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WELCOME FROM THE EDITOR

Welcome to volume five and edition one, of the Birmingham City University (BCU) Education Journal Magazine (EJM).

As I take on my new role as lead editor for the journal, I recognise that we cannot start this fifth volume without acknowledging the important work of Grant Huddleston as he moves away from his role as lead editor. Grant's commitment, passion, and vision for the journal has, no doubt, led to a quality resource for our teaching and research community, which has seen a total of twelve editions over the last four years! I am sure that many of you would join me in thanking Grant for his work, and for those that know him, I certainly have big shoes to fill!

This edition of the journal contains national and international research and thinking. In section one, we can read about two different types of enquiry within our partnership. The first, around social and emotional competence development in early years learning from India, is joined by interesting insights about geography in primary schools. The second section reflects some current enquiry and practice into four areas- doctoral supervision, playful learning in early childhood education, the impact of TeacherGram on primary educators' practice, and an article that explores the use of English literature to address principle-centred adolescence. Following this, the final section provides interesting evidence of individual enquiry and scholarship with three articles. Each article provides much to consider and include an enquiry about the relationship between physical education teachers' preparedness to teach trans-inclusive physical education, the impact of school timetables on teaching science in Nigeria, and inclusive legal education.

We hope you enjoy this edition.

Best wishes

Chris Bolton

Our aim

Our aim is to help support practice across our partnership schools and promote enquiry and research. We welcome contributions from students, teachers and academics who wish to make a positive difference to teaching and learning and believe they could help develop and support other's practice. We aim to support new and experienced writers to submit their work so that we share a variety of perspectives.

Our goals

- Showcase the excellent work our BCU Students produce
- Allow an opportunity for those interested to publish their work to promote positive development and reflection across our partnership schools
- Promote confidence and competence to write for an education publication
- Promote interest towards research and enquiry

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You do not need to decide which chapter you wish your article to appear, but you can indicate this if you wish. Please ensure you follow the house style. Final decisions on publication are made by the editorial board. You can submit as many articles as you wish. If the editorial team have received a large number of contributions, your article may be held for later editions.

House style

When submitting an article for consideration, please aim to follow the subsequent house style:

- Documents must be submitted in Word in font Calibri, size 11, with 1.5 line spacing.
- Include your full name and role/school – this will appear under the title.
- Any web links given should be accessible by the reader and not sit behind passwords or paywalls.
- Word count is expected to be 500 to 3000 words "all in" (including references lists).
- Acronyms and abbreviations must be written in full the first time they are used in each article; thereafter the abbreviation may be used, e.g. "The special educational needs and disability co-ordinator (SENDCO) is … "
- UK English should be used, e.g. "…ise" endings instead of "…ize"
- Numbers one to ten written in full; thereafter numerical (e.g. 28 pupils aged nine completed… etc.)
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RESEARCH PAPERS

ENQUIRY AND SUPPORT WITHIN THE PARTNERSHIP

Social and Emotional Competence in Early Years Learners

Sonali Malhotra

Introduction

In today's fast-evolving world, advocating for humanistic values such as empathy , inclusivity and sustainability in education is more crucial than before. For example, the increase in children's screen time has reduced in-person interactions and non-technology play-time, emphasizing the importance of promoting empathy and teamwork in educational environments (Ho, *et al.* 2024). These values potentially ensure that every child has opportunities to thrive, realise their potential, and lead meaningful lives. Fairness in education relies on promoting empathy, respect, and acknowledging the intrinsic value of each person. This viewpoint is critical in promoting inclusive education, as supported by UNESCO (1994) and confirmed by Almalky and Alrabiah (2024) and Taneja-Johansson et al. (2023), who highlight the importance of establishing educational settings that bring happiness and satisfaction to all children, regardless of their skills or backgrounds. Yet, conventional education systems, influenced by the demands of the fourth industrial revolution, frequently prioritize memorization and gaining knowledge over fostering vital life skills. Research, such as Howe's (2013), reveals that empathy—a natural human trait—can diminish over time due to technological distractions, an increased focus on self-interest, and the lack of effective role models. Garnett (2017) agrees educators face a challenge due to this erosion, particularly in today's quickly changing technological world. According to Coskun (2019), children have a natural ability to understand the emotions of others, offering educators a special chance to promote social and emotional intelligence. Rahmi and Kristiawan (2024) emphasize the importance of the early childhood period as being crucial for children's development, whereas Spagnuolo (2023) stresses the ethical duty of teachers to offer a comprehensive educational

journey. Through the combination of play-based methods and Social-Emotional Learning (SEL), educators can tackle this challenge and promote the overall growth of children. In the face of these obstacles, Social-Emotional Learning (SEL) can be recognized as a vital tool for connecting academic and emotional growth.

