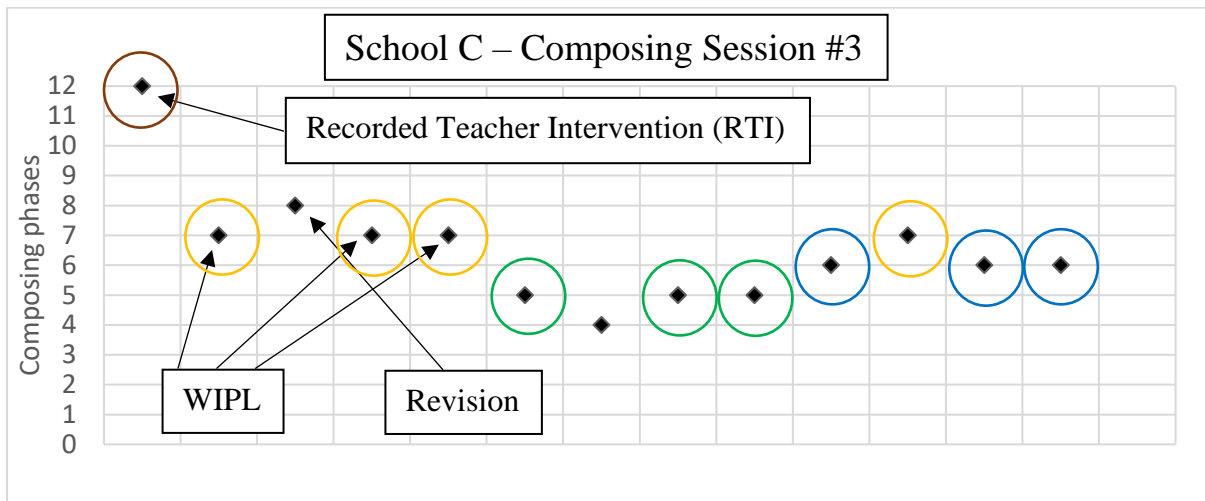


Figure 41 (re-presented): Trajectory of composing phases for Session 3 (School C).

The final RTI (RTI #3) contained a reflection by the Music Lead stating that she was surprised that the return of Section A was shorter than the first occurrence. Through a Proposal as a question (P-Q), she asked students to consider whether they agreed with this concept. Following this RTI, C-S2 concurred that this was the case:

C-S2: Yeah, she’s right.

Despite this acknowledgement, there was no evidence in the video recorded data that the return of Section A was made longer. Instead, as shown in Figure 42 (re-presented) below, the group spent time during this final composing session continuing to work on their already existing musical ideas and working towards making a final work-in-progress recording (WIPR).

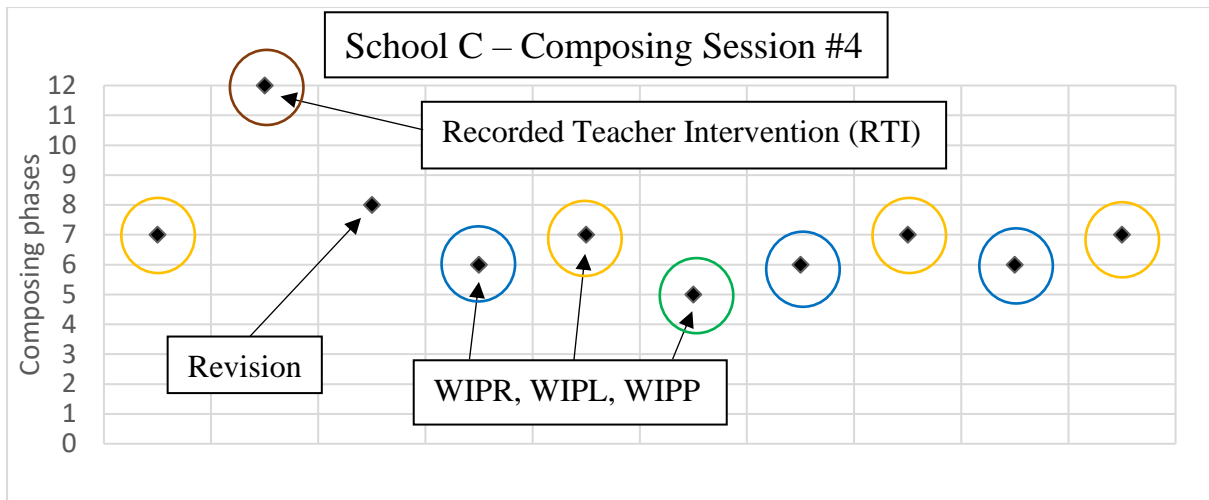


Figure 42 (re-presented): Trajectory of composing phases for Session 4 (School C).

Summary

The different modalities of feedback recorded by the Music Lead are shown in Table 68.

	Summative utterances	Formative utterances	
	<i>I-PV</i>	<i>P-Q</i>	<i>P-stat</i>
Session 2	5	1	
Session 3	4	1	1
Session 4	1	1	
Cumulative total for each code	10	3	1
Cumulative total of summative and formative utterances	10	4	

Table 68: Summary of types of recorded feedback made by the teacher (School C).

Table 68 shows that, across three RTI phases, ten comments were considered summative, and all took the form of the Music Lead giving Information based on a positive viewpoint (*I-PV*). By comparison, a small number of comments (four in total) were considered formative. Although they have been unpicked further, they were all types of proposal: Proposal as a question (*P-Q*) and Proposal as a statement (*P-stat*). When they occurred, these formative proposals focused on: the organisation of composing ideas, composition structure, and reflection. As discussed above, although these composing-focused comments (*formative intentions*) were made to improve the composition, there was no evidence to suggest that they were responded to by the group (*formative action*).

5.3.4: RQ4

Using data primarily from post-study interviews, this section shows overall teacher and student perceptions of using an audio device during the group composing process. Some overarching themes found in this case-study were similar to those coded for School B. These themes were: learning strategy, teacher professional development, student personal development, feedback, and using the audio devices in the future. New themes identified within this case-study included: formative intention and parental support. It is likely that these latter two themes emerged due to the timing of the case-study. For example, School B's took place during the final part of the Summer Term (end of school year), whereas this case-study took place towards the end of the Autumn Term (November-December).

Learning strategy

Aide memoire

From the students' perspectives, the use of the audio device provided the opportunity for them to remember what it was they had done in a previous lesson:

C-S2: It was good [using the audio device] because we could listen back to it as many times as we wanted so that it helps get in your brain.

Using the audio device was also a useful means of support so that students were not regularly relying on their teacher to remember what they had previously done during a lesson:

C-S4: Normally, Miss would tell me what I was playing the week before cuz I would forget, but with the audio recorder I could listen back and it helped me to remember better what I did without needing to ask Miss all the time.

For C-S2, this also meant that he was better prepared to do some individual work on the group composition outside of the lesson to be able to make better contributions during the next session:

C-S2: I was also really helpful cuz it was sticking in my memory, and I would go home and write-up what my part was so I could practise at home. I've never done that before cuz I couldn't remember exactly what I did or what other peoples' parts were. So, because of that, I think I definitely improved.

The notion of using the audio device as an *aide memoire* was important for students; they could better see the progress they were making from week-to-week:

R: What was it like being able to record a track every lesson?

C-S1: ... it was good because each lesson we felt like we were improving each time. Like, we could hear what we did last lesson, practise it again, and then add to it rather than spending ages trying to remember what we did.

This was also picked up by the Music Lead (C-ML) who noticed that, with the inclusion of the audio device, the start of composing sessions was quicker than it had been previously:

C-ML: It definitely helped them [the students] pick up the thread of their ideas from the week before.

Teacher professional development

A more relaxed atmosphere

The Music Lead stated that allowing students to record (and re-record when desired) their work-in-progress pieces within their own group rather than performing to the whole class provided a more relaxed atmosphere to performing in-progress compositions:

C-ML: The lessons definitely felt a lot more relaxed because normally I would ask groups to perform, and they'd get very nervous about making mistakes. Replacing that with getting groups to record on the audio recorder really helped because it didn't matter if they messed up because they could just make another recording they were happier with.

Student personal development

Developing independence and confidence

The Music lead commented on how using the audio device provided the opportunity for students (including students not in the focus group) to become more independent and confident by relying a lot less on the teacher for guidance:

C-ML: Some group relished the opportunity to be independent from me! There was no waiting around for me to come round.

C-ML: [Students not in the focus group] said that they were proud of what they had created using the audio recorders and I have to say, I saw them making greater contributions than before. Their confidence as composers definitely grew.

C-ML: I had one particular students, who was in a different class, on the SEN register who opted to work independently, and he made three recordings with audio feedback from me. He has never [emphasis on the word “never”] wanted to show his work to the class before, but at the end of the topic, he did.

C-ML: I definitely think most [of the students] felt more in control of their time; they were not restricted by waiting for me to listen to them, and more free to experiment with their musical ideas. I think a marker of success was how many said they liked what they’d created.

This notion was also commented on by C-S4 (student with SEND) in the focus group:

C-S4: I have been able to take control of the piece which I’ve never done before.

Yeah, I just felt more confident.

as well as the other students in the focus group:

R: Do you think it [using the audio device] made you more independent and confident?

C-S2: Yeah, cuz we could choose to record whenever we wanted and more when we were ready to record.

C-S1: It helped us be more confident when we listened back to our work, we liked what we had recorded, and we knew we were getting better each week.

Feedback (teacher-to-group)

More time for better quality feedback

The Music Lead commented that, from the students' perspectives, recording feedback via the audio device meant that the quality of feedback groups received, particularly praise, was enhanced compared with normal, live oral feedback:

R: In your view, how did students respond to you recording feedback for them?

C-ML: They liked it. Some said I praised them more in the recording. I think this was particularly the case for boys – and that did make me question the type of attention I gave them. For example, did I bark instructions at them to try and keep them on task? It did make me think! [C-S1] said he liked listening to my audio comments because it gave him more confidence.

She also added:

C-ML: It was really nice [during the case-study] that students would often come and ask me if I'd listened to their recordings yet.

For the focus group, one of the advantages of having audio recorded feedback was that it could be listened back to whenever they wanted:

C-S1: It was very helpful cuz you could replay it [the feedback].

C-S4: ... it was really good cuz we would listen back to it again [teacher feedback] again and again and we could check to make sure we had responded to Miss's 'Even Better Ifs' to improve our work.

Furthermore, compared to normal practice, students found that the audio recorded feedback was a lot more personal to their work:

C-S3: Miss would normally listen to us and give us whole class feedback, but this time [during the case-study] she talked to our group separately [via the audio device]. The feedback was more personal.

C-S3: It was nice to hear what Miss liked in our piece as well as what we need to improve on. That was different. Miss doesn't give us lots of things to do better cuz we're a big class and she has to get round all of us to give feedback. It was good to have more 'Even Better Ifs' cuz we had more work to do in the lesson.

Despite these positives, however, the use of the audio device as a means of giving feedback to students was not fully supported by all learners, particularly given the fact that it was a replacement to in-the-moment live teacher feedback:

C-S2: I didn't really like it. Although like [C-S1] said, it was good to be able to listen back to the feedback to remind us of 'What Went Well' and 'Even Better If' but I also prefer to have feedback when Miss is in the room as well.

C-S2 went on further to say why, for him, this was the case:

C-S2: I think it would be good to have some feedback in the lessons as well. I think this is important because then we definitely, definitely know what we need to do. Although the [audio] recorder gave us lots of feedback, sometimes it didn't quite make sense. So, if we had Miss coming round as well, she could make things clearer for us if we needed them to be.

The comment "Although the recorder gave us lots of feedback, sometimes it didn't quite make sense" is important; it may well be the reason why, as was identified when addressing RQ3 (Section 5.3.3), formative *action* did not occur after the group listened to the teacher's audio recorded feedback.

Choosing the track for teacher feedback

For students, the opportunity to record as many tracks as they wanted during each session and then select which track(s) they wanted the teacher to listen to and give feedback on was particularly advantageous. Not only in terms of the feedback they would receive, but also that students could record when they were ready:

C-S2: Choosing the tracks for the teacher was good cuz we could choose the best work we did during the lesson and then that would help us get better feedback that was more relevant to our work. If it was a bad recording, Miss would be like: "Oh, this is terrible, you need to improve".

C-S2: It was great tat we could record at any point in the lesson, too, so when we were ready and not just when Miss comes in and wants to hear what you've done at that point when you may not be ready.

A positive balance of workload

The Music Lead commented that listening to students' recordings on a regular basis did not add to current teacher workload and also voiced how, through listening, it provided her with opportunities to develop a better understanding of students' compositional choices:

C-ML: After I gave my audio feedback and the students responded with another recording, it certainly wasn't a great labour to listen to their previous track again. I started to notice different things I hadn't noticed before and perhaps I understood the choices they made a little more.

Feedback (group-to-teacher)

Reflecting on the quality of teacher-recorded feedback

For the Music Lead, the process of audio recording feedback for students to listen back to was an important exercise to reflect on the quality of feedback she was giving to students:

C-ML: I think I became more explicit in my suggestions to the groups, for example, by the end of this lesson I want you to have stuck to idea one on the xylophone and show me that you can play the 'Tandori' rhythm²⁴ at a steady tempo. I also became very aware of the musical vocabulary I was using and defining it so they knew precisely what I meant.

²⁴ The "Tandori" rhythm refers to a specific type of rhythm used by the teacher.

Formative *intention*

From the Music Lead's perspective, the ability to listen to students' work-in-progress recordings on a weekly basis provided valuable information as to where weaknesses in musical learning were and, importantly, how this information could be acted upon in subsequent lessons:

C-ML: Next half-term I need to improve their [students'] keyboard skills. This became pretty evident to me while I was listening to the recordings. It seemed that some members of the groups felt held back or frustrated by not being able to use keyboard functions quickly or play their melodic ideas fluently.

Parental support

A Year 7 Parents' Evening took place at the same time as the case-study. In the post-study interview, the Music Lead commented how some parents of Year 7 pupils (both in the focus group as well as other students in the same and other Year 7 classes) had commented on how they had seen a positive change in how their child had been talking about their recent music lessons, particularly students with special educational needs and /or disabilities:

C-ML: [In the class where the case-study took place], twelve out of the class of twenty-three came to see me [at Parents' Evening] and at least half of them said they they'd had a conversation with their son or daughter about what they'd been doing recently in [music] class.

C-ML: The parents of an SEN child [not in the research study class] said that they were buying a keyboard for Christmas because he'd come home

talking about the music he'd recorded and [the parents] wanted to encourage that further.

C-ML: [C-S4's] mother [in the focus group], who also has SEN, mentioned how pleased she was that her daughter had taken part in the [case-study] and the difference it had made to her confidence.

Using audio devices in the future

As with School B, the feedback regarding the use of the audio devices during group composing sessions was extremely positive. The focus group commented on re-considering the position of the recorder, whereas the Music Lead voiced about improving some technicalities of their use as well as having the confidence to give students more time and space to compose:

C-S3: I think to put the [audio] recorder closer to the instruments that aren't as loud compared to loud ones like the drum-kit. That way we can hear everybody's part clearly.

C-ML: Some groups had managed to change file when they were recording their work. A couple had deleted their work or ad incorrectly identified the track number they wanted me to listen to. I think all these problems would be iron out with some dedicated time on instruction of the use of the equipment before embarking on the project. I'd have some cards laminated with simple instructions to use.

C-ML: I think this [using the audio devices] would give me the confidence to give them [the students] more time. Time to experiment, time to recreate and rehearse their ideas.

5.4: Case-Study 4 context – School D

Introductory contextual details for School D, the Music Lead, and Year 7 (ages 11-12) student focus group participants have already been presented (Tables 12 and 13 in Section 4.1). For convenience, this information is re-presented in the footnote below²⁵. In contrast to Schools A-C, music lessons in this case-study school took place once every two weeks and lasted for 50-minutes. Like School A, composing groups were organised by students and, therefore, were based on friendship groups. The research took place during the second part of the Summer Term.

Data collection for analysis

Key findings were analysed and coded in the same way as previous case-studies. In this case-study 4 hours and 13 minutes-worth of data were analysed. Like previous case-studies these were broken down into the following sequential structure:

²⁵ School D is a larger-than-average High School Academy. The proportion of students from minority heritages is well above national average; the largest groups are from Black African, Indian, and Other White Backgrounds, the latter being mainly of Roma origin. The proportion of SEND, EAL and PP students is well above national average. At the time the case-study took place the music teacher (male) was working in a single-person department and had been teaching for 17-years in total. The female-male gender ratio for the focus group was 2 : 1. In this case-study, the focus group also included two EAL students. All learners in the focus group were PP students.

Data collection method	Approximate duration for analysis
Pre-study teacher interview	28 minutes 32 seconds
Pre-study student group interview	28 minutes 46 seconds
Composing session 1 video recording	42 minutes 32 seconds
Composing session 2 video recording	43 minutes 29 seconds
Composing session 3 video recording	43 minutes 18 seconds
Post-study teacher interview	22 minutes 19 seconds
Post-study student group interview	43 minutes 47 seconds

Table 69: The length of each interview and video recorded composing session (School D).

The impact of COVID-19 on data collection methods

Data analysed for Schools A-C were collected prior to the COVID-19 pandemic. The case-study for School D, however, suffered several false starts during 2020 and 2021 where initial preparation work had begun but had to be stopped due to national lockdowns. Furthermore, as described in Section 4.8, when staff and students were able to return to the classroom, government-imposed restrictions meant that certain practices – including group work, a key focus of this thesis – were somewhat problematic. In the case of School D, Senior Leaders also restricted the number of external visitors to the school meaning my in-person attendance to music lessons was not possible.

In response to these challenges, changes to some data collection methods were required. For example, since interviews were not able to take place on a face-to-face basis these were replaced with online interviews via Microsoft Teams. With regards to student focus group interviews, a Teaching Assistant was also present when they took place. The recording of

composing sessions remained largely unchanged with the exception that the music teacher would press record to video the group rather than myself. Video recorded data was then uploaded by the music teacher onto the school's network. I was fortunate enough to have been given restricted access to the network where I was able to analyse the data from my university laptop. These changes were approved by the Birmingham City University Ethics Committee prior to the research taking place.

Levels of musical expertise

During the pre-study focus group interview, it became clear that these students had significantly fewer musical experiences compared to students in Schools A-C. Given that these students were in Year 7, some of this might have been because curriculum music took place fortnightly. It is also likely that their lack of music experience may have been a result of the first national lockdown which took place when these students were in Year 6 (their final year of primary school). For convenience, the experiences they referred to are shown in Table 70.

	Previous instrumental experience	Current instrumental experience	Additional experience(s)
Student 1 (male) [D-S1]		<ul style="list-style-type: none"> Currently plays the acoustic guitar. Self-taught. 	
Student 2 (female) [D-S2]	<ul style="list-style-type: none"> Used to play the piano. 		
Student 3 (female) [D-S2]			

Table 70: Summary of previous and current musical experiences for the focus group (School D).

Composition brief

In this case-study students were asked to:

Compose a piece of music suitable for a **scary film** (bold in original task).

The original and complete composition task is shown in Appendix 10.

5.4.1: RQ1

Identification of new composing phases

In School D, three new phases were identified, all of which have also been identified in previous case-studies. These phases were: Work-In-Progress Recording (WIPR), Work-In-Progress Listening (WIPL), and Recorded Teacher Intervention (RTI). The latter is discussed when addressing RQ3.

Figure 43 shows the total number of times each phase (including Fautley's (2002, 2005 original phases) occurred spanning the three composing sessions. In this case-study, Fautley's (2002, 2005) Work-In-Progress Performance (WIPP) was the most frequently visited phase (21 occurrences) with the new WIPL (12 times) being the second most visited. The new WIPR phase (which arose 9 times) occurred as the third most frequent along with the Fautley's (2004; 2005) Exploration and Organisation phases. Further to this, the new RTI phase (which occurred twice) also featured during the composing process. As was identified in all previous case-studies, the majority of phases the group visited were within the Generative Stage.

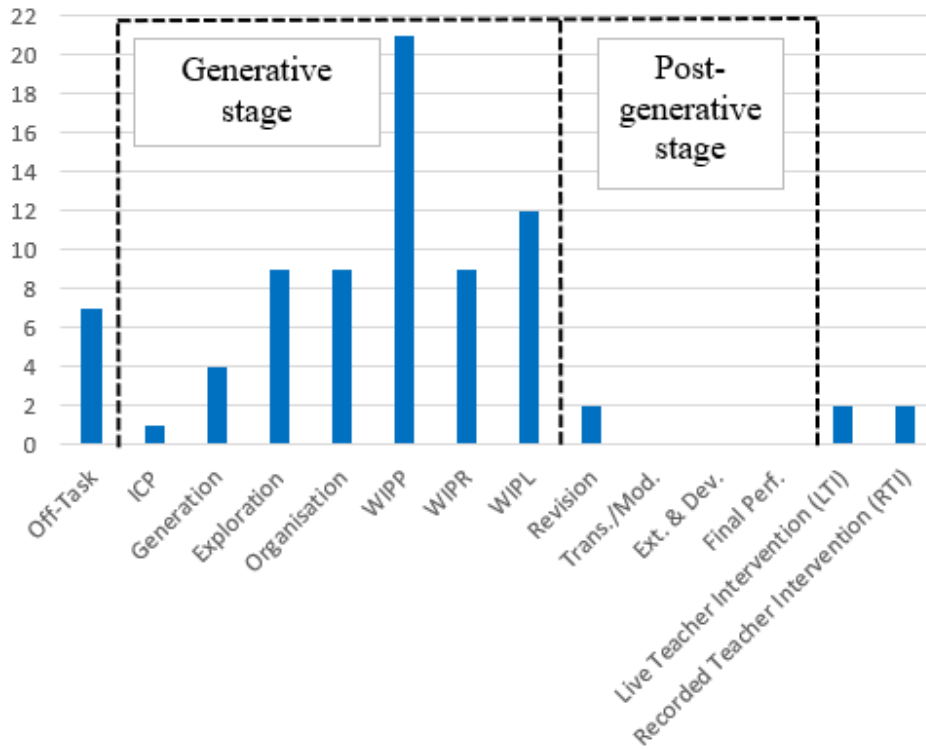


Figure 43: The total number of times each composing phase was visited (School D).

As was found in Schools A (Section 5.1.1) and B (Section 5.2.1), the group's most frequently visited phases (Figure 43 above) did not correlate with where they spent most of their composing time. For example, Figure 44 shows that, like School A, the majority of the group's overall composing time was spent Off-Task (20%). The WIPP (14%) and Exploration (14%) phases followed this. In this case-study, the new WIPR, WIPL and RTI phases took up 8%, 7% and 3% of the overall composing time.

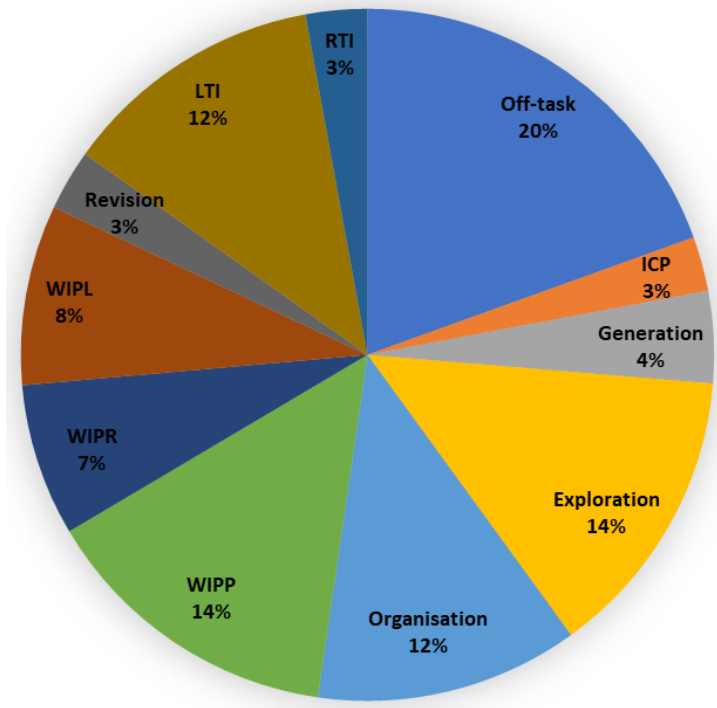


Figure 44: The total amount of time (%) each composing phase was visited (School D).

When the group's composing trajectories for each of the three composing sessions were analysed separately the low percentage for the RTI phase (3%) could be explained; it only occurred twice and arose towards the beginning of composing sessions 2 and 3.

Figures 45 to 47 below show the group's composing trajectories for the three composing sessions. As has been previously the case, a key detailing each composing phase is presented under each one. As with previously reported case-studies, the phases in the key have been written in reverse-numerical order. This is so they are consistent with how the y-axis composing phase numbers have been presented in each of the figures.

To address RQ1, new composing phases have been identified and colour coded. These include: RTI (**brown circles** in Figures 46 and 47); WIPR (**blue circles**) and WIPL (**orange circles**). As with Schools A, B and C the latter two phases were identified in all three composing sessions and were largely found to occur sequentially. As with previous case-studies a WIPP (**green circles**) sometimes preceded a WIPR.

In contrast to previous case-study findings, however, the **blue dots** in Figures 45 and 46 indicate that a WIPP took place within a Live Teacher Intervention (LTI) phase (composing phase #12). Since this is novel to the case-study findings, this is illustrated where both phases have been plotted with a connecting **red, dotted arrow**. As stated previously (Table 4 – Section 2.2.5), Fautley (2005) acknowledges that two-types of WIPP can occur: an informal one initiated by the students, and a formal one triggered by the teacher. In this case-study, the second type was identified during the LTI phases.

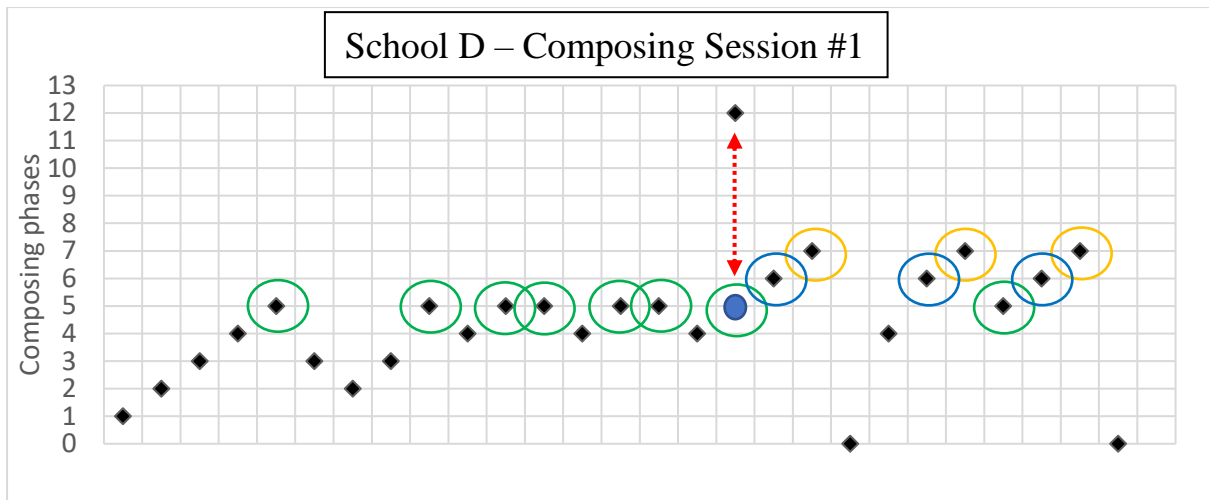


Figure 45: Trajectory of composing phases for Session 1 (School D).

Y-axis composing phase key

- 13: Recorded Teacher Intervention (RTI)
- 12: Live Teacher Intervention (LTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

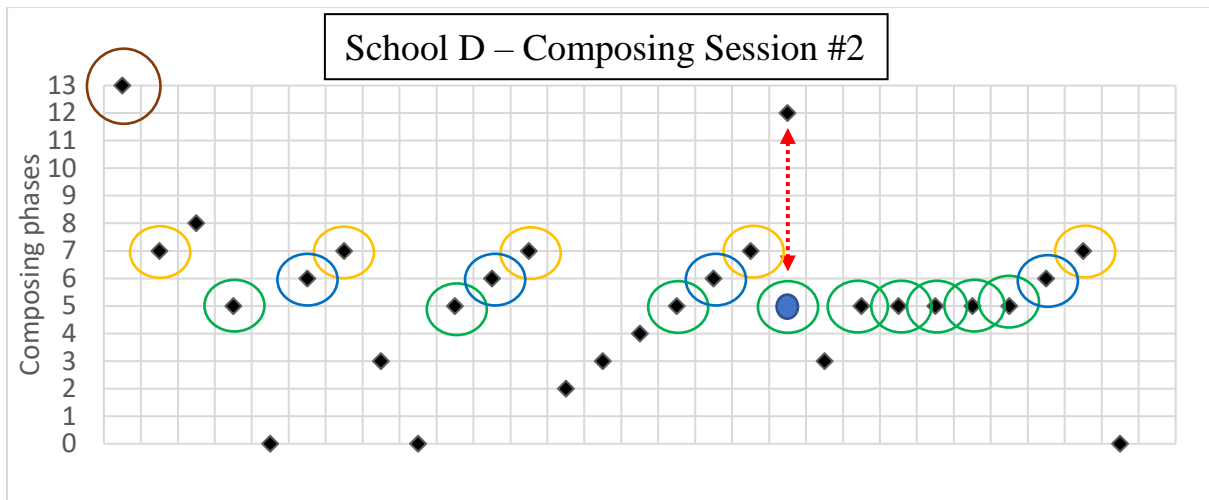


Figure 46: Trajectory of composing phases for Session 2 (School D).

Y-axis composing phase key

- 13: Recorded Teacher Intervention (RTI)
- 12: Live Teacher Intervention (LTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

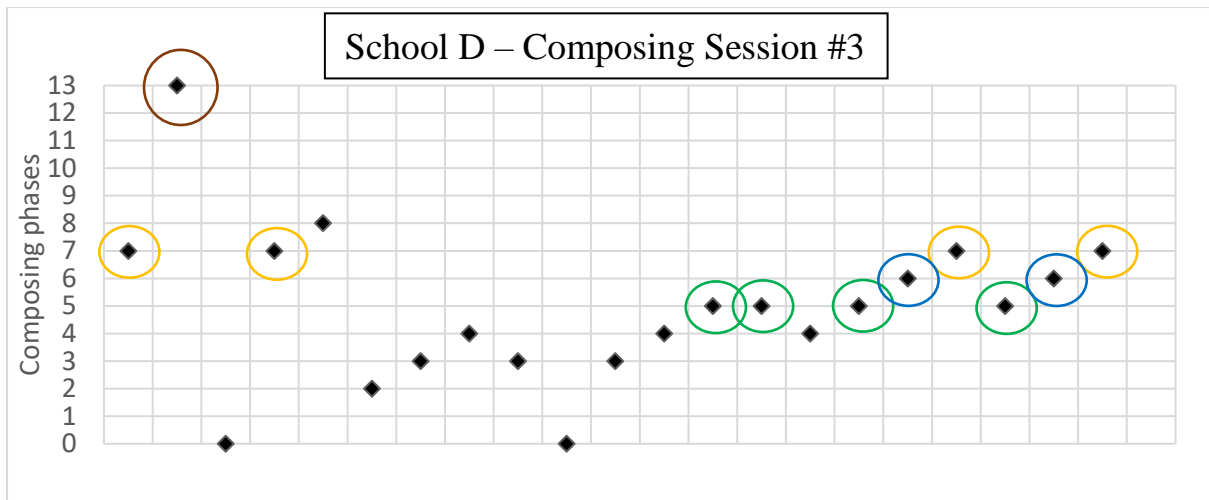


Figure 47: Trajectory of composing phases for Session 3 (School D).

Y-axis composing phase key

- 13: Recorded Teacher Intervention (RTI)
- 12: Live Teacher Intervention (LTI)
- 11: Final Performance
- 10: Extension and Development
- 9: Transformation and Modification
- 8: Revision
- 7: Work-In-Progress Listening (WIPL)
- 6: Work-In-Progress Recording (WIPR)
- 5: Work-In-Progress Performance (WIPP)
- 4: Organisation
- 3: Exploration
- 2: Generation of ideas
- 1: Initial Confirmatory Phase (ICP)
- 0: Off-Task

Each number in the y-axis represents a composing phase which, based on data analysis, includes adaptations from Fautley's (2002, 2005) original.

Work-In-Progress Recording (WIPR)

Quantitative details for this composing phase are shown in Table 71.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Recording (WIPR)	9	All sessions	7%

Table 71: Quantitative details relating to the WIPR phase (School D).

A WIPR phase was identified when the audio device was used to record the group's work-in-progress composition. As with previous case-studies, a work-in-progress performance (WIPP) (**green circles**) sometimes preceded a WIPR (**blue circles**). As with Schools B and C, this sequence was seen as important because, as revealed in the post-study focus group interview, the quality of the work produced on the recording may have determined the feedback the group received from their teacher.

D-S2: ... when we practised, we was able to work through bits of the piece, like a rehearsal, so that the recording would be good so we would get good feedback from [teacher].

D-S1: Yeah, we wanted good feedback like thinks we hadn't thought about or missed, not feedback we already knew.

In this case, the notion of “to get good feedback” through a good recording may account for why the WIPP phase was the most frequently visited of all composing phases with 21 occurrences. Although this is not where the group spent the majority of their composing time across the three sessions (this was 14% in total), students would often do several run-throughs of their work-in-progress piece including practising small sections of it. A clear example of this can be seen with a sequence of WIPP (**green circle**) occurrences in Figures 45 and 46.

Furthermore, as a result of the required changes to day-to-day school-based practice due to the COVID-19 pandemic (Sections 4.8 and 5.4), adaptations to how students would normally work within this phase were evident:

D-S2: I think with all the COVID rules we had to know our composition really well ... so, normally when we’re practising, we’d look at each other as a signal when we’re playing, but because we now have to face the same way in a row, we had to communicate better and then make sure we practised it before we recorded it.

D-S1: ... it took a bit of getting used to, but we just had to find different ways of working.

D-S3: I think that because we communicated better, we had a better piece of music in the end.

As with previous case-studies, the WIPR phase can be considered part of the formative assessment process; it (considered a formative *intention*) was not ignored by the group but led to a form of *action* through entering into a Work-In-Progress Listening (WIPL) phase (**orange circles**).

Work-In-Progress Listening (WIPL)

Quantitative details for this composing phase are shown in Table 72.

Composing phase	Total number of occurrences	Session(s) the phase occurred	Total amount of composing time (%) spent in phase
Work-In-Progress Listening (WIPL)	12	All sessions	8%

Table 72: Quantitative details relating to the WIPL phase (School D).

A WIPL was identified when the group played back the music they recorded during a WIPR phase. Video recorded data showed that the WIPL was an important part of the formative assessment process. For example, although, by itself, it might only be thought of as a formative *intention*, the WIPL phase (composing phase #7) was found to lead to a Revision phase (composing phase #8) towards the beginning of composing sessions 2 and 3. This is shown in Figures 46 and 47. As with previous case-studies, these Revision phases were an important form of *action*; whilst listening to their previously recorded work the group would mime along to the recording working out the notes and rhythms they previously used. As such, these tracks were being used as an *aide memoire* (discussed again when addressing RQ4) to support the group in remembering the work they composed two weeks previously.

5.4.2: RQ2

Unpicking summative talk

As with previous case-studies, two modalities of summative talk were identified: Information based on a positive viewpoint (*I-PV*) and Information based on a negative viewpoint (*I-NV*). These comments are shown to sum-up the work-in-progress composition and are therefore considered summative. Tables 73 (*I-PV*) and 74 (*I-NV*) show the comments that occurred during the composing process.

Information based on a positive viewpoint (I-PV) and Information based on a negative viewpoint (I-NV)

Example number	Composing session	Student speaking	Utterance
#1	1	D-S2	I think that sounds really good.
#2	1	D-S3	That definitely sounds more horror.
#3	2	D-S3	That was OK.
#4	2	D-S2	Those dynamics are better.
#5	2	D-S3	I really like those ideas.
#6	2	D-S3	I think this is sounding really good.
#7	2	D-S2	Oh, that sounds really good.
#8	2	D-S1	This is definitely much better now.
#9	3	D-S2	That big band that we worked on last time was really good.
#10	3	D-S1	That new bit is sounding really good.
#11	3	D-S1	That's so much better.
#12	3	D-S1	That's sick. [Colloquialism for "that's really good".]

Table 73: Discourse analysis showing summative 'I-PV' (School D).

Example number	Composing session	Student speaking	Utterance
#1	1	D-S1	That was awful.
#2	1	D-S2	That was rubbish.

Table 74: Discourse analysis showing summative 'I-NV' (School D).

Unpicking formative talk

Three modalities of formative talk were identified: Proposal (P), Proposal as a statement (*P-stat*), and Proposal with additional information (*P-info*). As with previous case-studies, these codes were considered formative on the basis that they had the potential to inform the group regarding the next steps needed to be taken to improve the work-in-progress composition.

Proposal (P), Proposal as a statement (P-stat), and Proposal with additional information (P-info)

A ‘P’ code was identified when a group member proposed something. In the example shown in Table 75 below, the initial proposal focused on entering a WIPR phase. As was also identified in Schools B and C, this proposal was met with a counter-proposal, suggested by a different student, that the group should practise (enter a WIPP) first.

Example number	Composing session	Student speaking	Utterance
#1	3	D-S2 D-S1	Shall we record again? Hang on. Let’s practise it first to make sure we’ve got it and then record.

Table 75: Discourse analysis showing formative ‘P’ (School D).

As with Schools B and C, this counter-proposal can be considered an important formative *intention* because it then led to an important strategic change in direction for the group (formative *action*). In other words, Figure 47 (re-presented) shows that, following this exchange the group entered a WIPP to practise before entering a WIPR.

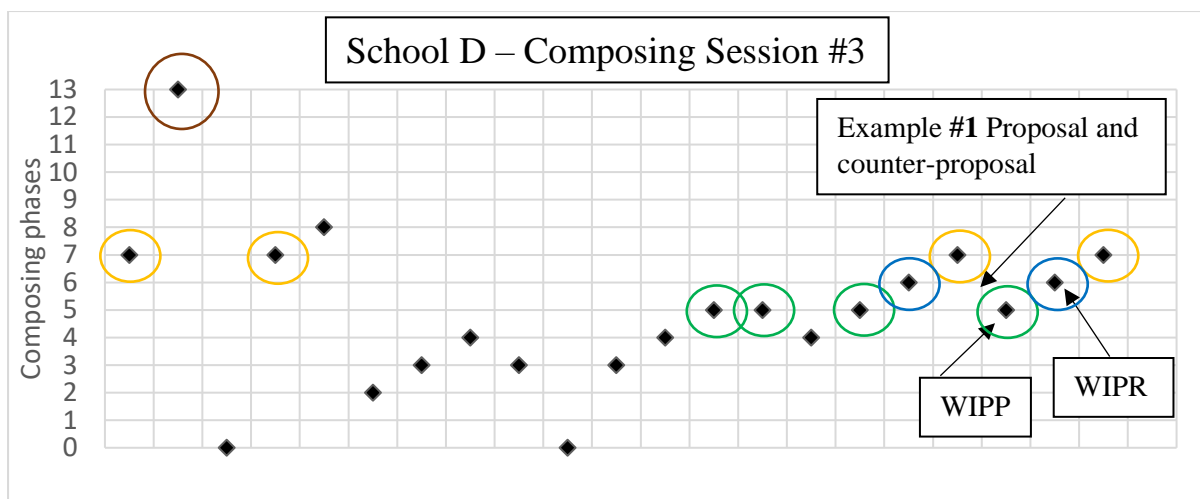


Figure 47 (re-presented): Trajectory of composing phases for Session 3 (School D).

A *P-stat* was identified when a proposal was made but without any additional information. In other words, it proposed *what* needed to be done but not *how* it might be achieved. One *P-stat* was found to occur during the case-study. This is shown in Table 76.

Example number	Composing session	Student speaking	Utterance
#1	2	D-S1	If we included more dynamics, it would be so much better.

Table 76: Discourse analysis showing formative ‘*P-stat*’ (School D).

Although Example #1 indicates the potential for composing-focused formative assessment to take place, this did not occur until the next composing session (see *P-info* below). Instead, as shown in Figure 46 (re-presented), the WIPL served as a valuable *aide memoire* (discussed further when addressing RQ4) for the group to remember and re-practise their individual contributions (Revision phase). In this case, formative assessment can be said to have taken place where the WIPL phase (formative *intention*) led the group to revising and practising the

composition (formative *action*) before continuing to work on it. However, this modality of formative assessment can be said to focus more on the *performance* of the piece than developing the group's *composing*.

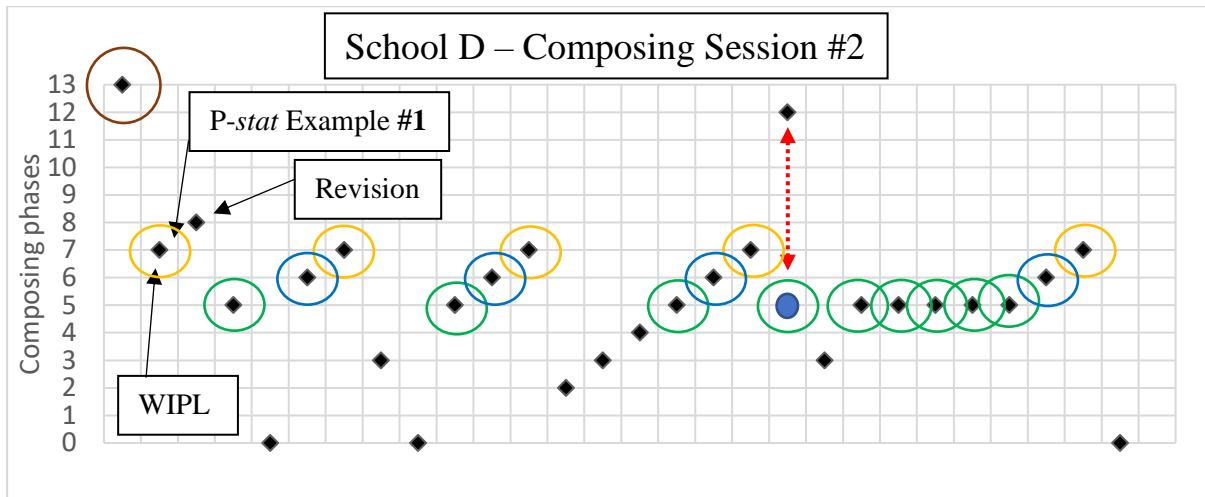


Figure 46 (re-presented): Trajectory of composing phases for Session 2 (School D).

P-*info* comments, as the name suggest, provide additional information compared to the P-*stat* code. In other words, P-*infos* can be thought of considering both the *what* as well as the *how* and, therefore, have the potential to have a greater formative impact. P-*infos* identified in School D are shown in Table 77.

Example number	Composing session	Student speaking	Utterance
#1	1	D-S2	I've got an idea for my keyboard part. I didn't want to overpower you two, but I think I should start quietly and then get louder as I add more notes and you get faster.
#2	2	D-S1	I think this bit (<i>plays a section of the composition</i>) feels too happy. I think we need to do something like (<i>plays an example</i>).

Table 77: Discourse analysis showing formative 'P-info' (School D).

P-info Example #1 took place after the first WIPL phase and was found to elicit formative assessment. This occurrence is shown in Figure 45 (re-presented) below. At this point, D-S2 made a proposal (formative *intention*) regarding their own use of dynamics in the piece. Following this WIPL phase, although the group initially became Off Task, video recorded data showed the group then working through D-S2's proposal during the Organisation phase (formative *action*).

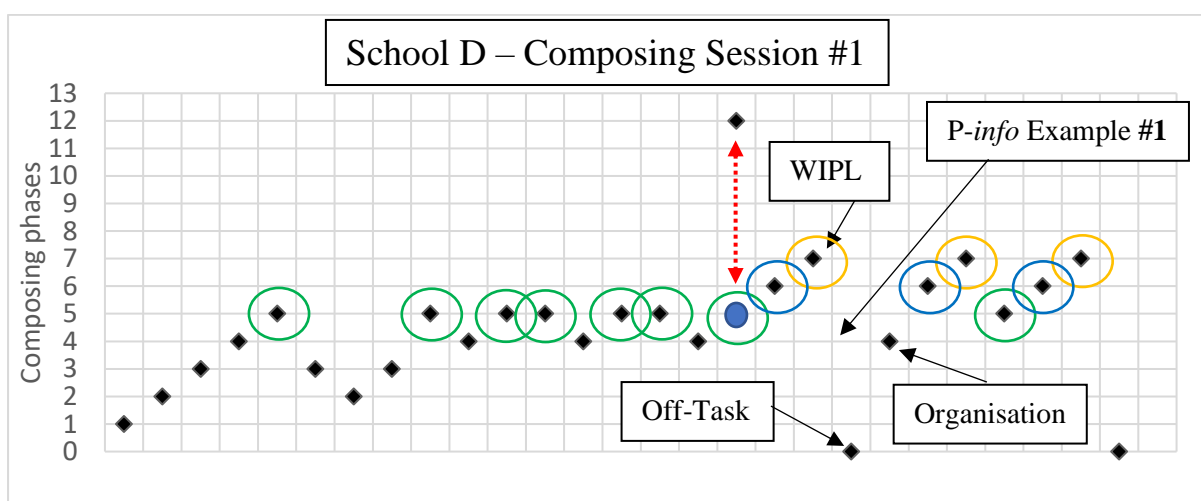


Figure 45 (re-presented): Trajectory of composing phases for Session 1 (School D).

P-info Example #2 is important because it is a composing-focused proposal. As shown in Figure 46 (re-presented) below, this took place following the fourth WIPL. Despite this important comment, however, D-S1's proposal (formative *intention*) was not able to be responded to (formative *action*) due to an intervening Live Teacher Intervention (LTI). Following this intervention, although the Exploration phase was identified, video recorded data showed this was in response to the Music Lead's intervention and not D-S1's P-info.

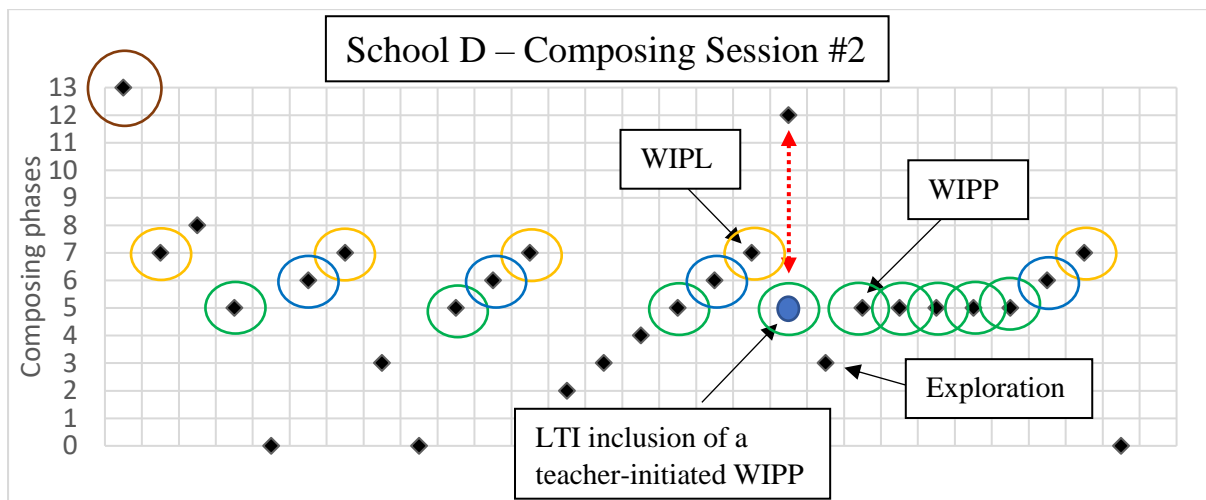


Figure 46 (re-presented): Trajectory of composing phases for Session 2 (School D).

Summary

Table 78 collates the types of feedback which occurred following the identified WIPR and WIPL phases.

	Summative comments		Formative comments		
	I-PV	I-NV	P	P-stat	P-info
Session 1	2	2			1
Session 2	6			1	1
Session 3	4		1		
Cumulative total for each code identified	12	2	1	1	2
Cumulative total of summative and formative comments	14		4		

Table 78: A summary of the types of feedback following the WIPR and WIPL phases identified (School D).

As Table 78 shows, most feedback comments would be described as summative and were largely coded as Information based on a positive viewpoint (I-PV). By comparison, there were significantly fewer formative comments. When formative utterances were found they were all types of proposals.

Examples of formative assessment were found in this case-study. When they arose, these included: counter-proposals to practise further before making a WIPR, therefore, as found in Schools B and C, eliciting an important strategic change in direction for the group; using the audio recording as an *aide memoire*; and altering the dynamics within the composition. As with previous case-studies, when formative assessment took place, it was mostly to develop

the group's *performing* of the composition rather than developing the group's *composing*.

That said, one important composing-focused, student-initiated proposal was made, however was not able to be brought into fruition due to an intervening teacher intervention. As such, this proposal unfortunately became lost.

Further to the balance of summative-formative feedback, Table 79 shows that when analysed and separated by gender, D-S1 (male) made the most contributions with D-S2 (female) closely following.

	D-S1 (male)	D-S2 (female)	D-S3 (female)
Summative utterances	5	5	4
Formative utterances	3	2	
Total number of utterances	8	7	4

Table 79: A summary of formative and summative utterances separated by gender (School D).

Although D-S3 (female) appears to have made fewer oral contributions, video recorded data showed her to make more 'Agreement' utterances (MacDonald, Miell and Morgan, 2000: 412). In this case-study, more formative comments, although by a very small margin, were given by the male student, a finding also found in School C.

The notion of male (D-S1) contribution dominance, although not numerically significant, emerged in the post-study group interview where it was revealed that he had a lot more expertise of horror films:

D-S2: ... [D-S1] has watched a lot more horror films than us so he was able to give us more input about our starting ideas and where we could go with the piece.

As such, this expertise in the domain could, therefore, have been a reason why slightly more formative comments were given by this student in developing the horror-inspired composition.

5.4.3: RQ3

In contrast to the previous three case-studies, both Live Teacher Interventions and Recorded Teacher Interventions took place in School D. These are analysed separately below.





Live Teacher Interventions (LTIs)

LTIs were previously identified in School A. Again, each LTI, which also followed a stop-and-question approach (Fautley, 2004), has been presented separately and arranged thematically according to the focus of the teacher-group discussion whilst analysing types of utterances from a summative-formative perspective. Following this approach one composing-focused feedback theme emerged: creating a horror sound world.

Creating a horror sound world

Both LTIs (LTI #1 and #2) focused on helping students make their composition sound more like a horror piece. Although the exchanges shown in Tables 80 and 81 below, which are considerably longer than those found in School A, are contained within one phase, three sequential parts within the LTI became evident: initial conversation (highlighted green), feedback (highlighted yellow), and scaffolding (highlighted blue).

Person	Utterance	Utterance code	Utterance inference
PART 1: Initial Conversation			
Teacher:	Ok, how are things going so far?	TQ	Formative
D-S2:	Like, at the start, I said we should do something like going down the stairs like towards danger maybe, so we would have a scale going down to show that, and then when we're downstairs it could be like creepy.	TRO	
Teacher:	Ok, and what other horror-like effects have you experimented with so far?	TQ	Formative
D-S1:	The heartbeat.	TRO	
D-S3:	Yeah, the heartbeat and then we're going to have a part where it's just silent.	TRO	
D-S1:	Yeah, so it's like a person who is on their own experiencing some creepy stuff.	TRO	
	So, with the heartbeat we're gonna make it faster to make it more anxious.	P-info	
Teacher:	Shall we have a listen to see what you've got so far?	P-Q	Formative
	<i>♪ Teacher-orientated WIPP begins ♪</i>		

PART 2: Feedback			
Teacher:	There's some nice ideas coming along here.	I-PV	Summative
	There are two main things that I'm thinking about here: one is more performing where you're not quite in time.	I	Summative
Group:	<i>Nod with approval.</i>	A	
Teacher:	I like the ideas you have about layering, but can you think about who is playing when and for how long?	I-PV	Summative
		P-Q	Formative
	The second thing is, at the moment, it all sounds rather nice and pleasant.	I	Summative
PART 3: Scaffolding			
Teacher:	As a listener, I want to be put into the sound-world of horror, suspense, danger, and so on.	I	
	So, for example, (to D-S2) put some strings on the keyboard sound or something.	P-info	Formative
	<i>D-S2 finds the appropriate setting on the keyboard.</i>		
	[D-S1] play some dissonant chords on your guitar, and then maybe [D-S3], you can have some music to come down the stairs, and include your heartbeat as well, but then maybe also include	P-info	Formative
	( teacher demonstrates on the keyboard playing low pitches, holding on to each one to create a dissonant harmony. )	P-info	Formative
	And through doing that, you're creating a horror-like effect.		
	Let's try that.	P-stat	
	(Points to D-S1) Give me four dissonant chords.	P-info	Formative
	(Points to D-S3) Show me coming down the stairs and a heartbeat which gradually speeds up, and then (points to D-S2) give me a single low note, and then add more to create clashing sounds.	P-info	Formative
	 Teacher-orientated WIPP begins 	P-info	Formative

	That sounds so much better. Ok. I'll leave you to carry on playing around with those ideas.	I-PV I	Summative
--	------------------------------------------------------------------------------------------------	-----------	-----------

Table 80: LTI #1 teacher-group dialogue – Session 1 (School D).

Person	Utterance	Utterance code	Utterance inference
PART 1: Initial Conversation			
Teacher:	Ok, how's it going?	TQ	Formative
Group:	Good.	TRO	
Teacher:	Shall we have a listen? <i>♪ Teacher-orientated WIPP begins ♪</i>	P-Q	Formative
PART 2: Feedback			
Teacher:	This is sounding good. I really like the sound of this. It's clear as well that you've taken on board my comments about the dynamics as well as the playing in time bit. I still think it needs to feel scarier.	I-PV I-PV I P-stat	Summative Summative
PART 3: Scaffolding			
Teacher:	So [D-S1], is there any reason why your four dissonant chords are the same dynamic level?	TQ	Formative
D-S1:	Erm ... no.	TRO	
Teacher:	Ok, so is there anything you could do differently with those four chords?	TQ	Formative
S1:	Well, I could play two loud and two quiet, like an echo.	TRO	
Teacher:	Shall we see what that sounds like? <i>♪ D-S1 plays four dissonant chords, the first two loud and the last two quiet. ♪</i>	P-Q	Formative
Teacher:	Now that sounds good.	I-PV	Summative

	Ok (<i>to D-S3</i>), same thing here. When you're doing your heartbeat can you start off very quietly and gradually get louder? <i>♪ D-S3 plays heartbeat following the teacher's instructions. ♪</i>	I P-Q	Formative
Teacher:	Good.	I-PV	Summative
	Ok, [D-S2], can you try the same sort of thing with your keyboard notes? <i>♪ D-S2 plays dissonant chords based on the teacher's instructions. ♪</i>	P-Q	Formative
Teacher:	Good stuff.	I-PV	Summative
	I also think there needs to be a crash or a bang somewhere.	P-stat	Formative
	Ok, this is sounding really good.	I-PV	Summative

Table 81: LTI #2 teacher-group dialogue – Session 2 (School D).

Part 1: Initial conversation

Tables 80 and 81 show the Music Lead (teacher) begin with a Transactive Question (TQ) with the purpose of seeking initial information about the piece. Following students' responses (coded as TROs) the Music Lead then proposes to listen to the work-in-progress composition. This begins what Fautley (2002; 2005) would describe as a teacher-orientated Work-In-Progress Performance (WIPP).

Part 2: Feedback

Part 2 consists of teacher-group feedback based on the aforementioned WIPP. In this case-study, comments given at this point were largely found to sum-up the Music Lead's views on

the work-in-progress composition. More specifically, these were coded as summative Information based on a positive viewpoint (I-PV).

Part 3: Scaffolding

Formative comments appeared to be more evident in Part 3. At this point in the LTIs, video recorded data showed the Music Lead working with the group by making several proposals (for instance Proposals with additional information (P-*info*) and Proposals as a question (P-*Q*), as well as asking Transactive Questions (TQs) to probe more creative thinking with the aim of scaffolding students' thinking to help create a horror atmosphere. These examples of teacher-comments were identified as formative (more specifically formative *intentions*) on the basis that they were being given with the intention that the group would act upon them and include them in their composition.

Formative assessment as a result of the Live Teacher Interventions (LTIs)

Formative assessment was observed to take place following both LTIs. For instance, as shown in Figure 45 (re-presented) below, this LTI phase led to a Work-In-Progress Recording (WIPR) and Work-In-Progress Listening (WIPL) sequence. Video recorded data showed that the teacher's suggestions and recommendations (formative *intention*) were accepted and responded to (formative *action*) by the group.

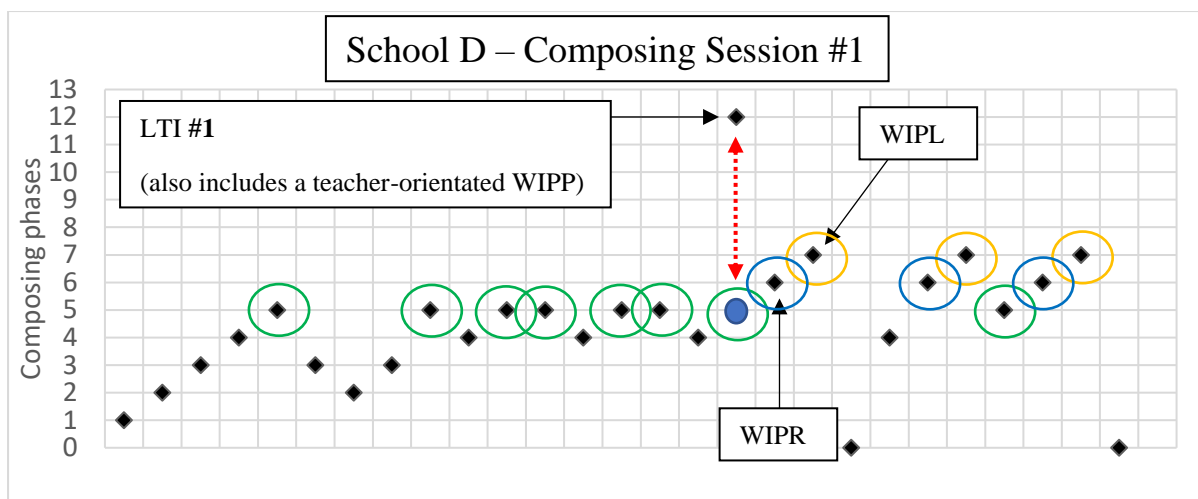


Figure 51 (re-presented): Trajectory of composing phases for Session 1 (School D).

Similarly, following LTI #2 (formative *intention*), video recorded data showed the group entering the Exploration phase to further explore ideas following the Music Lead’s feedback before entering several WIPPs to secure these ideas (formative *action*) before an end-of-session WIPR took place. This sequence is shown in Figure 46 (re-presented) below. It is important to re-state, as was identified when addressing RQ2 (Section 5.4.2), that LTI #2 took place at a moment when the group were in the process of discussing improvement to their own creative ideas. These important student-led discussions were not found to come to fruition due to the Music Lead’s intervening stop-and-question intervention (Fautley, 2002; 2004). As a result, this intervening LTI may have altered the group’s composing trajectory in comparison to what might have occurred if the LTI phase did not occur at this point.

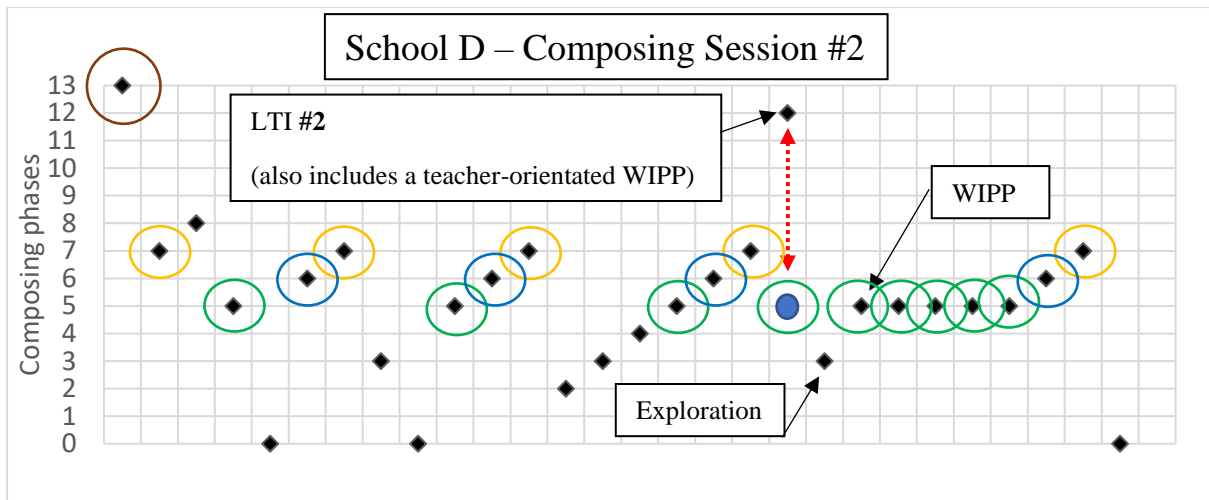


Figure 46 (re-presented): Trajectory of composing phases for Session 2 (School D).

Recorded Teacher Interventions (RTIs)

RTIs were previously identified in Schools B and C. As such, for consistency, findings from the data have been analysed and presented in the same way. Therefore, to address RQ3, RTIs (which occurred towards the beginning of Sessions 2 and 3) have been presented separately and arranged thematically according to the focus of the feedback whilst also allowing them to be analysed from a summative-formative perspective. Following this approach several feedback themes emerged. These were: positive praise, strengthening the ensemble performance, and developing the composition.

Positive praise, strengthening the ensemble performance, and developing the composition

Recorded Teacher Intervention (RTI) #1, which students listened to at the beginning of Session 2, revealed three themes, some of which were found to occur more frequently than others. The themes identified were: positive praise, strengthening the ensemble performance,

and developing the composition. The comments relating to these themes are shown in Table 82.

Feedback theme	Feedback content	Code	Inference
Positive praise	This is a really good opening with some fantastic ideas going on.	<i>I-PV</i>	Summative
	I really love the guitar chords at the beginning followed by the glissando on the glockenspiel.	<i>I-PV</i>	Summative
	The heartbeat sounds on the percussion, I think that sounds incredibly good.	<i>I-PV</i>	Summative
	I also really like the keyboard part with the dissonant chords.	<i>I-PV</i>	Summative
Strengthening the ensemble performance	A couple of things to think about: You need to keep time when the music starts to accelerate.	<i>P-stat</i>	Formative
	Developing the composition	You also need to think more about dynamics; at the moment they're all pretty much the same.	<i>P-stat</i>
So, I'd like you to think about using a greater dynamic range.		<i>I</i> <i>P-stat</i>	Formative
Positive praise	A really good start, though.	<i>I-PV</i>	Summative

Table 82: RTI #1 teacher feedback – Session 2 (School D).

As Table 82 shows, the dominant feedback theme given to students was positive praise and was coded as Information based on a positive viewpoint (*I-PV*). These comments were considered summative due to their summing-up nature. The recorded feedback then moves on to two different foci: strengthening the ensemble performance and developing the composition. These themes contain Proposals as statements (*P-stat*) (adapted from MacDonald, Morgan and Miell, 2000). Although the *P-stat* codes were thought to be

formative; the Music Lead only informs the group with regards to *what* needs to be done but, at this point, gives no further information as to *how* this might be achieved.

RTI #2, shown in Table 83, also shows that the most frequent modality of feedback the group received (although only marginally) was positive praise, coded as summative Information based on a positive viewpoint (I-PV). Formative comments were also identified which focused on developing the group's composing and creating a horror-like atmosphere. Like RTI #1, these largely centred around the Music Lead making Proposals as statements (P-*stat*) informing the group as to *what* could be done to develop the piece further. On this occasion, the Music Lead also provided a Proposal with additional information (P-*info*) with the purpose of helping students understand *how* creating more suspense might be achieved.

Positive praise and developing the composition

Feedback theme	Feedback content	Code	Inference
Positive praise	This is turning into a really good piece.	I-PV	Summative
	I love the dynamic contrasts.	I-PV	Summative
	The addition of the really loud bang is really fantastic.	I-PV	Summative
Developing the composition	Moving forward, I think you should keep the suspense even longer.	P-stat	Formative
	For example, in the keyboard part, if you hold down the notes for longer before adding the next one it helps draw out the feeling of uncertainty and potential danger.	P-info	Formative
	I think the same sort of idea could be done with the guitar at the very beginning.	P-stat	Formative
	I also think you should bring some of your ideas, whether new or old, together. So far, you take turn to play, which is fine, but in wanting to create more contrast, perhaps you could consider playing even more of your piece together as a group.	P-stat	Formative
Positive praise	Overall, this is a really good piece.	I-PV	Summative

Table 83: RTI #2 teacher feedback – Session 3 (School D).

Formative assessment as a result of the Recorded Teacher Interventions (RTIs)

Although it did not occur immediately, formative assessment was observed to take place following both RTIs. For instance, during RTI #1 (formative *intention*), the Music Lead proposed the group worked on strengthening the ensemble performance as well as

considering the use of dynamics in the composition. Video recorded data showed that, following this RTI phase, the group entered the WIPP to practise their ensemble performance (formative *action*) and then spent time in the Exploration phase to consider a greater use of dynamics (also formative *action*). These occurrences are shown in Figure 46 (re-presented) below. Responding to the latter was acknowledged by the Music Lead during the subsequent LTI, show in Part 2 (Feedback) within Table 81.

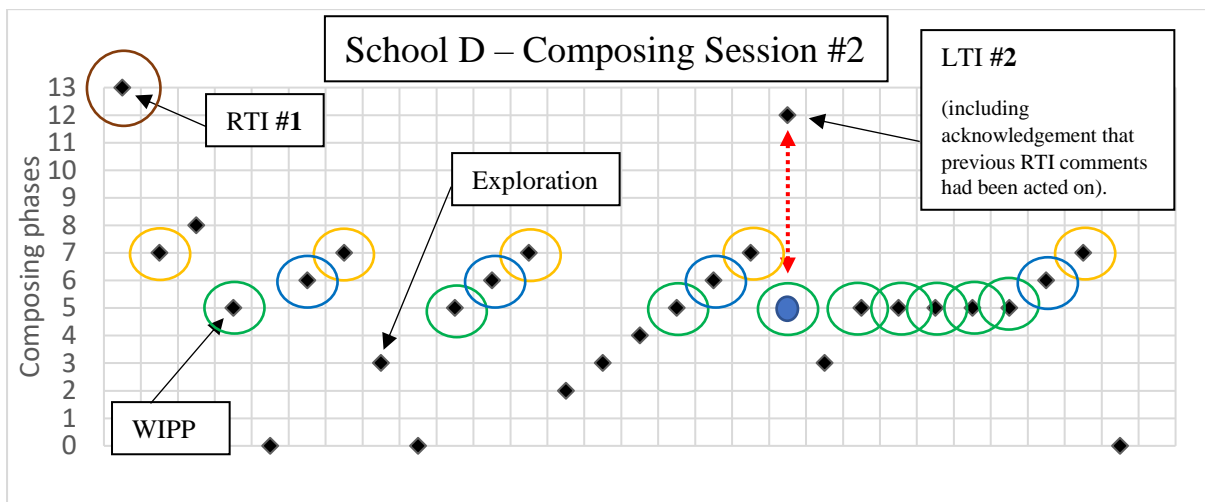


Figure 46 (re-presented): Trajectory of composing phases for Session 2 (School D).

Again, although not immediate, and following RTI #2 (formative *intention*), video recorded data identified that time was spent by the group considering and working through the Music Lead’s suggestions to develop the composition further through creating and maintaining suspense (formative *action*). These occurrences are shown in Figure 47 (re-presented) below.

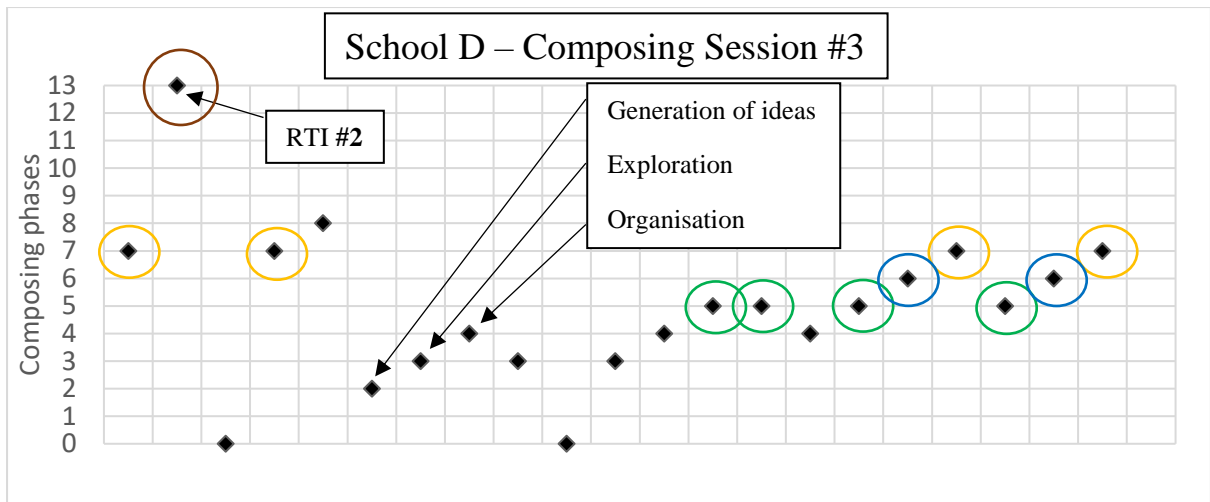


Figure 47 (re-presented): Trajectory of composing phases for Session 3 (School D).

Summary

Since School D was the only school to incorporate both live (LTI) and recorded (RTI) forms of feedback, this was an ideal opportunity to analyse both modalities and compare them from a formative and summative perspective. Summaries of each type are shown in Tables 84 and 85.

LTI phases

	Formative utterances				Summative utterances	
	TQ	P-Q	P-info	P-stat	I-PV	I
Session 1	2	2	6		3	2
Session 2	3	4		1	6	
Cumulative total for each code identified	5	6	6	1	9	2
Cumulative total of formative and summative utterances	18				11	

Table 84: Summary of types of live feedback made by the teacher (School D).

RTI phases

	Formative utterances		Summative utterances
	<i>P-stat</i>	<i>P-info</i>	<i>I-PV</i>
Session 2	3		5
Session 3	3	1	4
Cumulative total for each code identified	6	1	9
Cumulative total of formative and summative utterances	7		9

Table 85: Summary of types of recorded feedback made by the teacher (School D).

A comparison of these two tables shows that, in the context of School D, formative utterances were the most common form of feedback during a LTI phase (Table 84) and mainly took the form of Transactional Questions (TQs), Proposals as questions (*P-Qs*) and Proposals with additional information (*P-infos*). However, in contrast, Table 85 indicates that summative comments were slightly more common during RTIs and focused on positive praise, coded as Information based on a positive viewpoint (*I-PV*). During the post-study teacher interview it was revealed that although the Music Lead valued both modalities of feedback, they had slightly different purposes and could, therefore, explain why there was a difference between formative and summative notions of feedback:

D-ML: ... I thought both methods were good but I saw them differently. So, I used the recorded feedback as a means of saying to groups that I was happy (or not) with how things were going and to give some additional things for groups to think about, but the in-person feedback was a really good opportunity to talk to the students about their music, make

sure they had understood my recorded feedback, offer my own thoughts on their compositions, and for us to model some examples together to hopefully spark some creative ideas for them to try.

5.4.4: RQ4

Using data primarily from post-study interviews, this section shows the overall teacher and student perceptions of using an audio device during the group composing process. Data were coded to identify themes which were then arranged to reveal overarching ones. The overarching themes found in this case-study were also identified in Schools B and C. These themes were: learning strategy, teacher professional development, student personal development, feedback (teacher-to-group), formative intention, and using audio devices in the future.

Learning strategy

Aide memoire

From the students' perspectives, the use of the audio device was an important tool in helping them remember what it was they had done in their previous music lesson. This was particularly advantageous for these students since, in this context, music lessons took place every two weeks:

D-S1: It as really good listening back to the work we had done two weeks back because it really refreshed our memory.

D-S3: I really struggle with remembering what I did with only having music every two weeks, so without the audio recorder I wouldn't have remembered a thing.

D-S2: ... it was good that we could listen back to our [previously recorded] tracks as many times as we wanted cuz it really helped us remember what we was doing.

As a result of having a means to listen back to what composing work had previously taken place, students felt that they got quicker at composing:

D-S3: I also think we got quicker at composing cuz we might have spent the whole lesson trying to remember wat we did.

D-S1: Yeah, cuz otherwise if we couldn't remember what we did we might have ended up making a completely different piece which would have been a waste of time.

This was also identified, for all groups in the class, by the Music Lead (D-ML). In addition, the use of the audio devices also helped create a more settled start to the lesson:

D-ML: They definitely got quicker at composing. Normally it would be a very messy start to the lesson where students just couldn't remember what they did, so lots of time would be wasted and some would write a completely new piece every time and not get very far. With the [audio] recorders, they had their work from the last lesson as well as some feedback from me. Since they *all* [emphasis on the word] has their work and something to do with it the lesson was much calmer and more organised.

Teacher professional development

A more relaxed atmosphere

The Music Lead (D-ML) commented that allowing groups to record (and re-record) their final composition within their own group rather than recording it whilst it was being performed to the whole class created a more relaxed atmosphere towards the end-of-unit assessment:

D-ML: I noticed a clear shift in students' attitudes towards the end-of-unit assessment. So, normally there would be a lot of panic from the students about performing in front of the class and making lots of mistakes and getting lower marks. With the [audio] recorders, though, there was no complaining because students knew they could record it over and over again, and that I would assess the best version of their piece.

In the pre-study focus group interview, the notion of performing in front of peers was a key reason why some students in the focus group (D-S2 and D-S3) did not enjoy their music lessons, particularly where end-of-unit assessments were concerned:

D-S3: I don't like performing in front of people. I have to do it because it's a test, but I hate it. It kinda puts me off music.

D-S2: I really don't like performing in front of others; it makes me so nervous.

However, in the post-study interview, it was revealed that using the audio device as an alternative means to recording the composition in front of the whole class was an important change for these students:

D-S2: ... I would still feel really nervous about playing in front of people, but I did feel a lot better towards our assessment when I knew we could record it as just our group.

D-S3: Yeah, it was so much better doing it this way [using an audio device]. If we could do that every time we had a practical test then I might think about choosing music as one of my GCSEs. It's the performing in front of others that puts me off.

Student personal development

Developing independence and confidence

The focus group students commented that using the audio device during composing sessions helped develop their independence and confidence towards music-making. For S2, this was important because she acknowledged that their teacher could not always see every group in a lesson:

D-S2: ... we could listen to [teacher's] feedback, and then our last recording, and then think for ourselves what we needed to do. It meant that we didn't always have to wait for Sir cuz he has other students to see, too. We could just get on with it.

D-S3: When we was using the [audio] recorder I definitely felt more confident cuz I could make mistakes in a recording and know that we could just do another one and get it right next time.

Feedback (teacher-to-group)

More time for better quality feedback

As previously stated in Section 5.4.3, the Music Lead gave both live and recorded feedback. This was something which did not occur in any other case-study. The mixture of live and recorded feedback was positively received by the students, particularly for keeping on track as well as providing opportunities, where needed, to seek further clarification about the recorded feedback:

D-S2: It was really good that we got two sets of feedback: when [teacher] can in during the lessons and recorded [feedback], too. Normally, [teacher] would come round and talk to us about our piece and then have to go to another group, but because we also had the recorded feedback it was a good way of keeping on track and knowing what we had to do to improve.

D-S1: It was also good because there was times when I didn't know exactly what to do with the recorded feedback, but when [teacher] can in during the lesson I could ask him and that really helped me understand it better.

D-S3: ... It was good cuz it felt like we was getting much more feedback than normal.

According to the Music Lead (D-ML), the notion of students receiving both recorded and live feedback was important for inclusivity for pupils with additional learning needs.

Furthermore, he commented that his live feedback was of better quality because he was able to build upon the recorded feedback during composing sessions:

D-ML: I think if I gave them [the students] just recorded feedback then lots of our EAL [English as an Additional Language] students just wouldn't know what I was on about. So, when I went round the groups, I was able to make sure that they understood the recorded feedback and provide clarification where needed. It was really nice because when they said they didn't understand something [the feedback] I said, I was able to show them and work with them so that they developed a much better understanding of what I was saying and how it could sound like in their horror piece. Overall, I think that my live feedback was better than previously because now students already had something, through the recorded feedback, to be getting on with.

During the post-study focus group interview, D-S1 also raised that having teacher-recorded feedback, and being able to listen to it as many times as they needed to during the composing session, was beneficial, particularly for remembering what feedback the teacher gave:

D-S1: ... I think that if we just had live feedback and [teacher] just told us what to do, we'd just forget what he said. The recorded feedback was good cuz we could listen to what he said lots of time if we needed to.

Choosing the track for teacher feedback

For the students, being able to record as many tracks as they wanted and then choose which track(s) the teacher should listen to and give feedback on was advantageous; it was a means by which the group could show their teacher their best work:

D-S3: I really liked being able to make lots of recordings and choose [the track] because we could make lots of mistakes and then have another go to get it right. Normally, when we perform our pieces, you only get one chance to get it right, so using the [audio] recorder made me feel a lot more relaxed.

D-S1: Yeah, it was also good cuz we could then show the teacher our best work.

A positive balance of workload

The Music Lead (D-ML) voiced that listening to students' recordings did not add to current teacher workload:

D-ML: It was no bother at all; some of the tracks were seconds long and me recording my feedback only took a minute or so. I could listen to all of the groups and record feedback in about 10 minutes.

Formative intention

From the Music Lead's (D-ML) perspective, being able to listen to students' work on a regular basis helped reveal weaknesses in composing which could be taken into account for future musical learning:

D-ML: It was good to hear how pieces were growing over time, but I can't realise when I was listening that all of their ideas were very simple and rather fragmented. So, next year when this class begins Year 8 in the autumn term, I'm going to do some work on how to develop and extend basic musical ideas.

Using audio devices in the future

As with Schools B and C, feedback regarding the use of the audio devices during School D's group composing sessions was extremely positive. During post-study interviews, participants had the opportunity to reflect on how the devices might be used better in the future. Both the focus group and Music Lead commented on the need to re-consider the placing of the device in order to provide a better-quality recording:

D-S1: ... I think when we're recording maybe move it a bit further away cuz sometimes if the recorder was too close to an instrument that's all we could hear.

D-S1: ... because we was standing in a line [as a result of COVID-19 requirements in schools] we had to think carefully about where to put it [the audio device], cuz at the start it was near me, so I was the loudest on the recording, so it had to be moved so that we could all be heard.

D-ML:... I think I might have to do a little work with the students about where to put the recorder; on some of the recordings it was too close to an instrument, so I sometimes couldn't hear what other students were doing and I did say this to some groups in their recorded feedback. I suppose it's about training then to listen.

COVID-19 Reflection

Having reported findings from Case-Study D it is worth reflecting on the impact that COVID-19 had on students' music education. First, students' lack of previous musical experiences when they began the case-study may have been a result of the first national lockdown which took place when these students were in Year 6 (their final year of primary school). Second, although students may have spent more of their composing time (20% overall) Off-Task, this could have been because of the working environment in which they were working. For example, this case-study took place not all that long after students had experienced their second national lockdown where teaching and learning was online, and students worked primarily on an individual basis. As such, during the case-study, it could be that students were still adapting to the group-based learning environment. Furthermore, as D-

S2 commented (Section 5.4.1), although students were able to work in groups, they all had to face the same way (facing forwards) and not in the circle-based set-up they have been previously used to. Therefore, in addition to the musical learning students were experiencing, they also had to find new and different ways of communicating with each other. Finally, for the Music Lead, the hybrid form of providing feedback (recorded *and* live) was a means to spend time, work alongside, and interact with the students on a more personal level – something which had been neglected with previous online teaching and learning experiences.

Chapter 6: Discussion

Introduction

Chapter 2 (Literature Review) identified that the inclusion and use of an audio device within the Key Stage 3 group composing context is an under-researched area of composing-focused literature within music education. Furthermore, the chapter also revealed that although several music education researchers have discussed formative assessment concepts and strategies (for example, Fautley, 2010; Hale and Green, 2009; Pellegrino, Conway and Russel, 2015; Scott, 2012) there is still need for a greater epistemological focus on the use of formative assessment in music education, particularly within composing (Fautley and Savage, 2011) and what this looks like in practice within different Key Stage 3 settings. The discussion which follows centres itself around key areas.

The chapter begins with a critical reflection highlighting how using a variety of methodological lenses and methods allowed for the triangulation of similar data across the four case-study schools. Limitations to some important case-study findings are also highlighted. Following this, the chapter moves on to discuss the expansion of Fautley's group composing model; Threshold Concepts; teacher intervention strategies and audio feedback; student language as assessment; the additional reported benefits of using audio devices during composing; and reframing classroom-based assessment in light of this study's case-study findings and discussions.

6.1: Critical reflection

In order to address the research questions multiple methodological lenses (Chapter 3) and methods of data collection (Chapter 4) were used. This variety allowed for a wider viewing of the phenomena under investigation – exploring formative assessment and the effects of using an audio device during the group composing process – as well as providing an important means of triangulation for the conclusions made across the four, contextually different, case-study settings.

By analysing the data collected through a variety of lenses and tools, several similarities across the four schools were observed. These included: the identification of two new composing phases, and how, through formative assessment, they were valuable additions to the group composing process (RQ1); how live teacher intervention and recorded teacher intervention feedback did not always focus on the development of students' composing and included both summative and formative notions of assessment (RQ3); how student- and group-orientated feedback and discourse focused more on the strengthening of the performance of the composition rather than development and extension of already existing creative ideas and also, like each Music Lead's feedback, contained both summative and formative language (RQ2); and how the use of the audio device during the group composing process supported students, and each Music Lead, in their lesson-by-lesson musicking and teaching (RQ4). Collectively these similarities across the four case-studies help to better understand the impact of using the audio device within the formative assessment process. Each of these key findings are discussed within this chapter.

Further important findings were also observed; however, despite their importance and inclusion for discussion, were subject to limitations that arose from within the research design. For example, there are two key factors which need to be considered in relation to the

Threshold Concept (TC) findings. First, TCs they were not initially sought in the research design, but were observed at the time of analysis in two of the four case-study composing groups. As such, given their limited presence, only a small amount of data were collected. In addition, a key notion of crossing a TC is that it should produce an ontological change in the individual, where such new understandings can be ‘assimilated into the learner’s biography, becoming part of that he [or she] knows, who he [or she] is and how he [or she] feels’ (Cousin, 2006: 135). Given that the two identified TCs were observed during the iterative analysis stage, a key concept of Thematic Analysis (Braun and Clarke, 2006), questions relating to what ontological changes may have occurred at the individual level were not able to be incorporated during post-study group interviews.

Limitations when addressing RQ3 also exist; not all of the four Music Leads provided feedback in the same way. For instance, in School, A only live feedback was given; in Schools B and C only recorded feedback was given; and in School D both live and recorded modalities of feedback were given. Although, given the focus of the present study, the research design could have specified how teacher-to-group feedback was to be given, although this would have resulted in the lack of ownership by each Music Lead, and this was not the desired approach for the present study. Instead, it was an important ethical decision for Music Lead participants to use the audio device in a way that they were comfortable with and in way that would fit into their teaching practice.

Despite these limitations, discussions surrounding the data collected have taken place regarding these areas. This is because it was felt important to do so in order to provide as much information, at the case-study level, regarding how the audio device was used in that particular context; doing so has been advantageous as considerations regarding TCs and using only one modality of feedback have been made with appropriate, potential mitigations for enhancing teaching and learning practices further suggested.

6.2: Expanding the group composing process

In order to address Research Question (RQ) 1, which asks how the inclusion and use of an audio device influences the group composing process, case-study focus group composing sessions were observed (Section 4.2). Sessions were video recorded so that the episodic sequencing of composing phases (Section 4.6) was as accurate as possible. As result of including an audio device into the group composing process two new composing phases, in addition to Fautley's (2002) original phases, were identified. These were Work-In-Progress Recording (WIPR) and Work-In-Progress Listening (WIPL). Both were found to occur in all four case-studies and will be discussed in turn.

Work-In-Progress Recording (WIPR)

The new WIPR phase was identified at the point when the group chose to record their work-in-progress composition. Through episodic sequencing it was also observed that each case-study group tended to enter a Work-In-Progress Performance (WIPP) phase prior to this. The WIPP-WIPR sequence, when viewed using a perspective of Bourdieu's (1971) Field Theory (Section 3.6), may be considered to have become a *doxa* among composing groups. Applying a phenomenological lens (Section 3.3) to the post-study semi-structured interview (Section 4.3) data gathered was useful to better understand why this was the case. In one case-study school, it was reported that the WIPP-WIPR sequence was valued because it helped students organise their composing time (School B). Furthermore, in three case-study schools, students revealed that if they did not practise and run-through their composition (WIPP) prior to making a recording (WIPR), it may have led to a poor-quality recording which, in turn, may have resulted in different feedback from the teacher (Schools B, C, and D). These lived

experiences shared by students suggest a concurrence with Fautley's (2002) original PhD work, which was discussed in Section 2.2.5, where the WIPP phase is still a core value of the group composing process and can be considered very much at the 'heart of what they [the students] do' (2002: 355).

The new WIPR phase can be considered an important part of the formative assessment process. Although a WIPR can take place with the intention the recording will be used by the group (formative *intention*) there is no guarantee that this will be the case; the recording could be ignored. This was observed to be the case on a very small number of occasions in School C. However, in terms of formative *action*, episodic sequencing of composing phases showed that it was significantly more common, across all four case-studies, for groups to enter a Work-In-Progress Listening.

Work-In-Progress Listening (WIPL)

The new WIPL phase was identified at the point when the group chose to listen back to their previously recorded track(s). As with the WIPR above, the WIPL phase, by itself, might only be considered a formative *intention*. This is because the group may have listened to the track but not used the recording to discuss or make appropriate changes to their work-in-progress composition (formative *action*). Through the episodic sequencing of composing phases this was found to be the case in one case-study – School A – where the group was observed to be largely Off-Task following a WIPL phase. It should be noted, however, that the WIPP-WIPR-WIPL sequence identified in this case-study only took place towards the end of each composing session. Therefore, it might be assumed that the Off-Task phase occurred because students had made a recording, and listened to it, and, perhaps, believed their work to be “done” for that session. In the other three case-studies, Schools B, C, and D, the WIPL phase

(formative *intention*) was also observed to take place towards the beginning of many composing sessions. As a result of entering this phase, composing groups subsequently entered the Revision phase (formative *action*). What this meant was that having listened to their work from the previous lesson, students were observed to be imitating, miming, and working out their individual notes and rhythms both during the WIPL phase (Schools B, C, and D) as well as after it (School B).

The present study finds the WIPL phase to be a valuable *aide memoire* and provides important opportunities for formative assessment to take place. In addition to the formative assessment-focused observational data described above, what became clear from the post-study focus group interviews was that engaging in the WIPL phase impacted positively on the composing process; students reported that this helped speed up the composing process, compared to normal practice, from one music lesson to another (Schools B, C and D).

The present study also finds the WIPL phase can also be considered important when a student missed a composing session. For example, in one case-study – School A – three students (out of five) missed a composing lesson due to a school trip. In another case-study – School B – one pupil was also absent due to illness. These instances can be considered an important tension, or in Activity Theory terminology, a *contradiction* (Engeström, 1987), which can impact on the group composing process. Although students who were present continued to work on their composition, the ability to record what they had done meant that those absent could listen back to it upon their return and catch-up (School B). This can be considered an important reason for including an audio device into the group composing process because it elicited a resolution to a previous contradiction which may not have occurred without recorded work to listen to and engage with.

What is described above has important links with the notion of spiral progress, which was discussed in Section 2.2.3. For example, in addition to observational data cited above, students in Schools B-D reported that it was their lived experience of composing to have difficulty remembering what music they composed a week previously (or two weeks previously for School D students), particularly since it was not usual practice to make notes about what was done. This was also voiced to be the case when students are absent from a lesson. Spirally speaking, this lack of ability to remember who did what from one week to another means that it could be considered “normal” for ‘pupils [to] have shifted location on the[ir] individual [as well as group] spiral’ (Fautley and Daubney, 2019: 8). Although this downward shift might be a *contradiction* (Engeström, 1987), or tension, where it impacts on the group composing process, the findings from the present study suggest that this is not problematic. This is because the inclusion and use of an audio device to elicit and act on WIPR and WIPL phases, as described above, meant that this shift was only temporary, and individuals were able to quickly return to their previous spiral position and continue composing effectively as a group.

Extending Fautley’s model of the group composing process

Through applying a mixed-methods lens to data collection the new WIPR and WIPL phases can be considered as justifiable additions to the group composing process, not only for their frequent occurrence, but for their importance for supporting the group composing process. Figure 48 shows an extended version of Fautley’s (2002, 2005) original composing model with the two new phases (labelled phases 6 and 7) now incorporated. These new phases are located within the Generative Stage (Fautley 2002, 2005) of the composing process. It is important to note, however, that these new phases were only identified because of the

inclusion and use of an audio device. To support Figure 48, each phase is briefly summarised. What Figure 48 highlights, particularly with the use of arrows, are the multitude of pathways the group composing process can progress.

Generative Stage

Phase 1: Initial Confirmatory Phase (ICP)

The ICP occurs after the composition task has been presented and the group discusses the task. According to Fautley, the group may ‘begin to organise strategies for the ways in which they will go about undertaking the task’ (2002: 118).

Phases 2 and 3: Generation and Exploration

Phase 2 onwards is where the ‘doing’ is considered to take place. The Generation phase (phase 2) is where initial ideas for potential inclusion are produced. The Exploration phase (phase 3) is a period of ‘acceptance and rejection of material’ (Fautley 2002: 118). The arrows used in Figure 48, illustrate that phases 2 and 3 can be somewhat iterative where numerous ideas might be produced and either accepted for inclusion or rejected.

Phase 4: Organisation

The accepted ideas are then organised by being placed into some sort of order or structure. As the arrows used in Figure 48 make clear: ‘this [phase] can occur at any time during the composing process’ (Fautley, 2002: 119).

Phases 5, 6 and 7: Work-In Progress Performance (WIPP), Work-In-Progress Recording (WIPR), and Work-In-Progress Listening (WIPL)

The WIPP phase (phase 5) remains ‘an important way in which the composing process takes place’ (Fautley 2002: 121) and can take the form of a complete run-through of the work-in-progress composition, or a partial run-through. As with Fautley’s (2002) original work, the present study identified two types of WIPP: a WIPP organised by the group (described by Fautley as ‘informal’ (2002: 121)), and a WIPP organised by the teacher (referred to by Fautley as ‘formal’ (2002: 121)).

The present study found that the WIPR phase (phase 6) often followed the WIPP phase (phase 5). A WIPR is where the group make a recording of their work-in-progress composition. Like the WIPP above, a WIPR can be a complete recording of the piece so far, which was found to be the common decision in most case-studies. Alternatively, it can be a recording of smaller segments of the piece. This was sometimes found to occur in one case-study where each section of the Rondo composition was recorded separately.

The WIPL phase (phase 7) is where the recorded track(s) would be listened to by the group. It was identified at two places: following the WIPR phase (phase 6), and towards the beginning of a new composing session where, based on data from the present study, it served as a valuable *aide memoire* of the music created during the previous composing session.

Phases 5, 6 and 7 are located at the centre of Figure 48. This is to illustrate that these three phases, like the WIPP in Fautley’s (2002) original composing model, are central to the way in which groups worked and were important phases for taking the composing forward. The WIPP, WIPR, and WIPL sequence was found to re-occur, sometimes several times across the four case-studies, if the group decided that what they recorded was not “good” enough.

Post-Generative Stage

Phase 8: Revision

During a Revision phase students would practise excerpts of their work-in-progress composition. Within Fautley's (2002) research, the Revision phase often arose following a WIPP. Within the present study, the Revision phase (phase 8) primarily occurred following the WIPL phase towards the beginning of a composing session. It should be pointed out, however, that Figure 48 does not show an arrow linking the WIPR and Revision phases. This is because, in the present study, this sequence never occurred.

Phases 9 and 10: Transformation/Modification and Extension & Development

In these phases, the transformation (phase 9) and extension (phase 10) of the musical ideas takes place. According to Fautley, 'the function of these phases is to give *coherence* to the work' (Fautley, 2002: 124, italics in original). What is different about these phases compared to the Exploration (phase 3) and Organisation (phase 4) phases previously cited is that 'here the musical material has already been assembled into some sort of ordering' (Fautley, 2002: 124). In the present study, these two phases were found to be significantly less frequent compared to the other phases previously cited. Across the four case-studies, the Transformation/Modification phase (phase 9) was only identified once, and the Extension & Development phase (phase 10) was not identified at all.

Phase 11: Final Version (Final Performance)

In this last phase the Final Performance (Fautley, 2002) of the completed composition takes place. In the present study, however, finished compositions were not performed to the rest of

the class. Instead, a final recording was made and 'submitted' to the teacher. As such, it seemed appropriate to re-label this phase as 'Final Version'.

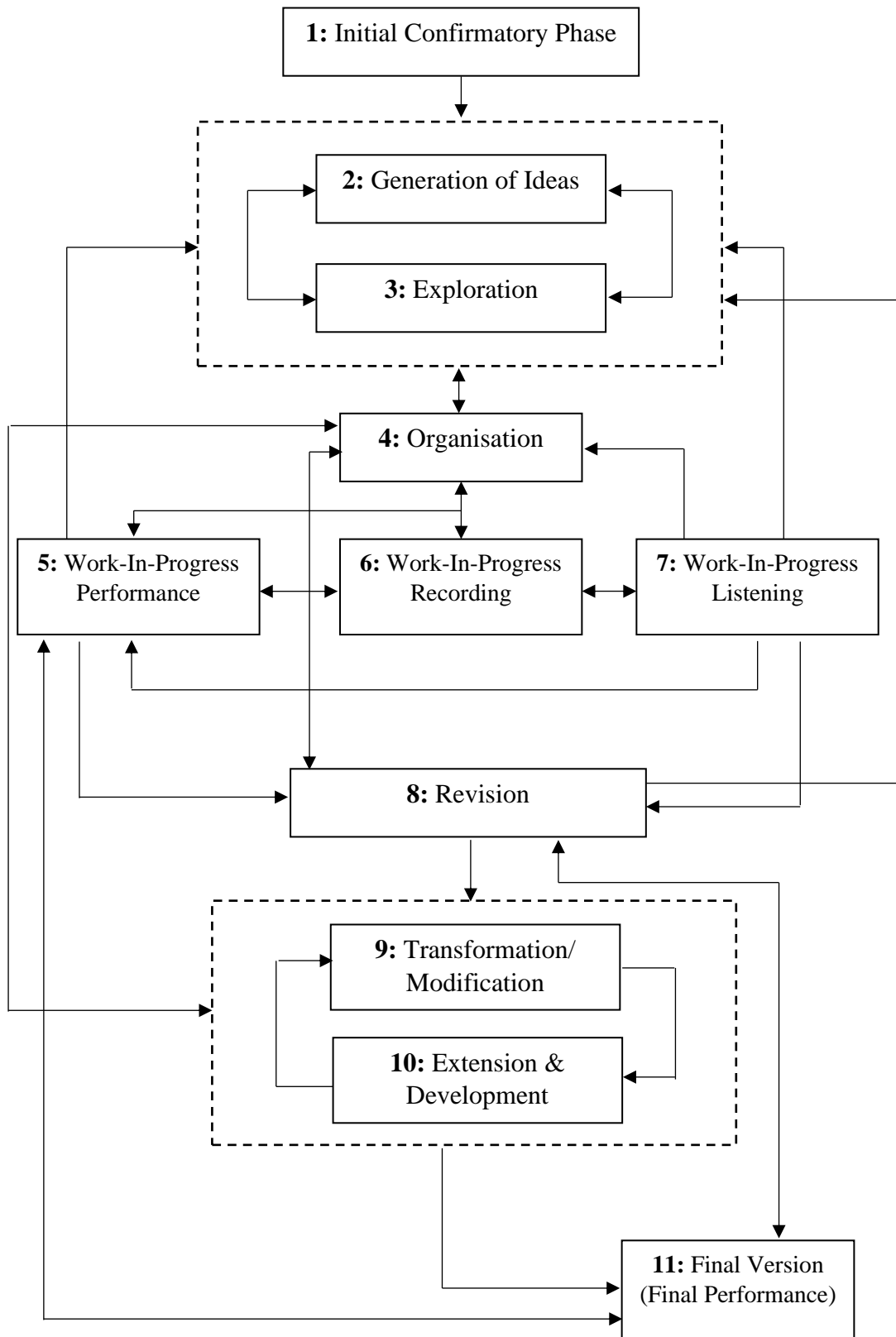


Figure 48: An extended version of Fautley’s (2002, 2005) original model of the group composing process.

6.3: The identification of Threshold Concepts within the group composing process

Section 2.1.7 established that the notion of Threshold Concepts (TCs) is an under-explored area of music education particularly within composing-focused and formative assessment-focused research. The process of crossing a TC can be considered valuable for developing what ‘he [or she] knows’ (Cousin, 2006: 135) as they work through their ‘suspended state’ (Meyer and Land, 2006: 16) of understanding. These quotations appear to have connections with both Bourdieu’s (1971) Field Theory (discussed in Section 3.6) and Engeström’s (1987) Activity Theory (cited in Section 3.5), both of which were methodological lenses applied in the present study. For example, referring to what ‘he [or she] knows’ (Cousin, 2006: 135) can be said to relate to Bourdieu’s (1971) *cultural capital*. Similarly, the concept of a ‘suspended state’ (Meyer and Land, 2006: 16) of understanding may well elicit a tension (or a *contradiction* in Activity Theory terminology) during the composing process which may need to be resolved.

During the analysis of observation data, the present study identified two composing-focused TCs within the Key Stage 3 lower-secondary school setting²⁶, each one from a different case-study. Each TC will be discussed in turn drawing on observational data as to how the audio device was used and how formative assessment supported (School A), or did not fully support (School B), the composing process.

²⁶ Additional Threshold Concepts were identified in the case-study research. These have not been reported on here because they were not related to the focus of this research. However, they have been discussed in Booth and Kinsella (2022).

TC 1: The challenge of beginning a composition

During their first composing session, School A's group began their composing journey with the Initial Confirmatory and Exploration phases. This was made clear through episodic sequencing of composing phases. Despite this, it quickly became clear from observational data that the group was struggling to generate ideas on which to begin their composition. This *contradiction* (Engeström, 1987) is what Meyer and Land would classify as a 'suspended state' (2006: 16) of understanding. This being a state where the group knew what the learning destination might be (for instance, they knew the style of the music they wanted to write) but did not know how to get there. To cross this TC, a new Auditory Research composing phase was observed. As this phase only occurred in this school (and only twice at the very beginning of this group's composing process), it was not included in the list of additional composing phases previously discussed in Section 6.2. That said, it proved to be an important phase for this composing group and was, therefore, deemed worthy of discussion in addressing RQ1.

The two Auditory Research phases were identified when a group member chose to use their mobile phone to research examples of pieces on YouTube that could inspire the style (since this was free choice) of the group's own rondo form composition. The use of a mobile phone to support learning was part of normal day-to-day practice in School A and could, therefore, be considered as part of the school's *doxa* (Bourdieu, 1971), which was discussed previously in Section 3.6.

Observational data showed that through formative assessment (as defined in this thesis), the use of a student's mobile phone proved highly effective in crossing this TC. For example, being able to use a mobile phone, as an audio device, to look up, research, listen to, engage with, and therefore get to know (Bourdieu, 1971), examples of music can be considered

formative *intention*. This is because information was being collected with the intention it would be used. Of course, this information could have been ignored. However, through listening together as a group, formative *action* then took place. After listening, the group then took part in a short post-listening group discussion. This discussion included information about what features the students likely and did not like. Using this information led to one group member improvising some chords based on a rock-style example they had just heard. At this point the group then appeared to have the inspiration on which to build their own original ideas. This inspiration may not have arisen at all, or as quickly as it did, without the Auditory Research phase and formative assessment to support this.

TC 2: The challenge of composing lyrics

As was presented in Section 5.2.1, observational data showed that School B's group found composing lyrics to be a *contradiction* (Engeström, 1987). This was initially observed through quantitatively analysing the amount of time the group spent working on the lyrics. This is another example of a 'suspended state' (Meyer and Land, 2006: 16) of understanding where the group knew what the learning destination might be (they knew they wanted to include lyrics in their composition, for example) but did not know how to do it. As with School A's 'Auditory Research' phase discussed above, the 'Recorded utterance to the teacher' phase only occurred in School B (and only twice during the entire composing process). As such, it was not included in the list of additional composing phases previously discussed in Section 6.2. Again, however, it was also deemed worthy of discussion in relation to addressing RQ1.

Through applying a phenomenological lens, post-study teacher and focus group interviews revealed that students found the initial starting point of writing lyrics the issue. The notion of

‘starting points’ was also found to be problematic for School A’s group. In an attempt to problematise this TC, one student chose to use the audio device to record a question to the teacher asking for advice. Although this is discussed further in Section 6.4 when addressing RQ3, it is worth noting that students in School B only received recorded feedback from their teacher. This has important implications for formative assessment. Recording a question to the teacher can be considered a formative *intention* because the recorded question may have been missed or not responded to by the teacher in her feedback. As was highlighted when analysing the Music Lead’s recorded feedback (Section 5.2.3), although the teacher, indeed, listened to the student’s question and responded with feedback, she did not actually answer their question. Instead, she suggested in her reply that the *students* should think about what they would like to write about. The reason why this is important within the formative assessment process is because although a recorded question was made with the *intention* it would be responded to with guidance by the Music Lead (formative *action*), this was not actually the case. As such, this is an important example of when the formative assessment process could not have the desired impact and thus can be considered to have hindered the group in crossing this TC. Although some lyrics were included in the group’s final composition, there was no evidence, observational or phenomenological, that the *contradiction* (Engeström, 1987) of writing lyrics was no longer problematic. As such, at the end of this unit-of-work, School B’s group can be said to have remained in their ‘suspended state’ (Meyer and Land, 2006: 16).