The Rising Importance of SEL

Dussault and Thompson (2024) highlight how mental health challenges and feelings of isolation, particularly intensified during the COVID-19 pandemic, emphasize the critical role of SEL in education. SEL has the potential to transform the learning experience and academic outcomes by cultivating essential skills like impulse regulation, emotional intelligence, self-motivation, and a positive approach to learning and community involvement (Pianta & La Paro, 2003).

The CASEL Framework

Fostering learners' social and emotional competence in the classroom might involve a comprehensive strategy. An organised foundation can be established through the introduction of the CASEL (Collaborative for Academic, Social, and Emotional Learning) framework. [Figure 1]. The CASEL framework (2012) states that the approach encompasses valuing students by promoting open communication and active listening and acknowledging the intricate interplay between academic and emotional development.

The interrelated SEL abilities of self-awareness, self-management, social awareness, relational skills, and responsible decision-making are highlighted by the CASEL Framework (CASEL, 2012). Planning, focus, memory, and multitasking are strengthened by these proficiencies, which also improve cognitive, emotional, and behavioural development (Centre on the Developing Child, 2011). Denham et al. (2003) emphasise the significance of early childhood experiences for play, learning, and relationship formation, underscoring the necessity of social and emotional competence for navigating diverse life stages adeptly.

Figure 1 below illustrates the CASEL framework, highlighting the interplay between academic and emotional development.

Source CASEL (2012)

To apply the CASEL framework in classrooms, educators can adopt strategies like creating safe, inclusive spaces, incorporating social-emotional learning activities, and fostering collaboration to enhance emotional intelligence and interpersonal skills. My colleagues and I have embraced these approaches in our practice to support holistic student development.

Best Practices for Supporting Learners' Developing SEL Competence with examples.

Self-Awareness
SEL is built on self-awareness as its foundation. Educators can facilitate this by motivating young learners to express emotions during activities such as circle time. Instruments like the "wheel of emotions" assist children in recognizing and expressing their emotions.
Examples for early year learners:
Our practice involved using circle time to help young learners transition from the outer world to an inner environment and share emotions like "happy," "sad," or "excited." We began by creating a secure space for children to express their feelings and connect emotions to experiences using expressive character picture books.

Recognizing the need for foundational Executive Function (EF) skills, we incorporated activities that developed cognitive flexibility, working memory, and inhibitory control, as highlighted by Zelazo (2020). For instance, we used the "Wheel of Emotions" to guide children in identifying and labelling feelings, and they created "Safety Circle" charts to represent trusted individuals. Open-ended tasks like drawing and art allowed children to convey thoughts and emotions creatively. These strategies-built confidence in articulating emotions and managing them effectively. Additionally, children practiced empathy and collaboration by listening, sharing, and responding to peers' feelings. The blend of visual and interactive tools made abstract emotional concepts tangible and relatable for young learners.

"Identify your emotions using the wheel of emotions"   "Being aware of people in my safety circle."
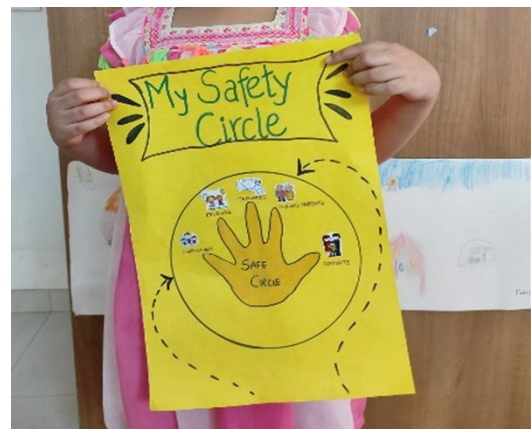
"Draw what matters to you the most."

"Share your feelings and ideas"

Self-Management

Building on the circle time activity, we also explored how to enable young people to self-manage these emotions. Self-management skills enable children to regulate emotions, manage stress, and independently follow routines and tasks.

"Sensorial Play"

In our class, we observed that children have different needs and respond uniquely to various sensorial experiences. The images show activities focusing on sensorial play, thoughtfully designed to enhance sensory processing and fine motor skills while catering to these diverse needs. In the first image, children are making slime, a mindfulness task that encourages sensory exploration, focus, and relaxation as they knead, stretch, and manipulate the material, creating a calming and therapeutic experience. The second image captures a sensorial play station with open-ended materials such as scissors, rubber bands, cardboard tubes, and small tools. During this activity, we saw children exploring, cutting, tying, and assembling the materials to create their own designs, fostering creativity, problem-solving skills, and self-regulation as they worked independently. In the third image, children are playing with sand molds and sensory materials in an outdoor setting, engaging in tactile exploration and sensory stimulation through natural textures and patterns. This progression of activities aligns with the findings of Sensory Mom (2019), who emphasizes the importance of sensory processing in laying the groundwork for advanced learning and emotional regulation. Through these thoughtfully planned activities, we aim to nurture children's self-management skills, helping them regulate emotions, manage stress, and independently follow routines and tasks while addressing their unique sensory needs.

Social Awareness

Having social awareness means understanding the feelings and viewpoints of others. In our class, we introduced a daily story before the activity to provide context and spark the children's imagination. For instance, in the first image (below), children engaged in a "Life on

the Farm" role-play. Since some may not have experienced a farm, we connected it to real-world contexts through a farm visit, inviting an expert, and involving someone from the school community with farm experience. These connections enriched their understanding and set the stage for pretend play, where they assumed roles like farmers or animals, fostering teamwork, responsibility, and empathy. In the second image, children participated in "Creating a Strengths Chain." They first discussed their own strengths in a group, building self-awareness and confidence, and then engaged in peer-group activities to recognize and illustrate each other's strengths. This promoted mutual respect, belonging, and social connectedness. Noel et al.(2024) advise that a well-stocked role play area can have multicultural dress up costumes and props, dolls, home furniture like tables and chairs, food and utensils, kitchen accessories, cash registers, phones, recipe books, notebooks and more. Through these activities, children develop essential skills for understanding and connecting with others, managing relationships, and fostering social awareness.

Examples
"Role play – Life on the farm "

""Creating a Strengths chain "

Relationship Skills

Relationship skills, such as working together, effective communication, and resolving conflicts, are essential for young learners and can be nurtured through carefully designed activities. Engaging in turn-taking games and collaborative storytelling has proven to be particularly effective in developing these skills. For example, during turn-taking games, we noticed that some children initially struggled to wait for their turn. This required gentle reminders and practical demonstrations, such as passing a ball and learning to play 'fairly', to teach patience and the value of taking turns.

Another activity involved children creating gratitude cards for their friends, which helped them understand and express respect and appreciation for others. Linked to this, we explored the use of conflict resolution stories to deepen their relational understanding. One favourite story this term has been *My Mouth is a Volcano* by Julia Cook. By using this story to model how characters resolve conflicts peacefully and encouraging children to find collaborative solutions, we observed that children began to play more cooperatively, showed increased empathy toward their peers, and demonstrated a growing ability to understand and consider the emotions of others. These activities collectively contributed to fostering essential relationship skills in a supportive and engaging environment.

- Examples for early years learners:

"Making a card for your friend"   "Learning to play together."

Responsible Choices

Educating children about making responsible decisions includes aiding them in identifying feelings, understanding others' perspectives, and thinking about their behaviours. By participating in inquiry-based units that reflect the school's core values of love, empathy, discipline, and respect, students were urged to explore themselves and cultivate a feeling of responsibility.

In "My Healthy Choices," linked to a science inquiry, students created balanced meals to understand healthy eating, demonstrating discipline and respect for their well-being. Similarly, in "Sharing the Planet," students explored environmental responsibility, showing love and empathy for the Earth and its living beings. These activities encouraged thoughtful, responsible choices, reflecting the school's values and fostering meaningful action in their daily lives.