6.4: Teacher intervention strategies and audio recorded feedback

Live Teacher Interventions (LTIs)

The notion of LTIs was important in addressing RQ3 however, despite their importance, they are not considered as part of the group composing process (Fautley, 2004). TIs were previously identified by Fautley (2002, 2004, 2005) and often occurred when the teacher came into the practice room and engaged with the group. In the present study, through episodic sequencing, LTIs were identified in two case-studies: Schools A and D. These have been identified as “live” interventions to clearly differentiate between face-to-face and audio recorded interventions. The latter is discussed below.

As referred to in Section 2.3.2 of the Literature Review, previous research into LTIs by Kinsella and Fautley (2017) found that teacher language focused far more on matters which were directly related to task completion. Through systematic observation discourse analysis this was also found to be the case in one case-study within the present study, School A. Within this context almost all of the identified LTIs, which followed a stop-and-question approach (Fautley, 2004), focused on task completion *of making an audio recording* (for example, the teacher asking: “Have you made a recording yet?”) with often additional information that the group was “running out of time”.

From a formative assessment perspective, as defined in this thesis, these types of teacher-orientated, audio-recorder focused Transactive Questions (TQs) can be considered examples of formative *intention*. This is because they were being asked with the aim that they would lead to a recording being made (formative *action*). Despite the purpose of this type of question, however, observational data showed that this was seldom the case. When formative assessment was observed to take place, following an LTI phase, this was when students

responded to information (formative *action*) given by the teacher (formative *intention*) on other technical aspects relating to the audio device. Such information included, for instance, where to position the recorder and how to record a track. Although the present study concurs with Kinsella and Fautley's (2017) previous findings, it also found, in the context of School A, that there were no LTIs that focused on the development of the group's *composing*. In relation to Bourdieu's (1971) Field Theory (discussed in Section 3.6) as a methodological lens applied in the present study, this can be considered problematic; although students may have developed their *cultural capital* by being more 'in the know' (Burnard, 2015: 199) with regards to how to use the audio device, the same cannot be said for developing their understanding of *composing*.

A different approach was taken by the Music Lead in School D. In this case-study, the Music Lead was observed to spend time working with the focus group (as well as other groups in the class), and, through systematic observation discourse analysis, their composing-focused discourse was found to be centred around a variety of language types including asking Transactive Questions (TQs), making Proposals as questions (P-Qs), and making Proposals with additional information (P-*infos*).

From a formative assessment perspective, as defined in this thesis, these interventions could be considered as formative *intentions* because, upon the teacher leaving the room, the group may well have ignored them. This, however, was not the case; they were observed to be adopted by the group and incorporated into their composition (formative *action*). Despite the clear benefits LTIs had for formative assessment taking place, the present study found that their timing should be carefully considered. For example, as stated in Sections 5.4.2 and 5.4.3, it was observed that an LTI took place at the moment when the group were in the process of discussing improvements to their own creative ideas. Observational data found that these composing-focused, student-led discussions (formative *intention*) did not lead to

them being acted on due to the intervening stop-and-question (Fautley, 2002; 2004) LTI. Therefore, in consideration of Bourdieu's (1971) Field Theory and the classroom-based field of practice, this raises an important question regarding if, and when, a teacher should intervene. This has important links with Fautley's (2004) work, which was previously discussed in Section 2.4.1. In this research pertaining to teacher intervention strategies, Fautley (2004) identified two case-study schools where the teacher used a *laissez-faire* intervention approach. This is where:

the teacher does not intervene in the composing process of pupils. This apparent lack of intervention is in actuality one of lack of *immediate* intervention; the teacher is storing information for future use (2004: 211, italics in original).

In the article, Fautley (2004) also draws on Ofsted who state that 'Good teachers judge carefully when to interrupt or intervene, so not to disturb the flow of activities ...' (Ofsted, 2003, cited in Fautley, 2004: 212).

Both Fautley's (2004) and Ofsted's (2003) comments are most apposite here. With regards to this specific LTI in School D, if the teacher chose not to intervene *immediately* and, therefore, observed the group in flow first, or waited for a potentially natural stopping point (for example, when the group had finished playing and/or when group-based discussions had ended), it is possible that the teacher may have witnessed the group's own creative thinking and formative assessment processes occurring and, as a result, may not have needed to intervene at that point in time.

Recorded Teacher Interventions (RTIs) within audio feedback

RTIs were also important in addressing RQ3 and are a further addition to Fautley's (2002; 2004) original work in this area. As with the LTIs discussed above, although important and relevant to this thesis, this phase was also not considered part of the group composing process. Through observing each group's composing trajectory, an RTI was identified when the group chose to listen to their teacher's feedback. This feedback was recorded by the teacher outside of the lesson and, at the group's choice, was listened to towards the beginning of a composing session. Teacher feedback was based on the Work-In-Progress Recording track(s) identified by the group at the end of the previous composing session. RTIs were identified in three of the four case-study schools: Schools B, C, and D.

Previous research on teacher audio recorded feedback (for example, Lunt and Curan, 2010; Merry and Orsmond, 2008; Swan et al., 2008; Voelkel and Mello, 2014, discussed in Section 2.1.8) analysed teacher's language at the linguistic level and focused on, as Mercer would describe, the 'organizational structure of spoken language' (Mercer, 2010: 9). Through this lens it was found that teachers' language was much richer and contained noticeably more adjectives compared to written comments. This was not the approach taken with the present study. Instead, given that feedback is at the heart of the formative assessment process (ARG, 1999; 2002; Black and Wiliam, 1998; Crooks, 1988; Hattie and Timperley, 2007), it analysed teacher feedback through a sociocultural lens and focused on 'content, function, and the ways shared understanding [was] developed, in social context, over time' (Mercer, 2010: 9). In order to do this, systematic observation discourse analysis was employed by using, and adapting where required, MacDonald, Miell and Morgan's (2000) codes.

Through applying a sociocultural lens, the present study has found that, in all case-studies where RTIs were present, both summative and formative comments were evident. For

example, when summative language was identified, it was largely found to be in the form of positive praise, coded as Information based on a positive viewpoint (I-PV). On the other hand, formative language, like that identified in the LTI section above, was identified as types of proposals including: Proposals as questions (P-Qs), Proposals as statements (P-stats), and Proposals with additional information (P-infos). Through quantifying the frequency of each code, the balance of summative and formative comments was found to be inconsistent across the case-studies. For example, in School B, there was a slight majority of formative comments compared to summative. This is an interesting finding since, as will be discussed later in Section 7.3, the pre-study interview revealed that there appeared to be some confusion at both the teacher- and school-level as to what formative and summative assessment was and what it looked like in the classroom. In this case-study (School B), the purpose of the audio recorded formative comments was to provide the group with suggestions as to what they could do next supported by (summative) words of encouragement. In Schools C and D, however, summative comments were found to be the more dominant form of feedback. In these case-studies, the purpose of these audio recorded summative comments appeared to be mainly providing positive praise and therefore reassurance to the group that what they were doing was “on the right track” supported by ideas on what they could think about/do next.

When discussing the LTIs above it was established that formative assessment, although not always composing-focused, took place. This was not the case with some RTI audio feedback. Instead, although feedback (which appeared to be more composing-focused) was being given with the *intention* it would be *acted on*, there was no evidence from observational data that this was actually the case (Schools B and C). As such, a key finding of the present study in relation to formative assessment and feedback is that although a teacher is giving feedback this does not automatically mean that formative assessment is taking place. This was not the case, however, in School D. Here, *action* based on the audio recorded feedback did actually

take place. That said, it is important to reiterate that both LTIs and RTIs took place in this case-study.

Previous research on audio recorded feedback conducted by Cavanaugh (2014), cited previously in Section 2.1.8, found that students seemed to portray positive feelings towards recorded feedback. Although the present study generally concurs with this finding it should also be pointed out that audio recorded feedback should not be considered a replacement for face-to-face “live” teacher feedback. This became clear in Schools B and C (where, at the choice of the teacher, groups received only recorded feedback) when students voiced in their post-study interview that there were occasions when they listened to their teacher’s feedback but did not always understand it. As such, this could be an important reason why formative assessment, based on their teacher’s recorded feedback, did not take place. In School D, however, students experienced both modalities of feedback. As voiced in the post-study interview, from the students’ perspectives this was important so that they could keep track of the work-in-progress composition as well as providing opportunities, where needed, to seek further clarification about the recorded feedback. For the Music Lead, the notion of students receiving both recorded and live feedback was important for inclusivity for pupils with additional learning needs as well as providing valuable opportunities to be able to scaffold and build upon the recorded feedback during composing sessions. As such, this could be an important reason as to why formative assessment was found to occur more frequently in School D compared to Schools B and C.

Previous research by Cavanaugh (2014) also found that teachers tended to have negative feelings towards providing audio comments. This was not found to be the case in the present study. Instead, Music Leads in Schools B-D were highly complementary of using audio devices during the group composing process, as well as giving audio recorded feedback. Furthermore, Voelkel and Mello (2014), cited in Section 2.1.8, concluded that research

evidence is not clear whether using audio feedback is efficient in terms of staff time; some found it was efficient (for example, Lunt and Curran, 2010) and others found it was not (for instance, McFarlane and Wakeman, 2011; Rodway-Dyer, Knight and Dunne, 2011). The present study finds that audio recorded feedback is efficient in terms of teacher time and, through applying Thematic Analysis (Braun and Clarke, 2006) as an analytical tool to post-study interview data, found that it provides more time for better quality feedback (Schools B, C, and D) whilst still being able to maintain a positive workload balance (Schools B, C and D). Based on these findings, it might be suggested, therefore, that using the audio device to give feedback outside of lessons allowed teachers the time to slow down the feedback process by being able to reflect on current learning and think carefully about the best way to respond.

Voelkel and Mello (2014) further reported that there was no clear evidence as to whether or not audio feedback better supports learning. The present study also found that there is no absolute evidence that this is the case, although there are clear examples that audio feedback was, or had the potential to be, beneficial to learning. For example, at the student level, formative assessment based on teacher-recorded feedback did not take place in some schools (Schools B and C) unless it was accompanied by face-to-face feedback (School D). However, as discussed in Section 6.2, when groups chose to enter a Work-In-Progress Listening phase, this provided them with valuable feedback (*formative intention*) with what next steps were required (*formative action*). At the teacher-level, one Music Lead commented that listening to student tracks provided them with valuable feedback in ensuring that there was a positive balance of group workload and that some students within a group were not doing more than others. Where this was not the case, this was commented on when recording feedback to the appropriate group and monitored (School B). Furthermore, two other Music Leads reported that listening to student tracks provided valuable feedback *to them* with regards to where

students' learning needed to go next and sought to make necessary adaptations to the subsequent scheme of work based upon this information (Schools C and D).

The usefulness of unpicking teacher discourse for teachers

As has been discussed, the notion of TIs, whether live or audio recorded, can serve an important purpose for moving a group's composing forward. The findings presented as a result of analysing and coding teachers' comments can be of benefit to teachers in reflecting on their own practice. Such reflections might consider the summative-formative balance when giving feedback and, for the latter, what types of comments or language might elicit an even more formative teaching and learning environment.

6.5: Student language as assessment within the group composing context

Applying a sociocultural lens to also analyse student-orientated discourse was important in addressing RQ2. The focus for analysis centred around the when the audio device was used during the composing process. Talk which occurred outside of this focus (for example Off-Task talk) was not considered for analysis.

Student talk *as* assessment

As discussed in Section 2.3.3, Mercer (2015) stated that there are wider benefits to using student-student talk than just for attainment and progress and went on to say that such talk can have additional benefits for formative assessment. What Mercer (2015) did not provide, though, including in his earlier typology of group-based talk (Mercer, 2004), were details as to how this modality of talk can be harnessed and used *formatively*. Furthermore, within composing-focused literature, it was also presented that Major's (2007) typology of talk does not include the role assessment plays in student-student (or even teacher-group) discourse.

In an attempt to address these significant gaps, the present study found both summative and formative language within group-based discourse in all case-studies. Through systematic observation discourse analysis, it finds that summative comments were found to mainly take the form of Information based on a positive viewpoint (I-PV). When formative utterances occurred, they were largely based on Proposals (P). These could then be divided into two further sub-types: Proposal as a statement (P-*stat*) and Proposal with additional information (P-*info*). These specific types of utterances are similar to those identified in the live and recorded teacher interventions which were discussed previously in Section 6.4.

When these codes were quantitatively analysed to establish their frequency, it was identified that the balance of summative and formative comments among the students was not consistent across the case-studies. This is a finding consistent with the quantitative analysis of teacher comments discussed in Section 6.4. For example, summative comments were found to be significantly more common than formative ones in Schools A and D. In Schools B and C, there was a broadly equal balance of summative and formative utterances. In an attempt to explain why this was the case, comparisons were made as to whether the modality of feedback students received from their teacher (whether audio, live, or both) may have influenced this. Although a connection appears to be evident, the correlations which follow are being made with caution.

In School A, for instance, where students received only live teacher feedback via a stop-and-question (Fautley, 2002; 2004) approach, significantly more summative utterances in student discourse were identified. In Schools B and C, where groups received only recorded teacher feedback, there was a broad balance between students' summative and formative comments. In School D, where pupils received both recorded and live (which also followed a stop-and-question approach) modalities of feedback, summative comments were significantly more common than formative ones. What this could suggest is that, when groups in Schools B and C received only recorded feedback, and therefore no stop-and-question interventions by their teacher, they had to think *for themselves* during each composing session. To be clear, though, although this could have elicited more formative talk, this does not automatically mean that formative assessment took place because, as has been stated previously, the formative comments made (formative *intention*) did not always lead to them being responded to (formative *action*). On the other hand, for Schools A and D, it could be that each teacher became an additional member (an expert) of the group during the live teacher intervention phases, and their good-intentioned and formative comments (particularly variants of

proposals which were, overall, found to be the most common type of utterance) might well have reduced students' need *to talk more formatively for themselves* during composing sessions. This is in spite of the fact that, in School D, students also received recorded feedback.

The stop-and-question (Fautley, 2002; 2004) approach in the live teacher feedback schools can be considered to link with some of the current pedagogical approaches and debates in education. These were discussed in Section 2.4.1. For example, the common use of *proposals* by the teacher in their live feedback could be akin to the notion of Direct Instruction where it:

fully explains the concepts and procedures that students are required to learn as well as learning strategy support that is compatible with human cognitive architecture (Kirschner, Sweller and Clarke, 2006: 75).

For advocates of a Direct Instruction pedagogy, providing students with the relevant information (*proposals* on what to do next, for instance) is important; students should not be left to discover concepts by themselves (Cronbach and Snow, 1977; Klahr and Nigam, 2004; Mayer, 2004; Sweller, 2021) on the basis that it 'makes heavy demands on working memory' (Kirschner, Sweller and Clarke, 2006: 77).

However, for Inquiry Learning, where composing is situated, teachers – as experts – scaffold musical learning where they:

guide students in the learning process, pushing them to think deeply, and model the kinds of questions that students need to be asking for themselves (Hmelo-Silver, Duncann and Chinn (2007: 101).

Given that students in Schools B and C only received out-of-lesson audio recorded feedback, this could be a reason why more formative utterances were identified; the modality of feedback they were presented with encouraged them to think more deeply, and

independently, as a group about their composing ideas and choices. Since providing audio feedback to students was new to the teacher, it could also be considered, through considering Bourdieu's (1971) Field Theory, discussed in Section 3.6, that giving feedback in this way meant a change in the teacher's individual *doxa* and thus allowed for a change in what the feedback consisted of. To be clear, this is not to say that providing students with proposals on what they need to do next is not important; rather to question whether students in Schools A and D may have benefitted further from receiving less stop-and-question (Fautley, 2002; 2004) teacher intervention feedback, and whether adopting, where appropriate, a more *laissez-faire* (Fautley 2002; 2004) approach could have elicited and enhanced a more formative space in which the students could engage themselves in.

In addition, the content of the language which occurred following the newly identified Work-In-Progress Listening phase is of interest. At these points, although examples of formative assessment following the group discourse were found in all case-studies, they largely did not focus on the development of *composing*. Examples of what was observed and identified included: addressing the balance of instrumental volume (Schools A and B), more practice (School B), and moving the audio device to produce a better-quality recording (School C). When more composing-focused formative assessment dialogues took place, following proposals and counter-proposals made by group members, they proved important for changing the group's composing phase trajectory to re-enter, where deemed necessary, into Work-In-Progress Performance and Revision phases before progressing further with the composition (Schools C and D). That said, although a change in composing phase trajectory was indeed important for the group, the change can be said to have focused more on strengthening the *performance* of the composition than the development and extension of already existing creative ideas.

Gender dominance in group context

Previous research (including music education research) investigating talk within mixed-sex groups is somewhat contradictory, with some suggesting that girls verbally dominate over boys (for example, Burland and Davidson, 2001; Morgan, 1998; Morgan, Hargreaves and Joiner, 1997), and others (for example, Swann, 1992) suggesting the opposite. This was discussed in Section 2.3.1. The present study, where all case-study composing groups were mixed-gender, also finds the notion of gender dominance with regards to talk contradictory. For example, in Schools A²⁷ and C, male contributions significantly outweighed female contributions, but this was different in Schools B and D where the opposite occurred. An interesting finding, however, is that despite whichever gender was more dominant within the group context, this study notes that male contributions were considered more formative (Schools B, C, and D).

Through applying and utilising Bourdieu's (1971) Field Theory as a methodological lens, the contradictions of gender dominance with regards to oral space might be explained. For example, post-study focus group interviews (Schools B-D) revealed that students who had more symbolic and/or cultural capital were deemed to be the expert of the group and so were considered to be the group's leader²⁸. In School B, for instance, the female oral dominance was explained by the extra-curricular singing (cultural) and graded music exam achievements (symbolic). In School C, the male oral dominance was explained due to their previous musical experience of working in a band (cultural). In School D, although the overall number of utterances between Student 1 (male) and Student 2 (female) were broadly similar, the two

²⁷ It was previously stated in Section 5.1.2 that caution must be taken with this finding as, for one composing session, three group members were absent due to a school trip. This left two male students to continue working on the composition.

²⁸ Students' instrumental/vocal backgrounds were previously presented in Section 5.1 (School A), Section 5.2 (School B), Section 5.3 (School C), and Section 5.4 (School D).

females considered the male member as the expert; he was more knowledgeable about horror films (cultural). Overall, the present study finds that students deemed as the more musically expert were found to give more formative comments in developing the composition further.

6.6: Additional reported benefits of using audio devices during the group composing process

In addressing RQ4, additional benefits of using an audio device during the group composing process were presented by student and teacher participants during the post-study interviews. Some of these benefits have already been discussed, where relevant, in previous sections of this chapter.

Thematic Analysis (Braun and Clarke, 2006) was a valuable method in which broad themes, and sub-themes, could be identified. In doing so, it was found that, across all case-studies where interviews took place (Schools B-D), the use of the audio device was an effective learning tool where it could be used as an *aide memoire*; it supported teacher professional development where a more relaxed atmosphere, particularly with regards to assessment, was created; it enhanced student personal development through developing independence and confidence; and it supported teacher-to-group feedback by having more time for better quality feedback, as well as ensuring a positive balance of teacher workload.

It was also established that when teachers used to audio device to listen to students' tracks it provided group-to-teacher feedback. The reported themes of the benefits included it ensured there was a balance of group workload (School B); it was a means in order to reflect on the quality of their own teacher-recorded feedback to the group (School C); and it was a valuable means to use what they heard as a formative *intention* to plan to adapt the subsequent scheme of work to better meet the musical needs of learners (Schools C and D).

Furthermore, it was revealed that students were given more autonomy over which track(s) they wanted their teacher to listen to and give feedback on. As a result, it was reported that this helped support many of the themes identified above (Schools C and D).

Finally, the present study also found that the use of the audio device in music lessons was picked up by parents who had noticed a positive change in how their child, including those with SEND, was talking about their music lessons (School C).

The future use of the audio device in group-based composing

Towards the end of each post-study interview, all participants were asked how they might use the audio device differently in the future. Students and teachers, in all case-studies, were highly complementary about using the audio device during composing sessions. The only comments made regarding how it might be used differently in the future were found to be more organisational aspects. These included: creating a short how-to-use guide for students (School C), as well as giving greater consideration as to where to place the audio device when recording (Schools B, C, and D).

6.7: Reframing classroom-based assessment

Seeing assessment as a procedure for making inferences

As stated in Section 2.1.1, this thesis adopted Cronbach's (1971) definition of assessment where it is best described as a procedure for making inferences. Seeing assessment in this way, and applying this lens to the classroom, has the potential to develop further our understanding of assessment research and day-to-day assessment practice.

Summative assessment

The purpose of summative assessment, according to previously cited literature (discussed in Sections 2.1.4 and 2.1.5), is that it sums-up learning (Broadfoot, 2008; Devaney, 2018; Fautley and Colwell, 2018; Fautley and Savage 2007; 2008; Harlen 2007; Thorpe, 2015) with some positing that its core purpose is to 'certify pupil achievement' (Fautley, 2010: 8) at particular points in time (Andrade and Heritage, 2018; Broadfoot, 2008; Harlen, 2007). Furthermore, research investigating summative assessment, including classroom-based summative assessment (for example, Madaus and Clarke, 2001; Harlen and Deakin-Crick, 2003), has considered it problematic; it has been found to have 'a significantly damaging effect on the day-to-day business of learning' (Broadfoot, 2008: 123).

Although the present study viewed assessment as a procedure for making inferences (Cronbach, 1971), it concurs with previous research in that the purpose of summative assessment is to sum-up. However, in contrast to previously cited literature, the present study also finds that the presence of summative assessment is not limited to testing and the giving of marks, levels, or grades at particular points in time but was found to occur on a frequent, lesson-by-lesson basis when the content of both teacher and group-based language was

analysed through a sociocultural lens. A discussion of this has already taken place within Sections 6.4 and 6.4 of this chapter. The summative inferences identified within the present study related to the status of the work-in-progress composition and included comments such as: “that was really good”, for example. These types of comments, by definition, sum up the composition at that moment in time. In contrast to some previous research investigating summative assessment cited above, despite their high frequency, there was no evidence to suggest that summative assessments identified in this thesis (that is through teacher- or group-orientated language) had a negative effect on lesson-by-lesson musical learning. On the contrary, through the dominance of oral comments coded as Information based on a positive viewpoint (*I-PV*) throughout Chapter 5 (Results), such summative inferences at teacher-, individual student-, and group-levels, appeared to be used as a means of encouragement, support, and excitement towards the work-in-progress composition and the work the group had done.

Formative assessment

Drawing on the work of Black and Wiliam (1998), discussed in Section 2.1.5, the present study positions itself in suggesting that formative assessment requires two key ingredients: *intention* and *action*, and that both are required for the process to take place. As has been discussed in previous sections of this chapter and Chapter 5 (Results), examples of formative *intention* were identified but this did not always lead to formative *action*. As such, formative assessment, from this perspective, cannot be said to have taken place.

For example, based on research contained within the four-case-studies presented in this thesis, when teachers gave feedback (for instance, audio recorded feedback) to their students this would be considered a formative *intention* because the feedback was being given with the

intention that it was going to be *acted on*. This was not always the case. Similarly, when students were listening back to their previous recorded tracks, they were being listened to with the *intention* that it would lead to some sort of *action*. Again, sometimes, this was not the case. The notion that when information is given, or collected, and then leads to some sort of response provides a good reason why formative assessment can only be thought of as a *process* within the teaching and learning cycle. A visual representation of this is exemplified in Figure 49.

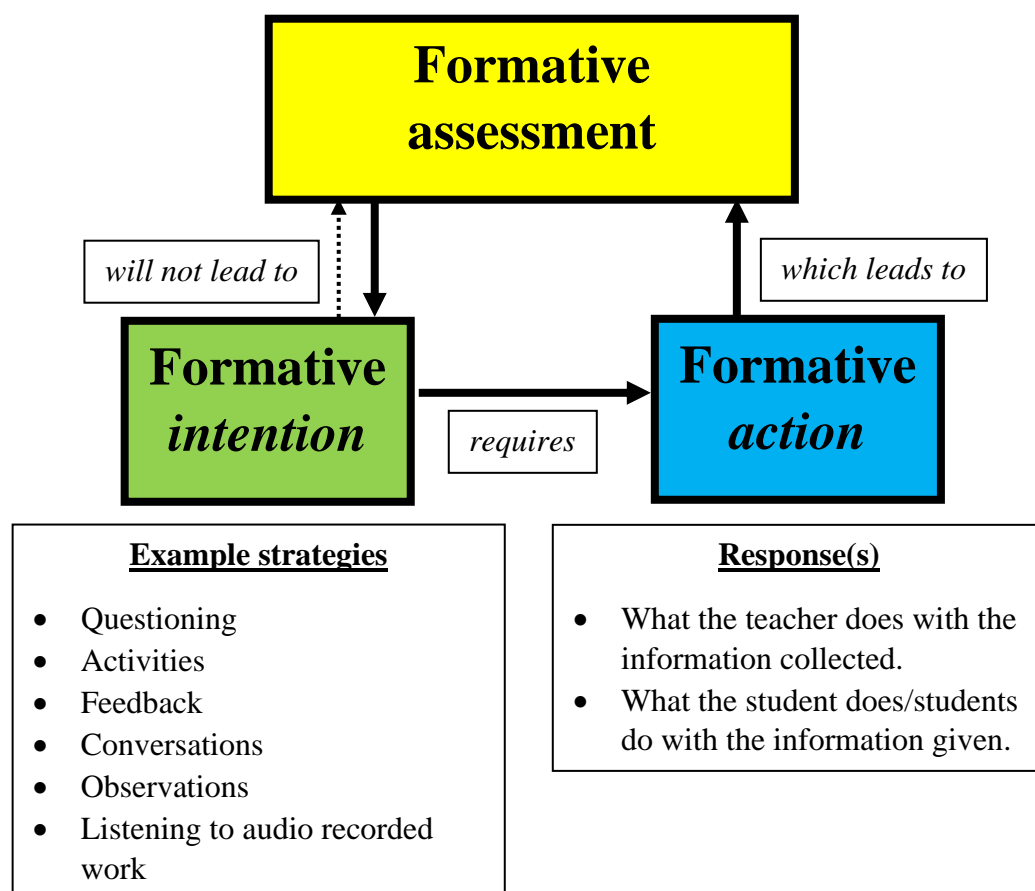


Figure 49: The formative assessment process (*intention* and *action*).

Figure 49 shows how formative *intention* (through the use of strategies to elicit information about current student learning) requires formative *action* (a response in relation to the information collected by the teacher and/or student(s)) for formative assessment to take place.

That the dotted arrow above formative *intention* signifies that the collecting of information, without any response, will not lead to effective formative assessment taking place. This was found to be the case numerous times across the four case-studies.

What it can mean to “do” within formative assessment

“Doing” as a part of formative assessment can be considered complex and multifaceted. The present study, for example, could only identify tangible evidence of the process, at both the teacher- and group-level, including discussions, responses to live and audio recorded feedback, and responses to work-in-progress audio recorded tracks. What it could not consider, however, were the potential intangible snapshots of internal formative *thinking* which may have occurred at the individual student level but were not articulated during group-to-teacher or within group discussions.

Formative assessment cannot always be predictable and thus requires time, space, thought, and the involvement of students within the process. For example, considering the notion of Threshold Concepts, which was discussed in Section 6.3, students’ ‘suspended state[s]’ (Mayer and Land, 2006: 16) of understanding meant that they knew what the learning destination might be, but did not know how to get there. As such, affording time, space, and thought towards how students can use learning tools (such as audio devices) to best support them can be particularly impactful, as identified and discussed in this study, in allowing effective formative assessment to take place to underpin musical teaching and learning moving forward.

A key finding from the present study is that it identified a clear presence, and in some case-studies a clear dominance, of summative language on a lesson-by-lesson basis. This study argues that this is not overly problematic because summative inferences such as: “that’s

really good” can be beneficial for motivating students. However, consideration must be given as to what extent even more *formative inferences* (particularly Transactive Questions (TQs) but also, where needed, proposals as both statements (*P-stat*) and with additional information (*P-info*)), at both teacher- and student-levels, can be present in the music classroom to enhance students’ musical thinking and doing within the group composing context.

Chapter 7: Further analysis and discussion

Introduction

Activity Theory (Engeström, 1987) was previously discussed in Section 2.3.2 (Literature Review) and Section 3.5 (Methodology). Its inclusion within the present study was important so that contradictions – sources of tension – across different activity systems (for example, the individual student, the group of students, and the teacher) could be identified and, where possible, resolved. The identification of any contradictions was considered important so that each of the separate activity systems could successfully work together towards the potentially shared outcome – a finished composition.

Through observations of composing sessions and pre- and post-study teacher and focus group interviews several tensions were identified and have already been discussed in Chapter 6.

These related specifically to the use of the audio device during the composing process.

Further to this, pre- and post-study interviews revealed numerous additional tensions, some of which were historical (that is, they occurred at some point in an individual's past) but were considered by participants to have impacted on the composing process whilst the present study's research was taking place. As such, it was felt that further analysis and discussion into the observed and reported contradictions was required. In order to gain a wider viewing of the tensions a modular integration approach (Jurdak, 2018) was taken, this occurs where two theories (in this case, Activity Theory (Engeström, 1987) and Field Theory (Bourdieu, 1971)) are combined.

Focusing on the concept of contradictions, this chapter explores the notion of modular integration, defines *dissonances* and *obstacles* as sub-sections of the term “contradiction”, identifies these sub-sections within historical tensions during pre-study case-study interviews,

presents these sub-sections as they emerged during each composing-focused case-study, and finally draws this information together to propose a developed typology of contradictions along with a new 3-Dimensional visualisation of the activity system framework.

7.1: Modular integration

The term “Modular integration” (Jurdak, 2018) refers to when two (or more) theories are combined so that, collectively, they ‘are able to provide better explanations than they could individually’ (Jurdak, 2018: 26). This is done with the aim to ‘better understand what is being done and how’ (Burnard and Younker, 2007: 63). With regards to this Further Analysis and Discussion chapter, Engeström’s (1987) Activity Theory and Bourdieu’s (1971) Field Theory have been combined in order to seek both socio-cultural and socio-political perspectives within the Key Stage 3 composing classroom.

By combining these theories, we are able to remedy some of the potential limitations that each single theory possesses. As Jurdak (2018) states:

Bourdieu’s field theory, which views the process of education from the perspective of power through cultural reproduction, does not address education as a socialization/acclulturation development process. On the other hand, CHAT [Cultural Historical Activity Theory], views education as a developmental collective purposeful activity embedded in a sociocultural context, is silent on the issue of power in the education field (2018: 18).

Despite the differences, what Activity and Field theories have in common, however (although definitions of the terms are somewhat different in the two theories), are the notions of *culture* and *history*. For example, in relation to *culture*, Activity Theory is centred around ‘communal collective meanings in which the activity is enacted’ (Jurdak, 2018: 27) whereas, for Field Theory, it ‘plays a pivotal role by being a carrier of capital through the internalized socializations of the habitus of the social agent’ (Jurdak, 2018: 27). With regards to *history*,

Bourdieu's notion of habitus refers to an individual's history. On the other hand, within Activity Theory, 'human activity occurs in a historical context in the sense that the historical context contextualizes the activity itself' (Jurdak, 2018: 27).

By adapting a modular integration approach of Activity and Field theories, the present study is able to offer a deeper understanding of the proposed *dissonances* and *obstacles*, and, from this, is able to establish a hierarchy of the modalities of contradictions identified within each of the four case-studies.

7.2: Unpicking “contradictions”

Data collected from the present study revealed that there can be different types of contradictions beyond those stated in Table 9 (Section 3.5). Such types of contradiction include: whether they exist within a single activity system or across multiple ones; whether they are short-term or longer-term; whether they might be resolved during the activity taking place; whether they are historically unresolved; or whether they go on being unresolved when the activity has finished. These are all examples identified within the present study that current Activity Theory research does not account for. As such, this thesis believes that “contradictions” is more of a broader term which can then be divided into two, more specific, sub-sections: *dissonances* and *obstacles*. These two sub-terms are defined in Table 86 below.

Defining a <i>dissonance</i>	Defining an <i>obstacle</i>
<ul style="list-style-type: none"> • Can be identified as historical as well as emergent in a present activity; • Can be short-term; • Can be within the control of someone working directly within the activity system at that moment (for example, a teacher or student); and • Can usually be problematised in-the-moment. 	<ul style="list-style-type: none"> • Can be identified as historical as well as emergent in a present activity; • Can be longer-term; • Can be beyond the control of someone working directly within the activity system at that moment (for example, a line manager, senior leader); and • Unlikely to be problematised in-the-moment.

Table 86: Defining the sub-contradictions of *dissonances* and *obstacles*.

In a musical sense, the term “dissonance” seems appropriate where, harmonically speaking, it can refer to a certain ‘roughness or tonal tension’ (Oxford Music Dictionary Online, 2001, n.p.). The word “obstacle”, on the other hand, can be described as ‘something that blocks you so that movement, going forward, or action is prevented or made more difficult’ (Cambridge Dictionary Online, 2021, n.p.). Following both sub-types of contradiction, a resolution (or solution) may, or may not, occur.

7.3: Historical *dissonances* and *obstacles* from case-study data

This section identifies and discusses historical dissonances and obstacles that were revealed by Music Leads and students during the pre-study interviews (Schools B-D). They were considered historical because they were identified to be present prior to the start of the case-study. Although they are not directly related to the research foci, these examples, through adopting a modular integration approach, can still be considered as important; they were found to have impacted on lesson-by-lesson teacher and student group composing practices whilst the present study, and the composing process, took place.

School B: Dissonances

Student-level: Lack of instrument choice during practical lessons

Student 1 (B-S1) commented that there was often a lack of instrumental choice when it came to practical music-making. As a result, she felt that she was not being provided with the opportunity for her *habitus* (Bourdieu, 1971) (consisting of previous, out-of-school singing experiences) to combine, and therefore develop, with current, in-school work. For B-S1, this has reduced her current, as well as future, aspirations in music.

B-S1: ... we don't really get to express ourselves, like we don't get to choose the instruments. So, I don't sing, for example, which I'd rather be doing. We either just play the drums or the keyboard which isn't what I want to be doing personally, and it's currently not really settings me up for my future musical aspirations.

Although this tension is an example which had taken place over a longer period of time, this could be considered a dissonance; its potential resolution was in the control (power) of someone working directly within the composition activity (the student and/or the teacher) and could be dealt with in-the-moment. In this case, at the beginning of the composing unit-of-work, B-S1 spoke to her music teacher to ask if she could use her voice as her contribution to the group composition. Although this appears to have not happened previously, this request was immediately approved by the music teacher.

Table 87 summarises the historical dissonance identified in School B. Supporting the notion of a third-generation Activity Theory (Section 3.5), it also shows the activity system and nodes which the dissonance affected; the corresponding activity system and node in which the dissonance had the potential to be resolved; the reason the tension was considered a dissonance, and whether it was resolved.

In order to support the information presented in Table 87, Figure 19 (from Section 2.3.2) has been re-presented for convenience. As there are important adaptations to this figure, it contains a new figure number. Figure 50 shows three activity systems: the individual student working within a group (activity system 1), the collective group of students (activity system 2), and the music teacher (activity system 3). These three systems can be considered to be “knotworking” (Engeström, 2008) towards the potentially shared object (labelled in the Figure as “outcome”) – a finished composition. To better illustrate the historical dissonance which occurred, I have followed Engeström’s (2016) representation where contradictions are identified with a lightning sign. To pin-point the source of the tension (and where the tension also had the potential to be resolved) an orange lightening sign is shown. In this case, the tension originates within the music teacher’s *rules*. A dotted line then connects this activity system (#3) to an individual student (activity system 1) where it was established that the lack

of *tools* (choice of instruments in this case) was a source of tension for S1 in relation to previous practical tasks (objects/outcomes).

Dissonance identified	Activity system where dissonance was identified		Corresponding activity system where dissonance could be resolved		Reason for being a dissonance	Resolved or unresolved?
	Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node		
<i>Lack of instrumental choice during practical music-making.</i>	Student	Tools Object	Teacher	Rules	<ul style="list-style-type: none"> B-S1 felt that the inability to choose her instrumental (tools) meant that she was not being provided with the support towards her current and future aspirations in music (object). Was resolved by the teacher changing her usual practice (rules) to accommodate the student's request. 	Resolved

Table 87: A summary of School B's dissonance.

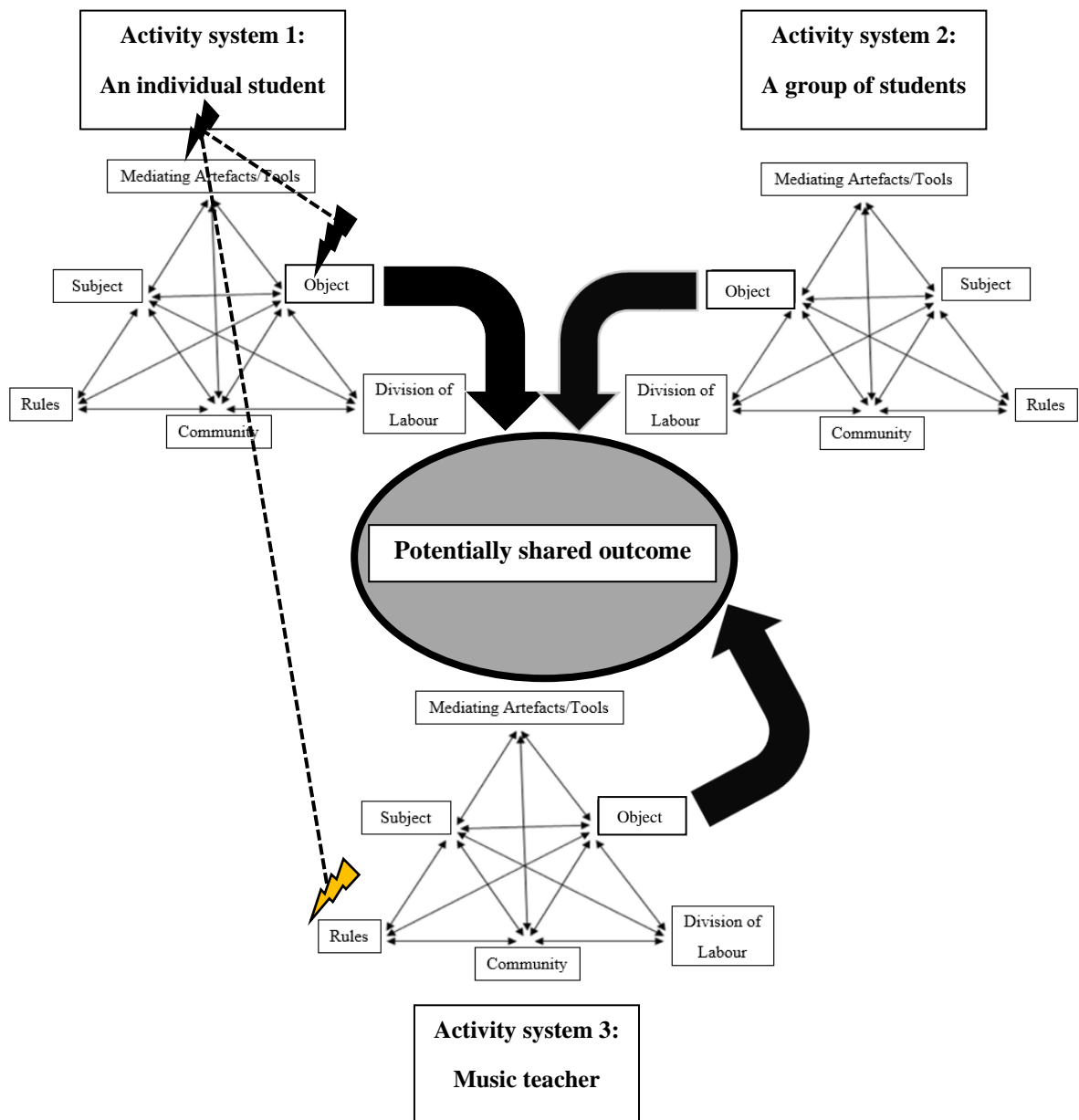


Figure 50: Example of Engeström's (2001) Activity System (third-generation) model for School B with historical dissonances identified.

School B: Obstacles

Teacher-level: Whole school assessment system

Whole-school assessment practice was found to be a tension for the Music Lead (B-ML). This tension was considered an obstacle; the assessment system, in this school, was long-standing and, despite the issues revealed by the Music Lead below, was not within the individual teacher's power to change.

For example, in the exchange that follows, it is clear that the school's *doxa* (Bourdieu, 1971) of recording Stanines (short for "Standard Nines") into the school's data management system is highly unrealistic in meaning where an entire Year 8 cohort would be reported as being significantly above average and, therefore, in the top 7% of students' results nationwide. Furthermore, the use of "sub-levels" to locate a student's position within the reported Stanine was, for the Music Lead, confusing and not particularly useful. An example from a composing unit-of-work from School B can be found in Appendix 11.

R: What sort of assessment system do you follow here?

B-ML: OK, so we use Stanines here which is a 9-point scale. So, following an assessment with Year 8s, for example, they would be a Stanine of 8.1, 8.2, or 8.3 if the students is 'developing', 8.4, 8.5, or 8.6 if they're 'secure' and 8.7, 8.8, or 8.9 if it's 'embedded'.

R: OK, so that would mean that a Stanine of 8 for Year 8 would mean that the cohort would be significantly above national average, right?

B-ML: Yeah, it would. It's nonsense to be honest. I do it because that's what's expected.

R: So how does that affect assessment in music?

B-ML: It means I'm doing something that doesn't mean anything.

Teacher-level: Confusion of assessment terminology

It also became apparent that there was some confusion over key assessment terminology, particularly with regards to formative and summative notions of assessment.

R: What does formative and summative assessment mean to you, and how might they look in composing?

B-ML: We haven't used those words for ages" So, formative ... is that when you ... hold on ... let me think ... there's one where it's light feedback isn't it, like when you go around and chat to them and give feedback on what they need to do. Summative ... is that the right way around? I can't remember! (*laughs*) That's the bit at the end where you get a mark.

It should be considered, however, that this Music Lead's apparent confusion over formative and summative notions of assessment might actually have been driven by a confusion of terminology in the school's Assessment and Feedback Policy. An example from this policy is shown in Figure 51 below. As such, in relation to the third-generation Activity Theory discussed previously, the "school" can be considered an additional fourth activity system (in addition to the individual student, group of students, and music teacher activity systems) which has the potential to influence what happens, in this case assessment practice, during lesson-by-lesson classroom music-making.

Types of Assessment

- **Summative assessment:** This takes place at the end of a pupil's year, half-term, topic, or lesson and is designed to summarise the performance and attainment at the time of testing.
- **Assessment for Learning:** Summarises where learners are at a given point in time and provides a snapshot of what has been learned in terms of both attainment and achievement.

Figure 51: An excerpt from School B's Assessment and Feedback policy.

In the Assessment and Feedback policy, the definition of “summative assessment” is clear in that it tells the reader (primarily teachers) when it takes place and that it “summarises” learning. The same level of clarity cannot be said for “Assessment for Learning.” In this case (where the term is attempting to be used synonymously with formative assessment), the references that it summarises and “provides a snapshot of what has been learned in terms of both attainment and achievement” is also referring, by definition, to “summative assessment”.

Such a confusion is not new in education; as discussed in Section 2.1.5, previous research (Bennett, 2011; Carter, 2015; Department for Education, 2015; Gardner et al., 2010; James et al., 2006; LKMco/Pearson, 2017) has found that, in some schools, there is a general lack of understanding by teachers, and in this case Senior Leaders, as to what formative assessment is. As such, this lack of understanding can impact on how it can be implemented successfully into the classroom.

Teacher-level: Lack of teacher training for composing

Along with previous research discussed in Section 2.4.2, the Music Lead (B-ML) expressed that, during her initial teacher training (ITT), there was a clear dominance towards performing-based schemes of work rather than composing ones. As a result of this lack of training in teaching composing, this obstacle resulted in an absence in the teacher's own *cultural capital* and her *habitus* (Bourdieu, 1971) by not knowing whether she was teaching composing well, particularly since, at the time the research took place, she was working in a single-person department.

R: So, what training or experience did you get on your ITT [Initial Teacher Training] course in composing?

B-ML: Well, I did the assessment only route for my teacher training, so I ended up shadowing my mentor a lot. So, in a year of training, we would work closely on all the topics, I would do some teaching and I would get feedback on how to improve. I have to say that almost all of the units of work were performing-based. We hardly did any composing. In fact, I remember my mentor telling me that she was more of a performer. I guess that's why she did more performing units than the other skills in music.

R: OK, and would you say this affected your training in any way?

B-ML: I would say so because, even now, I'm not sure if I'm teaching composing well or not. Particularly since I'm the only one in the department.

The pre-study interview also revealed that this obstacle had an impact on the teacher's understanding of what "composing" is and how it relates to classroom-based practice:

R: How would you define "composing"?

B-ML: It's creating your own piece.

B-ML: Making up your own music.

She then went on to unpick this further and how it relates to the classroom:

B-ML: Putting your own spin on something.

B-ML: I only teach it at the minute quite basic, so we'll copy something.

B-ML: We'll copy key things, but in their own way, their own interpretation.

These responses suggest that there is a contrast between what the Music Lead understands as "composing" and what actually happens in the classroom. For example, the utterances: "creating your own" and "making up your own" music suggest that the Music Lead understands that composing relates to new music; however, comments such as: "putting your own spin on something", "we'll copy something", and "their own interpretation" could suggest that what is actually happening in the classroom is the *arranging* of music.

Student-level: A lack of previous musical experiences

Students commented that the provision and quality of general music education prior to their current school was somewhat haphazard. Some also suggested that music was not a consistent part of their curriculum and curriculum time for music was often affected by the

requirement for additional English and mathematics lessons. As a result, students felt that these decisions have slowed their progress in music.

B-S1: I didn't really used to have music lessons in First School. ... It wasn't a set lesson; it was the odd time. It was every so often so we didn't really do anything.

B-S2: I can't even remember if we did music in our last school.

B-S4: We didn't really used to have a lesson. Well, we did have a lesson, but say if we needed to do extra maths, we'd do extra maths, but if we didn't need to do extra English or maths then we'd do some music.

R: So, would you say this has affected your progress in music?

B-S2: Definitely.

B-S3: Yeah, I definitely feel like I'm not as good in music because we had a lot less time having lessons.

R: Do you feel the same now?

B-S1: I still think I'm not as good at music as I could have been, but now we have more frequent lessons I'm definitely catching up on the things I missed out on.

B-S3: Yeah, that's true.

Table 88 summarises the historical obstacles identified in School B. As with Table 87 previously, it also supports the notion of a third-generation Activity Theory (now with the additional "school" activity system). As with the previous Table, it shows the activity system and node which the obstacle affected; the corresponding activity system and node in which

the obstacle had the potential to be resolved; the reason the tension was considered an obstacle, and whether it was resolved. In contrast to the historical dissonance identified in Table 87 above, however, almost all of these obstacles were believed to be unresolved throughout, as well as at the end of, the case-study research.

In order to support the information presented in Table 88, Figure 52 is presented. As with Figure 51 previously, contradictions are identified with a lightning sign. The orange lightning sign indicates the origin of the tension and also where the contradiction had the potential to be resolved. Two of the identified historical obstacles (“lack of teacher training for composing” and “a lack of previous musical experiences”) were not able to be shown because they related to previous activity systems outside of School B. Their importance and impact, however, should not go overlooked; both the Music Lead and students commented (shown above) that they have affected the development of their music, and composing, practice.

	Activity system where obstacle was identified		Corresponding activity system where obstacle could be resolved			
Obstacle identified	Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node	Reason for being an obstacle	Resolved or unresolved?
<i>Whole school assessment system.</i>	Teacher	Tool Rule	School	Tool	<ul style="list-style-type: none"> Whole school assessment practice (tools) leads to an unrealistic meaning of reporting of summative assessment grades in the form of Stanines (rules). 	Unresolved
<i>Confusion of assessment terminology.</i>	Teacher	Tool	School	Tool	<ul style="list-style-type: none"> Confusion over formative and summative assessment terminology (tools) at both teacher (Music Lead) and school policy-level. 	Unresolved
<i>Lack of teacher training for composing.</i>	Teacher	Tools Object	ITT provider (Previous historical activity system)	Object	<ul style="list-style-type: none"> Due to a dominant focus on performing schemes of work during ITT, the Music Lead does not know if she is teaching composing well (tools, object). 	Unresolved
<i>A lack of previous musical experiences.</i>	Student	Object (music)	Teacher School (Previous historical activity system)	Rules Object (English and mathematics)	<ul style="list-style-type: none"> Inconsistent and unstructured time for curriculum music lessons (object). Priority of English and mathematics over music (rules). Students feel they have made less progress in music as a result but are catching-up due to more consistent teaching at Key Stage 3 (object). 	Resolving

Table 88: A summary of School B's obstacles.

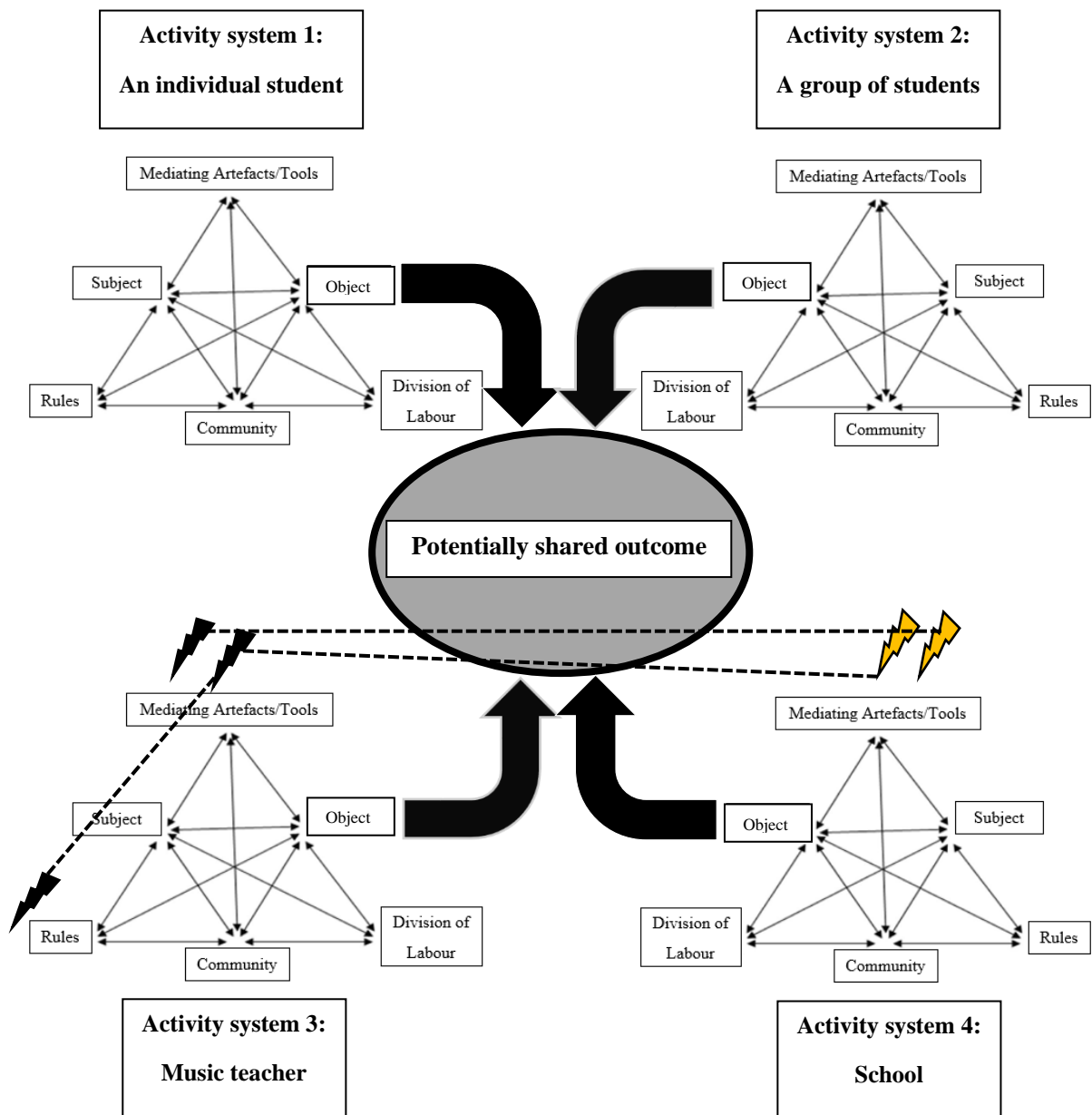


Figure 52: Example of Engeström's (2001) Activity System (third-generation) model for School B with historical obstacles identified.

School C: Obstacles

In School C, no historical dissonances were identified from the pre-study interviews. Two historical obstacles, on the other hand, were revealed.

Teacher-level: Reduction of lesson time

The Music Lead (C-ML) voiced that there were often occasions when lessons started late due to the overrunning of whole school assemblies. Although she acknowledged that the “praise assemblies” were indeed important and were a school priority (*doxa*, Bourdieu, 1971) for some time, they often resulted in classes, including the case-study class, having shorter music lessons which sometimes became problematic.

C-ML: Lessons aren't always 55-minutes long. Lessons get cut short sometimes because of whole school “praise assemblies” that eat up into lesson time. It's a bit annoying really because when you only have one lesson a week you can't get through as much as you want with the students which can sometimes mean you're rushing through things to try and get things done.

Student- and group-level: Student absence

The Music Lead (C-ML) commented that student absences, although they cannot be helped, are an issue that negatively affect group work in music lessons. Not only does this affect the group when a member is absent, but it is also problematic in trying to catch them up with work missed upon their return.

C-ML: In the last composing unit we did students absences were a problem, particularly for one group. Unfortunately, two students [in a group of four] were ill several times and missed lessons. It was really difficult for the group to carry on and was a bit of a nightmare when they came back and trying to catch up on the work they missed. Although, when they returned, the rest of the group could tell the absent student what the rest of them did. It was even more problematic because the group couldn't really remember what music they composed, so wouldn't really help.

Table 89 summarises the historical obstacles identified in School C. Although the “reduction of lesson time” obstacle was still unresolved at the end of the case-study research, this was not found to be the case with the “student absences”. As the resolution of this tension relates more closely to the research foci, this will be discussed further in Section 7.4.

In order to support the information presented in Table 89, Figure 53 is presented. As with Figures 51 and 52 previously, contradictions are identified with a lightning sign. The orange lightening sign indicates the source of the tension as well as where the contradiction had the potential to be resolved.

	Activity system where obstacle was identified		Corresponding activity system where obstacle could be resolved			
Obstacle identified	Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node	Reason for being an obstacle	Resolved or unresolved?
<i>Reduction of lesson time</i>	Teacher Student Group	Object Object Object	School	Object Rule	<ul style="list-style-type: none"> Whole school “praise assemblies” (a school priority) often over-run which sometimes meant that curriculum time is reduced (object). 	Unresolved
<i>Student absence</i>	Student Group	Object Object Division or Labour	Group	Tools	<ul style="list-style-type: none"> Student absence (for example, illness) means group work is affected (object, division of labour) and the absent student(s) struggle to catch-up on missed work upon their return (object) 	To be discussed in Section 7.4

Table 89: A summary of School C’s obstacles.

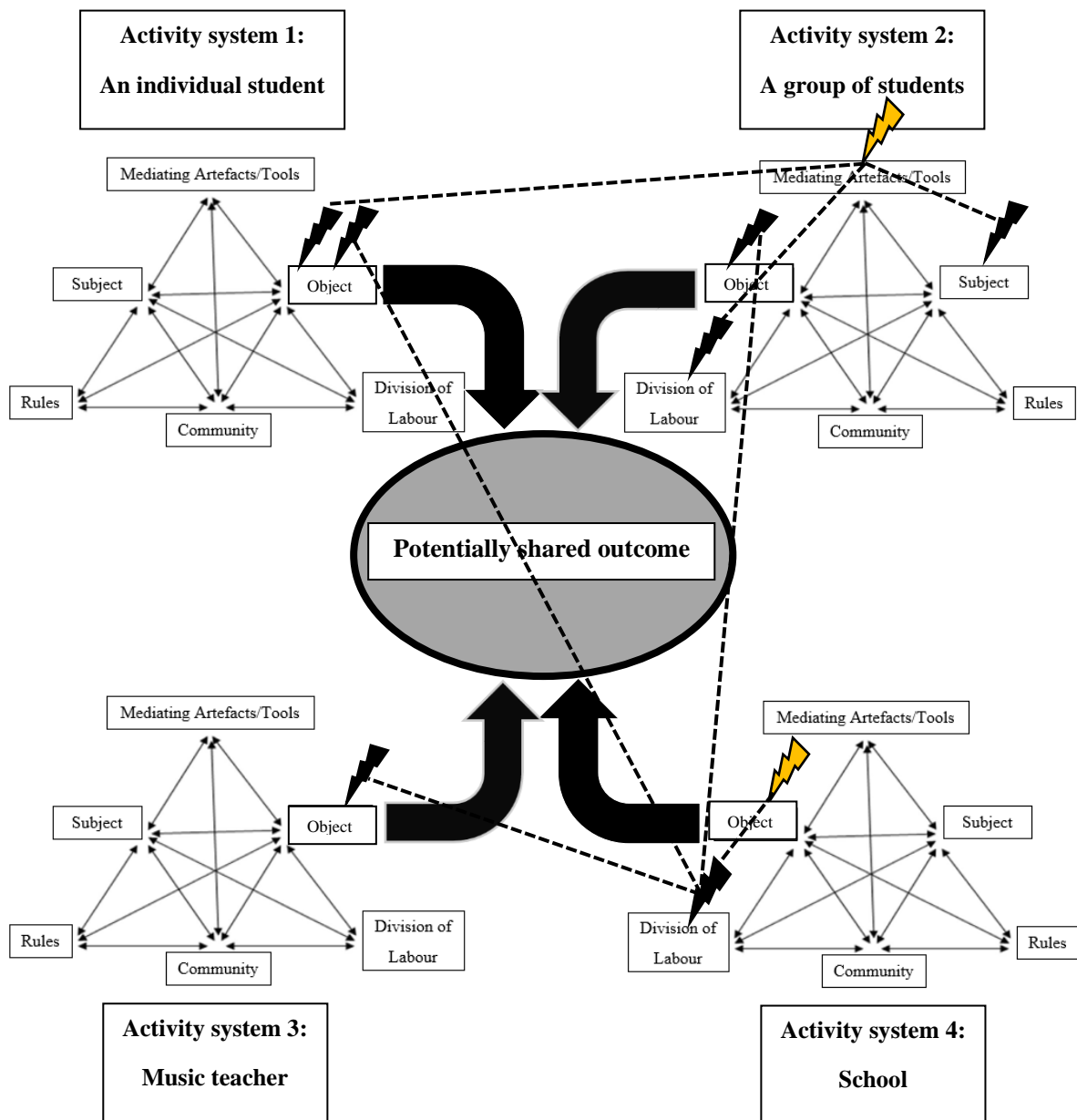


Figure 53: Example of Engeström's (2001) Activity System (third-generation) model for School C with historical obstacles identified.

School D: Obstacles

In School D, no historical dissonances were identified from the pre-study interviews. Several historical obstacles, on the other hand, were revealed.

Student-level: Student behaviour

Students commented that the behaviour of some of their peers often affected learning in music lessons. As identified in D-S1's response below, this seemed only to occur in music lessons. It might be argued that this tension is a dissonance; since its resolution can be within the control of the teacher and has the potential to be problematised in-the-moment. However, given the fact that the negative student behaviour was occurring on a longer-term basis before the case-study research took place and, despite the teacher's interventions, was not recognised as being resolved at the beginning of the research this suggests that it is perhaps more accurate to consider it an obstacle.

D-S1: I really like my music lesson but it's hard a lot of the time because there are a lot of people who mess around and this it's a doss²⁹ lesson. Like, one week, we sat in the canteen for a whole lesson in silence and did written work because the behaviour was so bad.

D-S3: They're quite enjoyable [the music lessons], but, sometimes, they do get a bit frustrating cuz of the behaviour in lessons.

D-S2: Yeah, behaviour is bad in our class and the teacher uses a lot of time saying "shut up" to students. It wastes so much time.

²⁹ A type of colloquial language meaning that students tend to be more off-task.

Student-, group-, and teacher-level: Lack of timetabled music lessons

In School D, music lessons took place once every two weeks. This timetable arrangement was significantly different to any other of the case-study schools. In terms of music-making, students found this arrangement problematic because, given the length of time between music lessons, they often could not remember what music they created. This was also identified as an issue for the Music Lead (D-ML). Here, the lack of timetabled curriculum time for music throughout Key Stage 3, even during Year 7, was believed to be a consequence of the high-stakes English Baccalaureate (EBacc) subjects. This was discussed previously in Section 2.1.3. As a result of this school's *doxa* (Bourdieu, 1971), musical progress was reported to have been hindered.

R: What's it like having music every two weeks?

D-S2: It's really frustrating because we have a lesson and then we have to wait a whole two weeks before we do it again. Then I can't remember what we did all that time ago.

D-S4: It's a real struggle for me to remember what I did after two weeks of not doing music because we don't write anything down, so it takes us ages to remember what we did.

D-ML: We never have enough time to do things in much depth with only having music every two weeks. I really think it hinders their progress.

R: What do you mean exactly?

D-ML: Well, students will work, and what they do is good, but then they completely forget what they have done two weeks later. As a result,

they start from scratch again and never really get into depth of anything.

R: So, where would you say that time has gone?

D-ML: It's on the core subjects like English, maths, and science, and the EBacc progress measures. Even though they don't count until Key Stage 4, they're prepping the kids early.

Student-level: A lack of previous musical experiences

As with School B, some students voiced that the provision and quality of general music education prior to their current school was somewhat haphazard. In a similar fashion to what has been discussed in Section 2.1.3, some students reported that music lessons were sometimes replaced with additional English and mathematics lessons in preparation for their end-of-Primary School SATs. As a result, they believe that they have not made as much progress in music.

D-S1: Music lessons now are different compared to before [at Primary School]. Like, in my Primary School, we only had tambourines, whereas now we have a lot more equipment like drum kits and keyboards to work with.

D-S3: I don't remember having music in Year 5 or 6 because we was spending all the time working on our SATs. I think I'm really behind in music compared to some of my other subjects like English and maths.

These experiences, however, were not the same for all group members:

D-S2: I went to a music school in Romania, and we had to choose either piano or violin. I chose piano. And then we all had two lessons a week. One was after

school, and they were super professional. We had exams as well. Because I liked the piano, I also had another lesson with my piano teacher at her house.

Table 90 summarises the historical obstacles identified in School D. Although the “behaviour” obstacle was still considered to be unresolved at the end of the case-study research (this was also not a focus for the research), there was a positive way forward to support the Music Lead and students regarding some of the issues with the “Lack of timetabled music lessons” obstacle. As the resolution of this tension relates more closely to the research foci, this will be discussed further in Section 7.4.

In order to support the information presented in Table 90, Figure 54 is presented. As with those previously shown, contradictions are identified with a lightning sign. The orange lightning sign indicates the source of the tension as well as where the contradiction had the potential to be resolved. As with School B above, the obstacle “a lack of previous musical experiences” was not added to Figure 54; this took place outside of School D. The importance and impact of this obstacle, however, should not go overlooked; some students commented (shown above) that this has affected the development of their music practice.

	Activity system where obstacle was identified		Corresponding activity system where obstacle could be resolved			
Obstacle identified	Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node	Reason for being an obstacle	Resolved or unresolved?
<i>Student behaviour</i>	Student	Community of practice Object	Teacher	Tools Rules	<ul style="list-style-type: none"> Behaviour of some of students' peers (community of practice) often affects the learning in music lessons (object). Teacher's interventions (rules, tools) have not resolved this long-term issue. 	Unresolved
<i>Lack of timetabled music lessons.</i>	Student Group Teacher	Object Object Object	School	Object	<ul style="list-style-type: none"> Having music every two weeks often means that students cannot remember what they did (object). This could, in fact, impact on student behaviour as identified above. Having more time on other subjects and less on music, even during Key Stage 3, hinders teaching and students' musical progress (object). 	To be discussed in Section 7.4.
<i>A lack of previous musical experiences.</i>	Student	Object (music)	Teacher School	Rules Object (English and mathematics)	<ul style="list-style-type: none"> Inconsistent and unstructured time for curriculum music lessons (object). Priority of English and mathematics over music (rules). Students feel they have made less progress in music as a result but are catching-up (object). 	Resolving

Table 90: A summary of School D's obstacles.

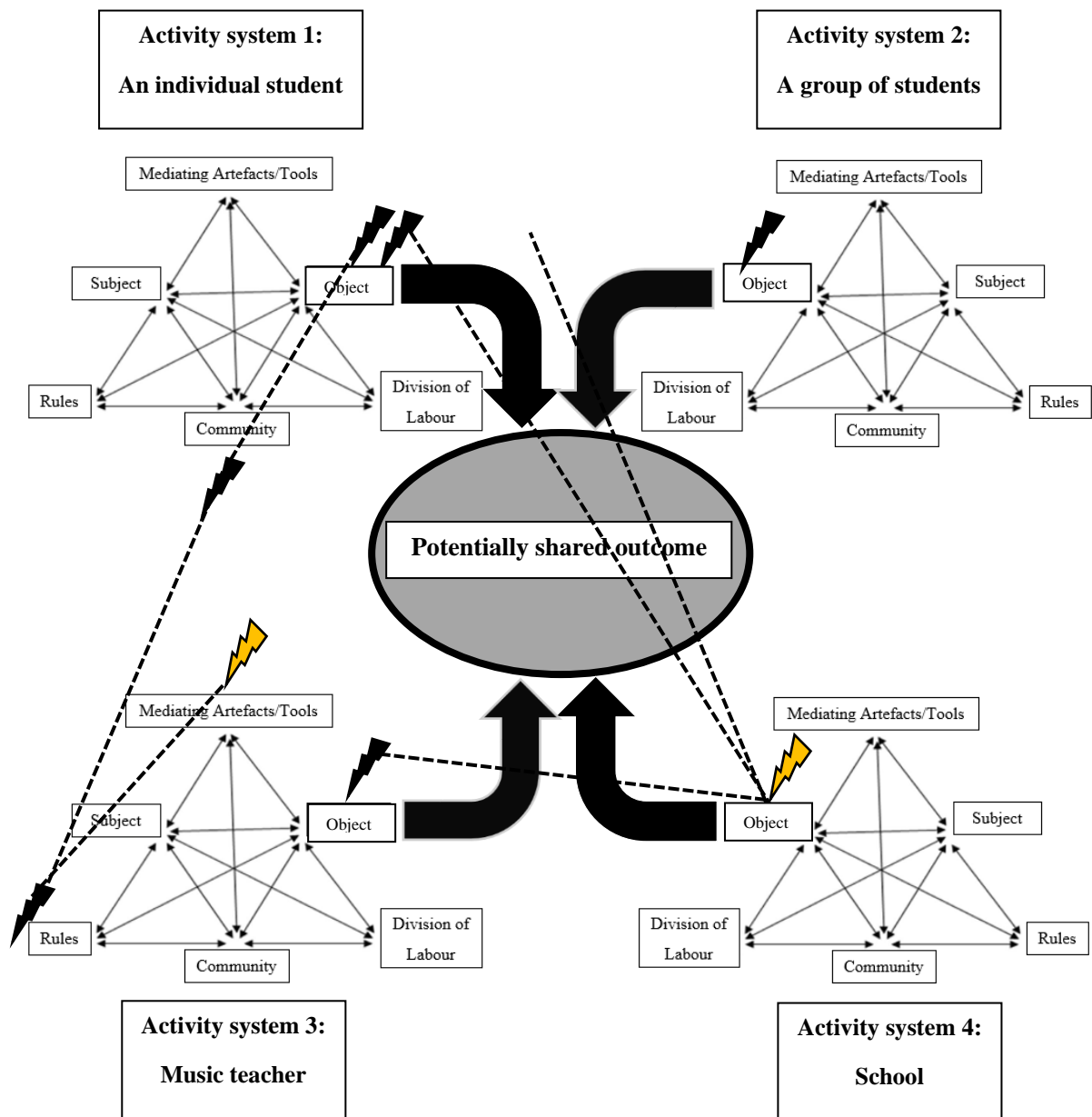


Figure 54: Example of Engeström's (2001) Activity System (third-generation) model for School D with historical obstacles identified.

7.4: Emergent *dissonances* and *obstacles* during the composing process

Dissonances and obstacles which emerged during the composing process are now identified. The dissonances revealed included: Threshold Concepts (Schools A and B), positioning the audio recorder (Schools A-D), changes to normal routine (School D), and the organisation of recorded work (School C). School C's obstacle relating to the reduction of lesson time (previously identified in Section 7.3) also re-emerged. This section also discusses how the formative use of the audio device was able to support an important transition from historically identified obstacles (Section 7.3) to more pragmatic dissonances. Examples from previous sections are referred to and re-presented within this section for convenience.

Dissonances

Student-level: Threshold Concepts

Section 6.3 has already discussed the identification and crossing of Threshold Concepts (TCs) which emerged during the group composing process. These TCs referred to the issues of not knowing how to begin a composition (School A) and not knowing how to compose lyrics (School B) and were found to have impacted on the composing process during the present study. As all groups within each class were given an audio device at the start of the unit-of-work it is not clear whether *not* having an audio device during the composing process would have caused these TCs to be significant obstacles. In School A, the TC was viewed as a dissonance because the formative use of the audio device, as described in Section 6.3, allowed this tension to be short-term and was able to be quickly resolved by the students

themselves. The TC in School B was also thought to be a dissonance. This is because, by the end of their composing session, the group included some lyrics in their piece, however crossing the threshold of knowing how to compose lyrics was still thought to be problematic for these students.

Student-level: Positioning the audio recorder

In School A, the tension of balancing the instruments in a recording first became apparent during a Work-In-Progress listening (WIPL) phase in Session 2.

A-S4: (to A-S3) Your guitar was too loud.

A-S5: Yeah.

A-S2: We really need to sort out the balance.

It was not until Session 3 (a week later), however, that a resolution occurred. Formative assessment was an important process in resolving this tension. In this case, a suggestion for repositioning the audio device was made by the Music Lead (A-ML) (formative *intention*) which was acted upon by the students (formative *action*). As a result of the formative process, this led to an improvement in the quality of the recording where instruments were better balanced.

A-ML: OK, so you've listened to the recording ... obviously we're three members down today, but ... what are your thoughts?

A-S3: I like it, but we can't hear you (*points to A-S4*).

A-S4: Yeah, cuz I had to be quiet because of the recording, but then we thought it would be a good idea if we put it [the audio device] right next to the amp[lifier], and all we ended up with was a recording full of guitar.

A-ML: Yeah, OK. I think it's right you've come down in volume, but I wondered, then, whether the [audio] recorder should go somewhere like here (*points to the table which is situated in the middle of the practice room*).

In the same session, and following a subsequent Work-In-Progress Recording (WIPR) phase where the audio device was now in the suggested location, A-S3 and A-S4 listened back to the recording acknowledging the improvement in the quality of the recording.

A-S3: That's better.

A-S4: Yeah.

In Session 4 (a week later), the group actively discussed where the audio device should be placed prior to a WIPR taking place. This was done without any teacher intervention. Since more students were present during this session (three students were absent during Session 3 due to a school trip) it seemed that the teacher's previous suggestion was no longer feasible and that an alternative location for the device should be sought.

A-S3: Do you wanna give it a go with recording?

A-S5: Yeah, sure.

- A-S1:** Where do you want it?
- A-S3:** Just by there (*points to the table where A-S3 and A-S4 had placed the audio device during Session 3*).
- A-S5:** Hmm ... maybe it's too close there as my amp[lifier] is quite loud now.
- A-S3:** How about near the door?
- A-S4:** How about on top of the door frame?
- A-S5:** Yeah.
- A-S3:** That could work.
- A-S1:** (*Moves to put the audio device on top of the practice room door frame.*)
- Group:** *Students make a WIPR.*
- A-S3:** Yeah, it's sounding quite good. I like that and the balance is really good.
- A-S5:** Yeah.

After this episode took place, a Teacher Intervention occurred. In his response to the teacher's question, A-S3 commented that the issue of where to place the audio device was now resolved.

- A-ML:** OK, have you listened to it [the track recorded last lesson] yet?

A-S1: Yeah, cuz three of us (points to himself, A-S2 and A-S5) weren't here last week.

A-ML: OK, good. And what are your thoughts about the recording?

A-S3: Well, the sound was quite distorted before, so we managed to sort that with placing the [audio] recorder in a different place to help with that.

A-ML: OK, great. I'll leave you to carry on.

The notion of positioning was also identified in School B. In contrast to School A, however, the formative comments and discussions did not focus on where to put the audio device, but what they could do to their instruments and their own seating position to provide a recording with a better balance of instruments.

B-S4: I need to turn my volume down (*adjusts volume on the keyboard*).

and

B-S2: Maybe [B-S1] should sit closer to [B-S4].

B-S3: Yeah.

B-S2: That way, the two instruments should balance on the recording.

In School C, discussions relating to both the placing of the audio device and what individual students could do to their instruments for a better-balanced recording were identified.

C-S2: Let's put it [the audio device] over there.

C-S3: It doesn't sound quite right.

C-S2: I think I need to play quieter and show some dynamics.

and

C-S2: It doesn't sound good. Where was the thingy [audio device]?

C-S1: It was over there (*points to the corner of the practice room*). I think you (*to C-S2*) need to play quieter so that we get a better balance.

When asked how the audio device might be used differently in the future during the post-study interview, students in Schools B and C brought up that they would reconsider the position of the audio device.

B-S4: ... we could do with putting it [the audio device] a bit further away cuz some of the instruments were quite loud, particularly if we put the recorder right next to the instrument.

C-S3: I think to put the [audio] recorder closer to the instruments that aren't as loud compared to the loud ones like the drum-kit. That way, we can hear everybody's part clearly.

Positioning the audio device was considered a dissonance because, as the examples above show, it was a short-term tension which was able to be resolved in-the-moment by someone working directly within the activity. Although the audio device could be considered to have caused the dissonance in the first place (and may not have occurred if it was not included in the composing process) the opportunity for students to engage with the teacher (School A) and enter a WIPL phase to immediately listen back to their recorded work (Schools A-C) allowed for formative assessment, as defined in this thesis, to take place. As a result, changes

to the location of the audio device and/or changes to the volume of the instruments occurred. As stated in Section 6.2, a “good” recording was viewed as important to students in Schools B and C because, otherwise, it may have led to different teacher feedback.

Student-level: Changes to normal routine (and position of the audio device)

As stated previously (Section 5.4.1), data collection in School D took place following the second national lockdown in England. Although schools were open once again and face-to-face teaching, for all pupils, could resume, adaptations to normal working practices were required. This affected the way in which students would normally organise themselves when working in a group. For the group in School D, these changes could be considered a dissonance because, although not ideal, students needed to find workable solutions to work effectively. In this case, as the post-study interview data below highlights, the group communicated more effectively and, as a result, in their views, produced a better composition.

D-S2: I think that with all the COVID rules we had to know our composition really well ... So, normally when we're practising, we'd look at each other as a signal when we're playing, but because we now have to face the same way in a row, we had to communicate better and make sure we practised it before we recorded it.

D-S1: ... it took a bit of getting used to, but we just had to find different ways of working.

D-S3: I think that because we communicated better, we had a better piece of music in the end.

Although there were no comments or discussions by the students during the composing sessions to suggest that the position of the audio device was a tension, it was raised during the post-study interview. Here, it was reported that the adaptations to the normal way of working as a group meant, in a similar way to Schools A-C above, that the position of the audio device had to be considered. Again, as stated in Section 6.2, and in common with Schools B and C, a “good” recording was important to the students in School D because, otherwise, it may have led to different teacher feedback.

D-S1: ... I think when we're recording maybe move it [the audio device] a bit further away cuz sometime if the [audio] recorder was too close to an instrument that's all we could hear.

D-S1: ... because we was standing in a line [as a result of CODID-19 requirements in schools] we had to think carefully about where to put it [the audio device], cuz at the start it was near me so I was the loudest on the recording, so it had to be moved so that we could all be heard.

Positioning the audio device was also raised by School D's Music Lead (D-ML) during the post-study interview. In this case, it transpired that other groups in the class (but not the focus group) produced recordings where the instruments were not balanced. This issue was raised for them as part of the audio recorded feedback to students. D-ML's comment below suggests that, for some students, this dissonance was not resolved by the end of the unit-of-work.

D-ML: ... I think I might have to do a little work with the students about where to put the [audio] recorder; on some of the recordings it was too close to an instrument so I couldn't hear what the other students were

doing, and I did say this to some groups in their [audio] recorded feedback. I suppose it's about training them to listen.

Teacher-level: The organisation of recorded work

During the post-study interview, School C's Music Lead (C-ML) commented that, for some groups, the use of the audio device elicited some initial organisational issues which impacted on the ease of its use. As shown below, these issues included students accidentally deleting their work and recording their WIPR tracks in a different folder within the audio device. Although these issues had the potential to be obstacles in the long run, they were considered to be dissonances because they were short-term issues which were resolved via a checking process by the Music Lead.

C-ML: Some group managed to change file where they were recording their work. A couple [of groups] had deleted their work or had incorrectly identified the track number they wanted me to listen to. It wasn't a major problem; I just checked these loose ends were sorted before the lesson ended so I could record my feedback to them.

Obstacles

Teacher- and Student-level: Reduction of lesson time

Reduction of lesson time was identified by School C's Music Lead as a historic issue in Section 7.3 where "praise assemblies", a whole school priority, and what Bourdieu (1971) would refer to as *doxa*, often over-ran. This impacted on lesson time. These assemblies continued to take place during the case-study. During the post-study interview, the Music

Lead (C-ML) also raised how other school initiatives and priorities, required by all teachers, also impacted on the amount of lesson time students actually had for music. In this school, although lessons were timetabled for 55-minutes, approximately only half of the lesson was spent on students “doing” music compared to other case-study schools.

C-ML: A music lesson goes *so* [emphasis on word] quick when you also have to cover any homework tasks that have been set; made sure you’ve referred them [the students] to their knowledge bank page and done a revision quiz. I know they are important, but they can eat up lots of lesson time and I can’t get through as much as I want to.

Problematising some obstacles

Student-level: Student absence

For School C, it was identified that a student’s absence from a lesson was problematic (Table 87, Section 7.3); it affects the group work of those present and, upon their return, the absentee can struggle to catch-up on work missed. In Section 7.3, a student’s absence was considered an obstacle because its emergence can be beyond the control of someone working within the activity (illness, for example) and, importantly, has been found to be difficult to be resolved effectively. As such, this obstacle has the potential to become a long-term issue where those absent are not able to catch-up on work missed. In turn, this could affect their musical progress and development within a unit-of-work.

Although student absences were not an issue for School C during the case-study, one member of School B’s focus group was absent whilst the research took place. Despite its previous status as an obstacle, the inclusion and use of the audio device supported an important

transition in this tension becoming a less-problematic dissonance. As the comments from the post-study focus group interview show, both the group and absent student reported that the WIPR tracks supported the group to continue to work effectively as well as helping the absentee to quickly catch-up upon their return.

B-S2: It [using the audio device when B-S4 was absent] was useful because since we recorded it last time he was there we had his [B-S4's] part to play again which could then be added to.

B-S1: It [using the audio device] was better than usual because if he [B-S4] has written his notes in his [exercise] book and he was away it would be of no use to us. But with the [audio] recorder we could just listen back to his part so we could just carry on. So, it didn't really affect our group work; we just carried on.

B-S4: ... I could find out what they'd done so I knew what I needed to do to fit in.

B-S1: ... we didn't have to sit and explain it all to him [B-S4]; he could just listen to the track, so it made things quicker that way.

Student-level: Working around the lack of timetabled music lessons

In Section 7.3, School D's research participants voiced that having music timetabled every two weeks was problematic because students would often forget what music they created from one lesson to other. As a result, they would often find themselves starting from scratch. Since this arrangement, which was beyond the control of the Music Lead to resolve, was reported to have a negative impact on students' musical progress and development, the *lack of timetabled music lessons* was considered an obstacle. Although it was beyond the scope of

the present study to be able to problematise issues surrounding school-based timetables, the use of the audio device was found to be an important *aide memoire* for students which helped them to remember what they did from one lesson to another. This important benefit of using the audio device during the composing process was also identified in Schools B (Section 5.2.4) and C (Section 5.3.4). In the case of School D, what this meant was that although the present study was not able to provide students with more timetabled music lessons, it was helpful in supporting them to work around this obstacle by providing a means in which they could compose more effectively from one lesson to another.

D-S1: It was good listening back to the work we had done two weeks back because it really refreshed our memory.

D-S3: I really struggle with remembering what I did with only having music every two weeks. So, without the [audio] recorder, I wouldn't have remembered a thing.

D-S2: ... it was good that we could listen back to our [pre-recorded] tracks as many times as we wanted cuz it really helped us remember what we was doing.

D-S3: I also think we got quicker at composing cuz we might have spent the whole lesson trying to remember what we did.

D-S1: Yeah, cuz otherwise if we couldn't remember what we did we might have ended up making a completely different piece which would have been a waste of time.

and

D-ML: They definitely got quicker at composing. Normally it would be a very messy start to the lesson where students just couldn't remember what

they did, so lots of time would be wasted and some [groups] would write a completely new piece every time and not get very far. With the [audio] recorders, they had their work from the last lesson as well as some feedback from me. Since they *all* [emphasis on word] has their work, and something to do with it, the lesson was much calmer and more organised.

The following Tables summarise the emergent dissonances and obstacles identified during the composing process of each case-study. Table 91 shows the dissonances and whether each one was resolved. One dissonance that was not resolved occurred in School D. It should be pointed out, however, that this was not the case for the focus group but for others in the music class. The one unresolved obstacle which occurred during the composing process is shown in Table 92. As the Table makes clear, whole school priorities, which Bourdieu (1971) would view as *doxa*, continued to affect the amount of lesson time students had actually “doing” music. With the inclusion and use of the audio device during the composing process, Table 93 suggests that two previously identified obstacles (Section 7.3) were able to be transitioned to be less-problematic dissonances and were resolved and partly resolved to better support students’ composing.

Tension	Activity system where contradiction was identified		Corresponding Activity System where contradiction was/could have been resolved		Further information	Resolved or unresolved by the end of the case-study
	Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node		
<i>School A:</i> <i>Knowing how to begin a composition</i>	Group Student	Tools Tools	Student Group	Tools Tools	<ul style="list-style-type: none"> Students did not know how to begin their composition (tools). Student used her mobile phone (tools) to look up examples of piece. Student discussion took place (tools). 	Resolved
<i>School B:</i> <i>Knowing how to compose lyrics</i>	Group Student	Tools Tools	Teacher	Tools	<ul style="list-style-type: none"> Students did not know how to compose lyrics (tools). Students use the audio device (tool) to record a question to the teacher asking for help. Teacher did not adequately respond to students' request (tool). 	Partly Resolved
<i>Schools A-D:</i> <i>Positioning the audio recorder</i>	Student Group	Object Object	Student Group	Tools Tools	<ul style="list-style-type: none"> WIPL phases revealed that students were not happy with the balance of the instruments on the recording (object). WIPL phases (tools) enabled students to change the balance of the instruments and/or re-position the recorder. 	Resolved
<i>School D:</i> <i>Positioning the audio recorder</i>	Teacher	Object	Teacher Group Student	Tools Tools Tools	<ul style="list-style-type: none"> Teacher identified that some groups (not the focus group) did not produce recordings (objects) where instruments were balanced. Teacher stated that some groups needed to be shown (tools) how to balance their instruments for a recording and how to listen for acutely during a WIPL phase (tools) 	Unresolved
<i>School C:</i> <i>Organisation of recorded work</i>	Group	Object	Teacher	Object	<ul style="list-style-type: none"> Teacher identified that some recordings were accidentally deleted or recorded in different folders in the audio device (object). Teacher checked recordings (object) prior to the end of the lesson. 	Resolved

Table 91: A summary of dissonances identified during the composing process.

Tension	Type of contradiction	Activity system where contradiction was identified		Corresponding Activity System where contradiction was/could have been resolved		Further information	Resolved or unresolved by the end of the case-study
		Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node		
<i>School C:</i> <i>Reduction of lesson time</i>	Obstacle	Teacher Group Student	Object Object Object	School	Object Rules	<ul style="list-style-type: none"> Whole school assemblies and other school-based priorities (object, rules) lead to a reduction in lesson time. As a result, musical progress and development is hindered in the long run (object). 	Unresolved

Table 92: A summary of the obstacle identified during the composing process.

Tension	Activity system where contradiction was identified		Corresponding Activity System where contradiction was/could have been resolved		Further information	Historically resolved or unresolved	Resolved or unresolved by the end of the case-study
	Activity System Subject	Activity System Node	Corresponding Activity System Subject	Corresponding Activity System Node			
<i>School B:</i> <i>Student absence</i>	Student Group	Object Object Division of Labour	Group	Tools	<ul style="list-style-type: none"> • Student absence means group work is affected (object, division of labour) and the absent student(s) struggle to catch-up on missed work upon their return (object). • Using the audio device (tool) to do a WIPR allows the group to continue working affectively and provides a means in which the absentee can catch-up upon their return. • Transition from obstacle to dissonance. 	Unresolved	Resolved
<i>School D:</i> <i>Working around the lack of timetabled music lessons</i>	Student Group	Object Object	Student Group	Tools Tools	<ul style="list-style-type: none"> • Having timetabled music every two weeks is problematic because students would often forget what they did during the lesson and have to start from scratch (object). • The audio device (tool) provided a useful means for students to remember what they did in previous lessons. • Although the obstacle of fortnightly music lessons was not resolved, the audio device provided a means for this to be worked around for students. 	Unresolved	Partly resolved by means of being worked around based on the identified tension

Table 93: A summary of resolved and partly resolved obstacles identified during the composing process.

7.5: Towards a typology of contradictions

The importance of retaining a 2-Dimensional visualisation of the Activity System model

Section 2.3.2 identified some important developments of Activity Theory thinking in music education drawing on the PhD theses of Henley (2009) and Anderson (2019). In their research, both researchers argue that the visualisation of the Activity System framework is better represented as 3-Dimensional than 2-Dimensional. This may well be true; however, in order to better see and understand the relationships between any identified dissonances and obstacles as types of contradictions and the node(s) in which they are a tension, this thesis finds that a 2-Dimensional (net) representation is also important. Based on the historical (Section 7.3) and emergent (Section 7.4) dissonances and obstacles previously identified, Figures 55 to 58 show visual representations of a 2-Dimensional, third-generation Activity System model, for each of the four case-studies.

In Section 7.3, historical dissonances and obstacles (which were dealt with separately) were shown as a lightning sign (following Engeström, 2016) with the orange lightning sign indicating the origin of the tension as well as where it had the potential to be resolved. For Figures 55 to 58, to help clarify the differing types of contradictions (for example, whether they were dissonances or obstacles, historical or emergent, and whether they were resolved, unresolved, or still ongoing by the end of the case-study), a key to visually clarify these differences is provided. This is presented in Table 94. Furthermore, in order for the nodes of each activity system to be clearly identified, Figure 17 has been re-presented (from Section 2.3.2) for convenience.

What the present study finds, and what each figure highlights, is how a single composition task can be surrounded by additional historical “baggage” as well as new (and perhaps unforeseen) tensions which emerge during work-in-progress composing. This is a finding which can be seen as novel to our current understanding of “contradiction” within Activity Theory research. As presented in Sections 7.3 and 7.4, such additional “baggage” and tensions were not always composing-focused and sometimes included those working outside of the music classroom (for example, a Senior Leadership Team or previous experiences from the past) but were found to have impacted on the composing process. As a result of the range of dissonances and obstacles identified, this suggests that in-school composing at Key Stage 3 can, indeed, be a highly complex and multifaceted process.



Symbol	Meaning
	Dissonance
	Obstacle
Continuous line	Historical (present before the case-study took place)
Dotted line	Emergent (emerged during the case-study)
Red line	Unresolved dissonance/obstacle
Green line	Resolved dissonance/obstacle
Light blue line	Ongoing resolution of the dissonance/obstacle.

Table 94: A key of symbols and colours used in Figures 55 to 58.

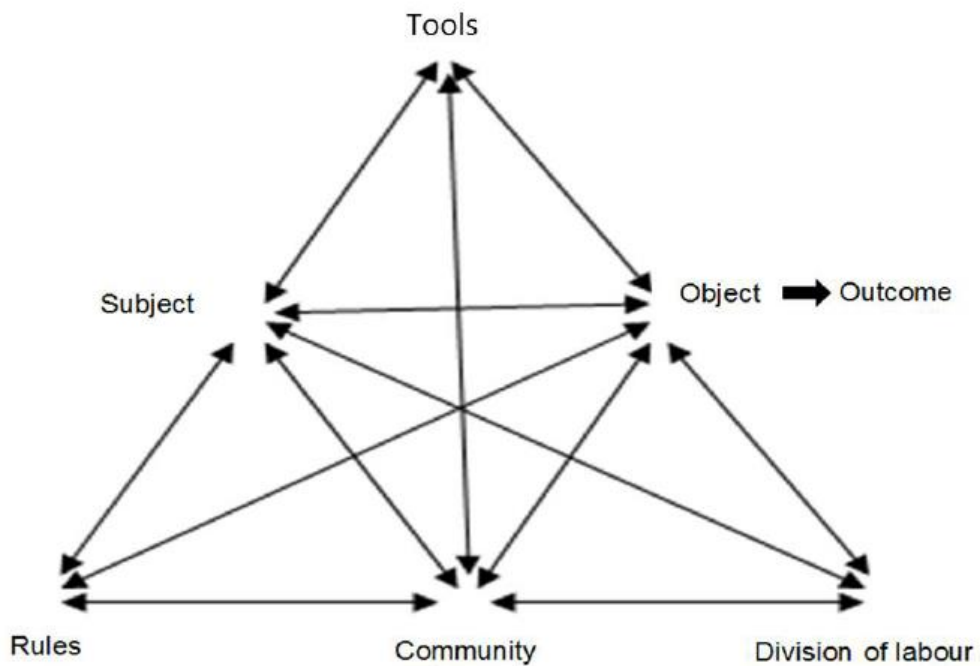


Figure 17: Engeström's (1987) Activity System (second-generation) model (re-presented for convenience).

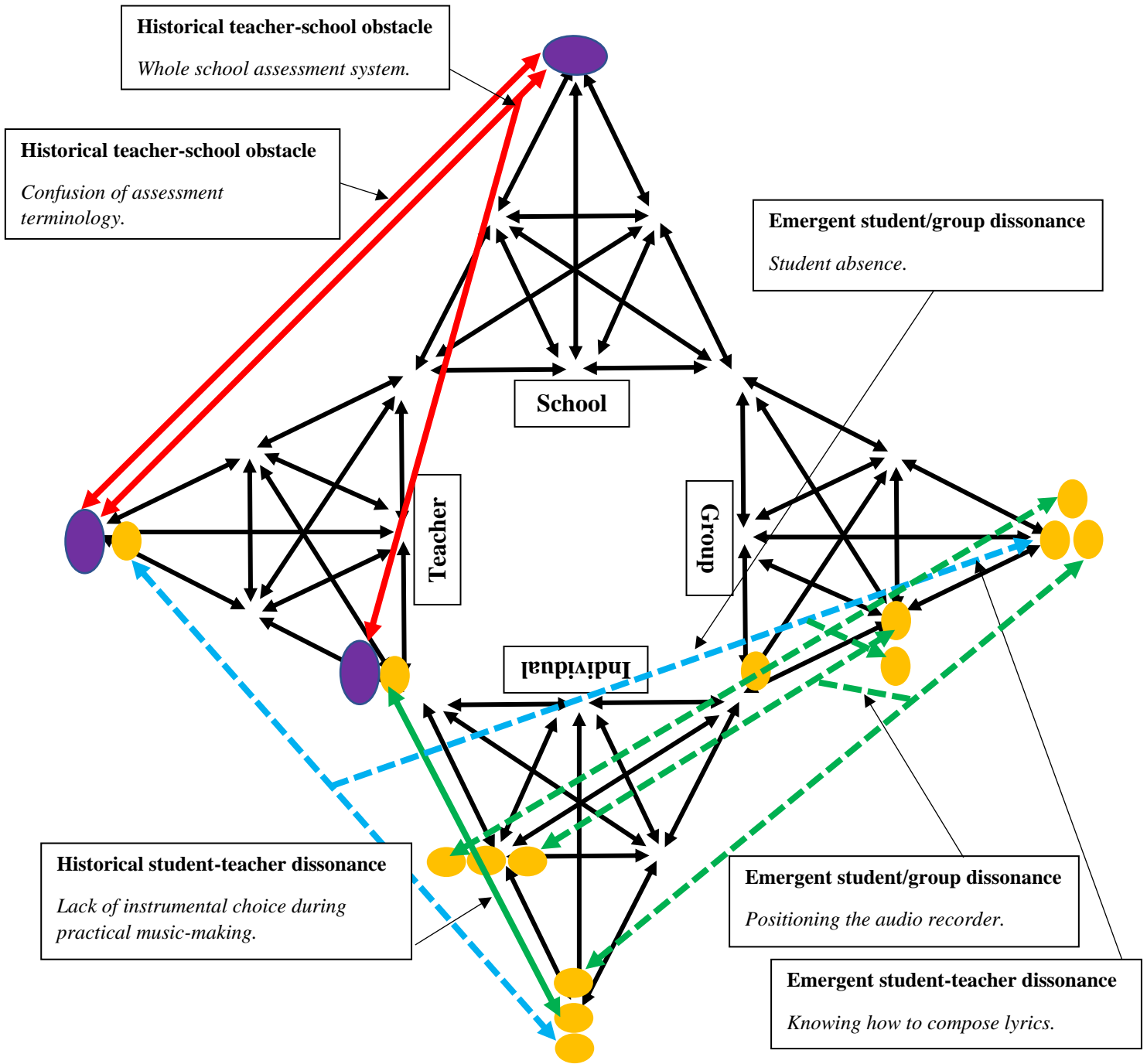


Figure 55: A visual representation of School B’s collective historical and emergent dissonances and obstacles³⁰.

³⁰ The obstacles “lack of teacher training for composing” and “a lack of previous musical experiences” could not be included in this diagram as they both connect with previous activity systems outside of the current composition activity. As Table 88 (Section 7.3) identified, however, they can still be found to impact on current musical activities.



Symbol	Meaning
	Dissonance
	Obstacle
Continuous line	Historical (present before the case-study took place)
Dotted line	Emergent (emerged during the case-study)
Red line	Unresolved dissonance/obstacle
Green line	Resolved dissonance/obstacle
Light blue line	Ongoing resolution of the dissonance/obstacle.

Table 94: A key of symbols and colours used in Figures 55 to 58.

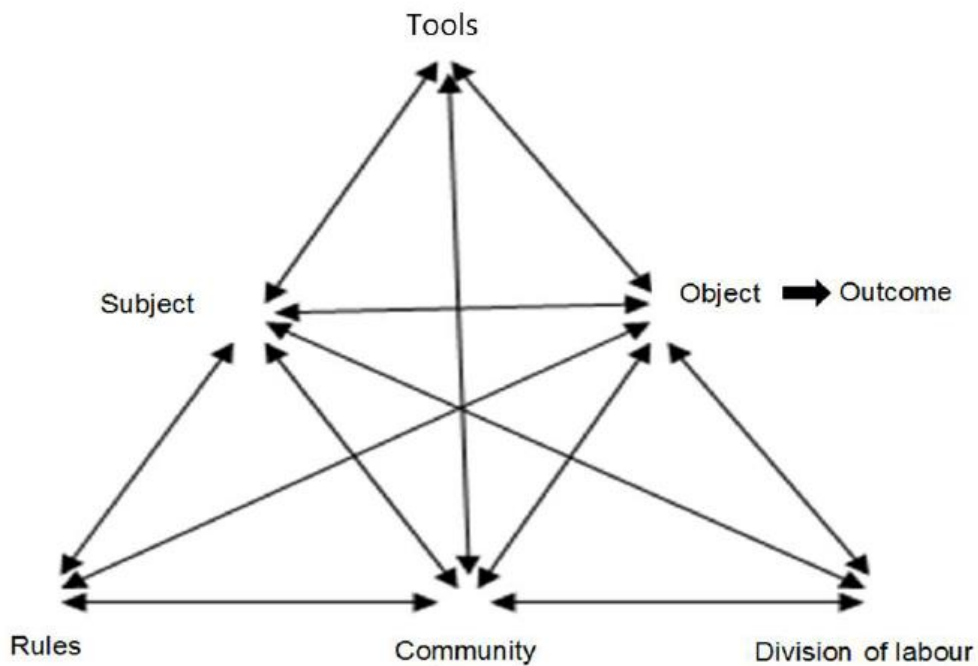


Figure 17: Engeström's (1987) Activity System (second-generation) model (re-presented for convenience).

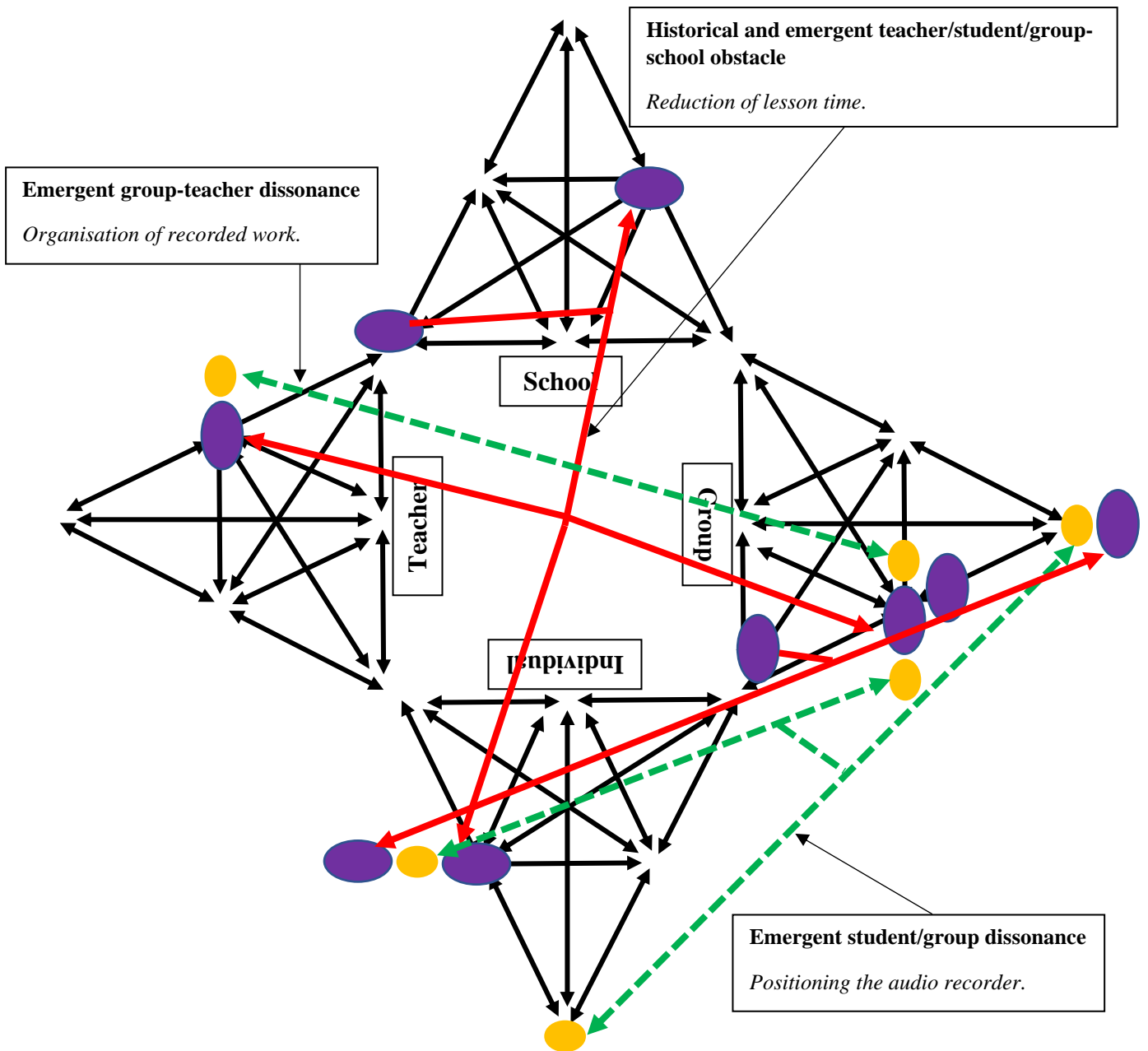


Figure 56: A visual representation of School C's collective historical and emergent dissonances and obstacles.



Symbol	Meaning
	Dissonance
	Obstacle
Continuous line	Historical (present before the case-study took place)
Dotted line	Emergent (emerged during the case-study)
Red line	Unresolved dissonance/obstacle
Green line	Resolved dissonance/obstacle
Light blue line	Ongoing resolution of the dissonance/obstacle.

Table 94: A key of symbols and colours used in Figures 55 to 58.