" Care for our world "

" My Healthy Plate "

Integrating Social-Emotional Learning (SEL) Models and Practices in Early Childhood Education

Charis and Lane (2024) refer to the Pyramid Model that is used around the world by educators to work on promotion, prevention and intervention for social emotional development of children. Another training model that is gaining popularity mentioned by Zarra-Nezhad et al. (2024) is the POMPedaSens program, launched in 2019 in Finland, described to be a universal preventive intervention for Early Childhood Education and Care (ECEC) settings, focusing on enhancing teacher-child interactions, self-regulation, peer relationships, and reducing behavioural risks in children aged 5–6. For example, by focusing on emotional availability, the POMPedaSens program is designed with measurable improvements in children's ability to manage stress and build positive peer relationships, aligning closely with SEL goals. Rooted in positive psychology and developmental neuroscience, it promotes emotional availability, group involvement, and a shared understanding of brain-body connections to foster early social-emotional learning (SEL). Seligman (2011) suggested that PERMA (Positive Emotion, Engagement, Relationships, Meaning and Accomplishment) are five measurable elements that make up well-being. Seligman (2018) gives a host of strategies for each of the elements directing the educator's attention towards certain practical ways of building overall well-being. While SEL has gained prominence in early childhood education, its

integration into daily practices can present unique opportunities for growth.

One consideration is the need for more comprehensive teacher training and resources to seamlessly incorporate SEL into classroom routines. Additionally, balancing academic goals with SEL priorities may require thoughtful planning, particularly in traditional educational settings that prioritize cognitive outcomes.

Finally, cultural differences in how emotions are expressed and understood can enrich SEL practices but also require careful adaptation to meet the needs of all children. To support educators in these efforts, professional development programs can offer practical, hands-on training in SEL, equipping teachers to foster emotional intelligence through modelling and engagement. Technology, such as

SEL-focused games and digital tools, can serve as supplementary resources to reinforce self-awareness and empathy in playful and interactive ways. Schools may also benefit from fostering collaboration among teachers, parents, and mental health professionals to build cohesive support systems. For example, peer-sharing groups among educators can create spaces to exchange ideas, celebrate successes, and address challenges collectively, enriching the overall SEL experience for children and educators alike.

While SEL models provide structured frameworks for fostering social-emotional development, the role of play as a central mechanism for learning in early childhood cannot be overlooked. Play offers an organic and engaging context where children naturally explore emotions, relationships, and problem-solving, making it a key theoretical foundation for implementing SEL practices effectively.

Theoretical Foundations of SEL in Play

Table 1.2 Theorists informing educational play practice

Theorist	Key ideas	Definition	View of child	Links to other play practice
Froebel 1782–1852	Open-ended play, play as an integrating mechanism	Behaviour, disposition and process	Being and Becoming	Recreational play
Dewey 1859–1952	Play and playfulness	Behaviour and disposition	Becoming	Therapeutic play and recreational play
Montessori 1870–1952	Learn by themselves, freedom to choose	Work synonymous with play	Becoming	
Isaacs 1885–1948	Positive sense of self, intellectual development	Behaviour, disposition and context	Being and Becoming	Therapeutic play
Piaget 1896–1980	Stage theory of play, secondary to learning	Behaviour	Becoming	
Vygotsky 1896–1934	Imaginative play, form of language and communication	Behaviour and process	Becoming	Therapeutic play
Bruner 1915–	Modes of exploration for learning	Behaviour and context	Becoming	Recreational play

Source : Howard and McInnes (2013)

The dual role of play in cognitive and emotional development has been emphasized by theorists such as Piaget, Vygotsky, and Erikson for a long time. Froebel (1845) saw play materials as "gifts" for fostering creativity, a view also shared by Elkind (2008) and Howard & McInnes (2013). Engaging in play is crucial for overall education as it

enhances creativity, emotional strength, and the ability to solve problems. Whitaker (2023) underscores Article 31 and General Comment 17 of the United Nations Convention on the Rights of the Child to elevate play in mirroring the fundamental needs of sustenance, and security, emphasizing its quintessential role in a child's well-being. Tonkin (2024) extends this by noting that as children grow, play evolves into societal interactions that nurture

health and cohesion. Gyekye-Ampofo et al. (2023) affirm that play is a natural and essential medium for learning. This theoretical understanding underscores the importance of incorporating structured and unstructured play as core elements of SEL, as exemplified by models like the Pyramid Model and the POMPedaSens program.