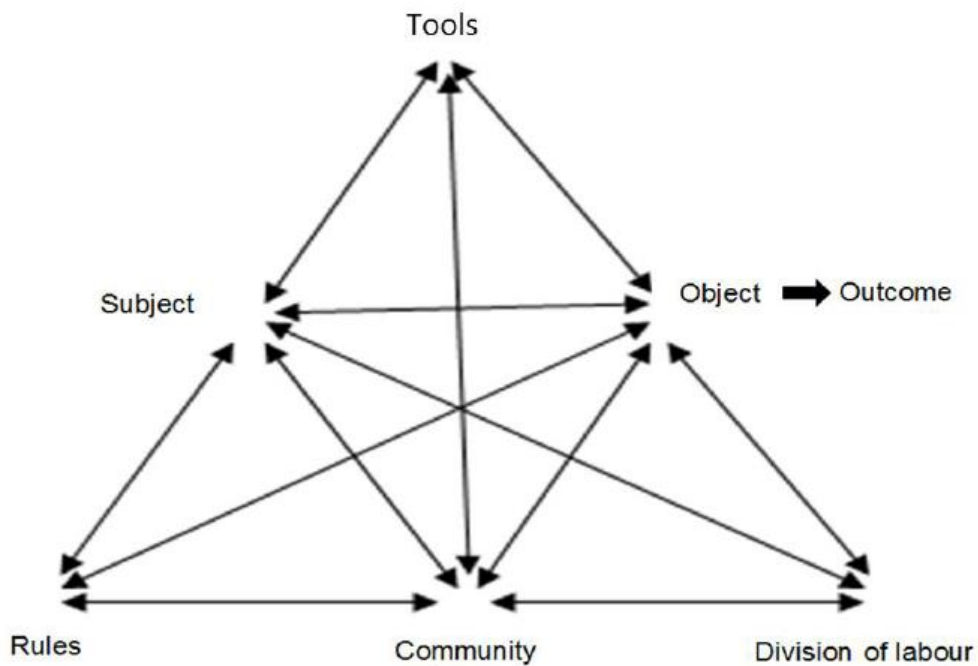


Figure 17: Engeström's (1987) Activity System (second-generation) model (re-presented for convenience).

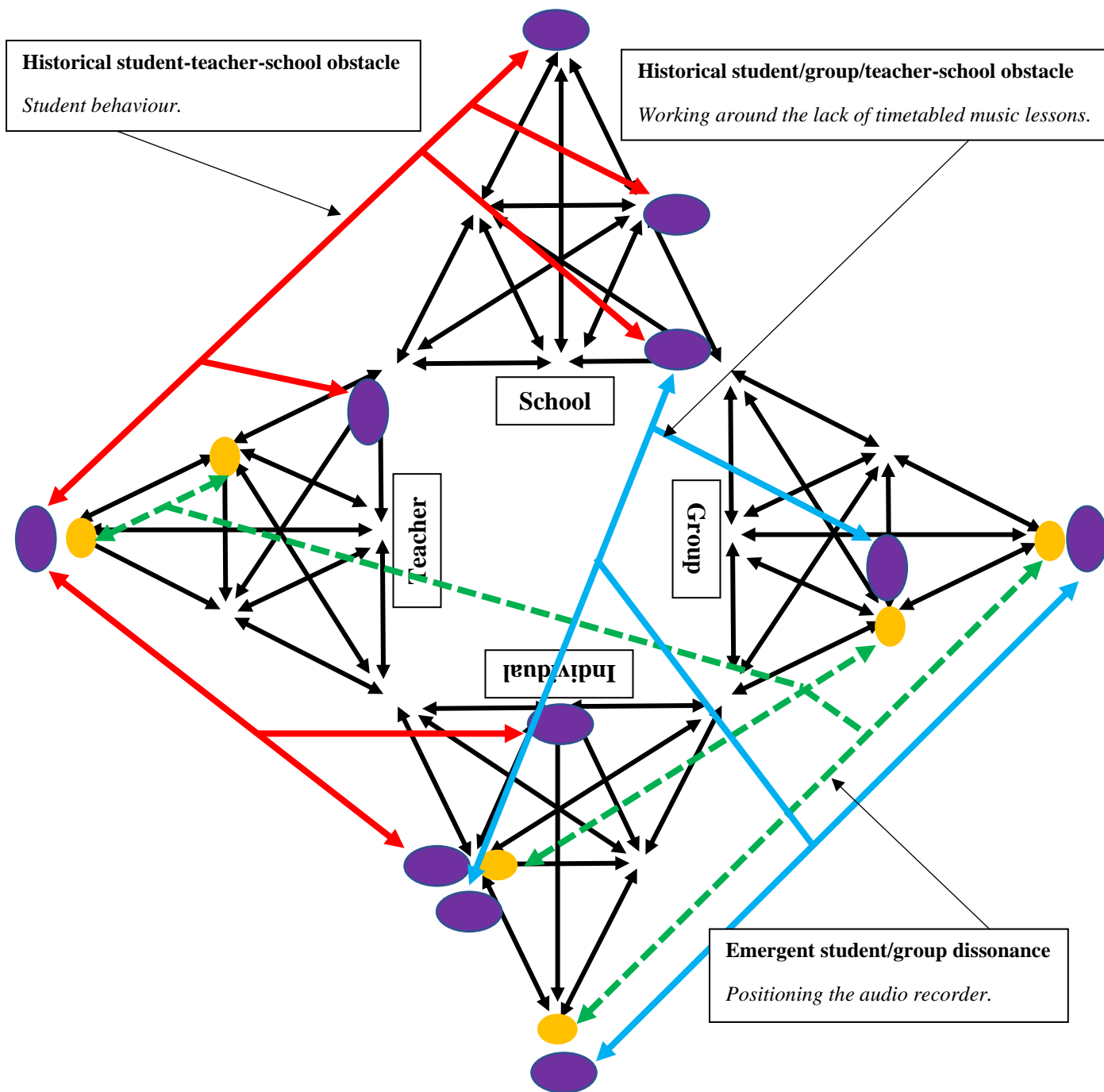


Figure 57: A visual representation of School D’s collective historical and emergent dissonances and obstacles³¹.

³¹ The obstacle “a lack of previous musical experiences” could not be included in this diagram as it connects with a previous activity system outside of the current composition activity. As Table 90 (Section 7.3) identified, however, it is possible that it could have impacted on the current musical activity.



Symbol	Meaning
	Dissonance
	Obstacle
Continuous line	Historical (present before the case-study took place)
Dotted line	Emergent (emerged during the case-study)
Red line	Unresolved dissonance/obstacle
Green line	Resolved dissonance/obstacle
Light blue line	Ongoing resolution of the dissonance/obstacle.

Table 94: A key of symbols and colours used in Figures 61 to 64.

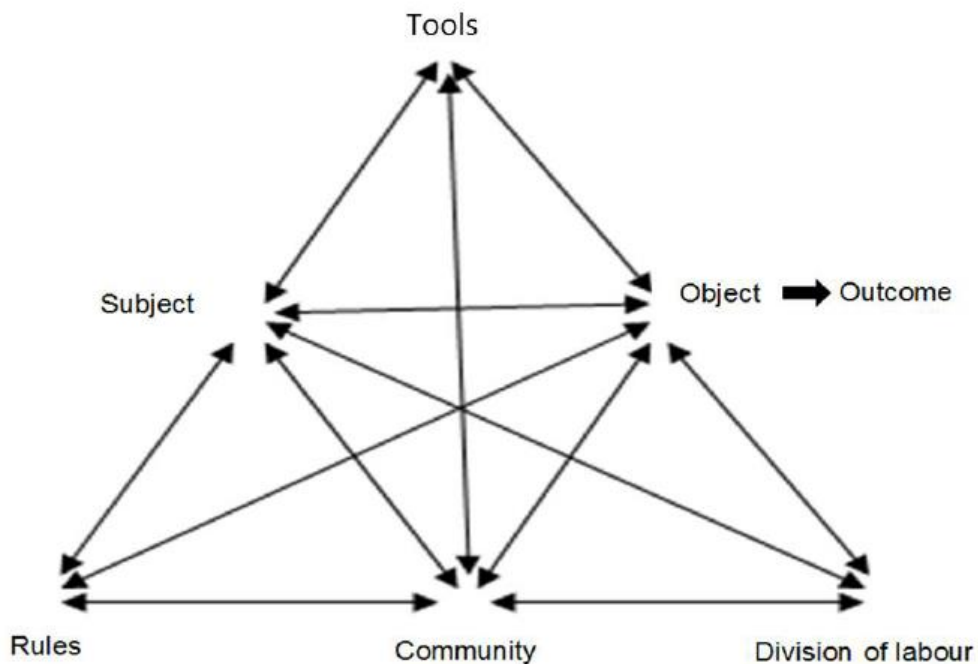


Figure 17: Engeström's (1987) Activity System (second-generation) model (re-presented for convenience).

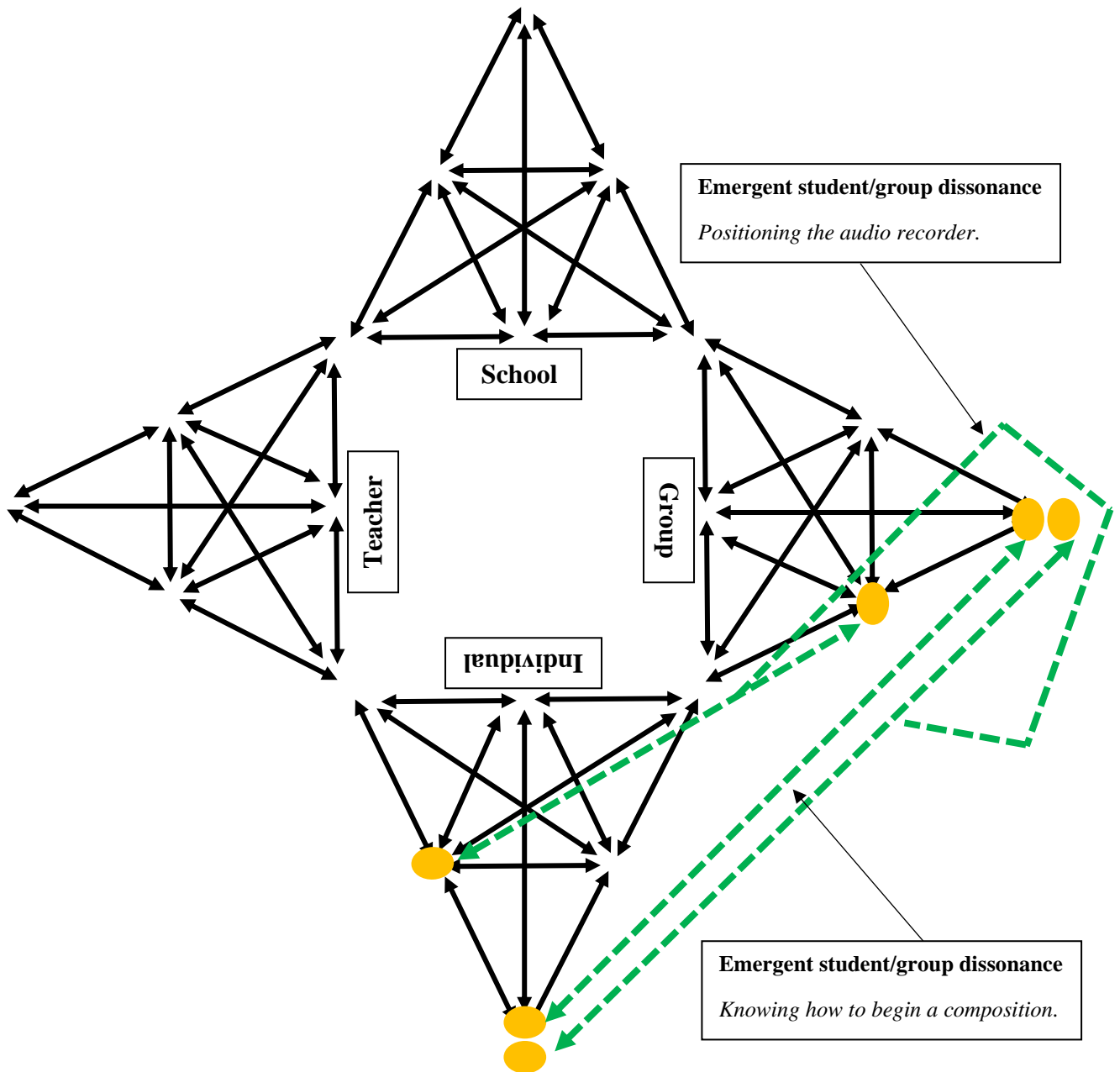


Figure 58: A visual representation of School A's emergent dissonances.

Establishing hierarchies

With the historical data (Section 7.3), emergent data (Section 7.4), and collective 2-Dimensional visualisations (this section) of the two different types of contradictions – dissonances and obstacles – presented, hierarchies started to emerge. These start with those closest to the composition activity (the students, then the music teacher) to those who are much further away from it (the school, to longer-term historical experiences). Of course, given the complexity and multifacetedness of the classroom and composing process, resolving any dissonances or obstacles cannot always be considered simple; sometimes, they may require the input of at least one other activity system. These might be described as “grey areas” since their resolution depends, based on the findings of the present study at least, on the effective “knotworking” (Engeström, 2008) between the different activity systems.

To further develop our understanding of contradictions within Activity Theory research within a composing-focused context, the present study proposes a hierarchical list of types of contradictions based on the case-study data. This hierarchy is presented in Table 95. The top of the table begins with student dissonances; students are the closest to their own group composition activity and dissonances might be more easily resolved. Towards the bottom it ends with historical obstacles. These were found to include previous, historical activity systems outside of the composition activity and were considered more difficult, by comparison, to be problematised.


	Type of contradiction	Meaning	Examples from case-study data
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Closest to the present activity</div>  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Furthest from the present activity</div>	Student dissonances	Tensions can be resolved by the student(s) themselves.	<ul style="list-style-type: none"> • Knowing how to begin a composition (School A). • Student absence (School C). • Positioning the audio device (Schools A-D). • Working around the lack of timetabled music sessions (School D).
	Student-teacher dissonances (“Grey area”)	Tensions can be resolved between the student(s) and the teacher.	<ul style="list-style-type: none"> • Lack of instrumental choice during practical music-making (School B). • Know how to compose lyrics (School B). • Positioning the audio device (School D).
	Teacher dissonances	Tensions can be resolved by the teacher themselves.	<ul style="list-style-type: none"> • Organisation of recorded work (School C).
	Teacher-Intra-school obstacle (“Grey area”)	Tensions can be resolved between the teacher and the school (e.g., Line Manager/Senior Leader etc.)	<ul style="list-style-type: none"> • Whole school assessment system (School B). • Confusion of assessment terminology (School B). • Reduction of lesson time (School C). • Student behaviour (School D). • Lack of timetabled music lessons (School D)
	Historical obstacles	Difficult to resolve as these tensions would often have happened in the distant past.	<ul style="list-style-type: none"> • Lack of teacher training for composing (School B). • A Lack of previous musical experiences (Schools B and D).

Table 95: Establishing a hierarchy of contradictions.

From a 2-Dimensional to a 3-Dimensional representation

As stated previously within this section, the present study finds that a 2-Dimensional (net) representation of the Activity System framework was valuable for identifying a hierarchy of contradictions from those closest to the composition activity to those furthest away. Now this has been established, the net can now be re-assembled into its 3-Dimensional depiction, following Henley's (2009) and Anderson's (2019) interpretations and visualisations.

Figure 59 presents a 3-Dimensional representation of the four, "knotworking" (Engeström, 2008) activity systems identified in the present study. As it clearly shows, each 'face' of the representation relates to one of the four activity systems identified in the present study: the individual student, the collective group of students, the music teacher, and the school. These four "knotworking" (Engeström, 2008) activity systems were not considerations within Henley's (2009) and Anderson's (2019) PhD representations but are considered to be key within the focus of the present study.

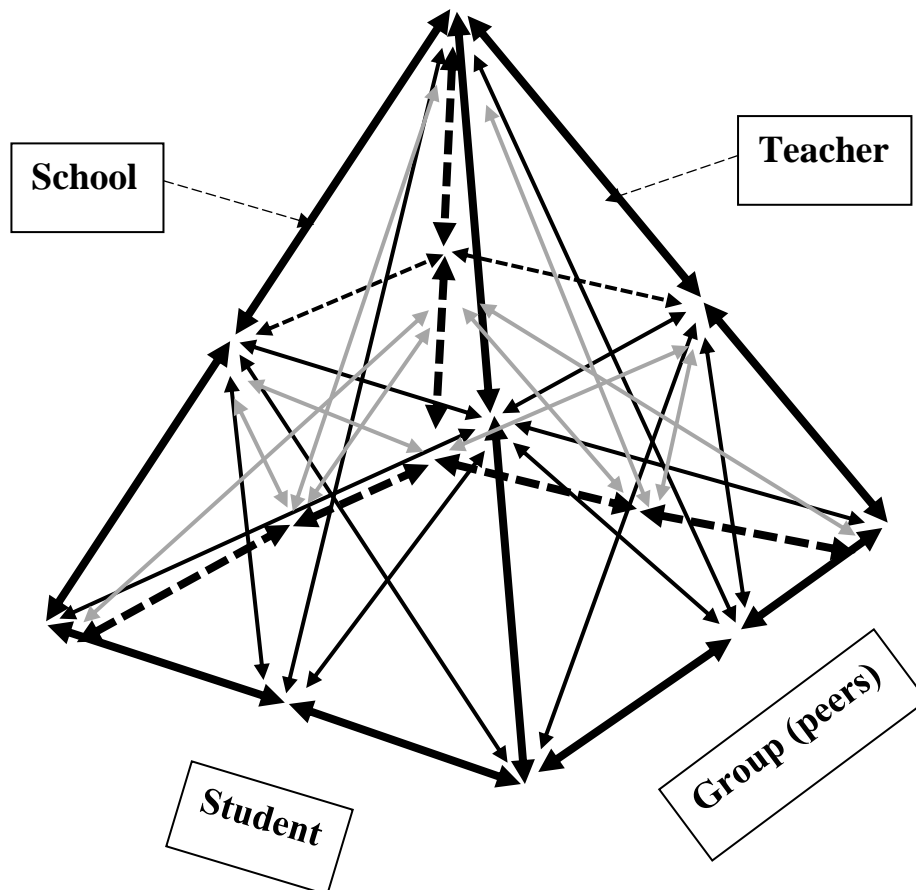


Figure 59: A 3-Dimensional, third-generation activity system.

Surrounding the squared-based pyramid

Bringing the 3-Dimensional, third generation activity system model (Figure 59) hierarchy of identified contradictions (Table 95) together, a new third-generation activity system model is proposed. This is shown in Figure 60. Of particular interest are the coloured rings (which represent the different modalities of contradictions) which can be thought of as surrounding the composition activity whilst it took place. Although this is a model which brings together all of the dissonances and obstacles identified within the present study, it is important to note, however, that not all case-studies had the same dissonances and obstacles.

Within this model two overarching zones exist: a *zone of proximal dissonances* (which includes student dissonances, student-teacher dissonances, and teacher dissonances) and a *zone of proximal obstacles* (including Teacher-Intra-school obstacles, and Historical obstacles). As with Table 95 previously, the students, teacher, and *zone of proximal dissonances* are closer to the composition activity (where dissonances might be resolved more immediately) with the school and *zone of proximal obstacles* being further away from it (symbolising that a resolution to obstacles is likely to be slower, if it occurs at all). It is also important to acknowledge that the rings surrounding the activity grow larger. This growth can be said to represent the impact the tension might have if left unresolved over a long period of time.

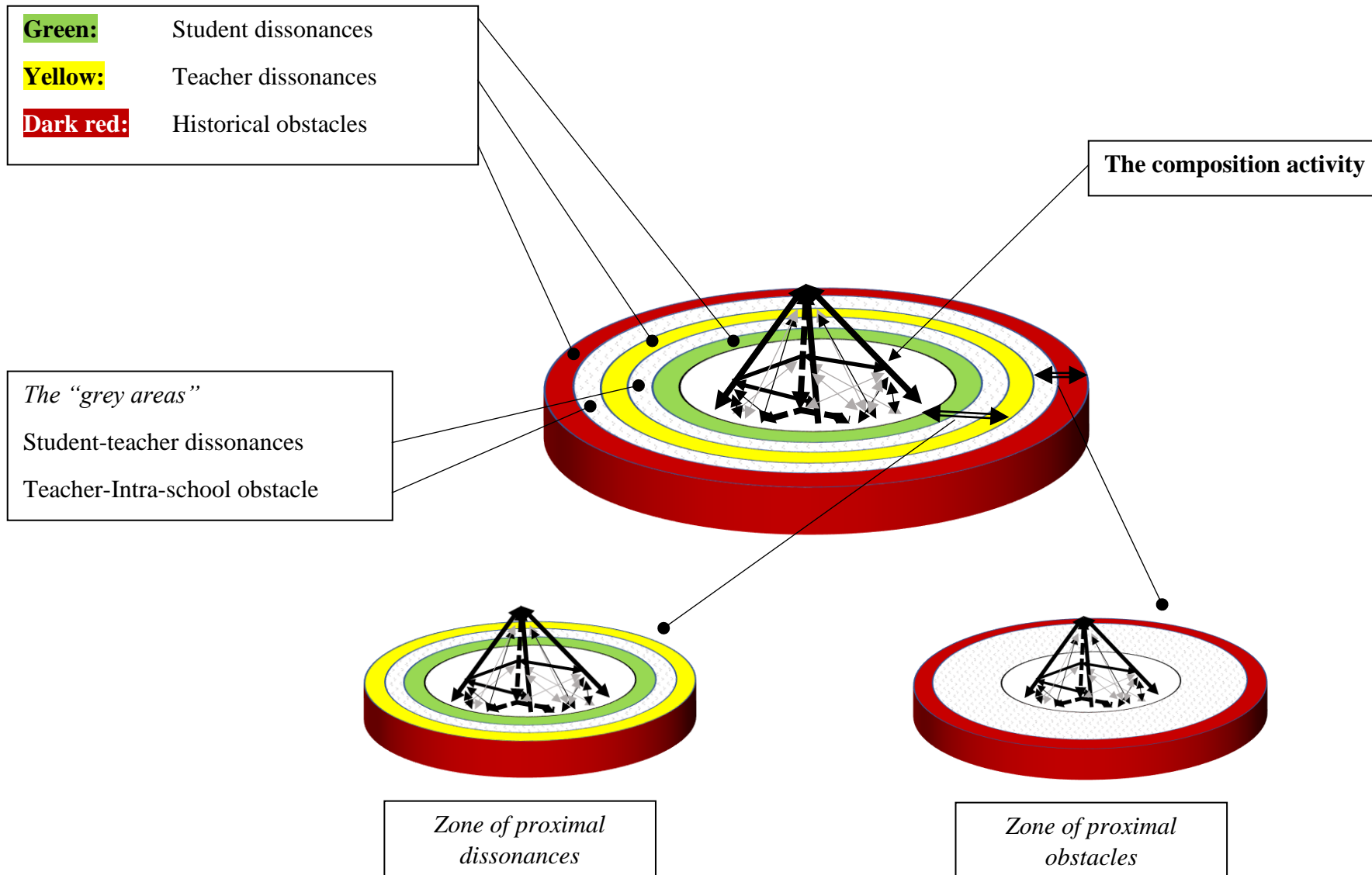


Figure 60: A collective and generic model of the typologies of contradictions surrounding the composition activity.

7.6: How the extended model can support classroom practice

Section 7.1 stated that the aim of integrating Activity Theory (socio-cultural) and Field Theory (socio-political) was to be able ‘to provide better explanations than [what] they could individually’ (Jurdak, 2018: 26) and to ‘better understand what is being done and how’ (Burnard and Younker, 2007: 63). Based on the analyses of the present study (Sections 7.3 and 7.4), which led to the proposed extended Activity Theory model (Section 7.5), this section summaries the socio-cultural and socio-political perspectives, within the suggested *zones of proximal dissonances and obstacles*, that might be of use to support and enhance classroom practice.

The zone of proximal dissonances

Tensions which arose in this zone (shown in Table 95 and Figure 60, Section 7.5) occurred during the composing unit-of-work and included three of the four activity systems (the individual student, the collective group of students, and the music teacher) “knotworking” together (Engeström, 2008) towards the potentially shared outcome – a finished composition. The present study found that all but one of the tensions that arose were fully resolved through formative assessment. Formative assessment, therefore, can be considered a significant process, for both students and teachers alike, in helping develop and strengthen the system(s) in which the activity, in this case, a composition task, is taking place (Addison et al., 2015; Engeström, 2008; Postholm, 2015). From a socio-political perspective, formative assessment was also found to enhance students’ *cultural capital* (Bourdieu, 1971). In practice, what this meant was that when students were afforded time, space, and where needed teacher support, to engage in formative assessment, they became insiders of their own learning and composing

processes and more ‘in the know’ (Burnard, 2015: 199) to where their music should go to next.

The zone of proximal obstacles

The present study found that tensions which arose in this zone (shown in Table 95 and Figure 60, Section 7.5) occurred as a result of the fourth activity system – “the school”. According to student and teacher participants, these obstacles were reported to have arisen prior to the case-study research taking place and, for numerous obstacles discussed previously, continued to be present whilst it took place. In particular, school-orientated initiatives were found to be problematic for those working closest to the composition activity (students and teachers) mostly, from the socio-political perspective, with regards to *doxa* and *habitus* (Bourdieu, 1971).

Doxa

The present study found that some school-based doxas impacted negatively on lesson-by-lesson composing. These included: implementing the whole school assessment system, including the reported confusion of assessment terminology (School B); a reduction of lesson time due to over-running whole school “praise assemblies” (School C); and the effects of high-stakes testing resulting in a lack of timetabled music lessons in Year 7 due to prioritising Key Stage 3 curriculum time for English Baccalaureate subjects (School D), as well as a lack of previous musical experiences within the curriculum due to the decision to prioritise English and mathematics on the approach to Year 6 SATs (Schools B and D). These top-down core beliefs and values, despite their good intentions, were all considered obstacles

from the perspective of the composing classroom; they were all decisions made by those with a higher status of power (Senior Leaders, whether present or past) and could not be mitigated by those working directly within the composition activity with whom the tension was a problem. As a result, the present study found that these obstacles have led to uncertain teaching practices (assessment practice, for example) and have stunted students' long-term musical learning and development.

Habitus

The present study also found that some historical decision making was also found to impact on how an individual becomes themselves. For instance, the Music Lead in School B revealed that, when beginning her teaching journey, there was a lack of training to teach composing and that her training experiences were dominated by a performance focus as that was a specialism of her mentor. This obstacle also links with the notion of *cultural capital* where, despite teaching a composition-focused unit-of-work, she was not previously provided with the “tools” to be ‘in the know’ (Burnard, 2015: 199). As such, she continued to remain uncertain as to whether she was teaching composition well and, therefore, could not be sure whether she was providing the best possible learning experiences for her students.

Summary

In Activity Theory literature, the notion of contradictions is important because they help develop and strengthen the system(s) in which the activity is taking place (Addison et al., 2015; Engeström, 2008; Postholm, 2015). As has already been discussed, the present study has found formative assessment to be a key process in problematising many of these in-class

tensions. The present study also finds that including an audio device into the composing process has also proved an important tool in strengthening activity systems and supporting resolutions of some of these tensions. That said, identifying certain contradictions, for example *obstacles* (including Teacher-Intra-School and Historical modalities) can become problematic, however. This is because the required “knotworking” (Engeström, 2008) is somewhat affected largely due to, based on the data from the present study, a top-down, hierarchical approach by, for example, Senior Leaders. In order to help break down an obstacle where ‘something that blocks you so that movement, going forward, or action is prevented or made more difficult’ (Cambridge Dictionary Online, 2021, n.p.), the present study considers whether Senior Leaders, unlike those in Schools B-D, might engage in open dialogue with music teachers, and Music Leads, to build a clear picture of the obstacles (and dissonances, if required) which occur at classroom-level and where resolutions to these tensions might be sought.

Chapter 8: Conclusions

This study goes some way in addressing the four research questions:

1. How does the inclusion and use of an audio device influence the group composing process?
2. What are the effects of using an audio device on group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio devices when composing?

This chapter concludes the research with summaries of the main thesis findings and where contributions to music education literature have been made. These summaries focus on: the audio device; the composing process; and assessment. Following this, implications for senior leaders and music teachers are presented based on the findings of this research with ideas for further research suggested. The thesis closes with a “coda” section drawing on brief post-study email responses from each of the four case-study Music Leads. These responses signify that even though the research ended, the audio devices continued to be used, and continue to be of use, in music lessons.

Summary 1: The audio device

Section 2.1.8 identified that exploring the use of an audio device within the Key Stage 3 group composing context is a significantly neglected area. To contribute to this under-researched field, the present study found its inclusion and use can produce important benefits for the learning and teaching of group-based composing within the classroom setting.

Through adopting a phenomenological lens (Section 3.3) when analysing post-study interviews it was revealed that student participants, including those with a Special Educational Need and/or Disability (SEND), found the audio device to be a valuable *aide memoire* which helped speed up the composing process from one lesson to another. They also commented that its inclusion meant that they were less reliant on their teacher and so it increased their level of autonomy and independence. A notable benefit of using the audio device was that absent students during the case-study were able to listen back to their group's work-in-progress composition upon their return and quickly catch-up and fit-in with the work that was missed. Through extending the "contradictions" aspect of Engeström's (1987) Activity Theory model (Chapter 7), this meant that a previously identified *obstacle* to a student's learning became a less problematic *dissonance*.

A phenomenological lens was also applied when analysing teachers' post-study interviews. In relation to their lived experiences of using the device, the present study found that it afforded them the time and space to 'step back' and engage in reflection with regards to current practices of classroom-based composing. These included: how current, formal, and teacher-orientated modes of assessment (for example, the end-of-unit composition recordings) could be replaced with less formal and more student-orientated ones; how listening to student work-in-progress composition tracks outside of lessons allowed teachers to carefully consider the recorded feedback they were giving; and how listening to audio recorded tracks was

important, not only for providing quality feedback to groups, but also because it provided valuable information to the teacher with regards to how the subsequent unit-of-work might be adapted to better meet students' musical learning needs. Furthermore, all teachers involved in the research voiced that they were able to maintain a positive balance of workload whilst using the audio devices.

Summary 2: The composing process

As stated in Section 2.2.5, given that this study is located within the Key Stage 3 group composing context, it seemed appropriate to apply Fautley's (2002; 2004; 2005) model. This was used as analytical tool so that episodic sequencing of observed composing phases, throughout the composing unit of work for each case-study, could take place. Contrary to previous research (for instance, Hopkins, 2018, discussed in Section 2.2.5), the present study provided an ideal opportunity for Fautley's model of the group composing process to be further validated within the context of which it originated – the Key Stage 3 group composing within the English school setting. Using Fautley's (2002; 2005) descriptions to identify each phase when it occurred was done so with relative ease. With regards to the inclusion and use of an audio device during the group composing context the present study identified two additional composing phases in all four case-studies: the Work-In-Progress Recording (WIPR) and the Work-In-Progress Listening (WIPL). A Work-In-Progress Performance (WIPP), which was a phase previously identified by Fautley (2002), often preceded the WIPR phase. Through analysis of post-study interviews to share their lived experiences, the present study found this sequence to be important for students; it helped organise their composing time. Moreover, without it, several groups commented that it might have led to a poor-quality recording which, in turn, may have resulted in different and less useful feedback

from their teacher. A WIPL was often found to occur following a WIPR and/or at the beginning of the next composing session. As concluded in Summary 1 above, it was this additional composing phase that proved valuable as an *aide memoire* for students to help speed up their composing from one lesson to another.

Summary 3: Assessment

The present study took the ontological position that the term “assessment” is better defined as a procedure for making inferences (Cronbach, 1971). Seeing assessment in this way, and applying it to the classroom, can further develop our understanding of summative and formative notions of assessment.

Summative assessment

As stated in Section 2.1.4, previous research has identified summative assessment as that which certifies learner achievement at particular points in time (Andrade and Heritage, 2018; Broadfoot, 2008; Fautley, 2010; Harlen, 2007). This summing up (Broadfoot, 2008; Devaney, 2018; Fautley and Colwell, 2018; Fautley and Savage, 2007; 2008; Harlen, 2007; Thorpe, 2015) by the producing and sharing of marks, levels, and grades at the end of units-of-work, for example, has been found to have a negative effect on learning (Broadfoot, 2008; Harlen and Deakin-Crick, 2003; Madaus and Clarke, 2001).

By thinking of assessment as a procedure for making inferences (Cronbach, 1971), the present study has gone further to suggest that summative assessment is more nuanced. In order to arrive at this conclusion, systematic observation discourse analysis was undertaken through applying, and adapting where necessary, MacDonald, Miell and Morgan’s (2000)

codes of talk. The present study found, following the newly identified WIPL phases, that the main type of summative comment from students, across all case-studies, was Information based on a positive viewpoint (*I-PV*). What this means in practice is that having listened to a WIPR track, students were concluding, at that point in the composing process, that the status of their in-progress composition was “good” and that they liked what they heard. This modality of talk was also identified numerous times during both Live and Recorded Teacher Intervention phases. The identification of the *I-PV* code concurs with research cited above in that summative assessment sums up. However, the present study finds that it is not limited to the giving of marks, levels, or grades at the end of a unit-of-work but can also be present in lesson-by-lesson musical activities through student and teacher discourse. Furthermore, although previous research cited above has found that summative assessment can have a negative effect on learning, this was not believed to be the case in the present study. Instead, when *I-PV* codes were identified, they were being used as a means of support, encouragement, and positive praise that the group’s composition was heading in the right direction.

Formative assessment

Section 2.1.5 identified that, following the work of Fautley and Savage (2011), Hale and Green (2009), Pellegrino, Conway and Russell (2015), and Scott (2012), there was a need to provide a greater epistemological focus on formative assessment concepts and strategies in music education. In order to do this, and to go further to provide pragmatic insights and lived experiences into how audio devices were used within the domain of Key Stage 3 group composing, the present study drew on Black and Wiliam’s (1998) definition of formative assessment and has posited throughout this thesis that the formative process requires two key,

and sequential, ingredients: formative *intention* and formative *action*. The position of this thesis is that both “parts” are required for effective formative assessment to take place. Seeing formative assessment in terms of “intention” (when information is collected or given with the intention it will be used) and “action” (when the information collected or received is then acted upon) has the potential to further develop our understanding of formative assessment and how it can be effectively implemented and embedded into the music classroom.

In the present study, through observation and episodic sequencing, the audio device was found to be an important tool for students in order to “do” formative assessment by guiding learners as to which composing phase(s) should occur next. For example, following the WIPL phase, particularly towards the beginning of a new composing session, the Revision phase tended to occur. Here, students were observed to be imitating, miming, and working out their individual notes and rhythms both during the WIPL phase as well as after it. It is through this means of formative assessment that the audio device was a much-valued *aide memoire*. In another example, students listened to their recording and agreed to re-enter a WIPP phase so that further practising of the composition could take place. As stated above, getting a “good” recording was important to students; otherwise, it could have led to different, and perhaps less useful, feedback from their teacher. Despite these benefits two important considerations need to be made. First, the formative process, as exemplified above, did not occur in all case-studies. In one school (School A), for example, students were often observed to be Off-Task following a WIPR-WIPL sequence. As such, these students cannot be said to have often engaged in effective formative assessment. Second, although the formative process, as described above, was considered valuable as a link from one composing session to another, the composing phases groups tended to enter could be thought of as strengthening the *performance* of the composition (WIPP and Revision phases, for example).

What the formative process seldom seemed to lead to, in the case-study groups at least, was the development of groups' *composing*.

Previous research literature, cited in Section 2.1.8, has found feedback to be a significant part of the formative assessment process. Based on the findings from the present study, however, this needs further consideration. Through observation and episodic sequencing, the present study identified two modalities of teacher intervention: Live Teacher Interventions (LTIs) and Recorded Teacher Interventions (RTIs).

LTIs, which were identified when teachers engaged in-person with their students, took place in two of the four case-study schools. In one school (School A), the teacher's Transactive Questions (TQs) were the dominant type of language identified and focused mainly on task completion of *making an audio recording* (for example, "Have you made a recording yet?"). The teacher focusing their language on task completion was also a key finding in earlier research by Kinsella and Fautley (2017). Furthermore, in this school, no feedback was given for developing students' *composing*. Formative assessment did not always take place in this school; the teacher's intervention (*formative intention*) seldom led to a response (*formative action*) by the group. In another school (School D), the teacher's language and feedback, which did focus more on developing the group's *composing*, included Transactive Questions (TQs), and by extending MacDonald, Miell and Morgan's (2000) codes of talk, making Proposals as questions (P-Qs), and suggesting Proposals with additional information (P-*infos*). Although formative assessment was found to take place after each LTI, knowing when and how the teacher should intervene has to be carefully considered so as not to interrupt the flow of students engaged in their own formative processes.

RTIs were identified in three of the four case-study schools and were found to occur when students listened to their teacher's recorded feedback, usually at the beginning of a

composing session. This feedback was recorded outside of normal music lessons. In these schools both summative and formative language was observed. When summative comments were identified they were largely found to be Information based on a positive viewpoint (I-PV). Proposals were the main type of formative language. By extending MacDonald, Miell and Morgan's (2000) codes of talk, the latter modality of feedback was unpicked further as Proposals as questions (P-Qs), Proposals as statements (P-stats), and Proposals with additional information (P-infos). When I-PVs occurred during recorded feedback they were given with the purpose of providing positive praise and encouragement to the group that their work-in-progress composition was heading in the right direction. Formative proposals were given with the aim to support students on what they could think about/do next. Despite the importance of formative feedback, the summative-formative balance within recorded feedback differed, sometimes significantly, across schools. Although recorded feedback tended to be more composing-focused and was given by the teacher with the *intention* it would be *acted* upon by students, there was no evidence that this was the case in two schools (Schools B and C). In the other school (School D), formative assessment was found to regularly take place. That said, students received both RTIs and LTIs. What this suggests is that audio recorded feedback should not be a replacement for in-person teacher-group interactions. This is important; as was found during post-study focus group interviews in the two schools where formative assessment did not occur following an RTI phase, although students listened to their teacher's feedback, they did not always fully understand it.

From the findings of the present study, what is concluded above suggests that teachers giving "good" feedback to their students appears to be a highly complex process. As stated in Section 2.1.8 (and re-mentioned above), feedback can, indeed, be a significant part of the formative process. By itself, though, it can only be considered a formative *intention*. What the present study highlights which can be of importance for teachers, however, is that just giving

students feedback (whether live or recorded) is only part of the process. In order for feedback to have a greater formative impact, students have to engage, understand, digest, and act upon it, with teacher support as appropriate, for it to enhance their musical learning further.

As stated in Section 2.3.3, Mercer's (2004; 2015) typology of pupil talk does not consider how it can be harnessed and used *formatively*. Within composing-focused literature, Major's (2007) typology does not include the role assessment plays in student-student (or even teacher-group) discourse. In order to address these gaps, the present study found that, at the student-level, summative comments were found to be mainly centred around I-PV. When formative utterances occurred, they were often based on Transactive Questions (TQs) and types of Proposals. In extending MacDonald, Miell and Morgan's (2000) codes of talk, the latter of which was further divided into two sub-types: Proposal as a statement (*P-stat*) and Proposal with additional information (*P-info*). What the present study also revealed, through applying and utilising Bourdieu's (1971) Field Theory, was that students who had more symbolic and/or cultural capital were deemed, by their peers, to be the expert of the group and therefore the group's leader. Not only this, but the present study also found that these individuals who were viewed to be more musically expert gave more formative comments.

Like with the teacher-group feedback above, the summative-formative balance within overall group-based talk differed across case-studies. In attempting to explain why this was the case, group-based discourse was compared with the modality of feedback (whether live, recorded, or both) students received from their teacher. The present study suggests that when students received only recorded comments (Schools B and C) their own feedback, from a summative-formative perspective, was broadly balanced. In School A, where students only received live feedback via a stop-and-question (Fautley, 2002; 2004) approach, their language was significantly more summative. Of particular interest is School D where both modalities of feedback (the live feedback also followed a stop-and-question approach) were given. In this

school, students' language was also found to be significantly more summative. It is suggested, therefore, that during stop-and question LTIs, teachers should be cautious about giving some groups too many proposals (which were the most common type of formative utterance); despite their good intention, this may well reduce students' need to think creatively *for themselves*. This stance would be considered problematic for some advocates of Direct Instruction (Section 2.4.1). However, the present study argues that teachers should not be afraid to adopt a more *laissez-faire* (Fautley, 2002; 2004) approach to composing. To be clear, this is not to say that teachers should not intervene; rather they can afford to take an initial step back to witness students' engaging in their musical learning and then, at an appropriate point, provide necessary Transactive Questions, Proposals, and scaffolding to help them think and talk more deeply about their composing ideas and choices. This can be considered important in order to help elicit an even more student-centred, formative thinking and talking composing space which can support and enhance the formative "doing" previously mentioned.

Misunderstanding formative assessment

Previous research (Bennett, 2011; Carter, 2015; Department for Education, 2015; Gardner et al., 2010; James et al., 2006) stated in Section 2.1.5 identified that, in some schools, there has been some confusion regarding what formative assessment was and how it could be implemented successfully into the classroom. This was also found to be the case in one case-study school where the term "Assessment *for* Learning" (which was being used synonymously with formative assessment) in the school's Assessment and Feedback Policy was actually describing summative assessment. Although the music teacher at this school was observed to be engaging in some formative assessment during composing sessions, the pre-

study interview revealed a clear confusion in the teacher being able to articulate what these key assessment terms meant and what they looked like in the music classroom. Through extending the “contradictions” aspect of Engeström’s (1987) Activity Theory model (Chapter 7), this tension was considered to be within the *zone of proximal obstacles* since the teacher voiced she was not certain whether she was “doing” Assessment *for Learning* correctly and whether her current teaching practice was having the desired impact on her pupils’ musical understanding.

The effects of high-stakes testing

Through extending the “contradictions” aspect of Engeström’s (1987) Activity Theory model (Chapter 7), the notion of high-stakes assessment was identified as a historical obstacle in two case-study schools and was something which continued to surround this composing-focused research. The obstacles identified included: reducing Year 7 curriculum time for music to enhance time for English Baccalaureate (EBacc) subjects; and students experiencing a lack of previous musical experiences during upper-Key Stage 2 (Years 5 and 6 of Primary school) in order to enhance lesson time to study English and mathematics in preparation for the end of key stage national tests (SATs). Such examples are not new to music education literature (discussed in Section 2.1.3). However, it is important to reiterate that those in “power” who make such decisions (Senior Leadership Teams, for example) are, from the perspectives of those who live these experiences, consciously sacrificing and therefore hindering the long-term musical progress young people are entitled to, in order to meet government-imposed accountability measures. In School D, where music lessons were reduced to take place every two weeks, the audio device was found to be an important *aide memoire* for helping students recall what they did in their previous composing session.

Although the tool was able to support with one such symptom of this obstacle, it could not remedy the obstacle itself.

Implications of this research for key constituencies 1: Senior Leaders

During this research, two obstacles were highlighted by student participants. These included:

- a reduction of lesson time due to whole school “praise assemblies”; and
- a lack of timetabled music lessons due to a focus on English Baccalaureate subjects.

A historical obstacle (an obstacle which occurred before Key Stage 3) was also raised. This related to:

- a lack of previous musical experiences due to time being spent on English and mathematics preparation for upper-Key Stage 2 national tests.

Despite the good intentions of these top-down core beliefs they were considered, by both students and teachers who have lived through these experiences, to have negatively impacted on teaching and learning. Therefore, when implementing top-down approaches, Senior Leaders should take into consideration the potential long-term impact of these decisions and how they might be mitigated so not to negatively affect students’ musical learning.

Implications of this research for key constituencies 2: Music teachers

A key finding of the present study was that the inclusion and use of an audio device during the group composing process elicited important benefits for students and teachers. As such, there are several implications for music teachers that should be considered beneficial to the

music classroom. Thematically, these relate to the implementation and embedding of formative assessment practice.

Understanding “assessment”

Teachers should re-think the notion of assessment and consider it in more broader and nuanced terms. When this occurs, classroom-based assessment then becomes a significantly regular feature in what teachers, and students, say and do. Summative assessment, indeed, sums up learning at a particular point in time but should not be thought to be limited to the giving of marks, levels, or grades at the end of a unit-of-work. The findings of the present study suggest that summative assessment can occur on a lesson-by-lesson basis by means of the comments (whether live, recorded, or both) teachers make. Although this is not thought to be problematic, teachers should take the time to reflect on the summative-formative balance of the comments they make.

Formative assessment also needs re-addressing. This is particularly important because there is still evidence that the term (even if it is being used synonymously with *Assessment for Learning*) is confused at both policy- and classroom-level. As has been shown in previously cited research studies, this confusion then affects how it can be effectively implemented and embedded into the classroom. To help address this confusion, and support teachers (and other policy makers) in developing, and strengthening, their formative assessment thinking and practice, it would be useful to unpick formative assessment into two, sequential parts: *intention* and *action* with the further consideration that both are required for effective formative assessment to take place.

Working with students to strengthen the formative assessment process of composing

In this study, the newly identified Work-In-Progress-Listening (WIPL) phase provided a valuable opportunity for students to be engaged in formative assessment (*intention* and *action*). However, one case-study group was often observed to be Off-Task following this phase and, therefore, did not fully engage in the formative process. Furthermore, across other case-studies, although students were found to have engaged in formative assessment, the process largely focused on the strengthening of the *performance* of the composition. In addition to developing students' composing skills, teachers also have an important role to develop and strengthen students' formative thinking, talking, and doing during interventions. At appropriate points, scaffolding the development of composing through demonstration and/or asking Transactive Questions can be particularly useful for students. These can be valuable opportunities to help demystify any uncertainties students may have with developing and extending their existing ideas as well as allowing teachers to probe more deeply and formatively about their creative thinking.

Teacher feedback

Although the previous sub-category stated that teachers should work with their students, when required, to develop their composing the success of this can very much depend on the teacher. Giving feedback that is going to improve musical learning is hard. It is hard because even though teachers might regularly give feedback with the *intention* that it will be *acted on* by students, if this is not the case once the teacher had left the practice room, then the intended feedback, no matter how "good", is unlikely to have the desired effect. Added to this complexity is what the teacher focuses the feedback on. For example, as was observed in the present study, if a teacher's feedback seldom focuses on developing students' composing (it

may focus more on other aspects like performing the composition, for example), then it is highly unlikely that students will improve in this area.

Planning of composition tasks

Two Threshold Concepts were identified which had the potential to significantly hinder the composing process. As this thesis has shown, in one school in particular, the audio device was an important tool for supporting students in crossing their threshold. Therefore, in order to anticipate potential troublesome issues, teachers should reflect on whether students have the necessary prior knowledge and/or learning tools available to them before setting a composition task. For example, what resources or tools are available to students who require further inspiration in generating and exploring initial creative ideas? If the composition task is to write a song, or if students choose to write a song, do they have the any prior knowledge or experience in writing lyrics? If not, what support might students require so that this requirement does not significantly hinder the composing process and reduce composing time? When teachers are engaged in this forward-thinking reflective practice, they are taking into greater consideration about where their students are currently in their learning, contemplating the desired composition task destination, and, crucially, being able to provide students with the best possible learning and musical experiences on how to get there.

Suggestions for further research

Following the findings and conclusions of the present study, the following themes might be considered worthy of further research:

- The effects of using audio devices during the group composing process with students who have differing learning needs;
- The effects of different modalities of teacher feedback (for instance, live, recorded, or both) on group composing;
- The identification and problematisation of further Threshold Concepts during group composing;
- Developmental and longitudinal studies of group composing.

The first of these invites research to consider how students with different learning needs (for example, students who have a Special Educational Need and/or Disability [SEND] or have English as an Additional Language [EAL] in both mainstream and specialist settings) may find using an audio device a useful tool during group composing. Although the present study did include SEND and EAL students, more work could be done in this area. Second, further exploration into the effects of different modalities of teacher feedback on group composing could be considered beneficial. Although the present study included case-studies where teachers gave either live, recorded, or both, feedback to composing groups, more work could be done here covering a range of different school-based settings. Third, further research could be done with regards to different types of Threshold Concepts that occur in group composing and what teaching and learning strategies can be of use in crossing these. The fourth seeks more long-term research into school-based group composing. Case-studies in this thesis lasted for a composing unit-of-work (approximately five weeks). Using the audio device, it would be interesting to see if and how teacher- and group-based practices alter over a longer period of time.

8.1: Coda

During the initial write-up of this thesis (December 2021), I contacted each of the Music Leads to see whether, since the study took place, the audio devices were still being used with Key Stage 3 music classes. As shown in Appendix 13, the audio devices were still being used all case-study schools and continued to make a positive impact on teaching and learning practices. It should also be noted that, since the research took place, the use of the audio devices has been extended to be used in performance units as well as composing.

Furthermore, their use has been permanently adapted now less “formal” assessment opportunities take place (School A), the initial organisational difficulties of using the audio devices have been resolved (School B), their use provided a valuable means for discussion during an Ofsted inspection (School C), and they were very beneficial when school-initiated restrictions had to be put in place due to an increase of positive COVID-19 cases (School D).

Reflections for teachers on changing practice

The paragraph above provides a strong vindication of the potential that working alongside a researcher can have on changing practice. Of course, in the future, teachers may not have the opportunity and benefit of being part of a research project. Reflecting on the processes used within the present study, the following reflective questions may be of use to teachers wishing to engage in research within the classroom:

1. What is the focus?
2. Who is the focus with?
3. How will data be collected?
4. How might data be analysed?

5. How could findings be presented?

Question 1 centres around the ‘big idea’: What is the focus of the research to be investigated?

For the present study, I was interested in exploring:

- formative assessment and the
- effects of using an audio device during the
- Key Stage 3
- group composing process.

These foci were identified through reading a large proportion of literature in order to determine, and subsequently address, gaps in music education research. This is an important purpose of PhD research. Of course, for a music teacher, the ‘big idea’ could centre around something that is new to them and their practice. When a ‘big idea’ has been established, it might be worthwhile to decide upon some specific questions. For my research, I was interested in exploring what effects the inclusion and use the audio device had on: the composing process (Research Question 1); teacher feedback (RQ2), group-orientated feedback (RQ3); and what teacher and student perceptions were of using the audio device (RQ4). These questions helped me to maintain focus throughout the research process.

Question 2 asks who the research will be with. For example, the present study focused on Key Stage 3 and incorporated all three years groups: Year 7, Year 8 and Year 9 and their music teachers. It was also important to me that different types of learners, for example, musical and non-musical students, whatever this may mean, as well as learners who had Special Educational Needs and/or Disabilities and English as an Additional Language were included. Not only was this to ensure that the research was suitably inclusive, but it was considered important to capture a range of different lived experiences from a range of

different learners. Although the present study reported its findings on a focus group from each case-study, inclusivity was further enabled where all composing group within the class included and used an audio device within the own group composing work.

Question 3 considers how data will be collected. For my research, as it did not seem appropriate to be in the focus group's practice room all of the time, I video recorded each composing session for each case-study's focus group. The video recordings were valuable because it meant that I could watch some scenes several times to ensure I was addressing the research questions as accurately as possibly. It also meant that I could spend time working with other groups of learners not directly involved in the research. Interviews were also included and were a valuable method to gain further insight and depth into participants' lived experiences. An advantage of a music teacher working with a researcher is that, with regards to data collection, this did not impact heavily on teachers' time. So, for a teacher researching on their own classroom, what data collection methods could be used which do not significantly hinder their already limited time? Further to this, some teachers might believe that interviews are time consuming, and some may not feel comfortable doing interviews. One possible solution could be to create a survey (whether paper-based or, if possible, online) which might include both quantitative responses (for example, 5-point Likert scale questions) and some qualitative ones (for instance, open answer responses) for learners to complete. If the music teacher is researching their own classroom, a reflective journal, detailing their own lived experiences during the research process, can also be valuable/

Question 4 is about data analysis. This is an opportunity, regardless of what data collection methods were used, to identify common threads or themes which might appear. These might include, for instance, what positive aspects there are as well as negative aspects and, for the latter, how these might be improved in the future. If different types of participants are

involved, for example, a teacher and their students, then this is also a good opportunity for data collected to be triangulated to establish what common ground, or not, there is.

The final question relates to how the data collected can be presented. Following the present study, presentations took place for each case-study school's board of governors. This was a valuable opportunity for myself, the researcher, and the music teacher, to present the key findings of the case-study research. This was also a valuable means in which music teachers could ask for funding from the school to purchase their own audio devices so that they can be continually used, and their use developed, after the research had finished.

Final remarks

Undertaking PhD study and writing this thesis has been an incredible journey where I have been able to join together two great passions of mine: music and assessment. I hope that the findings presented in this thesis will be of benefit to both music teachers and young musicians and impact positively on the teaching and learning of Key Stage 3 group composing.

During this journey I have been fortunate to have presented and published for national and international audiences. These are listed in Appendix 12. Although not all of these invitations to present and write have been music-specific, they are all, in some way, related to the main themes of this thesis and are a result of the long-hours of thinking and questioning I have undertaken, with the support of my supervisors and colleagues, during my own ontological development as a teacher and researcher.

Even at the end of this thesis the whole concept of assessment continues to fascinate me. I believe that seeing assessment more broadly, as this thesis did, opens up opportunities for how assessment practice in classrooms can be further, and deeper, understood. This is important not only so that it can be used as a faithful servant to better meet the needs of our young musicians, but also to further support teachers in doing what they do best – teach great lessons!

References

- Acim, R. (2018) The Socratic method of instruction: An experience with a reading comprehension course. *Journal of Educational Research and Practice*, Vol. 8(1), 41-53.
- Addison, N., Burgess, L., Kinsella, V. and Kenning, D. (2015) Learning in the art and design classroom. In: N. Addison and L. Burgess (eds.), *Learning to teach art and design in the secondary classroom* (pp. 21-70), Abingdon, UK: Routledge.
- Albon, D. and Rosen, R. (2014) *Negotiating adult-child relationships in early childhood research*. London, UK: Routledge.
- Alderson, P. (1990) Consent to children's surgery and intensive medical treatment. *Journal of Law and Society*, 17(1), 52-65.
- Alderson, P. (1995) *Listening to children: Children, ethics and social research*. London, UK: Barnados.
- Alderson, J. and Wall, D. (1993) Does washback exist? *Applied Linguistics*, 14(2), 115-129.
- Aleshinskaya, E. (2013) Key components of musical discourse analysis. *Research in Language*, 11(4), 423-444.
- Alexander, R. (2008) *Towards dialogic teaching*. London, UK: Routledge.
- Amabile, T. (1996) *Creativity in context*. Colorado, Westview Press.
- American Educational Research Association (AERA), American Psychological Association (APA) and National Council on Measurement in Education (NCMA) (2014) *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- Anchin, J. (2008) Contextualizing discourse on a philosophy of science for psychotherapy integration. *Journal of Psychotherapy Integration*, 18, 1-24.
- Anderson, A. (2019) *Happy accidents? Music teacher perceptions of curriculum design at Key Stage 3 in the English secondary school*. Unpublished PhD, Birmingham City University, UK.
- Anderson, C. and Palm, T. (2017) Characteristics of improved formative assessment practice. *Education Inquiry*, 8(2), 104-122.
- Andrade, A., Chen, F., Valle, C., Lui, A. and Mir, H. (2014) *An empirical investigation of criteria-referenced formative assessment in the arts*. Paper presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Andrade, H. and Heritage, M. (2018) *Using formative assessment to enhance learning, achievement and academic self-regulation*. New York, NY: Routledge.

- Anson, C. (1997) In Our Own Voices: Using recorded commentary to respond to writing. In: M. Sorcinelli and P. Eelbow, (eds.), *Writing to learning: Strategies for assessing and responding to writing across the disciplines* (pp. 105-113). San Francisco, CA: Jossey-Bass.
- Archer, L., Francis, B., Miller, S., Taylor, B., Tereschhenko, A., Mazenod, A., Pepper, D. and Travers, M. (2018) The symbolic violence of setting: A Bourdieusian analysis of mixed methods data on secondary students' views about setting. *British Educational Research Journal*, 44(1), 119-140.
- Argyris, C. and Schon, D. (1974) *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey Bass.
- Asghar, M. (2013) Exploring formative assessment using cultural historical activity theory. *Turkish Online Journal of Qualitative Inquiry*, 4(2), 18-32.
- Asmus, E. (2010) Assuring the validity of teacher-made assessments. In: T. S. Brophy (ed.), *The practice of assessment in music education: Frameworks, models, and designs*. Chicago, IL: GIA Publications.
- Assessment Reform Group (ARG) (1999) *Assessment for learning - Beyond the black box*. Cambridge, UK: Cambridge School of Education.
- Assessment Reform Group (ARG) (2002) *Assessment for learning: 10 Principles*. Available from: <https://www.aiaa.org.uk/content/uploads/2010/06/Assessment-for-Learning-10-principles.pdf> [last accessed 23 July 2021].
- Assessment Reform Group (ARG) (2006) *The role of teachers in the assessment of learning*. London, UK: Institute of Education, University of London.
- Assessment Reform Group (ARG) (2009) *Assessment in schools. Fit for purpose? A commentary by the teaching and learning research programme*. London, UK: Institute of Education, University of London.
- Atkins, L. and Wallace, S. (2012) *Qualitative research in education*. London, UK: British Educational Research Association.
- Attride-Stirling, J. (2001) Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, 1(3), 385-405.
- Baek, Y. and Taylor, K. (2020) Not just composing, but programming music in group robotics. *Music Education Research*, 22(3), 315-330.
- Baird, J., Andrich, D., Hopfenbeck, T. and Stobart, G. (2017) Assessment and learning: Fields apart? *Assessment in Education: Principles, Policy & Practice*, 24(3), 317-350.

- Baird, J., Hopfenbeck, T., Newton, P., Stobart, G. and Steen-Utheim, A. (2014) *State of the field review: Assessment and learning*. Oslo: Report for the Norwegian Knowledge Centre of Education, case number 13/4697. Available from: https://www.researchgate.net/publication/263654863_Assessment_and_Learning_State_of_the_Field_Review [last accessed 23 July 2021].
- Bajada, C., Jarvis, W., Trayler, R. and Bui, A. (2016) Threshold concepts in business school curriculum – A pedagogy for public trust. *Education + Training*, 58, 540-563.
- Bakhurst, D. (2009) Reflections on activity theory. *Educational Review*, 61(2), 197-210.
- Ball, S. J. (2003) The teacher's soul and the terrors of performativity. *Journal of Education Policy*, 18(2), 215-228.
- Barradell, S. (2013) The identification of threshold concepts: A review of theoretical complexities and methodological challenges. *Higher Education*, 65, 265-276.
- Barradell, S. and Peseta, T. (2017) Putting threshold concepts to work in health sciences: Insights for curriculum design from a qualitative research synthesis. *Teaching in Higher Education*, 22, 349-372.
- Barrett, M. (2006) Creative collaboration: An 'eminence' study of teaching and learning in music Composition. *Psychology of Music*, 34(2), 195-218.
- Bateson, M. (1999) Ordinary creativity. In: A. Montouri and R. Purser (eds.), *Social Creativity: Volume 1*. Cresskill, NJ: Hampton Press.
- Beghetto, R. and Kaufman, J. (2007) Toward a broader conception of creativity: A case for mini-c Creativity. *Psychology of Aesthetics, Creativity, and the Arts*, 1(2), 73-79.
- Bennett, N. and Cass, A. (1989) The effects of group composition on group interactive processes and pupil understanding. *British Educational Research Journal*, 15(10), 19-32.
- Bennett, R. (2011) Formative assessment: A critical review. *Assessment in Education: Principles, Policy & Practice*, 18(1), 5-25.
- BERA (British Educational Research Association) (2011) *Ethical guidelines for educational research*. Available at: www.bera.ac.uk/publications/ethical-guidelines [Last accessed 4 December 2021].
- BERA (British Educational Research Association) (2018) *Ethical guidelines for educational research* (Fourth ed.). Available from: <https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018> [Last accessed 4 December 2021].
- Berger, P. and Luckmann, T. (1966) *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, NY: Doubleday.
- Berger, R. (2015) Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15, 219-234.

- Berkley, R. (2001) Why is teaching composing so challenging? A survey of classroom observation and teachers' opinions. *British Journal of Music Education*, 18(2), 119-138.
- Berkley, R. (2004) Teaching composing as creative problem solving: Conceptualising composing pedagogy. *British Journal of Music Education*, 21(3), 239-263.
- Berliner, D. (2002) Educational research: The hardest science of all. *Educational Researcher*, 31(8), 18-20.
- Bernstein, B. (1996) *Pedagogy, symbolic control and identity: Theory, research, critique*. London, UK: Taylor and Francis.
- Biasutti, M. (2012) Group music composing strategies: A case study within a rock band. *British Journal of Music Education*, 29(3), 343–357.
- Biesta, G. (2007) Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57(1), 1-32.
- Biesta, G. (2009) Good education in an age of measurement: On the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability*, 21(1), 33-46.
- Biesta, G. (2010) *Good education in an age of measurement: Ethics, politics and democracy*. London, UK: Routledge.
- Biesta, G. (2017) Mixing methods in educational research. In: R. Coe, M. Waring, L. Hedges, and J. Arthur (eds.), *Research methods and methodologies in education* (2nd ed.). London, UK: SAGE.
- Bilton, C. (2007) *Management and creativity: From industries to creative management*. Malden, MA: Blackwell.
- Bjork, R. A. and Bjory, E. L. (1992) A new theory of disuse and an old theory of stimulus fluctuation. In: A. F. Healey, S. M. Kosslyn and E. M. Siffrin (eds.), *From learning processes to cognitive processes: Essays in honor of William K. Estes* (Vol. 2, pp. 35-67). Hillsdale, NJ: Erlbaum.
- Black, H. (1986) Assessment for learning. In: D. L. Nuttall (ed.) *Assessing educational achievement*. London, UK: Falmer Press.
- Black, P. (1998) *Testing: Friend or foe? Theory and practice of assessment and testing*. London, UK: Falmer Press.
- Black, P. and Wiliam, D. (1998) Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 7-74.
- Black, P. and Wiliam, D. (1998b) *Inside the black box: Raising standards through classroom assessment*. London, UK: King's College School of Education.

- Black, P. and Wiliam, D. (2003) In praise of educational research: Formative assessment. *British Educational Research Journal* 29(5), 623-637.
- Black, P. and Wiliam, D. (2006) Assessment for learning in the classroom. In: J. Gardner (ed.) *Assessment and learning* (2nd ed.) (pp. 11-32). London, UK: SAGE.
- Black, P. and Wiliam, D. (2007) Large-scale assessment systems: Design principles drawn from international comparisons. *Measurement: Interdisciplinary Research and Perspectives*, 5, 1-53.
- Black, P. and Wiliam, D. (2009) Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5-31.
- Black, P., Harrison, C., Lee, C., Marshall, D. and Wiliam, D. (2002) Working inside the black box. *Phi Delta Kappan*, 86(1), 8-21.
- Black, P., Harrison, C., Lee, C., Marshall, D. and Wiliam, D. (2003) *Assessment for learning: Putting it into practice*. Buckingham, UK: Open University Press.
- Blackburn, S. and Nestel, D. (2014) Troublesome knowledge in pediatric surgical trainees: A qualitative study. *Journal of Surgical Education*, 71, 756-761.
- Blair, L. and Fitch, S. (2015) Threshold concepts in art education: Negotiating the ambiguity in pre-service teacher identity formation. *International Journal of Education Through Art*, 11(1), 1 March 2015, 91-102.
- Bloom, B. (1969) Some theoretical issues relating to educational evaluation. In: H. G. Richey and R. W. Tyler (eds.), *Educational Evaluation: New Roles, New Means: The 68th Yearbook of the National Society for the Study of Education (part 2)*. Vol. 68(2). Chicago, IL: University of Chicago Press, pp. 26-50.
- Bloom, B., Hasting, J. and Madaus, G. (1971) *Handbook on formative and summative evaluation of student learning*. New York, NY: McGraw-Hill.
- Boaler, J. and Selling, S. (2017) Psychological imprisonment or intellectual freedom? A longitudinal study of contrasting school mathematics approaches and their impact on adults' lives. *Journal for Research in Mathematics Education*, 48(1), 78-105.
- Boaler, J. and Wiliam, D. (2001) Setting, streaming and mixed-ability teaching. In: J. Dillon and M. Maguire (eds.), *Becoming a teacher* (pp. 173-181), Maidenhead, UK: Open University Press.
- Boaler, J., Wiliam, D. and Brown, M. (2000) Students' experiences of ability grouping disaffection, polarisation and the construction of failure. *British Educational Research Journal*, 26(5), 631-648.
- Boden, M. (1990) *The creative mind: Myths and mechanisms*. London, UK: Cardinal.
- Bolden, B. (2009) Teaching composing in secondary school: A case study analysis. *British Journal of Music Education*, 26(2), 137-152.

- Booth, N. (2019) In-school summative and minute-by-minute formative assessment in the classroom. In: S. Capel, M. Leask and S. Younie (eds.), *Learning to teach in the secondary school* (8th edition). Abingdon, UK: Routledge.
- Booth, N. and Kinsella, V. (2022) The importance of threshold concepts and formative assessment in lower-secondary school group composing. *British Journal of Music Education*. <https://www.cambridge.org/core/journals/british-journal-of-music-education/article/abs/importance-of-threshold-concepts-and-formative-assessment-in-lowersecondary-school-group-composing/6315376F94771ECDAFDB2BAE3196FAD1> [Last accessed 10 May 2022].
- Boulton, K. (2019) What was Project Follow Through? In: A. Boxer (ed.) *The ResearchED Guide to Explicit and Direct Instruction* (pp. 15-280). Woodridge, UK: John Catt.
- Bourdieu, P. (1971) [1966] Intellectual field and creative project. In: M. Young (ed.), *Knowledge and Control: New Directions for the Sociology of Education*. London, UK: Macmillan. Originally published as Champ intellectuel et projet créateur, *Les temps modernes* (November), pp. 865-906.
- Bourdieu, P. (1977) [1972] *Outline of a Theory of Practice*, R. Nice (trans.). Cambridge, MA: Cambridge University Press. Originally published as *Esquisse d'une théorie de la pratique, précède de trois études déthnologie kabyle* (Geneva: Droz).
- Bourdieu, P. (1984) *Distinction: A social critique of the judgement of taste*. London, UK: Routledge.
- Bourdieu, P. (1986) The production of belief: Contribution to an economy of symbolic goods. In: R. Collins, J. Curran, N. Garnham and P. Scannell (eds.), *Media, Culture and Society*. London, UK: SAGE.
- Bourdieu, P. (1989) Social space and symbolic power. *Sociological Theory*, 7(1), 14-25.
- Bourdieu, P. (1993) [1980] *Sociology in question*, R. Nice (trans.). London, UK: SAGE. Originally published as *Questions de sociologie* (Paris: Les Editions de Minuit).
- Bourdieu, P. (2000) [1997] *Pascalian meditations*, R. Nice (trans.). Cambridge, MA: Polity. Originally published as *Méditations pascaniennes* (Paris: Seuil).
- Braun, V. and Clarke, V. (2014) What can "thematic analysis" offer health and wellbeing researchers? *International Journal of Qualitative Studies on Health and Well-being*, 9(1), 1-2.
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brill, F., Grayson, H., Kuhn, L. and O'Donnell, S. (2018) *What impact does accountability have on curriculum, standards and engagement in education? A literature review*. Slough, NFER.

- Broadfoot, P. (1998) Records of achievement and the learning society: A tale of two discourses *Assessment in Education: Principles, Policy and Practice*, 5(3), 413-447.
- Broadfoot, P. (2008) *An Introduction to Assessment*. London, UK: Continuum International Publishing Group.
- Brookhart, S., Moss, C. and Long, B. (2010) Teacher inquiry into formative assessment practices in remedial reading classrooms. *Assessment in Education: Principles, Policy & Practice*. 17(1), 41-58.
- Brookhart, S., Stiggins, R., McTighe and Wiliam, D. (2019) *The future of assessment practices: Comprehensive and balanced assessment systems*. Available from: <https://www.dylanwiliamcenter.com/whitepapers/assessment/> [last accessed 27 July 2021].
- Brooks, R., te Riele, K. and Maguire, M. (2014) *Ethics and education research*. London, UK: Sage.
- Brophy, T. (2000) *Assessing the developing child musician*. Chicago, IL: GIA Publications.
- Bruner, J. (1960) *The process of education*. Cambridge, MA: Harvard University Press.
- Bunting, R. (1977) The common language of music. *Music in the secondary school curriculum*, Working paper 6, York, UK: York University.
- Burland, K. and Davidson, J. (2001) Investigating social processes in group musical composition. *Research Studies in Music Education* 16, 46-56.
- Burnard, P. (2000) Examining experiential differences between improvisation and composition in children's music-making. *British Journal of Music Education*, 17(3), 227-245.
- Burnard, P. (2012) *Musical creativities in practice*. Oxford, UK: Oxford University Press.
- Burnard, P. (2015) Working with Bourdieu's cultural analysis and legacy: Alignments and allegiances in developing career creativities. In: P. Burnard, Y. Hofvander-Trulsson and J. Söderman (eds.), *Bourdieu and the Sociology of Music Education* (pp. 193-208). Surrey, UK: Ashgate Publishing Limited.
- Burnard, P. and Dragovic, T. (2015) Collaborative creativity in instrumental group music learning as a site for enhancing pupil wellbeing. *Cambridge Journal of Education*, 45(3), 371-392.
- Burnard, P. and Younker, B. (2002) Mapping pathways: Fostering creativity in composition. *Music Education Research*, 4(2), 245-261.
- Burnard, P. and Younker, B. (2007) Investigating children's musical interactions within the activities systems of group composing and arranging: An application of Engeström's Activity Theory. *International Journal of Educational Research*, 47, 60-74.

- Burnard, P., Hofvander-Trulsson, Y. and Söderman, J. (2015) Glossary. In: P. Burnard, Y. Hofvander-Trulsson, and J. Söderman (eds.), *Bourdieu and the sociology of music education*. Surrey, UK: Ashgate Publishing Limited.
- Burriss, C. and Welner, K. (2005) Closing the achievement gap by detracking. *Phi Delta Kappan*, 86(8), 594-598.
- Burrows, J. B. (2004) Musical archetypes and collective consciousness: Cognitive distribution and free improvisation. Available from: <https://www.criticalimprov.com/index.php/csieci/article/view/11/36> [Last accessed 11 september 2021].
- Butler, A. (2019) "It's obvious who plays an instrument and who doesn't": Using doxa and illusio to explore inequities in English school music education. Unpublished PhD thesis, The University of Western Ontario.
- Byrne, C. and Sheridan, M. (2001) The Scarlatti papers: Development of an action research project in music. *British Journal of Music Education*, 18(2), 173-185.
- Byrne, C., MacDonald, R. and Carlton, L. (2003) Assessing creativity in musical compositions: Flow as an assessment tool. *British Journal of Music Education*, 20(3), 277-290.
- Cambridge Dictionary Online (2021) "Obstacle" meaning. Available from: <https://dictionary.cambridge.org/dictionary/english/obstacle> [Last accessed 25 January 2022].
- Carroll, J. and Swatman, P. (2000) *Structured Case: A methodological framework for building theory in information systems research*. Available from: <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1007&context=ecis2000> [Last accessed 25 October 2021].
- Cartensen, A. and Bernhard, J. (2008) Threshold concepts and keys to the portal of understanding: Some examples from Electrical Engineering. In: R. Land, J. Meyer and J. Smith (eds.), *Threshold concepts within the disciplines*. Rotterdam: Sense Publishers.
- Carter, A. (2015) *Carter review of initial teacher training*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/399957/Carter_Review.pdf [last accessed 23 July 2021].
- Cavanaugh, A. (2014) Audio feedback versus written feedback: Instructors' and students' perceptions. *MERLOT Journal of Online Learning and Teaching*, 10(1), 122-138.
- Cazden, C. (2001) *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Greenwood Press.
- Chwalisz K, Shah S. and Hand K. (2008) Facilitating rigorous qualitative research in rehabilitation psychology. *Rehabilitation Psychology*, 53(3), 387-399.

- Clarke, D. and Hollingsworth, H. (2002) Elaborating a model of teacher professional growth. *Teaching and Teacher education*, 18(8), 947-967.
- Clapp, E. P. (2017) *Participatory creativity: Introducing access and equity to the creative classroom*. New York, NY: Routledge.
- Claxton, G. (2006) Thinking at the edge: Developing soft creativity. *Cambridge Journal of Education*, 36(3), 351-362.
- Coe, R. (2013) *Improving education: A triumph of hope over experience*. Durham, UK: Centre for Education and Monitoring, Durham University.
- Cohen, M., Manion, L. and Morrison, K. (2011) *Research methods in education* (7th edition). London, UK: Routledge.
- Cole, M. (1996) *Cultural psychology: A once and future discipline*. Cambridge, MA: Harvard University Press, Cambridge mass: The Belknap Press of Harvard University Press.
- Cole, M. and Engeström, Y. (1993) A cultural-historical approach to distributed cognition. In: G. Solomon (ed.), *Distributed cognitions: Psychological and educational considerations*. Cambridge, UK: Cambridge University Press.
- Colwell, R. (2006). Assessment's potential in music education. In R. Colwell (ed.), *MENC handbook of research methodologies*. New York, NY: Oxford University Press.
- Conner, C. (1991) *Assessment and testing in the primary school*. London, UK: Falmer.
- Countryman, J. (2012) Learning posts: A pedagogical experiment with undergraduate music education majors. *International Journal of Education & the Arts*, 12(7), 1-21.
- Cousin, G. (2006) Threshold concepts, troublesome knowledge and emotional capital: An exploration into learning about others. In: J. Meyer and R. Land (eds.), *Overcoming barriers to students learning* (pp. 134-147), Abingdon, UK: Routledge.
- Cowie, H. and Rudduck, J. (1990) Learning Together – Working Together. In: *Vol. 1: Cooperative Group Work in the Multi-Ethnic Classroom*. London, UK: BP Educational Service.
- Craft, A. (1996) Nourishing educator creativity: A holistic approach to CPD. *British Journal of In-service Education*, 22(3), 309-322.
- Craft, A. (1997) Identify and creativity: Educating for post-modernism? *Teacher Development: An International Journal of Teachers' Professional Development*, 1(1), 83-96.
- Craft, A. (1997b) *Nourishing the educator*. Paper presented at the 7th International Conference on Thinking, Session 3.1.9, Singapore, June.
- Craft, A. (2001) Little c Creativity. In: A. Craft, B. Jeffrey and M. Leibling (eds.), *Creativity in Education*. London, UK: Continuum.

- Craft, A. (2005). *Creativity in schools: Tensions and dilemmas*. Abingdon, UK: Routledge.
- Craft, A. and Lyons T. (1996) *Nourishing the Educator*. Milton Keynes, UK: The Open University Seminar Network Occasional Paper Series.
- Craft, A. with Dugal, J., Dyer, G., Jeffery, B. and Lyons, T. (1997) *Can you teach creativity?* Nottingham, UK: Education Now.
- Cremin, T. and Chappel, K. (2019) Creative pedagogies: A systematic review. *Research Papers in Education*, 35 (3), 299-331.
- Creswell, J. (2003) *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: SAGE.
- Creswell, J. (2009) *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.), London, UK: SAGE.
- Creswell, J. (2013) *Qualitative Inquiry & Research design*. United States of America: SAGE Publications Inc.
- Creswell, J. and Plano Clark, V. (2007) *Designing and conducting mixed methods research*. Thousand Oaks, CA: SAGE.
- Creswell, J. and Plano Clark, V. (2017) *Designing and conducting mixed methods research* (3rd ed.). Thousand Oaks, CA: SAGE.
- Cronbach, L. and Snow R. (1977) *Aptitudes and instructional methods: A handbook for research on interactions*. New York: NY: Irvington.
- Cronbach, L. J. (1971) Test validation. In: R. L. Thorndike (ed.), *Educational measurement* (2nd ed.). Washington DC: American Council on Education.
- Crooks, T. (1988) The impact of classroom evaluation practices on students. *Review of Educational Research*, 58(4), 438-481.
- Cross, I. (2000) *Creativity with a capital C*. Paper presented at the CHIME: European Foundation for Chinese Music Conference, Leiden, pp. 23-27.
- Crowe, D. (1996) Effects of score study style on beginning conductors' error-detection abilities. *Journal of Research in Music Education*, 44, 160-171.
- Csikszentmihalyi, M. (1988) The flow experience and its significance for human psychology. In: M. Csikszentmihalyi and I. S. Csikszentmihalyi (eds.), *Optimal experience: Psychological studies of flow in consciousness* (pp. 15–35). Cambridge, MA: Cambridge University Press.
- Csikszentmihalyi, M. (1999) Implications of a systems perspective for the study of creativity. In: R. Sternberg (ed.), *Handbook of Creativity* (pp. 113-336). Cambridge, MA: Cambridge University Press.

- Cullen, S. (2019) Fading: Removing teacher presence in directed teaching. In: A. Boxer (ed.) *The ResearchED Guide to Explicit and Direct Instruction* (pp. 87-94), Woodridge, UK: John Catt.
- Dalton, A. and McVilly, K. (2004) Ethics guidelines for international multicenter research involving people with intellectual disabilities. *Journal of Policy and Practice in Intellectual Disability*, 1(2), 57-70.
- Daniels, H. (2016) *Vygotsky and pedagogy* (2nd ed.). Abingdon, UK: Routledge.
- Darling-Hammond, L. and McCloskey, L. (2008) Assessment for learning around the World: What would it mean to be internationally competitive? *The Phi Delta Kappan*, 90(4), 263-272.
- Daubney, A. (2017) *Teaching primary music*. London, UK: Sage.
- Daubney, A. and Mackrill, D. (2017) *Changes in Secondary Music Curriculum Provision over time 2012-16*. Available from: <https://www.ism.org/news/changes-in-secondary-music-curriculum-provision-over-time-2012-16> [last accessed 12 July 2021].
- Daubney, A., Spruce, G. and Annetts, D. (2019) *Music Education: State of the nation*. Available from: <https://www.ism.org/images/images/State-of-the-Nation-Music-Education-WEB.pdf> [Last accessed 31 July 2022].
- Davies, C. (1992) Listen to my song: A study of songs invented by children aged 5 to 7 years. *British Journal of Music Education*, 9, 19-48.
- Day Ashley, L. (2017) Planning your research. In: R. Coe, M. Waring, L. Hedges and J. Arthur (eds.), *Research Methods & Methodologies in Education* (2nd ed.) (pp. 34-43). London, UK: SAGE.
- De Lisle, J. (2015) The promise and reality of formative assessment practice in a continuous assessment scheme: The case of Trinidad and Tobago. *Assessment in Education: Principles, Policy & Practice*, 22(1), 79-103.
- Deer, C. (2014) Doxa. In: M. Grenfell (ed.), *Pierre Bourdieu: Key concepts* (pp. 114-125). Abingdon, UK: Routledge.
- DeLuca, C., Luu, K., Sun, Y. and Klinger, D. (2012) *Assessment for learning in the classroom: Barriers to implementation and possibilities for teacher professional learning*. Available from: https://www.nzcer.org.nz/system/files/AM2012_4_005_0.pdf [last accessed 24 July 2021].
- Delzell, J. (1989) The effects of musical discrimination training in beginning instrumental music classes. *Journal of Research in Music Education*, 30, 187-200.
- Dennett, D. (1998) *Brainchildren: Essays on designing minds*. Cambridge, MA: MIT Press.

- Denscombe, M. (2005) *The good research guide for small-scale research projects* (2nd ed.). Berkshire, UK: Open University Press.
- Denscombe, M. (2008) Communities of practice: A research paradigm for the mixed methods approach. *Journal of Mixed Methods Research*, 2(3), 270-283.
- Denscombe, M. (2010) *The Good Research Guide for small-scale social research projects* (4th ed.). Berkshire, UK: Open University Press.
- Denzin, N. (1978) *The research act: A theoretical introduction to sociological methods*. New York, NY: McGraw-Hill.
- Denzin, N. K. and Lincoln, Y. S. (1994) Introduction: Entering the field of qualitative research. In: N. Denzin, & Y. Lincoln (eds.), *Handbook of qualitative research*. Thousand Oaks, CA: SAGE.
- Denzin, N. K. and Lincoln, Y. S. (2000) *Handbook of Qualitative Research*. Thousand Oaks, CA: SAGE.
- Department for Education (DfE) (2014) *The national curriculum in England: Key stages 3 and 4 framework document*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/840002/Secondary_national_curriculum_corrected_PDF.pdf [Last accessed 6 September 2021].
- Department for Education (2015) *Final report of the commission on assessment without levels*. London, UK: The Stationary Office.
- Department for Education and Skills (DfES) (2002) *Training materials for the foundation subjects*. London, UK: DfES.
- Department for Education and Skills (DfES) (2004) *Assessment for learning: Whole school training materials*. Northwich, UK: HMSO.
- Department for Education (DfE) and Department for Culture, Media and Sport (DfCMS) (2011) *Music education in England: A review by Darren Henley for the Department for Education and the Department for Culture, Media and Sport*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/175432/DFE-00011-2011.pdf [Last accessed 31 July 2022].
- Devaney, K. (2018) *How composing assessment in English secondary examinations affect teaching and learning practices*. Unpublished PhD thesis, Birmingham City University, UK.
- Diener, E. and Crandall, R. (1978) *Ethics in social and behavioural research*. Chicago, IL: University of Chicago Press.
- Dixon, H. and Williams, R. (2003) Formative assessment and the professional development of teachers: Are we focusing on what is important? *SET: Research Information for Teachers*, 2, 35-39.

- Donaldson, G. (2018) *A learning inspectorate*. Welsh Government, Cardiff.
- Donaldson, G. (2021) Towards a learning education system? Globalisation, change, improvement and accountability in uncertain times. In: B. Hudson, M. Leask and S. Younie (eds.), *Education System Design: Foundations, Policy Options and Consequences*. Abingdon, UK: Routledge.
- Dressel, P. (1983) Grades: One more tilt at the windmill. In: A.W. Chickering (ed.), *Bulletin*. Memphis, Memphis State University.
- Dunlosky, J., Rawson, K., Marsh, E., Nathan, M. and Willingham, D. (2013) Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14, 4-58.
- Dunn, A., Stenfert Kroese, B., Thomas, G., McGarry, A. and Drew, P. (2006) "Are you allowed to say that?" Using video materials to provide accessible information about psychology services. *British Journal of Learning Disabilities*, 34(4), 215-219.
- Dunn, K., Mulvenon, S. (2009) A critical review of research on formative assessment: The limited scientific evidence of the impact of formative assessment in education. *Practical Assessment, Research & Evaluation*, 14, 1-11.
- Durham Commission on Creativity and Education (2019) Available from: <https://www.artscouncil.org.uk/publication/durham-commission-creativity-and-education> [Last accessed 4 September 2021].
- Dwyer, R. (2016) *Music teachers' values and beliefs*. Abingdon, UK: Routledge.
- Dwyer, S. and Bucklem, J. (2009) The space between: On being an insider-outsider in qualitative research. *International Journal of Qualitative Methods*, 8(1), 54-63.
- Ebbinghaus, H. (1885) *Über das gedächtnis [About memory]*. Leipzig: Dunker.
- Ellis, M. (1989) The effect of concurrent music reading and performance on the ability to detect tempo change. *Journal of Research in Music Education*, 37, 288-297.
- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki, Orienta-Konsultit.
- Engeström, Y. (2001) Expansive learning at work: Toward an activity theoretical conceptualization. *Journal of Education and Work*, 14(1), 133-156.
- Engeström, Y. (2008) *From teams to knots: Activity-theoretical studies of collaboration and learning at work*. New York, NY: Cambridge University Press.
- Engeström, Y. (2016) *Studies in expansive learning: Learning what is not there yet*. Cambridge, UK: Cambridge University Press.

- Engeström, Y. and Miettinen, R. (1999) Introduction. In: Y. Engeström, R. Miettinen, and R.L. Punamaki (eds.), *Perspectives on activity theory* (pages 1-18). Cambridge, UK: Cambridge University Press.
- Erickson, F. and Gutierrez, K. (2002) Culture, rigor, and science in educational research. *Educational Researcher*, 31(8), 21-24.
- Erun, A. and Erdermir, A. (2010) Negotiating insider and outsider identities in the field: "insider" in foreign land, "outsider" in one's own land. *Field Methods*, 22, 16-38.
- Evans, D. (2003) Hierarchy of evidence: A framework for ranking evidence evaluating healthcare interventions. *Journal of Clinical Nursing*, 12(1), 77-84.
- Ezzy, D. (2010) Qualitative interviewing as an embodied emotional performance. *Qualitative Inquiry*, 16(3), 163-170.
- Fautley, M. (2002) *A model of teaching and learning for composing music in the lower secondary school in a group context*. Unpublished PhD thesis, Cambridge University, UK.
- Fautley, M. (2004) Teacher intervention strategies in the composing processes of lower secondary school students. *International Journal of Music Education*, 22(3), 201-218.
- Fautley, M. (2005) A new model of the group composing process of lower secondary school students. *Music Education Research*, 7(1), 39-57.
- Fautley, M. (2005b) Baseline assessment of pupil composing at Key Stage 3: An investigation. *British Journal of Music Education*, 22(2), 155-166.
- Fautley, M. (2010) *Assessment in music education*. Oxford, UK: Oxford University Press.
- Fautley, M. (2012) Assessment issues within national curriculum music in the lower secondary school in England. In: T. Brophy, A. Lehmann-Wermser (eds.), *Proceedings of the third international symposium on assessment in music education*. Chicago, IL: GIA Publications.
- Fautley, M. (2013) The potential of audio and video for formative assessment purposes in music education in the lower secondary school in England: Issues arriving from a small-scale study of trainee music teachers. *Journal of Music, Technology and Education*, 6(1), 29-41.
- Fautley, M. and Colwell, R. (2012) Assessment in the secondary music classroom. In: G. McPherson and G. Welch, (eds.), *Oxford Handbook of Music Education: Volume 1*. Oxford, UK: Oxford University Press.
- Fautley, M. and Savage, J. (2007) *Creativity in secondary education*. Exeter, UK: Learning Matters Ltd.
- Fautley, M. and Savage, J. (2008) *Assessment for learning and teaching in secondary schools*. Exeter, UK: Learning Matters Ltd.

- Fautley, M. and Savage, J. (2011) Assessment of composing in the lower secondary school in the English national curriculum. *British Journal of Music Education*, 28(1), 51-67.
- Fautley, M. and Daubney, A. (2019) *ISM - The national curriculum for music: A revised framework for curriculum, pedagogy and assessment in key stage 3 music*. Available from: https://www.ism.org/images/images/ISM_The-National-Curriculum-for-Music-booklet_KS3_2019_digital.pdf [Last accessed 6 September 2021].
- Filsecker, M. and Kerres, M. (2012) Repositioning formative assessment from an educational assessment perspective: A Response to Dunn & Mulvenon (2009). *Practical Assessment, Research & Evaluation*, 17, 1-9.
- Fine, G. and Sandstorm, K. (1988) *Knowing children: Participant observation with minors*. Thousand Oaks, CA: Sage.
- Flanagan, M. (2020) Threshold concepts: *Undergraduate teaching, postgraduate training, professional development and school education*. Available from: <https://www.ee.ucl.ac.uk/~mflanaga/thresholds.html> [last accessed 28 July 2021].
- Flanders, N. (1970) *Analysing teacher behaviour as part of the teaching-learning process*. Available from: http://ascd.com/ASCD/pdf/journals/ed_lead/el_196112_flanders.pdf [Last accessed 13 September 2021].
- Fontrodona, J. (2002) *Pragmatism and management inquiry*. New York, NY: Quorum Books.
- Fowler, A. (2014) Composing and performing in the Key Stage 3 classroom - A study using multi-trait, multi-method analysis. *British Journal of Music Education*, 31(1), 5-18.
- Francis, B., Archer, B., Hodgen, J., Pepper, D., Taylor, B. and Travers, M. (2016) Exploring the relative lack of impact research on 'ability grouping' in England: A discourse analytic account. *Cambridge Journal of Education*, 47(1), 1-17.
- Francis, J. (2012) Teaching composing with an identity as a teacher-composer. *British Journal of Music Education*, 29(2), 163-170.
- Frankfort-Nachmias, C. and Nachmias, D. (1992) *Research methods in the social sciences*. London, UK: Edward Arnold.
- Freeman, R. and Lewis R. (1998) *Planning and implementing assessment*. London, UK: Kogan Page.
- Fuchs, L. S. and Fuchs, D. (1986) Effects of systematic formative evaluation - a meta analysis. *Exceptional Children*, 53(3), 199-208.
- Gadamer, H. G. (1990) The hermeneutical problem. In: G. Ormiston and A. Schrift (eds.), *The hermeneutic tradition: From Ast to Ricoeur* (pp.273-297). New York, NY: State University of New York Press.

- Galton, F. (1869) *Hereditary Genius: An inquiry into its laws and consequences*. London, UK: Macmillan.
- Galton, F. (1874) *English men of science: Their nature and nurture*. London, UK: Macmillan.
- Gardner, H. (1993) *Multiple intelligences: The theory in practice*. New York, NY: HarperCollins.
- Gardner, H. (2006) *Multiple intelligences: New horizons*. New York: NY: Basic Books.
- Gardner, H. (2016) Multiple intelligences: Prelude, theory and aftermath. In: R. Sternberg, S. Fiske and D. Foss (eds.), *Scientists Making a Difference* (pp. 167-170), Cambridge, MA: Cambridge University Press.
- Gardner, J., Harlen, W., Hayward, L., Stobart, G. and Montgomery, M. (2010) *Developing teacher assessment*. Berkshire, UK: Open University Press.
- Gedera, D. (2016). The application of activity theory in identifying contradictions in a university blended learning course. In: D. Gedera and P. John Williams (eds.), *Activity Theory in Education* (pp. 53-69), Rotterdam, The Netherlands, Sense Publishers.
- Gelo, O., Braakmann, D. and Benetka, G. (2008). Quantitative and qualitative research: Beyond the debate. *Integrative Psychological and Behavioral Science*, 42, 266-290.
- Giddings, L. (2006) Mixed-methods research: Positivism dressed in drag? *Journal of Research in Nursing*, 11, 195-203.
- Gipps, C. (1994) *Beyond testing: Toward a theory of educational assessment*. London, UK: Palmer Press.
- Gipps, C. (1999) Socio-cultural aspects of assessment. *Review of Research in Education* 3-13, 24, 355-392.
- Gipps, C. and Stobart, G. (1993) *Assessment: A teachers' guide to the issues*. London, UK: Hodder and Stoughton.
- Glaser, B. and Strauss, A. (1967) *The discovery of grounded theory*. Chicago, IL: Aldrine Press.
- Glaveanu, V. P. (2010) Paradigms in the study of creativity: Introducing the perspective of cultural psychology. *New Ideas in Psychology*, 28, 79-93.
- Good, R. (2011) "Formative" "Use" of assessment information: It's a process, so let's say what we mean". *Practical Assessment, Research & Evaluation*, 16, 1-6.
- Gould, E. (2006) Dancing composition: Pedagogy and philosophy as experience. *International Journal of Music Education*, 24, 197-207.

- Graue, M. (1993) Integrating theory and practice through instructional assessment. *Educational Assessment*, 1(4), 283-309.
- Greene, G., Caracelli, V. and Graham, W. (1989) Toward a conceptual framework for mixed-method evaluation design. *Educational Evaluation and Policy Analysis*, 11(3), 255-274.
- Grenfell, M. (2014) Introduction. In: M. Grenfell (ed.), *Pierre Bourdieu: Key concepts* (pp. 1-8), Abingdon, UK: Routledge.
- Grenfell, M. and Hardy, C. (2007) *Art Rules: Pierre Bourdieu and the Visual Arts*. Oxford, UK: Berg.
- Guba, E. and Lincoln, S. (1989) Judging the quality of fourth generation evaluation. In: E. Guba and Y. Lincoln (eds.), *Fourth Generation Evaluation*. Newbury Park, CA: SAGE.
- Guba, E. and Lincoln, S. (1994) Competing paradigms in qualitative research. In: N. Denzin and Y. Lincoln (eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: SAGE.
- Guba, E. G. (1990) The alternative paradigm dialog. In: E. G. Guba (ed.), *The paradigm Dialog*. Newbury Park, CA: SAGE.
- Guilford, J. (1967) *The nature of human intelligence*. New York: NY: McGraw-Gill.
- Haack, S. (1997) Vulgar rortyism. *New Criterion*, 16(3), 67-70.
- Haack, S. (ed.) (2006) *Pragmatism, Old and New*. Amherst, NY: Prometheus.
- Hale, C. and Green, S. (2009) Six key principles for music assessment. *Music Educators Journal*, 95(4), 27-31.
- Hallam, S. (1998) *Instrumental teaching: A practical guide to better teaching and learning*. Oxford, UK: Heinemann Educational Publishers.
- Hallam, S. and Ireson, J. (2007) Secondary school pupils' satisfaction with their ability grouping placements. *British Educational Research Journal*, 31(1), 27-45.
- Hallam, S., Creech, A. and McQueen, H. (2011) *Musical Futures: A case study investigation*. Available from: <https://www.musicalfutures.org/wp-content/uploads/2012/12/musicalfutureslongitudinalstudy.pdf> [Last accessed 13 September 2021].
- Hallam, S., Rogers, L. and Ireson, J. (2008) Ability grouping in the secondary school: Attitudes of teachers of practically based subjects. *International Journal of Research and Method in Education*, 31(2): 181-192.
- Hanquinet, L. and Savage, M. (eds.) (2016) *Routledge international handbook of the sociology of art and culture*. Abingdon, UK: Routledge.

- Harcourt, D. and Conroy, H. (2011) Informed assent: Processes and procedures in seeking research partnerships with young children. In: D. Harcourt, B. Berry, and T. Waller (eds.), *Young children's perspectives: Ethics theory and research* (pp. 38-51), London, UK: Routledge.
- Harlen, H. and Deakin-Crick, R. (2003) Testing and motivation to learn. *Assessment in Education*, 10, 170-207.
- Harlen, W. (2000) *Teaching science in the primary schools*. London, UK: David Fulton.
- Harlen, W. (2007) *Assessment of learning*. London, UK: SAGE.
- Harlen, W. and James, M. (1997) Assessment and learning: Differences and relationships between formative and summative assessments. *Assessment in Education: Principles, Policy & Practice*, 4(3), 365-379.
- Harris, L. R. and Brown, G. T. L. (2009) The complexity of teachers' conceptions of assessment: Tensions between the needs of schools and students. *Assessment in Education: Principles, Policy & Practice*, 16(3), 365-381.
- Hattie, J. (2009) *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement*. Abingdon, UK: Routledge.
- Hattie, J. and Donoghue, M. (2016) Learning strategies: A synthesis and conceptual model. *Science of Learning*, 1, 1-13.
- Hattie, J. and Timperley, H. (2007) The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Heath, S., Charles, V., Crow, G. and Wiles, R. (2007) Informed consent, gatekeepers and go-betweens: Negotiating consent in child- and youth-orientated institutions. *British Educational Research Journal*, 33(3), 403-417.
- Henley, J. (2008) Learn as you play: Gloucestershire's adult ensembles from scratch. *National Association of Music Educators (NAME) Magazine*, 25, 31-35.
- Henley, J. (2009) *The learning ensemble: Musical learning through participation*. Unpublished PhD thesis, Birmingham city University, UK.
- Hennessey, B. (2003) The social psychology of creativity. *Scandinavian Journal of Educational Research*, 47(3), 253-271.
- Hentschke, L. (1993) *Musical development: Testing a model in the audience-listening setting*. Unpublished PhD thesis, University of London, Institute of Education, UK.
- Herman, J., Osmundson, E., Dai, Y., Ringstaff, C. and Timmms, M. (2015). Investigating the dynamics of formative assessment: Relationships between teacher knowledge, assessment, practice and learning. *Assessment in Education: Principles, Policy & Practice*, 22(3), 344-367.

- Hickey, M. (1995) *Qualitative and quantitative relationships between children's creative musical thinking processes and products*. Unpublished PhD thesis, Northwestern University, Illinois.
- Higgins, S., Katsipataki, M., Coleman, R., Henderson, P., Major, L., Coe, R. and Mason, D. (2015) *The Sutton Trust-Education Endowment Foundation teaching and learning toolkit*. London, UK: Education Endowment Foundation.
- Hill, S. (2020) The difference between troublesome knowledge and threshold concepts. *Studies in Higher Education*, 45, 665-676.
- Hmelo-Silver, C., Duncan, R. and Chinn, C. (2007) Scaffolding and achievement in problem-based on inquiry learning: A response to Kirschner, Sweller and Clark (2006). *Educational Psychologist*, 42(2), 99-107.
- Hockey, J. (1999) Writing and making: Problems encountered by research-based degree students. *Art and Design Research Journal*, 7, 38-43.
- Hodkinson, P., Biesta, G. and James, D. (2008) Understanding learning culturally: Overcoming the dualism between social and individual views of learning. *Vocations and learning*, 1: 27-47.
- Hogenes, M., van Oers, B., Diekstra, R. and Sklad, M. (2016) The effects of music composition as a classroom activity on engagement in music education and academic and music achievement: A quasi-experimental study. *International Journal of Music Education*, 34(1), 32-48.
- Holland, D. (2015) A constructivist approach for opening minds to sound-based music. *Journal of Music, Technology & Education*, 8 (1), 23-39.
- Hopkins, M. T. (2015) Collaborative composing in high school string chamber music ensembles. *Journal of Research in Music Education*, 62(4), 405-424.
- Hopkins, M. T. (2018) Verification and modification of Fautley's model for analysis of lower secondary school students' group composing processes. *Music Education Research*, 7(1), 71-85.
- Howe, K. and Moses, S. (1999) Ethics in educational research. *Review of Research in Education 3-13*, 24(1), 21-59.
- Huang, S. (2000) A quantitative analysis of audiotaped and written feedback produced for students' writing and students' perceptions of the two feedback methods. *Tunghai Journal*, 41, 199-232.
- Hullbeck, C. (1945) The creative personality. *American Journal of Psychoanalysis*, 5(1), 49-58.
- Humphrey, C. (2007) Insider-outsider: Activating the hyphen. *Action Research*, 5, 11-26.

- Humphrey, C. (2012) Dilemmas in doing insider research in professional education. *Qualitative Social Work*, 12(5), 572-586.
- Humphreys, J. T. (2006) Toward a reconstruction of "creativity" in music education. *British Journal of Music Education*, 23(3), 351-361.
- Hutchinson, D. and Styles, B. (2010) A guide to running randomised control trials for educational researchers. Slough. UK: NFER.
- Hwang, S. (2015) *Classrooms as creative learning communities*. Unpublished PhD dissertation, The Graduate College at the University of Nebraska, Lincoln, Nebraska.
- Iphofen, R. (2011) *Ethical decision-making in social research: A practical guide*. Basingstoke, UK: Palgrave Macmillan.
- Ireson, J. and Hallam, S. (2001) *Ability grouping in education*. London, UK: Chapman.
- Ireson, J., Hallam, S. and Hurley, C. (2005) What are the effects of ability grouping on GCSE attainment. *British Educational Research Journal*, 31(4), 443-458.
- Irvine, N. and Carmichael, P. (2009) Threshold concepts: A point of focus for practitioner research. *Active learning in Higher Education*, 10(2), 103-119.
- James, M. (1992) *Assessment for learning*. Paper presented at the annual conference of the Association for Supervision and Curriculum Development, New Orleans, LA.
- James, M. (1998) *Using assessment for school improvement*. Oxford, UK: Heinemann Educational Publishers.
- James, M. (2008) Assessment and learning, In: S. Swaffield (ed.), *Unlocking Assessment: Understanding for Reflection and Application*. Abingdon, UK: Routledge.
- James, M., Black, P., Carmichael, P., Conner, C., Dudley, P., Fox, A., Frost, A., Honour, L., Macbeath, J., McCornick, R., Marshall, B., Pedder, D., Procter, R., Swaffield, S. and Wiliam, D. (2006) *Learning how to learn: Tools for schools*. Abingdon, UK; Routledge.
- Jarvis, P. (2002) Teaching styles and teaching methods. In: P. Jarvis (ed.), *The theory and practice of teaching*. London, UK: Kogan Page.
- Johnson, R., Onwuegbuzie, A. and Turner, L. (2007) Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
- Jurdak, M. (2018) Integrating the sociocultural and the sociopolitical in mathematics education. In: M. Jurdak and R. Vithal (eds.) *Sociopolitical Dimensions of Mathematics Education: From the Margin to Mainstream* (pp. 15-34). Switzerland: Springer.

- Keast, D. A. (2009) A constructivist application for online learning in music. *Research and Issues in Music Education*, 7(1), 1-8.
- Kingston, N. and Nash, B. (2011) Formative assessment: A meta-analysis and call for research. *Educational Measurement: Issues and Practice*, 30(4), 28-37.
- Kinsella, V. (2015) Activity theory. In: N. Addison and L. Burgess (eds.) *Learning to teach art and design in the secondary school*. London, UK: Routledge.
- Kinsella, V. (2017) The use of activity theory as a methodology for developing creativity within the art and design classroom. *The International Journal of Art & Design Education*, 37(3), 496-506.
- Kinsella, V. and Fautley, M. (2017) The use of activity theory as an analytical tool for the music learning process. In: J. A. Bugos (ed.), *Contemporary Research in Music Learning Across the Lifespan* (pp. 26–38). New York, NY: Routledge.
- Kinsella, V. and Fautley, M. (2021) Giving value to musical creativity. In: J. Finney, C. Philpott and G. Spruce (eds.) *Creative and critical projects in classroom music: Fifty years of sounds and silence*. Abingdon, UK: Routledge.
- Kirschner, P. and Surma, T. (2020) Evidence-informed pedagogy. *Impact - Journal of the Chartered College of Teaching*, 10, 1-4.
- Kirschner, P., Sweller, J., Kirschner, F. and Zambrano, J. (2018) From cognitive load theory to collaborative cognitive load theory. *International Journal of Computer-Supported Collaborative Learning*, 13, 213–233.
- Kirschner, P. A., Sweller, J. and Clarke, R.E. (2006) Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 46(2), 75-86.
- Klahr, D. and Nigam, M. (2004) The equivalence of learning paths in early science instruction: Effects of direct instruction and discovery learning. *Psychological Science*, 15, 661-667.
- Klammer, E. (1973) Cassettes in the classroom. *College English*, 35(2), 179-181.
- Klenowski, V. (2009) Assessment for learning revisited: An Asia-Pacific perspective. *Assessment in Education: Principles, Policy and Practice* 16(3), 263-268.
- Klenowski, V. (2011) Assessment for learning in the accountability era: Queensland, Australia. *Studies in Educational Evaluation*, 37(1), 78- 83.
- Koretz, D. (2008) *Measuring up: What educational testing really tells us*. Cambridge, MA: Harvard University Press.