The Role of Play in SEL

Play is a natural and vital way for children to explore, learn, and build foundational skills. Samuelsson and Carlsson (2008) highlight play's symbiotic link with learning.

Structured and Unstructured Play

Play can be structured (guided activities) or unstructured (free exploration). Both forms enhance originality, emotional resilience, and critical thinking. Unstructured play allows children to express themselves in relaxed settings, promoting creativity and self-expression.

Designing Play-Based Opportunities

Educators can create play-based environments with open-ended materials that encourage exploration. Reflective practices like asking, "Are we providing enough opportunities for unstructured play?" can guide implementation.

Practical Applications and Play Resource Selection

We draw insights from literature, such as the work of Jean Piaget (1978), to guide our understanding of how stages of play not only reflect age-appropriate behaviours but also serve as essential building blocks for cognitive, social, and emotional development. The following chart outlines age-specific play resources that we have learnt and observed to be age appropriate. However, we do note overlaps at times where the progression from one stage to the other might vary or be swift depending on the level of exposure a child has to play based opportunities or underlying delays.

Age	Type of Play	Basic Resources
0-3 Months	Unoccupied Play	Soft rattles , Hanging mobiles
0-2 Years	Solitary Play	Stacking toys , textured books
2-3 Years	Parallel Play	Blocks , Push and Pull toys
3-4 Years	Associative Play	Play kits , Pretend Play , Puzzles
4-6 Years	Cooperative Pay	Board games , Group projects

This framework reflects Piaget's stages of cognitive development, where solitary play aligns with the sensorimotor stage, parallel play supports symbolic thought, and associative and cooperative play encourage social interactions and shared goals. This method is based on the knowledge of contemporary educators such as Rushton, Juola-Rushton, and Larkin (2010), who highlight the importance of promoting personalized paths for development. Moreover, we incorporate materials from CASEL for implementing play-based methods that boost Social and Emotional Learning (SEL). By utilizing play for both teaching and developmental purposes, we highlight its crucial role in promoting overall child growth. Through consistent observation, collaboration, and a shared commitment to children's development, we ensure our practices align with theoretical and practical frameworks, creating an environment where every child's potential can flourish.

Conclusion

A significant challenge in fostering SEL is maintaining objectivity and focusing on observable behaviours. It ensures that our notes and interventions are grounded in facts rather than influenced by assumptions or biases. This objectivity is critical for accurately identifying a child's needs and implementing strategies that support their development. Yet, this process can be emotionally demanding, especially when progress appears slow or when recurring behavioural challenges arise.

Social and Emotional Learning (SEL) initiatives require a commitment to consistent observation and open communication between teachers and parents. By actively sharing insights, providing feedback, and conducting regular progress discussions, we establish a cohesive support system that promotes measurable outcomes like improved emotional regulation, enhanced social interactions, and reduced behavioural concerns.

Every child's social and emotional journey is unique, necessitating tailored support. Teachers play a pivotal role in this process, as their ability to manage their own emotions directly influences children's emotional learning (Denham et al., 2012). Through emotional scaffolding, educators help children navigate and understand emotions, creating personalized experiences that respect their individual identities, cultural backgrounds, temperaments, and social

histories. By leveraging these strengths and fostering meaningful interactions, teachers can significantly impact children's growth.

Patience remains a cornerstone of effective teaching. It extends beyond merely waiting for progress—it is about consistently offering encouragement, creating a positive environment, and fostering resilience and empathy. By prioritizing SEL through intentional practices, educators can nurture children into empathetic, socially responsible individuals, shaping a future rooted in compassion and understanding. Maintaining our own emotional equilibrium as educators is equally crucial. By intentionally and compassionately embracing social and emotional learning, we not only help children develop in all aspects but also help create a more empathetic and inclusive society for the future.