- Kozbelt, A., Beghetto, R. and Runco, M. (2010) Theories of creativity. In J. Kaufman and R.J. Sternberg (eds.), *The Cambridge hand-book of creativity* (Vol. 2, pp. 20–47). New York, NY: Cambridge University Press.
- Kratz, J. (1989) A time analysis of the compositional processes used by children ages 7 to 11. *Journal of Research on Music Education*, 37(1), 5-20.
- Kratz, J. (1994) Relationships among children's music audiation and their compositional processes and products. *Journal of Research in Music Education*, 24(2), 115-130.
- Kutnick, P. and Rogers, C. (1984) Groups in classrooms. In: P. Kutnick and C. Rogers (eds.), *Groups in schools*, London, UK: Cassell.
- Kutnick, P., Sebba, J., Blatchford, P., Galton, M., Thorp, J., Macintyre, H. and Berdondini, L. (2005) *The effects of pupil grouping: Literature review*. London, UK: DfES.
- Labree, D. F. (2000) On the nature of teaching and teacher education: Difficult practices that look easy. *Journal of Teacher Education*, 51(3), 228-233.
- Leech, N. and Onwuegbuzie, A. (2009) A typology of mixed methods research designs. *Quality and Quantity*, 43(2), 265-275.
- Lefstein, A. and Snell, J. (2011) Classroom discourse: The promise and complexity of dialogic practice. In: S. Ellis, E. McCartney and J. Bourne (eds.), *Applied Linguistics and Primary School Teaching* (pp. 165-185). Cambridge, UK: Cambridge University Press.
- Leon-Guerrero, A. (2008) Self-regulation strategies used by student musicians during music practice. *Music Education Research*, 10(1), 91-106.
- Leont'ev, A. (1978) *Activity, consciousness, and personality*. Englewood Cliffs, NJ: Prentice-Hall.
- Lewis, A. (1992) Group child interviews as a research tool. *British Educational Research Journal*, 18, 413-432.
- Lincoln, Y. and Guba, E. (1985) *Naturalistic inquiry*. Beverly Hills, BH: SAGE.
- Liu, J. and Le, T. (2011) A case study on college English classroom discourse. *International Journal of Innovative Interdisciplinary Research*, 2, 1- 10.
- LKMCO/Pearson (2017) *Final report: Testing the water: How assessment can underpin, not undermine, great teaching*. Available from: <https://www.lkmco.org/wp-content/uploads/2017/11/Testing-the-Water-Final-Report-WEB.pdf> [last accessed 23 July 2021].
- Loertscher, J., Green, D., Jennifer E., Lin, S. and Minderhout, V. (2014) Identification of threshold concepts for biochemistry. *CBE life sciences education*, 13, 516-528.

- Lonner, W. (2009) Senior editor's introduction to the special issue: Qualitative and mixed methods research in cross-cultural psychology. *Journal of Cross-Cultural Psychology*, 40, 907-908.
- Looney, J. (2009) *Assessment and innovation in education*. OECD Education Working Papers, No. 24: OECD Publishing.
- Lucas, B. and Spencer, E. (2017) *Teaching creative thinking: Developing learners who generate ideas and can think critically*. Carmarthen, Wales: Crown House Publishing.
- Lucas, B., Claxton, G. and Spencer, E. (2013) *Progression in student creativity in school: First steps towards new forms of formative assessments*. OECD Education Working Papers, No. 86, OECD Publishing.
- Lunt, T. and Curran, J. (2010) Are you listening please? The advantages of electronic audio feedback compared to written feedback. *Assessment and Evaluation in Higher Education*, 35(7), 759-769.
- Lupu, M. (2010) *A CHAT approach to understanding music students' conceptions of learning as reflected in their narratives of studying an instrument*. 4th International Conference "Education Facing Contemporary World Issues" Pitesi, Romania, 8-9 October.
- MacDonald, R., Miell, D. and Mitchell, L. (2002) An investigation of children's musical collaborations: The effect of friendship and age. *Psychology of Music*, 30, 148-163.
- MacDonald, R., Miell, D. and Morgan, L. (2000) Social processes and creative collaboration in children. *European Journal of Psychology of Education*, 15(4), 405-415.
- Madaus, G. (1993) A national testing system: Manna from above? A historical/technological perspective. *Educational Assessment*, 1(1), 9-26.
- Madaus, G. and Clarke, M. (2001) The adverse impact of high-stakes testing on British students: Evidence from 100 years of data. In: G. Orfield, M. Kornhaber (eds.) *Raising standards or raising barriers? Inequality and high stakes testing in public education*. New York, NY: The Century Foundation.
- Major, A. (2007) Talking about composing in secondary school music lessons. *British Journal of Music Education*, 24(2), 165-178.
- Mannay, D. (2010) Making the familiar strange: Can visual research methods render the familiar setting more perceptible? *Qualitative Research*, 10, 91-111.
- Mansell, W. (2007) *Education By Numbers: The Tyranny of Testing*. London, UK: Politico's.
- Mansell, W. (2008) *Research reveals teaching's Holy Grail*. Available from: <https://www.tes.com/news/research-reveals-teachings-holy-grail> [last accessed 30 July 2021].
- Marshall, J. M. (2005) *Formative assessment: Mapping the road to success*. A white paper prepared for the Princeton review, New York, NY: Princeton Review.

- Marton, F. (1987) Phenomenography: Exploring different conceptions of reality. In: D. Fetterman (ed.), *Qualitative approaches to evaluation in education*. New York, NY: Praeger.
- Marton, F. and Booth, S. (1997) *Learning and awareness*. New Jersey, NJ: Erlbaum.
- Mason, J. (2005) *Qualitative researching* (2nd ed.). London, UK: SAGE.
- Maton, K. (2014) Habitus. In: M. Grenfell (ed.), *Pierre Bourdieu: Key concepts* (pp. 48-64). Abingdon, UK: Routledge.
- Maxwell, J. (2005) *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: SAGE.
- May, T. (2001) *Social research: Issues, methods and processes*. Berkshire, UK: Open University Press.
- Mayer, R. (2004) Should there be a three strikes rule against pure discovery learning? The case for guided methods of instruction. *American Psychologist*, 59, 14-19.
- Mayo, E. (1933) *The human problems of an industrial civilization*. New York, NY: MacMillan.
- McFarlane, K. and Wakeman C. (2011) Using audio feedback for summative purposes. *Innovative Practice in Higher Education*, 1(1), 1-20.
- McPherson, A. Saltmarsh, S. and Tomkins, S. (2020) Reconsidering assent for randomised control trials in education: Ethical and procedural concerns. *British Educational Research Journal*, 46(4), 728-746.
- Mears, C. (2017) In-depth interviews. In: R. Coe, M., Waring, L., Hedges and J. Arthur (eds.), *Research methods and methodologies in education* (2nd ed.). London, UK: SAGE.
- Mercer, N. (1995) *The guided instruction of knowledge*. Clevedon, UK: Multilingual Matters.
- Mercer, N. (2004) Sociocultural discourse analysis: Analysing classroom talk as a social mode of thinking. *Journal of Applied Linguistics*, 1, 137-168.
- Mercer, N. (2010) The analysis of classroom talk: Methods and methodologies. *British Journal of Educational Psychology*, 80, 1-14.
- Mercer, N. (2015) *Group talk - Benefits for science teaching*. Available from: http://oer.educ.cam.ac.uk/wiki/The_educational_value_of_dialogic_talk_in_whole-class_dialogue [Last accessed 13 September 2021].
- Mercer, N. and Littleton, K. (2007) *Dialogue and the development of children's thinking: A sociocultural approach*. London, UK: Routledge.

- Mercer, N., Dawes, L., Wegerif, R. and Same, C. (2004) Reasoning as a scientist: Ways of helping children to use language to learn science. *British Educational Research Journal*, 30(3), 367-386.
- Merriam, S. (2001) *Qualitative research and case study application in education*. San Francisco, SA: Jossey-Bass.
- Merry, S. and Orsmond, P. (2008) Students' attitudes to and usage of academic feedback provided via audio files. *Bioscience Education*, 11.
- Messick, S. (1989) Validity. In: R. L. Linn (ed.), *Educational measurement* (pp. 13-103), New York, NY: American Council of Education.
- Meyer, J. and Land, R. (2003) Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines. In: C. Rust (ed.), *Improving student learning theory and practice - 10 years on* (pp. 412-424). Oxford, UK: OCSLD.
- Meyer, J. and Land, R. (2006) Threshold concepts and troublesome knowledge. In: J. Meyer and R. Land (eds.), *Overcoming barriers to student understanding* (pp. 3-18). Abingdon, UK: Routledge.
- Meyer, J., and Land, R. (2010) Helping our students: Learning, metalearning and threshold concepts. In: J. Hughes and J. Mighty (eds.), *Taking stock: Research on teaching and learning in higher education*. Montreal: McGill-Queen's University Press.
- Miell, D. and MacDonald, R. (2000) Children's creative collaborations: The importance of friendship when working together on a musical composition. *Social Development*, 9(3), 348 - 369.
- Miles, M. and Huberman, A. (1994) *Qualitative data analysis* (2nd ed.). Newbury Park, CA: SAGE.
- Mills, J. (2005) *Music on the school*. Oxford, UK: Oxford University Press.
- Mills, J. (2009) *Music in the primary school* (3rd ed.). Oxford, UK: Oxford University Press.
- Mittler, P. E. (1973) *Assessment for learning in the mentally handicapped*. Edinburgh, Scotland: Churchill Livingstone.
- Montemayor, M. and Ross, E. (2009) Effects of recorded models on novice teachers' rehearsal verbalizations, evaluations and conducting. *Journal of Research in Music Education*, 57, 236-251.
- Moog (1976) *The musical experience of the pre-school child*. [Translated by Claudia Clarke]. London, UK: Schott.
- Moore, R. (2014) Capital. In: M. Grenfell (ed.), *Pierre Bourdieu: Key concepts* (pp. 98-113). Abingdon, UK: Routledge.

- Morgan, J. (2020) The battle over Direct Instruction. *Times Education Supplement*, 30 October. Available from: <https://www.tes.com/magazine/article/battle-over-direct-instruction> [Last accessed 26 September 2021].
- Morgan, L. (1998) *Children's collaborative music composition: Communication through music*. Unpublished PhD thesis, Department of Psychology, University of Leicester, UK.
- Morgan, L., Hargreaves, D. and Joiner, R. (1997) How do children make music? Compositions in small groups. *Early Childhood Connections*, 5, 15-21.
- Mortari, L. and Harcourt D. (2012) "Living" ethical dilemmas for researchers when researching with children. *International Journal of Early Years Education*, 29(3), 234-243.
- Myhill, D., Jones, S. and Hopper, R. (2006) *Talking, listening learning: Effective talk in the primary classroom*. Maidenhead, UK: Open University Press.
- National Association of Headteachers (NAHT) (2018) *Improving School Accountability*. Haywards Heath UK: NAHT.
- National Audit Office (NAO) (2018) *Converting maintained schools to academies*. Available from: <https://www.nao.org.uk/press-release/converting-maintained-schools-to-academies/> [Last accessed 15 August 2022].
- Natriello, G. (1987) The impact of evaluation processes on students. *Educational Psychologist*, 22(2), 155-175.
- Nelson, G. (2009) Classroom talk: Co-constructing a "difficult student". *Educational Research*, 51(4), 439-454.
- Newby, P. (2014) *Research methods in education* (2nd ed.). London, UK: Routledge.
- Newton, P. (2009) The reliability of results from national curriculum testing in England. *Educational Research*, 51(2), 181-212.
- Newton, P. (2012) Clarifying the consensus definition of validity. *Measurement: Interdisciplinary Research and Perspectives*, 10(1-2), 1-29.
- Newton, P. and Shaw, S. (2014) *Validity in educational and psychological assessment*. London, UK: Sage.
- Ng, E. (2014) Using a mixed research method to evaluate the effectiveness of formative assessment in supporting teachers' wiki authoring. *Computers and Education*, 73, 141-148.
- Nind, M. (2008) *Conducting qualitative research with people with learning, communication and their disabilities: Methodological challenges*. Available at: <http://eprints.ncrm.ac.uk/491/> [Last accessed 4 December 2021].

- Nisbet, J. and Watt, J. (1984) Case study. In: J. Bell, T. Bush, A. Fox, J. Goodey and S. Goulding (eds.), *Conducting small-scale investigations in educational management* (pp. 72-92). London, UK: Harper and Row.
- Nomi, T. (2009) The effects of within-class ability grouping on academic achievement in early elementary years. *Journal of Research on Educational Effectiveness*, 3(1), 56-92.
- Nuffield Foundation (2020). *The Assessment Reform Group*. Available from: <https://www.nuffieldfoundation.org/project/the-assessment-reform-group> [last accessed 24 July 2021].
- O'Donnell, R. (2010) *A critique of the threshold concept hypothesis and an application in Economics*. Working Paper. Sydney: University of Technology.
- Oakley, A. (1981) Interviewing women: A contradiction in terms. In: H. Roberts (ed.), *Doing Feminist Research* (pp. 30-61), London, UK: Routledge.
- Odam, G. (2000) Teaching composing in secondary schools: The creative dream. *British Journal of Music Education*, 17(2), 109-127.
- Odena, O. and Welch, G.F. (2007) The influence of teachers' backgrounds on their perceptions of musical creativity: A qualitative study with secondary school music teachers. *Research Studies in Music Education*, 28(1), 71-81.
- Ofqual (2018) *Marking consistency metrics: An update*. Coventry, UK: Ofqual.
- Ofsted (2003) *Good assessment practice in music* (HMI 1479). London, UK: Ofsted.
- Ofsted (2018) *Ofsted's Chief Inspector, Amanda Spielman, discusses findings from recent curriculum research, curriculum design and the new education inspection framework*. Available from: <https://www.gov.uk/government/speeches/hmci-commentary-curriculum-and-the-new-education-inspection-framework> [last accessed 12 July 2021].
- Oppenheim, A. (1992) *Questionnaire design: Interviewing and attitude measurement*. London, UK: Pinter.
- Organisation for Economic Co-Operation and Development (OECD) (2019) *PISA 2021 Creative Thinking Framework* (Third Draft). Available from: <https://www.oecd.org/pisa/publications/PISA-2021-creative-thinking-framework.pdf> [Last accessed 4 September 2021].
- Organisation for Economic Co-Operation and Development (OECD) (2005) *Formative assessment: Improving learning in secondary classrooms*. Paris: OECD.
- Outhwaite, L., Guiliford, A. and Pitchford, N. (2020) A new methodological approach for evaluating the impact of educational intervention implementation on learning outcomes. *International Journal of Research & Method in Education*, 43(3), 225-242.

- Oxford Music Dictionary Online (2001) "Dissonance" meaning. Available from: <https://www.oxfordmusiconline.com/search?q=dissonance&searchBtn=Search&isQuickSearch=true> [Last accessed 25 January 2022].
- Pay, B. (2016) Pupil-pupil talk: Does the thinking together programme enhance pupil-pupil talk within the classroom? *The STeP Journal*, 3(2), 14-23.
- Pearce, C. and Ackley, R. (1995) Audiotaped feedback in business writing: An exploratory study. *Business Communication Quarterly*, 58(3), 31-34.
- Pellegrino, K., Conway, C. and Russel, J. (2015). Assessment in performance-based secondary music classes. *Music Educators Journal*, 102(1), 48-55.
- Perkins, D. (1999) The many faces of constructivism. *Educational Leadership*, 57(3), November, 6-11.
- Perumanathan, P. S. (2014) *Formative assessment and feedback in the primary classroom: An interplay between teachers' beliefs and practices*. Unpublished PhD thesis, Victoria University of Wellington, New Zealand.
- Peshkin, A. (1988) In search of subjectivity - One's own. *Educational Researcher*, 17(7), 17-22.
- Philpott, C. (2001) The management and organisation of music lessons. In: C. Philpott (ed.), *Learning to teach music in the secondary school* (1st ed.) (pp. 70-82), London, UK: RoutledgeFalmer.
- Philpott, C. (2001b) Creativity and music education. In: C. Philpot (ed.), *Learning to teach music in the secondary school* (pp. 250-256), London, UK: RoutledgeFalmer.
- Philpott, C. (2007) Assessment in music education. In: C. Philpott and G. Spruce (eds.), *Learning to teach music in the secondary school* (2nd ed.). London, UK: RoutledgeFalmer.
- Piaget, J. (1951) *Play, dreams and imitation in childhood*. London, UK: Routledge and Kegan Paul.
- Pinter, A., Kuchah, K. and Smith, R. (2013) Researching with children. *ELT Journal*, 67(4), 484-487.
- Plummer, K. (1983) *Documents of life: An introduction to the problems and literature of a humanistic method*. London, UK: Allen and Unwin.
- Plummeridge, C. (1981) *Issues in music education*. Bedford Way Paper No. 3, London, UK: Kegan Page.
- Pohio, K. (2016) Activity theory tools. In: D. Gedera and P. John Williams (eds.), *Activity theory in education*. Rotterdam, The Netherlands: Sense Publishers.

- Ponterotto, J., Matthew, J. and Raughley, B. (2013) The value of mixed methods designs to social justice research in counselling and psychology. *Journal for Social Action in Counselling and Psychology*, 5(2), 42-68.
- Ponterotto, J. G. and Grieger, I. (2007) Effectively communicating qualitative research. *The Counselling Psychologist*, 35, 404-430.
- Popham, W. J. (2006) All about accountability/Phony formative assessments: Buyer beware! *Educational Leadership*, 64(3), 86-87.
- Popham, W. J. (2008) Transformative assessment. *Association for Supervision and Curriculum Development (ASCD)*, Alexandria, VA.
- Postholm, M. B. (2015) Methodologies in cultural-historical activity theory: The example of school-based development. *Education Research*, 57(1), 43-58.
- Purser, R. and Montuori, A. (2000) *In search of creativity: Beyond individualism and collectivism*. Paper presented at the Western Academy of Management Conference, Kona, Hawaii.
- Ramaprasad, A. (1983) On the definition of feedback. *Behavioral Science*, 28(1), 4-13.
- Ransome, P. (2013) *Ethics and values in social research*. Basingstoke, UK: Palgrave Macmillan.
- Rapanta, C. (2018) Potentially argumentative teaching strategies—And how to empower them. *Journal of Philosophy of Education*, 52(3), 451-464.
- Reay, D. (2004) It's all becoming a habitus: Beyond the habitual use of habitus in educational research. *British Journal of Sociology Education*, 25(4), 431-444.
- Reeping, D., McNair, L. D., Wisnioski, M., Patrick, A. Y., Martin, T. L., Lester, L., Knapp, B. and Harrison, S. *Using threshold concepts to restructure an electrical and computer engineering curriculum: Troublesome knowledge in expected outcomes*. 2017. IEEE, 1-9.
- Regelski, T. (1975) *Principles and problems of music education*. Engelwood Cliffs, NJ: Prentice-Hall.
- Reimann, N. (2004) First year teaching-learning environments in economics. *International Review of Economics Education*, 3(1), 9-38.
- Reimann, N. and Jackson, I. (2006) Threshold concepts in economics. In: J., Meyer and R. Land (eds.), *Overcoming barriers to students understanding* (pp. 115-133), Abingdon, UK: Routledge.
- Rescher, N. (2000) *Realistic pragmatism*. Albany, NY: SUNY Press Books.
- Robson, C. (2002) *Real World Research* (2nd ed.). Oxford, UK: Blackwell Publishers Ltd.

- Robson, C. and McCartan, K. (2015) *Real World Research* (4th. ed.). Chichester, UK: John Wiley & Sons.
- Rodger, S., Turpin, M. and O'Brien, M. (2015) Experiences of academic staff using threshold concepts within a reformed curriculum. *Studies in Higher Education*, 40(4), 545-560.
- Rodway-Dyer, S., Knight, J. and Dunne, E. (2011) A case study on audio feedback with geography undergraduates. *Journal of Geography in Higher Education*, 35(2), 217-231.
- Roediger, H. and Butler, A. (2011) The critical role of retrieval practice in long-term retention. *Trends in Cognitive Science*, 15(1), 20-27.
- Roediger, H. and Karpicke, J. (2006) The power of testing memory: Basic research and implications for educational practice. *Perspectives in Psychological Science*, 1, 181-210.
- Rojas-Drummond, S., Péresa, V., Vélez, M., Gómez, L. and Lendoza, A. (2003) Talking for reasoning among Mexican primary school children. *Learning and Instruction*, 13(6), 653-670.
- Rorty, R. (2004) Pragmatism. In: E. Craig (ed.), *Routledge Encyclopedia of Philosophy* (pp. 633–640). London, UK: Routledge.
- Rosenshine, B. (2010) *Principles of instruction*. Geneva, Switzerland: International Bureau of Education. Available from: http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/EdPractices_21.pdf [last accessed 19 July 2021].
- Ross, M. (1984) *The aesthetic impulse*. Oxford, UK: Pergamon Press.
- Rowbottom, D. (2007) Demystifying threshold concepts. *Journal of Philosophy of Education*, 41(2), 263-270.
- Ruch, G. (1924) *The improvement of the written examination*. Chicago, IL: Scott, Foresman and Company.
- Sadler, R. (1989) Formative assessment and the design of instructional systems. *Instructional Science*, 18, 119-144.
- Sadler, R. (2010) Beyond feedback: Developing student capability in complex appraisal. *Assessment and Evaluation in Higher Education*, 35(5), 535-550.
- Sale, J., Lohfield, L. and Brazil, K. (2002) Revisiting the qualitative-quantitative debate: Implications for mixed-methods research. *Quality and Quantity*, 36, 43-53.
- Salomon, G. (1993) No distribution without individuals' cognition: A dynamic interactional view. In: G. Salomon (ed.), *Distributed Cognitions*. Cambridge, UK: Cambridge University Press.

- Savage, J. (2007) Reflecting through Peshkin's I's. *International Journal of Music Education*, 25(3), 193-204.
- Savage, J. (2021) The policy and practice of music education in England, 2010-2020. *British Educational Research Journal*. April, 47(2), 469-483.
- Savage, J. and Fautley, M. (2011) The organisation and assessment of composing at Key Stage 4 in English secondary schools. *British Journal of Music Education*, 28(2), 135-157.
- Sawyer, K. (2003) *Group creativity: Music, Theatre, Collaboration*. Manwah, NJ: Lawrence Erlbaum Associates, Inc.
- Sawyer, K. (2003b) Emergence in creativity and development. In: R. K. Sawyer, V. John-Steiner, S. Moran, R. Sternberg, D. Feldman, J. Nakamura and M. Csikszentmihalyi (eds.), *Creativity and Development Counterpoints: Cognition, Memory and Language*. New York, NY: Oxford University Press.
- Sawyer, K. and Berson, S. (2004) Study group discourse: How external representations affect collaborative conversation. *Linguistics and Education*, 15(4), 387-412.
- Schmidt-Jones, C. (2018) Barriers to self-motivated conceptual musical learning: Activity Theory as a framework for comparing dissimilar cases. *Music Education Research*, 20(1), 102-113.
- Schwandt, T. (2001) *Dictionary of qualitative inquiry* (2nd ed.). Thousand Oaks, CA: SAGE.
- Sciarra, D. (1999) The role of the qualitative researcher. In: M. Kopala and L. Suzuki (eds.), *Using qualitative methods in psychology* (pp. 37-48). Thousand Oaks, CA: SAGE.
- Scott, R. (2017) Performance as conversation: Dialogic aspects of music performance and study. In: S. Godbey, S. Wainscott and X. Goodman (eds.), *Disciplinary Applications of Information Literacy Threshold Concepts*, Association of College & Research Libraries.
- Scott, S. (2012) Rethinking the roles of assessment in music education. *Music Educators Journal*, 98(3), 31-35.
- Scriven, M. (1967) The methodology of evaluation. In: R. W. Tyler, R. M. Gangé and M. Scriven (eds.), *Perspectives of curriculum evaluation: Volume 1* (pp. 39-83). Chicago: RAND.
- Shanahan, M. and Meyer, J. (2003) Measuring and responding to variation in aspects of students' economic conceptions and learning engagement in economics. *International Review of Economics education*, 1, 9-35.
- Shanahan, M. and Meyer, J. (2006) The troublesome nature of a threshold concept in Economics. In: J. Meyer and R. Land (eds.), *Overcoming barriers to student learning* (pp. 100-114), Abingdon, UK: Routledge.

- Shepard, J. (2000) *The role of classroom assessment in teaching and learning*. Los Angeles, CA: Centre for the Study of Evaluation, National Centre for Research on Evaluation, Standards, and Student Testing Graduate School of Education & Information Studies. University of California, Los Angeles.
- Shepard, L. A. (2008) Formative assessment: Caveat emptor. In: C. A. Dwyer (ed.), *The future of assessment: Shaping teaching and learning* (pp. 128-136). Mahwah, NJ: Lawrence Erlbaum Associates.
- Shulman, L. (2005) Signature pedagogies in the professions. *Daedalus*, 134(3), 52-60.
- Simons, J. (2009) *Case study research practice*. Thousand Oaks, CA: SAGE.
- Sinclair, J. and Coulthard, R. (1975) *Towards an analysis of discourse: The English used by teachers and pupils*. London, UK: Oxford University Press.
- Slavin, R. (1990) Achievement effects of ability grouping in secondary schools: A best-evidence synthesis. *Review of Educational Research*, 60(3), 471-499.
- Söderman, J., Burnard, P. and Hofvander-Trulsson, Y. (2015) Contextualising Bourdieu in the Field of Music and Music Education. In: P. Burnard, Y. Hofvander-Trulsson and J. Söderman (eds.), *Bourdieu and the sociology of music education* (pp. 1-11). Surrey, UK: Ashgate Publishing Limited.
- Sommers, J. (1989) The effects of tape-recorded commentary on student revision: A case study. *Journal of Teaching Writing*, 8(2), 49-76.
- Soni-Sinha, U. (2008) Dynamics of the "field": Multiple stand-points, narrative and shifting personality in multi-sited research. *Qualitative Research*, 8, 515-537.
- Sotola, L. and Crede, M. (2020) Regarding class quizzes: A meta-analytic synthesis of studies on the relationship between frequent low-stakes testing and class performance. *Educational Psychology Review*, 33(3), 407-426.
- Sousa, D. (2015) *Brain-friendly assessments: What they are and how to use them*. West Palm Beach, FL: Learning Sciences International.
- Spencer, E., Lucas, B. and Claxton, G. (2012) *Progression in creativity - Developing new forms of assessment: A literature review*. Newcastle upon Tyne, UK: Creativity, Culture and Education.
- Spruce, G. (2021) The pedagogies of the creative classroom: Towards a socially just music education. In: J. Finney, C. Philpott and G. Spruce (eds.), *Creative and critical Projects in Classroom Music*. Abingdon, UK: Routledge.
- Stake, R. (1995) *The art of case-study research: Perspectives on practice*. London, UK: Sage.

- Stake, R. (2005) Qualitative case studies. In: N. K. Denzin and Y. S. Lincoln (eds.), *The Sage handbook of qualitative research* (3rd ed.) (pp. 443–466). London, UK: SAGE Publications Ltd.
- Stakelum, M. (2008) Creating a musical world in the classroom: Application of a Bourdieuan approach towards understanding teacher practice. *British Journal of Music Education*, 25(1), 91-102.
- Stein, M. (1953) Creativity and culture. *Journal of Psychology*, 36, 311-322.
- Stein, M. (1975) *Stimulating creativity: In Group Procedures - Vol. 2*. New York, NY: Academic Press.
- Stewart, W. (2012) Think you've implemented assessment for learning? *Times Educational Supplement*. Available from: <https://www.tes.com/news/tes-archive/tes-publication/think-youve-implemented-assessment-learning> [last accessed 24 July 2021].
- Stobart, G. (2008) *Testing times: The uses and abuses of assessment*. Abingdon, UK: Routledge.
- Stobart, G. (2009) Determining validity in national curriculum assessments. *Educational Research*, 51(2), 161-179.
- Swaffield, S. (2008) Feedback: The central process in assessment for learning. In: S. Swaffield (ed.) *Unlocking assessment: Understanding for reflection and application* (pp. 57-72). Abingdon, UK: Routledge.
- Swain, J., Heyman, B. and Gillman, M. (1998) Public research, private concerns: Ethical issues in the use of open-ended interviews with people who have learning difficulties. *Disability and Society*, 13, 21-36.
- Swan, D., Matter, C., Rinehart, S. and Ice, P. (2008) Can you hear me now? Providing feedback using audio commentary technology. *College Reading Association Yearbook*, 29, 152-166.
- Swann, J. (1992) *Girls, boys and language*. Oxford, UK: Blackwell.
- Swanwick, K. (1988) *Music, mind and education*. London, UK: Routledge.
- Swanwick, K. (1991) Further research on the developmental spiral. *Psychology of Music*, 19, 22–32.
- Swanwick, K. (1999) *Teaching music musically*. Abingdon, UK: Routledge.
- Swanwick, K. (2001) Music development theories revisited. *Music Education Research*, 3(2), 227-242.
- Swanwick, K. and Tillman, J. (1986) The sequence of musical development: A study of children's compositions. *British Journal of Music Education*, 3(3), 305-309.

- Sweller, J. (1988) Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12, 257-285.
- Sweller, J. (2021) *Why inquiry-based approaches harm students' learning*. Analysis Paper 24, August, The Centre for Independent Studies. Available from: <https://www.cis.org.au/publications/analysis-papers/why-inquiry-based-approaches-harm-students-learning/#:~:text=John%20Sweller&text=Inquiry%20learning%20involves%20students%20discovering,Cognitive%20load%20theory%20explains%20why>. [Last accessed 26 September 2021].
- Tanggaard, L. (2019) Content-driven pedagogy: On passion, absorption and immersion as dynamic drivers of creativity. In: R. Beghetto and G. Gorazza (eds.), *Dynamic Perspectives on Creativity: New Directions for Theory, Research, and Practice in Education*. Switzerland, Springer.
- Taras, M. (2008) Summative and formative assessment. *Active Learning in Higher Education*, 9(2), 172-192.
- Tashakkori, A. and Teddlie, C. (1998) *Mixed Methodology – Combining Qualitative and Quantitative Approaches*. London, UK: SAGE.
- Task Group on Assessment and Testing (TGAT) (1988) *The task group on assessment and testing: A report*. London, UK: DES.
- Taylor, C. (2008) Threshold concepts, troublesome knowledge and ways of thinking and practising: Can we tell the difference in Biology? In: R. Land and J. Meyer (eds.), *Threshold concepts within the disciplines*. Rotterdam: Sense Publishers.
- Taylor, J. (2009) The intimate insider: Negotiating the ethics of friendship when doing insider research. *Qualitative Research*, 11, 3-22.
- Thompson, P. (2014) Field. In: M. Grenfell (ed.), *Pierre Bourdieu: Key concepts* (pp. 65-80). Abingdon, UK: Routledge.
- Thorne, B. (1980) "You still takin' notes?" Fieldwork and problems of informed consent. *Social Problems*, 27(3), 284-297.
- Thorpe, V. (2015) *Assessing complexity: Group composing and New Zealand's National Certificates of Educational Achievement*. Unpublished PhD thesis, Victoria University of Wellington, New Zealand.
- Tobin, K. and Gallagher, J. (1987) Teacher management and student engagement in high school science. *Science Education*, 71, 535-556.
- Torgerson, C. and Torgerson, D. (2008) *Designing Randomised Control trials in Health, Education, and the Social Sciences: An Introduction*. New York, NY: Palgrave Macmillan.

- Torrance, E. (1988) The nature of creativity as manifest in its teaching. In: R. Sternberg (ed.), *The nature of creativity: Contemporary psychological perspectives*. Cambridge, MA: Cambridge University Press.
- Torrance, H. (1993) Formative assessment: Some theoretical problems and empirical questions. *Cambridge Journal of Education*, 23(3), 333-343.
- Tuffrey-Wijne, I., Bernal, J. and Hollins, S. (2008) Doing research on people with learning disabilities, cancer and dying: Ethics, possibilities and pitfalls. *British Journal of Learning Disabilities*, 36(3), 185-190.
- Turner, S. (2010) Challenges and dilemmas: Fieldwork with upland minorities in socialist Vietnam, Laos and southwest China. *Asia Pacific Viewpoint*, 51, 121-134.
- UK Government (2000) *Data protection act 1998*. Available at: www.legislation.gov.uk/ukpga/1998/29/contents [Last accessed 4 December 2021].
- UK Government (2018) *The Data Protection Act 2018*. Available at: <https://www.gov.uk/data-protection> [Last accessed 4 December 2021].
- Valle, C. (2015) *Effects of criteria-referenced formative assessment in achievement in music*. Unpublished PhD thesis, University of Albany, New York.
- Van Den Akker, J. (1998) The science curriculum: Between ideals and outcomes. *International Handbook of Science Education*, 42(4), 421-447.
- Voelkel, S. and Mello, L. (2014) Audio feedback - Better feedback? *Bioscience Education*, 22(1), 16-30.
- Vygotsky, L. (1978) *Mind in society*. Cambridge, MA: Harvard University Press.
- Wacquant, L. (1992) Toward a social praxeology: The structure and logic of Bourdieu's sociology. In: P. Bourdieu, and L. Wacquant (eds.), *An invitation to reflexive sociology*. Chicago & London: University of Chicago Press.
- Waggoner, D. (2011) Effects on listening conditions, error types, and ensemble textures on error detection skills. *Journal of Research in Music Education*, 59, 56-71.
- Wallas, G. (1926) *The art of thought*. New York, NY: Harcourt, Brace and World.
- Watkins, C. and Slocum, T. (2003) The Components of Direct Instruction. *Journal of Direct Instruction*, Vol. 3, 2, 75-110.
- Webb, J., Schirato, T. and Danaher, G. (2002) *Understanding Bourdieu*. London, UK: SAGE.
- Webster, P. (1987) Conceptual bases for creative thinking in music. In: J. Peery, I. Peery and T. Draper (eds), *Music and child development* (pp. 158-174). New York, NY: Springer-Verlag.
- Webster, P. (1990) Creativity as creative thinking. *Music Educators Journal*, 76(9), 22-28.

- Webster, P. (1994) *Measure of creative thinking in music-II (MCTM-II). Administrative guidelines*. Chicago, IL: Northwestern University, Unpublished Manuscript.
- Webster, P. (2002) Creative thinking in music: Advancing a model. In: T. Sullivan and L. Willingham (eds.), *Creativity in Music Education* (pp. 16-34). Canada, Canadian Music Educators' Association.
- Webster, P. (2003) Conference keynotes: Asking music students to reflect on their creative work: Encouraging the revision process. *Music Education Research*, 5(3), 243-249.
- Weeden, P., Winter, J. and Broadfoot, P. (2002) *Assessment: What's in it for schools?* London, UK: Routledge.
- Weiner, R. (2000) *Creativity and beyond: Cultures, values, and change*. Albany, NY: State University of New York Press.
- Welch, G. (2007) Addressing the multifaceted nature of music education: An activity theory research perspective. *Research Studies in Music Education*, 28, 23-37.
- Wenden, L. (2015) *Talking about transition: An exploration of the secondary to tertiary transition process for music students in a New Zealand context*. Unpublished Masters dissertation, Massey University and Victoria University of Wellington, New Zealand.
- Westwood, R. and Low, D. (2003) The multicultural muse: Culture, creativity and innovation. *International Management of Cross-Cultural Management*, 3(2), 235-259.
- White, E. (1888) Examinations and Promotions. *Education*, 8, 519-522.
- Wiliam, D. (2000) *Intergrating summative and formative functions of assessment, Keynote address to the European Association for Educational Assessment*. Prague, Czech Republic.
- Wiliam, D. (2001) Reliability, validity, and all that jazz. *Education 3-13*, 29(3), 17-21.
- Wiliam, D. (2003) National curriculum assessment: How to make it better. *Research Papers in Education*, 18, 129-136.
- Wiliam, D. (2006) Formative assessment: Getting the focus right. *Educational Assessment*, 11(3), 283-289.
- Wiliam, D. (2007) *Comparative analysis of assessment practice and progress in the UK and USA*. Presentation at Westminster Education Forum Seminar on Assessment, 10 October 2007.
- Wiliam, D. (2010) *The true spirit of AfL*. Presentation available from YouTube: <https://www.youtube.com/watch?v=WzOivuj91A0> [last accessed 24 July 2021].
- Wiliam, D. (2011) What is assessment for learning? *Studies in Educational Evaluation*, 37(1), 3-14.

- Wiliam, D. (2011b) *Embedded formative assessment* (1st ed.). Bloomington, IN: Solution Tree Press.
- Wiliam, D. (2014) *Formative assessment and contingency in the regulation of learning processes*. Paper presented in a Symposium entitled Towards a Theory of Classroom Assessment as the Regulation of Learning at the annual meeting of the American Educational Research Association, Philadelphia, PA: April.
- Wiliam, D. (2016) *Leadership for teacher learning*. West Palm Beach, FL: Learning Sciences International.
- Wiliam, D. (2020) How to think about assessment. In: S. Donarski and T. Bennett (eds.), *The Research Ed Guide to Assessment*. Woodbridge, UK: John Catt Educational Ltd.
- Wiliam, D. and Bartholonew, H. (2004) It's not which school but which set you're in that matters: The influence of ability grouping practices on student progress in mathematics. *British Educational Research Journal*, 30(2), 279-293.
- Wiliam, D., Lee, C., Harrison, C. and Black, P. (2004) Teachers developing Assessment for Learning: Impact on Stuent Achievement. *Assessment in Education: Principles, Policy and Practice*, 11(1), 49-65.
- Wilson, V. (2014) Examining teacher education through cultural historical activity theory. *Teacher Education Advancement Network (TEAN) Journal*, 6(1), 20-29.
- Winters, M. (2012) The challenges of teaching composing. *British Journal of Music Education*, 29(1), 19-24.
- Wong, J. G., Clare, C.H., Holland, A.J., Watson, P.C. and Gunn, M. (2000) The capacity of people with a 'mental disability' to make a health care decision. *Psychological Medicine*, 30: 295–306.
- Wragg, E. (1999) *An introduction to classroom observation*. London, UK: Routledge.
- Yin, R. (2009) *Case-study research: Design and methods (4th edition)*. London, UK: Sage.
- Young, S. (2021) Being and becoming musically creative: A view from early childhood. In: J. Finney, C. Philpott and G. Spruce (eds.), *Creative and critical projects in classroom music: Fifty years of sounds of silence*, Abingdon, UK: Routledge.
- Younker, B. and Smith, W. (1996) Comparing and modelling musical thought processes of expert and novice composers. *Bulletin for the Council for Research in Music Education*, 128, 25-37.
- Zevengergen, R. (2005) The construction of a mathematical habitus: Implications of ability grouping in the middle years. *Journal of Curriculum Studies*, 37(5), 607-619.
- Zimmerman, B. (1989) Becoming a self-regulated learner: An overview. *Theory into Practice*, 41(2), 64-70.

Appendices

Appendix 1: Semi-structured interview questions

Pre-study student group interview questions

About students' background:

1. Tell me about yourself.
2. Tell me about a musical memory you have.
3. Would you say music is an important aspect in your life?
Possible sub-questions as prompts:
 - a. Do you play an instrument/sing?
 - b. Do you have lessons? How long?
 - c. What "grade" are you currently at/working towards?
 - d. What sort of music do you listen to at home? Do you do this with friends?
 - e. Do your parents/carers like/listen to music?
 - f. Is there anyone in your family who is musical?
 - g. Do you talk about music at home?
 - h. Are you part of any music clubs outside of school?
 - i. Do you compose outside of school?
4. Would you consider yourself as a musician?

About their music lessons and composing:

5. Tell me about your music lessons at school? How do they compare to your music lessons at Primary school?
6. Do you do much group work?
7. Do you like working in groups?
8. How are groups normally organised in your music class?
9. Do you like composing?
10. What would you say composing is?
11. Do you think composing is an important part of studying music?
12. Tell me about some of the things you have composed recently in your music lessons/at home.
13. How much time do you normally get given to compose in lessons? Do you think this is enough time?
14. How do you compose in music lessons?
15. What sort of feedback do you get in lessons? Who gives you feedback? How often do you get feedback? Do you think the feedback is useful? What do you do with the feedback you are given?
16. Tell me about what assessment looks like in music? How does this compare with other lessons?

Using audio recorders/recordings in lessons:

17. Is your composing work in music lessons recorded? When?
18. Have you ever used an audio device to record work in any other lessons? If so, how was it used? Did it benefit your learning? How?
19. Do you get to listen back to your work after it has been recorded?
 - a. *If students don't listen back to their recordings:* how do you think using audio recordings during composing lessons might be beneficial?

Pre-study teacher interview questions

About the teacher's background:

1. Tell me about yourself.
2. Tell me about a musical memory.
3. Tell me about music in your life. Was there a particular point when you knew music was important in your life?

Possible sub-questions as prompts:

- a. What were your music classes like at school?
- b. Do you have any family members who were musical?
- c. What sort of music did you used to listen to and how does this compare with the sorts of music you listen to now?
- d. Did/how did these influences shape you in becoming a musician?
- e. What was your ITT experience like in training to be a music teacher?
 - i. How did your ITT training support you being able to teach composing?

About music lessons and composing:

4. What would you say composing is?
5. Do you like teaching composing?
6. Do you think it is important for students in Key Stage 3 to compose?
7. What sort of things do you get students to compose in Key Stage 3? Who chooses these topic areas?
8. Do students work in groups when they compose? How are these groups normally organised?
9. How much time do students normally get given to compose in lessons? Do you think this is enough time?
10. How do you teach/structure composing for students?
11. What sort of feedback do you give students when they are doing composing tasks? How often they get feedback? How does the current practice of giving students feedback affect your workload?
12. What does formative and summative assessment mean to you and what do you think these look like in composing lessons?
13. Are there any whole school assessment structures that you must follow? How do these impact on assessment in music?

Using audio recorders/recordings in lessons:

14. Have you ever used an audio device to record students' music?
15. Is students' composing work in music lessons recorded? When?
16. Do students get to listen back to your work after it has been recorded?
 - a. *If students don't listen back to their recordings:* how do you think using audio recordings during composing lessons might be beneficial?

Student group post-study questions

About the research project

1. What was it like taking part on the research project?

About the composition task?

2. Did you feel ready for this composing task? How?
3. What was the most challenging thing about composing your group piece, do you think?
4. What was your starting point for composing this piece and talk me through the stages you went through?
5. Was there anything that might have helped you further with this?
6. Do you think your skill of composing has improved this half-term? How?
7. Do you feel you are more of a musician because you've composed this half-term?

About working in a group

8. What was it like working in this group? How did it compare to other groups you've worked in?
9. Who had what role in the group? Was there anyone who ended up being the leader of the group? Why was this?
10. Would you work together again, do you think?
11. What would have made your group work even better?

About the feedback

12. One of the things XX did was to record feedback to you so that you could listen back to it at the start of the next lesson.
 - a. Did the amount of feedback change to what you would normally get?
 - b. What about the comments that were given?
13. What was it like listening to your teacher's feedback?
14. What was it like only getting audio recorded feedback from XX and not actually any during the lesson?

About the audio recorders (student use)

15. What was it like using the audio recorder in lessons? What was it like listening back to your work?
16. Did you find using it useful? How?
17. When you recorded you almost always practised first. Why was that?
18. How did you feel recording a track every lesson for your teacher to give you feedback on? How did this compare to what would normally happen in music lessons?
19. If you recorded several tracks in a lesson, how did it make you feel knowing that you could choose what you wanted your teacher to listen to (track logs)?
20. Would you say it helped you get better at composing? How?
21. Would you say that using the audio recorder made you more independent and confident in your music making?
22. When you listened back to your work what sort of things were you listening for?
23. Write down the words that come in to your head when you think about the audio recorder.
24. Would you say the audio recorder is a useful tool for using in your music lessons? If you were to use the audio recorder again when you're composing music, how would you use it differently?

Teacher post-study questions

About the research project

1. What was it like taking part on the research project?

About the composing task

1. Why this particular composing task?
2. How would students know if they were being “successful” in lessons?
3. What would you say students struggled most with during the composing task?

About students’ learning

4. What knowledge and skills had students learned previously that had prepared them for this unit of work?
5. What knowledge and skills do you think students have now learned to help them with their next unit of work?
6. How well do you think students worked in their mixed-ability groupings?

About feedback

7. What was it like audio recording feedback for students to listen to?
8. Each week you listened to students’ recordings and recorded feedback for them to listen to, did the quantity and quality of feedback you gave them differ from the feedback you would normally give them? If so, how?
9. How did this impact on your workload compared to giving feedback normally?
10. In your view, how did students respond to you recording feedback for them?

About the audio recorder

11. What impact would you say using the audio recorder had on your teaching of composing? Did it tell you anything that you may not have spotted before, perhaps?
12. What impact would you say using the audio recorder had on students’ composing during lessons?
13. Would you say using the audio recorder made the students more independent and confident in their learning? How?
14. Would you use the audio recorder again in your lessons? If you were to use the audio recorder again during composing lessons with students what would do differently next time?
15. You mentioned before that parents had brought up the audio recorders when you saw them at a recent Parents’ Evening. What was said during that conversation?
16. Were there any issues with the use of the audio recording devices that you encountered during the research process? If so, how were these/could these be problematised?

Appendix 2: Example of coding from interview data

School B Student group interview

Researcher

S1(M): S2(M): S3(F): S4(F)

43 mins. 04 secs.

Tell me about yourself

S2: I play the drums.

S3: I used to play violin and I've played trombone before. I play saxophone, I play guitar.

S4: I used to play the trumpet and the recorder.

Tell me about a musical memory that you have.

S1: I used to play with (S2) like in a band. I used to play the electric guitar. I used to play trumpet in First School.

And were these good experiences for you?

S1: Yeah, because they encouraged me to carry on.

What about you (S2)?

S2: Probably when we played the trumpet. [Student's name removed] tried to blow the trumpet and when it worked it went really loud, and another time it went *impression* and it was really funny. Also, probably when we had our band in First School. That was a fun experience.

What about you (S3)?

S3: Well, I've done a lot of musicals and have performed on stage and I like that because it's something that I might want to do when I'm older.

And why's that?

S3: Because I love performing and singing and dancing.

And what about you (S4)?

S4: Probably when I was in First School and playing the trumpet. With the mouth piece they told us to make a duck noise and that just make me laugh throughout the whole day.

Would you say music is an important part of your life?

S1: Yeah, I guess it would because I've grown up learning the guitar, piano and different instruments. My dad used to play guitar as well and he used to play to me. He used to play just like soft chords when I was a baby to help me get to sleep. It's also because of my Dad playing to me that I wanted to do music.

S2: Yep, very important. Cuz I do my drum lessons every week and I just get to do recordings whenever I want. My Dad goes to a recording studio with his band.

S3: Yeah, because everywhere I go I can hear music and I find music just really fun.

S4: Yeah, because I listen to music all the time. When I was younger I wanted to learn all the instruments, but there weren't that many music classes at First School.

And how does that compare to your experiences now?

S4: Well now at [school's name removed] there are more opportunities like clubs after school.

What sort of music do you like to listen to?

S4: Well like the sort of music that's around today. I listen to it by myself.

S3: I listen to calm music when I'm doing my homework because it helps me to keep focused. It's mainly by myself.

S3: I like to listen to soundtracks from films with my mum. We do that a lot, especially when we're in the car.

S2: It depends really, because sometimes I'll listen to like a pop-rock thing and then sometimes I'll like go for heavy metal. When I'm with (S1) we'll listen to Indie music, but when I'm with my Dad we'll listen to rock. My family have always liked and listened to rock music so I think that's where I get it from. Although when I because friends with (S1) he liked Indie music so I listen to that with him.

S1: Sometimes I listen to my playmix n I like music that relates to me like in the lyrics. You know, like things that have happened to me.

Would you consider yourself a musician?

S4: I don't think so because I don't like play any musical instruments anymore.

S3: Yeah, it's also one of the things I want to be when I grow up. I think I'm a musician because I like playing my instruments and sometimes I just start making up my own things like my own music.

S2: Yeah, cuz music's my like really. I listen to it all the time, I play my drums, I play piano. It would be something to fall back on if I don't get into Cricket.

S1: I'd say a bit but not fully cuz I used to play the guitar n I used to write my own chords. We used to perform in concerts at the end of the year, too, but I don't do much of that anymore.

Tell me about your music lesson here at (name of school removed).

S4: Yeah, they're good because before Year 5 I didn't really get to understand the musical notes. I understand it a lot more now and am quicker.

S3: They help us along the way to understanding musical chords like when we're playing stuff.

S2: They're really good because at First School we just had to learn a song but in our lessons now we actually learn music like in a piece of music what the tempo, beat is and dynamics. And all like different styles as well, not just songs.

Do you do much group work?

S4: Yeah, cuz Miss would normally say “get into groups of 4s, 3, or partners”. I like working in groups because I like to hear other people’s ideas and I think they’re really supportive like, “ok, you carry on doing this” or “wow that’s a really good idea”.

And who chooses the groups?

S4: Well sometimes it will be our table groups and other times it will be for us to choose.

S1: Well, I like working groups cuz you can have lots of different ideas going on at the same time like one person can play a drum and another person can clap so it gives a different sound. When it comes together it just sounds better.

S2: I think it depends because sometimes it good to work in groups but there are also times when you can work on your own to improve what *you* [emphasis on word] need to do. There are good times when there are other people in the group who help you but I know that I can also work on things myself.

S2: The group is there to help you. Like, if there is someone who is good at music and someone who is not as good, you can help them to improve. So, say if you had someone in the group who isn’t bothered about music and doesn’t really want to get involved, it is up to you, as someone who is really good at music, to help *them* [emphasis on word] improve in music. Cuz if you helped them then they would get better. And, if they better get it’s better for them and the group.

Do you like composing?

S3: Yer, although I prefer playing.

S2: I don’t think I’ve like ever done composing, because in “Young Voices” there’s a composer and you have to follow him.

S1: I enjoy doing it but I prefer playing.

What would you say composing is?

S4: Linking back to “Young Voices” there was a man and he was a composer. Like if you’re a performer and there’s a composer they’re like leading you on.

S3: It’s like being in charge of a group, like helping them improve and telling them when to play.

S2: The composer is the person at the front telling people what to do.

Tell me about some of the things you have composed recently.

S2: Well (S1) brought in some lyrics, we put together some chords and experimented for a bit, and it worked.

S3: I don’t think I’ve ever written a song, but sometimes I just sing random words and random notes.

Tell me about the sort of feedback you get in lessons.

S1: Sometimes it will be “your tempo is good” or “your tempo needs to be slower”. From our teacher, that is.

S2: Well, when we were doing our last group piece and there was something we didn’t like, we gave them feedback to improve.

And what was it like giving feedback to another student?

S2: I think the type of feedback would be the same to be honest.

S3: Well, we get WWW and EB1. We'll perform the piece in front of Miss and she'll tell us what she likes and what to improve on to like make it longer or change the speed or something. If it was whole class, we'd swap our papers and they would write down what went well and even better if, so we can see what people thought.

S4: Well one of the best feedbacks was when Miss played our piece on the big white board and like everyone said that it was the best piece in the class. I thought it was good feedback because they actually liked the music. The other feedback I like is on our speed tests cuz when I say I got full marks she'll say "fabulous".

And when you get the EBIs, what happened next?

S3: We'd go and practise it or like next time we'd try and work on what she wanted us to do.

What does assessment look like in music and how does it compare to your other lessons?

S3: Music is different because in other lessons it's like "can we write down the key vocabulary", or "what happened in 1866?", or something like that, whereas in music we don't usually get assessments but it would be like the speed quizzes. So, Miss would put something on the board.

S1: Well sometimes it's like speed quizzes, and other times it can be like "what does dynamics mean?"

S2: It's the speed quizzes we have.

END OF INTERVIEW.

	A	B	C	D
1	Initial codes from interview data			
2				
3	School B Pre-study interview			
4	Future aspirations			
5	Previous musical experiences			
6	Previous musical experiences (issue identified)			
7	Resolution to a previously identified issue			
8	Identity as a musician			
9	Benefits of group work			
10	Confusion of terminology			
11	Feedback			
12				
13				

Appendix 3: Original ethical approval



Faculty of Health, Education and Life Sciences Research Office

Faculty of Health, Education and Life Sciences
Birmingham City University
Westbourne Road
Birmingham
B15 3TN

HELS_Ethics@bcu.ac.uk

09/01/2018

Mr Nikki Booth



Dear Nikki ,

Re: Booth /Dec /2017 /RHRB /1375 - Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

Thank you for your resubmitted application and amended documentation regarding the above activity. I am pleased to take Chair's Action and approve the activity which means you may begin. The additional information you have offered across every aspect of the application has clarified and responded to each condition that had been previously set. The clarity of explanation is greatly improved and I wish you the best with your study.

I can also confirm that any person participating in the project is covered under the University's insurance arrangements.

Please note that ethics approval only covers your activity as it has been detailed in your ethics application. If you wish to make any changes to the activity, then you must submit an Amendment application for approval of the proposed changes.

Examples of changes include (but are not limited to) adding a new study site, a new method of participant recruitment, adding a new method of data collection and/or change of Project Lead.

Please also note that the Committee should be notified of any serious adverse effects arising as a result of this activity.

If for any reason the Committee feels that the activity is no longer ethically sound, it reserves the right to withdraw its approval. In the unlikely event of issues arising which would lead to this, you will be consulted.

Keep a copy of this letter along with the corresponding application for your records as evidence of approval.

If you have any queries, please contact HELS_Ethics@bcu.ac.uk

I wish you every success with your activity.

Yours Sincerely,

Mr. Stuart Mitchell

On behalf of the Faculty Academic Ethics Committee
Health, Education and Life Sciences

Appendix 4: Participant information and consent forms



Dear (name of Headteacher),

I am studying for my PhD degree in Education at Birmingham City University. My background lies within music which I have studied for many years. I am also a Head of Music at a secondary school in Staffordshire.

My research is centred around students' use of audio recordings, whilst they are composing, during their composing lessons in music. This will enable me to contribute to current, limited literature on formative assessment within Key Stage 3 music education. By carrying out this research I will be able to answer the following key questions:

1. How does the inclusion and use of an audio device influence the group composing process?
2. What does the inclusion and use of an audio device suggest about the quality of group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio recordings when composing?

I would be delighted if you would allow me to conduct my study within your school's music department.

In order for me to successfully carry out this project I would very much like your permission on the following:

For your music teacher:

- To agree, with myself, a suitable composing-focused unit of work;
- To deliver music lessons as normal;
- To contribute to two video-recorded, one-to-one interviews (one prior to the start of the study, the other at the end of the study); and
- To discuss with me the effects of using audio recorders during composing lessons via post-lesson discussions and/or email conversations.

For a class of students in a Key Stage 3 music class:

- To engage in their music lessons as normal;
- To take part in a video-recorded, voluntary group interview at the beginning and end of the study.

Research ethics have already been approved by Birmingham City University and I have given more detail on these in the attached information leaflet.

Given your busy schedule, I would be extremely grateful if I could meet with you and your music teacher, at a convenient time, to discuss my research further. This will also be an ideal opportunity for you to ask questions and share any queries you might have about the study. Following this, I would be delighted if you could give your permission for this study to take place by filling out the sheet entitled “Headteacher Informed Consent Form” and return it to me.

I very much look forward to working on this project in your school.

Yours sincerely,

Mr. Nikki Booth

Information Leaflet for Headteachers

What is the title of the research?

Formative assessment in England: Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

What are the aims of the research?

The overarching aim of this study is to contribute to current, limited literature on formative assessment, in group composing, within Key Stage 3 music Education. This will be done by fulfilling the following proposed objectives:

1. To provide opportunities for teachers and students to voice their experiences about composing lessons;
2. To build an informed understanding of the effects of using audio recordings, within group composing, as a means to facilitate students' musical learning experiences;
3. To provide up-to-date information to the music teacher for their continuous professional development of teaching and learning within the music classroom; and
4. To suggest new paths for discovery within the field of Music Education which will provide opportunities for further research.

What are the research questions?

1. How does the inclusion and use of an audio device influence the group composing process?
2. What does the inclusion and use of an audio device suggest about the quality of group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio recordings when composing?

What is the length of the project?

The study will last from the beginning to the end of a unit of work discussed and chosen between by your music teacher and myself.

What happens if I agree to let my school take part?

Before giving your consent, I would like to meet with you and your music teacher, at a convenient time, to discuss the research in more detail and for both of you to ask questions and/or raise any queries either of you might have about the project.

What if I do not want my school to take part?

Participation is voluntary. You do not have to give your permission for your school to take part, and you are free to withdraw your school's consent at any time during the project without consequence.

What is the difference between taking part in the lesson and taking part in the research?

Music lessons will be planned by your music teacher and myself so that they operate as they normally would. By consenting to take part in the research, students will use audio recorders to record and listen back to their ongoing group composing during a unit of work.

Participating students will also be video recorded during music lessons to help capture whether their dialogue changes overtime. By consenting to take part, all participants will be able to voice their opinions about the use of audio recorders and whether its use contributes to enhanced learning and how.

What happens with the information collected?

All information gathered during the study will be confidential and anonymised. Nothing reported will reveal your school's name or details about your music teacher or students. All information will be held securely on the Birmingham City University servers where information will be secure and encrypted. Information collected can be made available to you at any time during the study and will only be shared with your music teacher, my PhD supervisors, and students should they request information about themselves. Hardcopies of consent forms will be converted into electronic PDF format and kept on the secure Birmingham City University servers. Following this, hardcopies will be shredded and destroyed.

What are the benefits of being part of this research?

It is hoped that this project and the information raised could be used to inform nationwide practice.

How do I give my consent to take part?

You can give your consent by completing the attached "Headteacher Informed Consent Form".

What happens if a teacher or student does not consent to take part?

As a co-researcher with myself, your teacher will be a key role in the planning of the study. Should they not consent, or change their mind to continue giving consent during the study, then the research will no longer be able to take place. This, however, will not pose a problem as participation is fully voluntary.

If a student does not give or is not given consent to take part in the research, they will not be excluded in any way from receiving their music education. Furthermore, it will not affect their normal learning and, in no way, will they feel that they are not part of their classroom community. Information that students give who do not give or are not given consent to take part will not be taken into account. With regards to classroom-based video recording of group work, a group will not be video recorded at all if there is a non-consenting student within it. If there are several non-consenting students within a class, I will seek advice from your music teacher as to whether it is possible for these students to work together.

What happens with the data if a student changes their mind to take part during the study?

A student is free to withdraw at any time without consequence. In relation to their data, their contributions can be excluded from the research up to two weeks from the final group-based interview of the study. From this point, this is where data analysis will begin.

Will the research be reviewed?

The project will be continuously reviewed by myself and my PhD supervisors (details below) to ensure that it is meeting the aims set out above and that ethical considerations are being fully upheld throughout.

What happens at the end of the project?

At the end of the study, the findings will be shared in a case-study written report. This will be shared with you and your music teacher upon completion. In addition to this, I would like to present my findings to the students in the music class during a normal lesson and also their parents/carers.

What if I have any queries?

If you have any further questions about the project, or if there is something you do not understand, please feel free to contact me at: nikki.booth@mail.bcu.ac.uk or via my work number: 01785 788400.

If, for any reason, you are not able to contact me, please feel free to contact either one of my PhD supervisors:

- Professor Martin Fautley: martin.fautley@bcu.ac.uk
- Dr. Victoria Kinsella: victoria.kinsella@bcu.ac.uk

Thank you for reading this information leaflet.

Headteacher Informed Consent Form

For the attention of:

Mr. Nikki Booth, research lead.

Project title:

Formative assessment in England: Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

To provide your level of informed consent please “tick” or “cross” (to agree or not agree) each of the following statements.

	Please tick
1. I confirm that I have read and understand the information sheet and have had an opportunity to ask questions.	
2. I understand that my school’s participation is voluntary and that I am free to withdraw my consent at any time, without giving reasons.	
3. I understand that I can withdraw my school’s data up to two weeks after the final study interviews before data analysis takes place.	
4. I understand that information collected will be kept securely on Birmingham City University servers and that, upon request, the following people will be able to view it: <ul style="list-style-type: none"> • Myself; • My music teacher; • Students (about themselves); • Nikki Booth, lead researcher; • Professor Martin Fautley (PhD supervisor); • Dr. Victoria Kinsella (PhD supervisor). 	
5. I agree, in principle, for one-to-one interviews with teachers and group interviews with students, with Nikki Booth (lead researcher), being video recorded.	
6. I agree, in principle, in students participating in a pre- and post- study group interview.	

7. I am happy that any information, which might potentially identify my school, teachers or students, will not be used in published material.	
8. I am happy for the research lead, Mr. Nikki Booth, to seek informed consent from my school's music teacher and understand that should the teacher withdraw their consent at any time the research project will no longer continue.	
9. I am happy for the research lead, Mr. Nikki Booth, to seek informed consent from an agreed Key Stage 3 music class (as well as their parents/carers) chosen between the music teacher and lead researcher.	
10. Based on all the information presented to me I give my informed consent for my school to take part in the above project.	

Name of Headteacher: _____

Signature: _____

Date: _____

Contact details

Telephone number: _____

Email address: _____

Please return the form, either to me in person, or to my email at: nikki.booth@mail.bcu.ac.uk



BIRMINGHAM CITY
University

Dear (name of Head of Department/Music Teacher),

I am studying for my PhD degree in Education at Birmingham City University. My background lies within music which I have studied for many years. I am also a Head of Music at a secondary school in Staffordshire.

My research is centred around students' use of audio recordings, whilst they are composing, during their composing lessons in music. This will enable me to contribute to current, limited literature on formative assessment within Key Stage 3 music education. By carrying out this research I will be able to answer the following key questions:

1. How does the inclusion and use of an audio device influence the group composing process?
2. What does the inclusion and use of an audio device suggest about the quality of group-led feedback?
3. What are the effects of using an audio device on teacher feedback?
4. What are teacher and student perceptions of using audio recordings when composing?

I would be delighted if you would allow me to conduct my study, with a Key Stage 3 class, within the music department.

In order for me to successfully carry out this project I would very much like your permission on the following:

- To agree, with me, a suitable composing-focused unit of work;
- To deliver music lessons as normal;
- To contribute to two video-recorded, one-to-one interviews (one prior to the start of the study, the other at the end of the study); and
- To discuss, with me as a co-researcher, the effects of using audio recorders during composing lessons via post-lesson discussions and/or email conversations.

Research ethics have already been approved by Birmingham City University and I have given more detail on these in the attached information leaflet.

Given your busy schedule, I would be extremely grateful if I could meet with you, and your Headteacher, at a convenient time, to discuss my research further. This will also be an ideal opportunity for you to ask questions and share any queries you might have about the study.

Following this, I would be delighted if you could give your permission for this study to take place by filling out the sheet entitled “Teacher Informed Consent Form” and return it to me.

I very much look forward to working on this project in your music class.

Yours sincerely,

Mr. Nikki Booth

Information Leaflet for Teachers

What is the title of the research?

Formative assessment in England: Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

What are the aims of the research?

The overarching aim of this study is to contribute to current, limited literature on formative assessment, in group composing, within Key Stage 3 music Education. This will be done by fulfilling the following proposed objectives:

1. To provide opportunities for teachers and students to voice their experiences about composing lessons;
2. To build an informed understanding of the effects of using audio recordings within group composing as a means to facilitate students' musical learning experiences;
3. To provide up-to-date information for your continuous professional development of teaching and learning within the music classroom; and
4. To suggest new paths for discovery within the field of Music Education which will provide opportunities for further research.

What are the research questions?

5. How does the inclusion and use of an audio device influence the group composing process?
6. What does the inclusion and use of an audio device suggest about the quality of group-led feedback?
7. What are the effects of using an audio device on teacher feedback?
8. What are teacher and student perceptions of using audio recordings when composing?

What is the length of the project?

The study will last from the beginning to the end of a unit of work discussed and chosen between ourselves.

What happens if I agree to let my school take part?

Before giving your consent, I would like to meet with you and your Headteacher, at a convenient time, to discuss the research in more detail and for both of you to ask questions and/or raise any queries either of you might have about the project.

What if I do not want to take part?

Participation is voluntary. You do not have to give your permission to take part, and you are free to withdraw your consent at any time during the project. As a co-researcher, you will be a key role in the research. Should you not wish to take part, or change our mind at a later point, then the research will not be able to continue. Please rest assured that you are free to withdraw your consent to take part at any point.

What is the difference between taking part in the lesson and taking part in the research?

Music lessons will be co-planned by the both of us so that they operate as they normally would. By consenting to take part in the research, students will use audio recorders to record and listen back to their ongoing group composing during a unit of work. Participating students will also be video recorded during music lessons to help capture whether their dialogue changes overtime. By consenting to take part, all participants will be able to voice their opinions about the use of audio recorders and whether its use contributes to enhanced learning and how.

What happens with the information collected?

All information gathered during the study will be confidential and anonymised. Nothing reported will reveal your school's name or details about you or your students. All information will be held securely on the Birmingham City University servers where information will be secure and encrypted. Information collected can be made available to you at any time during the study and will only be shared with your Headteacher, my PhD supervisors, and students should they request information about themselves. Hardcopies of consent forms will be converted into electronic PDF format and kept on the secure Birmingham City University servers. Following this, hardcopies will be shredded and destroyed.

What are the benefits of being part of this research?

It is hoped that this project and the information raised could be used to inform nationwide practice.

What happens if I or a student does not consent to take part?

As a co-researcher with myself, you will be a key role in the planning of the study. Should feel you cannot consent, or change your mind to continue giving consent during the study, then the research will no longer be able to take place. Please rest assured that this, however, will not pose a problem as participation is fully voluntary.

If a student does not give or is not given consent to take part in the research, they will not be excluded in any way from receiving their music education. Furthermore, it will not affect their normal learning and, in no way, will they feel that they are not part of their classroom community. Information that students give who do not give or are not given consent to take part will not be taken into account. With regards to classroom-based video recording of group work, a group will not be video recorded at all if there is a non-consenting student within it. If there are several non-consenting students within a class, I would like to seek advice from you as to whether it is possible for these students to work together.

How do I give my consent to take part?

You can give your consent by completing the attached “Teacher Informed Consent Form”.

What happens with the data if a student changes their mind to take part during the study?

A student is free to withdraw at any time without consequence. In relation to their data, their contributions can be excluded from the research up to two weeks from the final group-based interview of the study. From this point, this is where data analysis will begin.

Will the research be reviewed?

The project will be continuously reviewed by myself and my PhD supervisors (details below) to ensure that it is meeting the aims set out above and that ethical considerations are being fully upheld throughout.

What happens at the end of the project?

At the end of the study, the findings will be shared in a case-study written report. This will be shared with you and your Headteacher upon completion. In addition to this I would like to present my findings to the students in the music class during a normal lesson and also their parents/carers.

What if I have any queries?

If you have any further questions about the project, or if there is something you do not understand, please feel free to contact me at: nikki.booth@mail.bcu.ac.uk or via my work number: 01785 788400.

If, for any reason, you are not able to contact me, please feel free to contact either one of my PhD supervisors:

- Professor Martin Fautley: martin.fautley@bcu.ac.uk

- Dr. Victoria Kinsella: victoria.kinsella@bcu.ac.uk

Thank you for reading this information leaflet.

Teacher Informed Consent Form

For the attention of:

Mr. Nikki Booth, research lead.

Project title:

Formative assessment in England: Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

To provide your level of informed consent please “tick” or “cross” (to agree or not agree) each of the following statements.

	Please tick
1. I confirm that I have read and understand the information sheet and have had an opportunity to ask questions.	
2. I understand that my participation is voluntary and that I am free to withdraw my consent at any time, without giving reasons.	
3. I understand that I can withdraw my school’s data up to two weeks after the final study interviews before data analysis takes place.	
4. I understand that information collected will be kept securely on Birmingham City University servers and that, upon request, the following people will be able to view it: <ul style="list-style-type: none"> • Myself; • My Headteacher; • Students (about themselves); • Nikki Booth, lead researcher; • Professor Martin Fautley (PhD supervisor); • Dr. Victoria Kinsella (PhD supervisor). 	
5. I agree, in principle, to take part in a pre- and post-study, one-to-one interview with Nikki Booth (lead researcher), and I am happy for it to be video recorded.	
6. I understand that, following an interview, I will receive a copy of the transcript which I can verify for its accuracy.	

7. I agree, in principle, to take part in post-lesson, one-to-one, discussions, with Nikki Booth (lead researcher), which, depending on your availability and convenience, can either be face-to-face and video recorded or via email communication.	
8. I am happy that any information, which might potentially identify me, will not be used in published material.	
9. I agree to take part in the above project.	

Name of teacher: _____

Signature: _____

Date: _____

Contact details

Telephone number: _____

Email address: _____

Please return the form, either to me in person, or to my email at: nikki.booth@mail.bcu.ac.uk



BIRMINGHAM CITY
University

Student Information Leaflet



This is where I study

This is me



Hello!

My name is Nikki Booth and I am a PhD student at Birmingham City University. Being a PhD student means that I get to do my own research in schools. I am also a music teacher, so I am really interested in this subject.

I am going to visit your music lessons to find out whether using **audio recorders** helps you get better at **creating music** (composing) when you're **working in small groups**.



You will be a really important part of my study as I would love to know **your opinions** about using audio recorders during your music lessons.

It's really important that you read the rest of this information leaflet **with an adult at home** so that you understand what's going to be going on in your music lessons.

Why am I being asked to take part?

Firstly, your opinions are really important to me. In addition to this, I am hoping to find a way which will help making music in groups even better.

How long does the project last?

I will be in your music lessons for a full term. The first part will help me get to know you better and take part in your normal music lessons. The project will properly start after half-term for about 6 weeks.

What do I need to do when the project starts?

To help me with my project I really need your help with the following:

1. To carry on with your music lessons as normal;
2. To take part in two group interviews, one at the start of the project and another one at the end; and
3. To take part in a group interview with the people you work with in music at the end of the project.

How will you collect information?

To help me remember all the important and interesting things you say, I will need to:

1. video record your group when you are working together in music; and
2. video record our two group interviews.



Do I have to take part?

No. You do not have to take part if you don't want to. Also, you can agree to take part and then change your mind later if you want to. This is absolutely fine. If you do change your mind during the project, you can tell your music teacher, me, or both of us. 😊 If you don't want to take part, or if you change your mind - don't worry - I won't use any of your information and you will not be video recorded.

At what point is it too late to stop being part of the study?

You can stop being part of the project at any point. After our final group interview you will have **two weeks** to tell your music teacher, or me, that you don't want me to use your information. This is so that I can look at everything that has been done in all of your music lessons.

What's going to be different about my music lessons if I take part?

Your music teacher and I will plan the lessons so they are as normal as possible. If you agree to take part, your group will have an **audio recorder** so that you can record your music and listen back to it when you want. I would also like to **video record your group** in your music lessons so I can record all the interesting things you say.

Will my name be mentioned anywhere in your work?

Absolutely not. Instead, I will say "Student 1 in group A said...".

Who else will see your information?

In addition to me, your music teacher, the other people who will see this work are your Headteacher, and my two supervisors, Martin and Victoria, as they will want to make sure that I am doing everything correctly for you.



What if I don't want or don't know the answer to a question in the group interview?

This is absolutely fine! If this happens you can just say "pass" and we'll move on. If you want to take a break during this interview if you want to. Just let me know. 😊

Who will keep all the information and where will it be kept?

All the information I collect will be kept by me and will be kept securely on my university network. If you want to see any information about you at any time during the project, just let me know. I will make an electronic copy of your consent form and destroy the paper one.

What will happen at the end of the project?

After I have collected and looked at all the information that has been collected, I will come back to one of your music lessons and give a presentation on what has been found.

What if I have any questions during the project?

If you have any questions at any point, you can share them with your music teacher, who will pass them on to me, or you can email me:

nikki.booth@mail.bcu.ac.uk

What if I am unhappy about the project and need to tell someone?

If this happens you can talk to your music teacher, or me, or you can contact one of my supervisors at Birmingham City University:

- Professor Martin Fautley: martin.fautley@bcu.ac.uk
- Dr. Victoria Kinsella: victoria.kinsella@bcu.ac.uk

What do I do now?

Once you have read all this information with an adult, you need to sign (and get a parent/carer to sign, too) to say that you all understand what is happening and that everyone is happy for you to take part. **Please give the consent for to your music teacher who will then pass it on to me.**

I am really excited to be working on this music project with you.

Thank you for taking the time to read this information leaflet.



Student Informed Consent Form

For the attention of:

Mr. Nikki Booth, research lead.

Project title:

Formative assessment in England: Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

	Please tick
1. I have read and understand the information sheet and have had an opportunity to ask questions.	
2. I understand that I will be able to take part in my music lessons as normal whether I agree to take part or not.	
3. I understand that, if I do not agree to take part, I will not be video recorded at all in music lessons and that none of my information will be used at all.	
4. I understand that taking part is voluntary and that I am free to stop at any time, without giving reasons.	
5. I understand that the information collected during the project will be seen by the following people: <ul style="list-style-type: none"> • Me (and I know I can ask Nikki if I want to see information about me); • My music teacher; • My Headteacher; • Nikki; • Martin (one of Nikki's supervisors); • Victoria (another of Nikki's supervisors). 	
6. I agree to Nikki video recording me when I work in my music group during lessons.	
7. I agree to take part in a small group interview, with Nikki and my music teacher, and am happy for it to be video recorded.	
8. I understand that I will receive a written-up version of the small group interview to check it is accurate of what was said.	
9. I am happy that any information gathered during the project will not identify me.	

10. I understand that the information I have provided during the study can be removed up to two weeks after the final group interview.	
11. I agree to take part in the above project.	

Student Participant	Parent/Carer
Name of student: _____	Name of parent/carers: _____
Signature: _____	Signature: _____
Date: _____	Date: _____
_____	_____

Please return this form to your music teacher.



BIRMINGHAM CITY
University

Student Information Leaflet (2)



This is where I study

This is me



Dear (name of student),

Hello!

My name is Nikki Booth and I am a PhD student at Birmingham City University. Being a PhD student means that I get to do my own research in schools. I am also a music teacher, so I am really interested in this subject.

I am going to visit your music lessons to find out whether using **audio recorders** helps you get better at **creating music** (composing) when you're **working in small groups**.



You will be a really important part of my study as I would love to know your **opinions** about using audio recorders during your music lessons.

It's really important that you read the rest of this information leaflet **with an adult at home** so that you understand what's going to be going on in your music lessons.

Why am I being asked to take part?

Firstly, your opinions are really important to me. In addition to this, I am hoping to find a way which will help making music in groups even better.

How long does the project last?

I will be in your music lessons for a full term. The first part will help me get to know you better and take part in your normal music lessons. **The project will properly start after half-term for about 6 weeks.**

What do I need to do when the project starts?

To help me with my project I really need your help with the following:

1. To carry on with your music lessons as normal;; and
2. To take part in two group interviews with the people you work with in music at beginning and the end of the project.



How will you collect information?

To help me remember all the important and interesting things you say, I will need to:

1. video record your group when you are working together in music; and
2. video record our group interview.



Do I have to take part?

No, not if you don't want to. Also, you can agree to take part and then change your mind later if you want to. This is absolutely fine. If you do change your mind during the project, you can tell your music teacher, me, or both of us. 😊
If you don't want to take part, or if you change your mind - don't worry - I won't use any of your information and you will not be video recorded.



At what point is it too late to stop being part of the study?

You can stop being part of the project at any point. After our final group interview you will have **two weeks** to tell your music teacher, or me, that you don't want me to use your information. This is so that I can look at everything that has been done in all of your music lessons.

**TWO
WEEKS**

What's going to be different about my music lessons if I take part?

Your music teacher and I will plan the lessons so they are as normal as possible. If you agree to take part, your group will have an **audio recorder** so that you can record your music and listen back to it when you want. I would also like to **video record your group** in your music lessons so I can record all the interesting things you say.

Will my name be mentioned anywhere in your work?

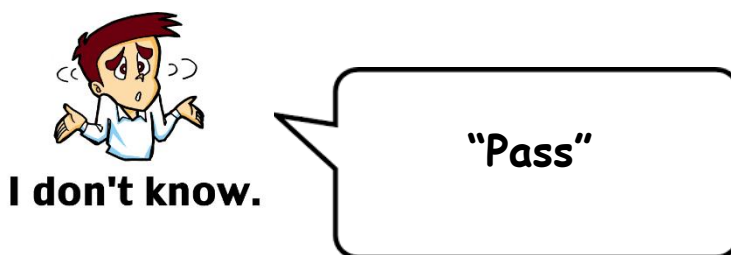
Absolutely not. Instead, I will say "Student 1 in group A said...".

Who else will see your information?

In addition to **me** and **your music teacher**, the other people who will see this work are your **Headteacher**, and **my two supervisors, Martin and Victoria**, as they will want to make sure that I am doing everything correctly for you.

What if I don't want or don't know the answer to a question in the group interviews?

This is absolutely fine! If this happens you can just say "pass" and we'll move on. If you want to take a break during this interview if you want to. Just let me know. 😊



Who will keep all the information and where will it be kept?

All the information I collect will be kept by me and will be kept securely on my university network. If you want to see any information about you at any time during the project, just let me know. I will make an electronic copy of your consent form and destroy the paper one.



What will happen at the end of the project?

After I have collected and looked at all the information that has been collected, I will come back to one of your music lessons and give a presentation on what has been found.



What if I have any questions during the project?

If you have any questions at any point you can share them with your music teacher, who will pass them on to me, or you can email me:

nikki.booth@mail.bcu.ac.uk



What if I am unhappy about the project and need to tell someone?

If this happens you can talk to your music teacher, or me, or you can contact one of my supervisors at Birmingham City University:

- Professor Martin Fautley: martin.fautley@bcu.ac.uk
- Dr. Victoria Kinsella: victoria.kinsella@bcu.ac.uk



What do I do now?

Once you have read all this information with an adult you need to sign (and get a parent/carer to sign, too) to say that you all understand what is happening and that everyone is happy for you to take part. **Please give the consent for to your music teacher who will then pass it on to me.**



I am really excited to be working on this music project with you.

Thank you for taking the time to read this information leaflet.





BIRMINGHAM CITY
University



Student Informed Consent Form

For the attention of:

Mr. Nikki Booth, research lead.

Project title:

Formative assessment in England: Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

	Please tick
1. I have read and understand the information sheet and have had an opportunity to ask questions.	
2. I understand that I will be able to take part in my music lessons as normal whether I agree to take part or not.	
3. I understand that, if I do not agree to take part, I will not be video recorded at all in music lessons and that none of my information will be used at all.	
4. I understand that taking part is voluntary and that I am free to stop at any time, without giving reasons.	
5. I understand that the information collected during the project will be seen by the following people: <ul style="list-style-type: none"> • Me (and I know I can ask Nikki if I want to see information about me); • My music teacher; • My Headteacher; • Nikki; • Martin (one of Nikki's supervisors); • Victoria (another of Nikki's supervisors). 	
6. I agree to Nikki video recording me when I work in my music group during lessons.	
7. I agree to take part in a small group interview, with Nikki and my music teacher, and am happy for it to be video recorded.	
8. I understand that I will receive a written-up version of the small group interview to check it is accurate of what was said.	
9. I am happy that any information gathered during the project will not identify me.	

10. I understand that the information I have provided during the study can be removed up to two weeks after the final group interview.	
11. I agree to take part in the above project.	

Student Participant	Parent/Carer
Name of student: _____	Name of parent/carers: _____
Signature: _____	Signature: _____
Date: _____	Date: _____
_____	_____

Please return this form to your music teacher.

Appendix 5: Updated ethical approval for data collection adaptations



Faculty of Health, Education & Life Sciences Research Office
Seacole Building, 8 Westbourne Road
Birmingham
B15 3TN

HELS_Ethics@bcu.ac.uk

18/May/2021

Mr Nikki Booth

nikki.booth@mail.bcu.ac.uk

Dear Nikki,

Re: Booth /#1375 /sub1 /Am /2021 /May /HELS FAEC - Exploring the effects of using audio recordings during group composing in Key Stage 3 music lessons.

Thank you for your application for approval of amendments regarding the above study. I am happy to take Chair's Action and approve these amendments.

Provided that you are granted Permission of Access by relevant parties (meeting requirements as laid out by them), you may continue your activity.

I can also confirm that any person participating in the project is covered under the University's insurance arrangements.

Please note that ethics approval only covers your activity as it has been detailed in your ethics application. If you wish to make any changes to the activity, then you must submit an Amendment application for approval of the proposed changes.

Examples of changes include (but are not limited to) adding a new study site, a new method of participant recruitment, adding a new method of data collection and/or change of Project Lead.

Please also note that the Committee should be notified of any serious adverse effects arising as a result of this activity.

If for any reason the Committee feels that the activity is no longer ethically sound, it reserves the right to withdraw its approval. In the unlikely event of issues arising which would lead to this, you will be consulted.

Keep a copy of this letter along with the corresponding application for your records as evidence of approval.

If you have any queries, please contact HELS_Ethics@bcu.ac.uk

I wish you every success with your activity.

Yours Sincerely,

Miss Nimrah Khan

Research Ethics Officer

On behalf of the Health, Education and Life Sciences Faculty Academic Ethics Committee

Appendix 6: Original and adaptations to MacDonald, Miell and Morgan’s (2000) verbal codes and operational definitions

Original codes (pp. 412-413)

	Code	Definition
Simple non-transactive turns	P	When the child <i>proposes</i> something – asserts/suggests it. E.g. “Let’s use the drum”, “I can make a good lion noise”.
	R	When the child <i>reiterates</i> something – repeats without substantial alteration. E.g. Child A: “When does the snake come in?” [Child B: “um...”] Child A: “When do we hear the snake?”
	I	When the child provides <i>information</i> about something. E.g. “You can only just hear the sound”.
	A	When the child expresses explicit <i>agreement</i> about something. E.g. “oh yeah, right”.
	D	When the child expresses explicit <i>disagreement</i> about something. E.g. “No, that’s C, D not C, E”.
Transactive turns	TS	Transactive statements are spontaneously produced critiques, refinements, extensions or significant paraphrases of ideas. Operations on the other's ideas (TSO) are labelled 'other oriented' (Child A: "key 18 gives us an insect noise" Child B: "that doesn't sound like insects, it's more like a big animal!"). Spontaneously produced clarifications of the child's own ideas are coded as 'self oriented' (TSS) (Child A: "I'll play 18" [Child B "OK"] Child A: "Wait a minute, not 18, it should be 8").
	TQ	Transactive questions are spontaneously produced requests for clarification, justification or elaboration. Requests for elaboration of the partner's ideas are labelled "other-oriented" (TQO) (Child A: "make the tree felling noise again" Child B: "how did we do that - did we press key 20?") and requests for evaluative feedback on the child's own ideas are coded "self-oriented" (TQS) (Child A: "we want something that sounds smoother" [plays on keyboard] Child A: "what about that?")
	TR	Transactive responses are clarifications, justifications or elaboration of ideas given in answer to a TQ. Responses that elaborate on the partner's ideas are "other-oriented" and coded TRO (Child A: "we could use that - what's that called?" Child B: "um... 'bells'... yes, try that, that could be what we need"), and those that elaborate on own ideas are "self oriented" and coded TRS (Child A: "Now we need to make rain" [plays on xylophone] Child A: "That works... yes, tinkly rain noises").

Additional codes

	Code	Definition
Simple non-transactive turns	<i>P-info</i>	When a proposal is made with clear information as to what needs to be done and how. E.g. "I think we should try recording it again and I'll quieten down this time."
	<i>P-stat</i>	When a proposal is made without clear information as to what needs to be done. E.g. "We really need to sort out the balance."
	<i>I-PV</i>	When information is given as a positive viewpoint. E.g. "I like that recording."
	<i>I-NV</i>	When information is given as a negative viewpoint. E.g. "That recording was awful."
	<i>Q-clarity</i>	When a question is asked (recorded via an audio device) to seek clarity about something. It is non-transactive since the question is audio recorded so an immediate response cannot take place.
	<i>P-Q</i>	When a proposal is made in the form of a question.

Appendix 7: School A Teacher Intervention dialogue with group which did not relate to the focus of the study

Session 1:

	Person	Utterance	Utterance code	Utterance inference
#2	Teacher:	Can I suggest that we leave mics [microphones] and amps [amplifiers] and concentrate more on getting some initial ideas together?	P- <i>stat</i>	Formative
	S4:	Ok, yeah.	A	
	Teacher:	Ok, can I come back in about five minutes and we'll see that you've done.	P	
	S2:	Yeah.	A	

Appendix 8: Group composing recording and teacher feedback sheet

Group composing recording and feedback sheet

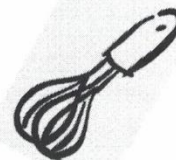
Instructions:

- Use the audio recorder to capture the exciting work you are doing in your composing lessons. Please don't delete any of your work 😊
- You can make as many tracks during your composing lessons as you want, but please try and record **at least one track every lesson**.
- Once you have recorded a track, listen back to it and, as a group, discuss the work you have done so far.

WEEK	FOR THE STUDENTS	FOR THE TEACHER
	Please write down the track number you would like to get feedback on.	Please write down the track number where the group will find some audio recorded feedback on this week's work.
Week 1	2	6
Week 2	12	13
Week 3	18, 19	21
Week 4	22, 23	24
Week 5	26 (I sang terribly)	27
Week 6		

Appendix 9: School C Composition Task

Composing Brief: Create a short piece of music in **Ternary form** based on OSTINATO patterns. At least one ostinato must be rhythmic and one must be melodic. Think about how you will use the **elements of music** effectively (you don't need to choose all of them – concentrate on just a few)



Task 1: Choose one of the curry house rhythm cards (NOT Mango Chutney) as your rhythmic ostinato – or alternatively, make up your own ostinato. (Remember, the most effective ostinatos are the simple ones that are easy to remember!). Now choose a *different* curry house rhythm and create a **melody** for it.

Task 2: Planning your piece of music.

- Choose some percussion instruments to rehearse your piece. Think about the TIMBRES and SONORITIES that would be effective together.
- Think about the Elements of Music – **PITCH, TEMPO, DYNAMICS, DURATION, TEXTURE, ARTICULATION, SILENCE** – which ones will feature in your composition. Will these change at any point?
- Plan the structure of your piece – in what order will the sounds go?

INTRODUCTION	MAIN SECTION	ENDING

Task 3 – Rehearsing your piece of music.

- Practice your piece of music through several times – it should be the same each time it is performed. Do you need to make any changes to the Elements of Music to make it more effective?
- Create a score of your piece using shapes/symbols or notation to show the order in which the sounds occur.

Stretch and Challenge

- Can you add some dynamic markings – e.g. pp, p, mp, mf, ff, cresc., dim. Onto your score to show how loud or quiet different parts are to be performed?
- What about an Italian word to describe the TEMPO of the piece? Where would you write this?

Appendix 10: School D Composition Task



Group Composing Task



Compose a piece of music suitable for a **scary film**.

Think about what makes a piece of music scary and how you are going to communicate this effectively to the listeners.

Whilst you are doing this, think about how you are going to use the elements of music to create the all the effects you want:

- Structure
- Melody
- Rhythm
- Dynamics
- Instruments
- Tempo
- Texture
- Timbre
- Harmony
- Silence

Appendix 11: An example of the whole-school stanine-based assessment system in School B

Assessment	Composing
	8.9 A stylish and imaginative composition using a variety of musical elements
	8.6 Develop compositions using a range of devices/elements showing a good understanding of structure
	8.4 Compose coherent ideas with some development and a well organised structure
	8.3 Compose using simple musical ideas and a sense of structure
	8.1 Compose with little coherence and a limited sense of structure

Appendix 12: List of publications and presentations given during PhD study (2016-2022)

(Correct as of September 2022)

Publications

Book chapters:

Booth, N. (**in press**) Chapter 10: Facilitating and leading discussions effective discussions. In: M. Wolfe, S. Younie & N. Booth, *Mentoring beginning music teachers*. Abingdon, UK: Routledge.

Booth, N. (**in press**) Chapter: 16: Seeing the whole picture and how better formative assessment practice can help us do it. In: M. Wolfe, S. Younie & N. Booth, *Mentoring beginning music teachers*. Abingdon, UK: Routledge.

Booth, N. (2022) Unit 6.3: Using assessment data effectively: Making better decisions for teaching and learning. In: M. Leask, S. Younie & S. Capel (Eds.) *Learning to Teach in the Secondary School (9th edition)*. Abingdon, UK: Routledge.

Booth, N. (2022) Unit 6.1: Developing effective formative assessment practice for high impact teaching. In: M. Leask, S. Younie & S. Capel (Eds.) *Learning to Teach in the Secondary School (9th edition)*. Abingdon, UK: Routledge.

Booth, N. (2021) Chapter 13: National assessment choices. In: B. Hudson, M. Leask & S. Younie, *Education System Design*. Abingdon, UK: Routledge.

Booth, N. (2019) Chapter 14: Improving pupil progress through quality questioning and talk. In: S. Capel, J. Lawrence, M. Leask & S. Younie, *Surviving and thriving – Continuing learning to teach*. Abingdon, UK: Routledge.

Booth, N. (2019) Unit 6.3: Using feedback and data effectively to move teaching and learning forward. In: M. Leask, S. Younie & S. Capel (Eds.) *Learning to Teach in the Secondary School (8th edition)*. Abingdon, UK: Routledge.

Booth, N. (2019) Unit 6.1: In-school summative and minute-by-minute formative assessment in the classroom. In: M. Leask, S. Younie & S. Capel (Eds.) *Learning to Teach in the Secondary School (8th edition)*. Abingdon, UK: Routledge.

Booth, N. (2018) *Assessment and inclusion in music education*. In: V. Kinsella, M. Fautley, and S. Gray Musical Inclusion (p. 23). Birmingham, UK: Services for Education Music Service and Birmingham City University.

Booth, N., Kuppan, G., Longtin, J., & Nenadic, E. (2018) Assessing the international principles of assessment in music education. In: *Selected papers from the 6th International Symposium of Assessment in Music Education (ISAME6)*. Chicago: IL: GIA Publications, pp. 543-550.

Books:

Hook, P., Booth, N., Fobister, L., and Price A. (2019). *SOLO Taxonomy in Music Education. Growing high quality musicians through a reflective learning environment*. Essential Resources Educational Publishers Limited, New Zealand.

Journal articles (peer reviewed):

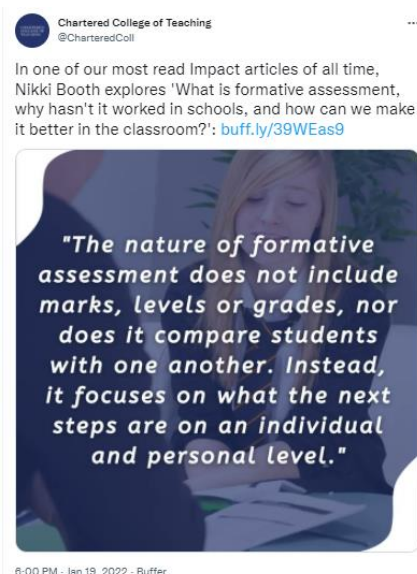
Booth, N. and Kinsella, V. (2022) The importance of threshold concepts within formative assessment during lower-school group composing. *British Journal of Music education*, 39, 145–156.

Booth, N. (2022) The importance of formative assessment for pupils' spiral progression in the lower-secondary school, group composing context. *British Journal of Music education*, 39(1), 120-124.

Booth, N. (2018) What does research say about memory and how can it be used to enhance long-term learning in the classroom? *Impact – Journal for the Chartered College of Teaching*, 1 (2) [online version – members only].

Booth, N. (2017) What is formative assessment, why hasn't it worked in schools, and how can we make it better in the classroom? *Impact – Journal for the Chartered College of Teaching*, 1 (1), pp. 27-30.

- According to the Chartered College of Teaching, in January 2022, this article was found to be one of their most read articles of all time [<https://twitter.com/CharteredColl/status/1483861853931556866>].



Online only:

Booth, N. (2020) *Threshold concepts and formative assessment within Key Stage 3 group composing*. Birmingham City University blog available (free) at: <https://www.bcu.ac.uk/education-and-social-work/research/cspace-blog/threshold-concepts-and-formative-assessment-within-key-stage-3-group-composing>

Booth, N. (2020) *Assessment: Formative and classroom-based*. MESH Guide available (free) at: <http://www.meshguides.org/guides/node/1712>

Other:

Booth, N. (2021) *Be Wary of Hattie's Use of Meta-Analyses and Effect Sizes*. Birmingham City University Education Journal magazine, 1 (2), pp. 80-83. Available at: <https://bcuassets.blob.core.windows.net/docs/bcu-ejm-12-spring-2021-132609969047214309.pdf>

National and international public presentations

26 March 2021: *Mapping Educational Specialist Knowhow (MESH): Connecting researchers and teachers to share research knowledge worldwide on music education*. Co-presented with M. Wolf, G. Schellberg, and H. Ruck Keene at the 28th EAS/8th ISME European Regional Conference, Freiburg University of Music and Freiburg University of Education, Germany, Online.

23 March 2021: *Identifying and crossing Threshold Concepts in Key Stage 3 group composing*. Presentation for the Listen Imagine Compose away day training, Online.

23 March 2021: *Why we need better assessment procedures to make better inferences about teaching and learning*. Presentation at the Osiris World Education Summit, Online.

23 September 2019: *Why teaching isn't – and probably never will be – a research-based profession (and why that's a good thing)*. Presentation for the Entrust Headteachers Conference, Staffordshire.

8 September 2018: *What do teachers need to know about memory, and how can assessment be used effectively to support long-term learning?* Presentation for the ResearchED National Conference, London.

30 June 2018: *Formative assessment in Modern Foreign Languages: What is it, and how can we make it work for both teachers and students?* Presentation at the Institute for Modern Languages Research, London.

15 March 2018: *“Know thy Impact” Reflecting on policy and practice by embedding true formative assessment in the classroom at Wolgarston High School. Part 2: Using process success criteria as a formative assessment strategy*. Presentation and workshop for the Entrust Headteachers Conference, Staffordshire.

15 March 2018: *“Know thy Impact” Reflecting on policy and practice by embedding true formative assessment in the classroom at Wolgarston High School. Part 1: What is true formative assessment?* Presentation and workshop for the Entrust Headteachers Conference, Staffordshire.

4 November 2017: *What is formative assessment, why hasn't it worked in schools and how can we make it better in the classroom?* Presentation for the Chartered College of Teaching “Third Space” Event, School of Education, Bristol University.

9 September 2017: *What is formative assessment, why hasn't it worked in schools and how can we make it better in the classroom?* Presentation for the ResearchED National Conference, London.

School-based presentations and workshops

2 December 2020: *Increasing the validity of teacher inferences about learning to “Know Thy Impact” better (includes Hinge-point questions).* Visible Learning Steering Group (first, middle and high schools) presentation to Head teachers and Teaching and Learning leads.

11 November 2020: *“Know Thy Impact”: Why we need better assessment procedures to enhance teacher quality.* New staff training, Penk Valley Academy trust.

26 February 2020: *Why formative assessment hasn't had the national impact it promised (and what we can do, in our own settings, to change this).* Visible Learning Steering Group (first, middle and high schools) presentation to Head teachers and Teaching and Learning leads.

29 January 2020: *Evidencing Pupil Progress: Problems and Solutions.* Presentation for SERA's NQT & RQT training day, Wolgarston High School, Staffordshire.

18 September 2019: *What every teacher needs to know about assessment.* Presentation for SERA's NQT & RQT training day, Perton Middle School, Wolverhampton.

3 September 2019: *Developing an effective assessment system.* Staff INSET, Wolgarston High School, Staffordshire.

26 June 2019: *Validity, reliability, and all that jazz.* Visible Learning Steering Group (first, middle and high schools) presentation to Head teachers and Teaching and Learning leads.

21 November 2018: *Yes, we're a “Visible Learning” Trust; but... (a critique of methods and methodologies).* Visible Learning Steering Group (first, middle and high schools) presentation to Head teachers and Teaching and Learning leads

4 September 2018: *Hinge-point questions: Eliciting the right thinking from the right multiple-choice questions.* Staff INSET, Wolgarston High School, Staffordshire.

4 September 2018: *The learning brain: Cognitive and neuroscientific lessons for education. Memory, forgetting and learning.* Staff INSET, Wolgarston High School, Staffordshire.

10 April 2018: *Making the most of formative assessment in the busy classroom*. Presentation and training session for the North Bridge House Staff Development Day, London.

14 February 2018: *To what extent do we really “know thy impact” and how can assessment be used more meaningfully to sustain long-term learning?* Visible Learning Steering Group (first, middle and high schools) presentation to Head teachers and Teaching and Learning leads.

22 November 2017: *Using learning intentions and process success criteria within formative assessment to build a bridge between teaching and learning*. Visible Learning Steering Group (first, middle and high schools) presentation to Head teachers and Teaching and Learning leads.

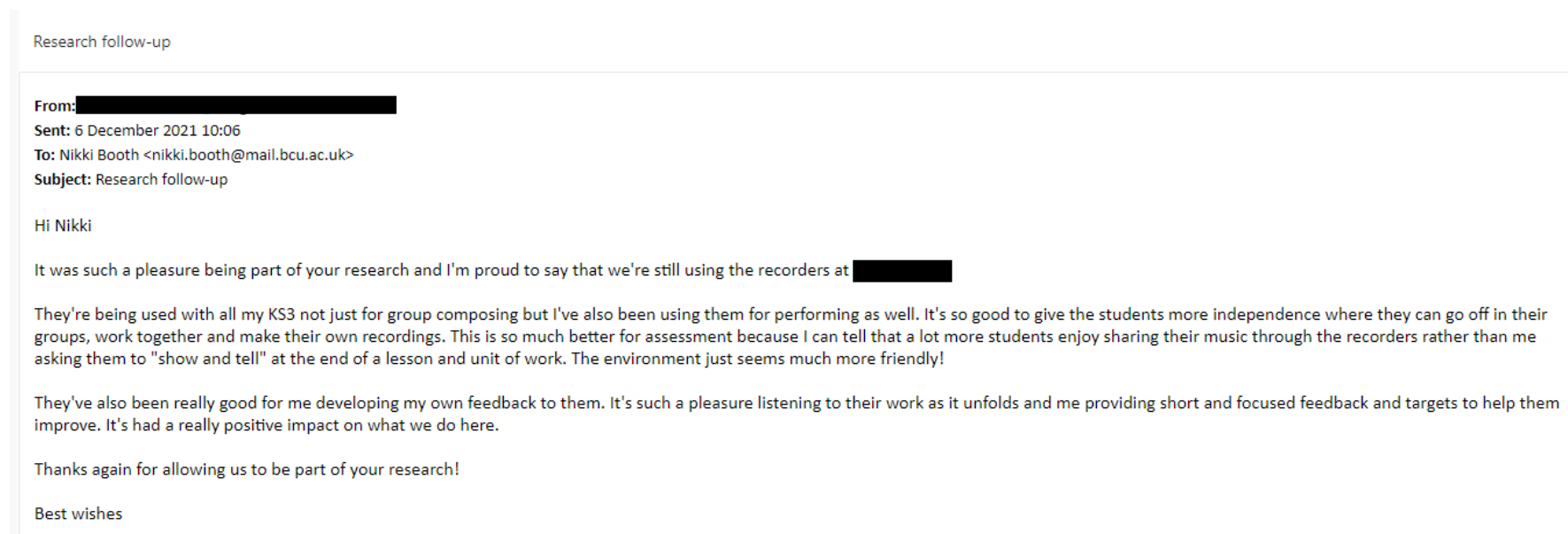
5 September 2017: *The SOLO Taxonomy. Why SOLO, and how can it be used effectively as a formative assessment strategy to enhance learner responses in the classroom?* Staff INSET, Wolgarston High School, Staffordshire.

5 September 2017: *Formative assessment as “responsive teaching”*. Staff INSET, Wolgarston High School, Staffordshire.

6 September 2016: *Formative assessment and using rubrics to develop assessment capable learners*. Staff INSET, Wolgarston High School, Staffordshire.

4 July 2016: *The formative use of process success criteria*. Staff INSET, Wolgarston High School, Staffordshire.

Appendix 13: Follow-up responses from case-study Music Leads



Research follow-up email from School A's Music Lead.

Research-follow-up

From: [REDACTED]
Sent: 13 December 2021 14:56
To: Nikki Booth <nikki.booth@mail.bcu.ac.uk>
Subject: Research-follow-up

Hi Nik

Yes we're still using them! It was really good that we could get the school governors to spend some money on us so I could buy a class set. They're just so useful to have!

I'm using them with all of my key stage 3 year groups. The kids love using them! They say that they definitely feel that they're betting better at music. I've also noticed that some of the boys look more engaged too.

I find that I'm understanding the students musical abilities a lot more because even though I might not get to hear what they're doing when they're composing I can still listen through using the recorder and given them comments to improve. I've also found that I'm adapting my schemes of work more because I'm getting a much better understanding of what they can do and what support they need to progress.

So, basically, they've been a massive help!

Take care

Research follow-up email from School B's Music Lead.

Research follow-up

From: [REDACTED]
Sent: 22 December 2021 11:06
To: Nikki Booth <nikki.booth@mail.bcu.ac.uk>
Subject: Research follow-up

Dear Nikki

So sorry for my delay in getting back to you!

The audio recorders have been brilliant! I'm particularly pleased that those minor organisational issues with them have been resolved. The students just needed more time to work with them. They've been absolutely brilliant for students' composing work. I definitely feel they've gotten better at being able to listen more carefully to their work and make necessary adaptations to improve what they're doing.

I'd also like to say that we had an Ofsted inspection and music was deep dived. It was great that I was able to sit down with the inspector and show him the students work, how they are progressing and how it is informing the direction of what we're doing. It was really great that he acknowledged how well our vulnerable groups (PP and SEN) are doing too.

Thank you so much for allowing [REDACTED] to be part of your research. It's been great and I know I've learned so much from being part of it.

Hope we can work together again in the future!

Best wishes,

Research follow-up email from School C's Music Lead.

Research follow-up

From: [REDACTED]
Sent: 16 December 2021 15:49
To: Nikki Booth <nikki.booth@mail.bcu.ac.uk>
Subject: Research follow-up

Hey Nikki

Great to hear from you Nikki. Yes, we're still using the audio devices and they have been a really big help to us. It's been great to see the students work using these and it's been particularly pleasing that with the two week gap between lessons students feel that they're able to make progress. It's just a simple idea to use them but it has had a big impact on what we do.

I should also say that there was a point that we had a large number of positive cases with COVID so the school had to put some additional measures in place where teachers needed to keep their distance from students. The audio devices were really helpful here because students could go to their rooms and make recordings of their work which I could then feedback on. Ok, it meant that there was a point when I couldn't give face to face feedback, but this was a really good alternative given the circumstances.

I'll be moving on to a different school from after Christmas, but I mentioned the work you had done with us to the interview panel who were very interested and are very keen to use audio devices in their music department. So, thanks you Nikki!

Kind regards

Research follow-up email from School D's Music Lead.

Appendix 14: Accompanying CD of each group's composition

Track 1: School A

Track 2: School B³²

Track 3: School C

Track 4: School D

³² Please note that, for School B, the town where this school is located was included within the group's lyrics. To uphold anonymity, this section of the track has been edited.