References

- Almalky, H.A. and Alrabiah, A.H., (2024). Predictors of teachers' intention to implement inclusive education. *Children and Youth Services Review*, 158, p.107457.
- Charis, L., & Lane, F. (2024) Teachers' Implementation of Social and Emotional Practices During Remote Instruction 1Charis L. Wahman, PhD, BCBA-D 2Sooyeon Byun, PhD, 3Lieny Jeon, PhD 1Allison White-Cascarilla, PhD, BCBA-D 1Karen Houston, MS, BCBA 4Marianna Moustaka, MEd 5Kathleen Artman-Meeker, PhD 1Department of Counseling, Educational Psychology, and Special Education, College of.
- Collaborative for Academic, Social, and Emotional Learning CASEL (2012). Effective social and emotional learning programs. Chicago, IL.
- Coskun, K., (2019). Development of facial emotion recognition and empathy test (FERET) for primary school children. *Children Australia*, 44(01), pp.23-31.
- Center on the Developing Child. (2011). Building the brain's "air traffic control" system: How early experiences shape the development of executive function (Working Paper No. 11). Harvard University, Cambridge, MA.
- Denham, S., Blair, K.A., DeMulder, E., Levitas, J., Sawyer,K., Auerbach-Major, S., & Queenan, P. (2003). Preschool emotional competence: Pathway to social competence? Child Development 74(1), 238-256.
- Denham, S.A., Bassett, H.H., & Zinsser, K. (2012). Early childhood teachers as socializers of young children's emotional competence. Early Childhood Education Journal 40(3), 137-143
- Dussault, M., & Thompson, R. B. (2024). Fundamental Themes in Social–Emotional Learning: A Theoretical Framework for Inclusivity. International Journal of Environmental Research and Public Health, 21(4), 506.
- Inan, H.Z., (2009). The third dimension in preschools: preschool environments and classroom design. European Journal of Educational Studies, 1(1), pp.55-66.
- Erikson, E.H. (1950). *Childhood and society* (2nd Edition).
- Elkind, D. (2008). The Power of Play: Learning What Comes Naturally. *American Journal of Play*, 1(1), 1-6.
- Frydenberg, E. (2021). Social Emotional Learning in the Early Years: Innovation and Applications. *Journal of Psychologists and Counsellors in Schools*, *31*(2), 184-194.
- Garnett, H., (2017). *Developing empathy in the early years*. Jessica Kingsley.
- Gyekye-Ampofo, M., Opoku-Asare, N.A., & Andoh, G.B. (2023). Early Childhood Care and Education in the 21st Century: A Review of the Literature. *British Journal of Education*, 11(4), 81-95.
- Howard, J. & McInnes, K. (2013). The essence of play: *A practice companion for professionals working with children and young people.* Routledge.
- Howe, D., (2013). Empathy: What it is and why it matters. Palgrave Macmillan, pp.20-22.
- Noel, A., Logan, P., & Delapaz, J. (2024). The Role of Play in Early Childhood and Education.
- Piaget, J. (1978). Piaget's theory of intelligence. Englewood Cliffs, NJ: Prentice Hall.
- Piaget, J. (2013). Play, dreams, and imitation in childhood (Vol. 25). Routledge.
- Pianta, R. C., & La Paro, K. (2003). Improving early school success. Educational Leadership, 60(7), 24–29.
- Rahmi, E., & Kristiawan, M. (2024). Characteristics of Educational Management Based on Humanistic Philosophy. *Journal of Innovation in Teaching and Instructional Media, 4*(3), 122-129.
- Rushton, S, Juola-Rushton, A and Larkin, E. (2010). "Neuroscience, Play and Early Childhood Education: Connections, Implications and Assessment." Early Childhood Education Journal. Vol 37, number 5. Pp 351–361.
- Samuelsson, I.P. & Maj Carlsson, A. (2008). The Playing

Learning Child: Towards a pedagogy of early childhood. Scandinavian Journal of Educational Research, 52(6), 623-641.

- Seligman, M. (2011). Flourish. New York, NY: Free Press.
- Seligman, M. (2018). PERMA and the building blocks of well-being. *The journal of positive psychology*, *13*(4), 333-335.
- Sensory Mom. (2019) 'Why is Sensory Processing Important?' Available at: https://www.sensorymom.com/blog/ (Accessed: 22 August 2023).
- Spagnuolo, J. M. (2023). *Building Social-Emotional Learning Awareness and Sustainable Supports through Teacher Collaboration* (Doctoral dissertation, Northeastern University).
- Taneja-Johansson, S., Singal, N., and Samson, M., (2023). Education of children with disabilities in rural Indian government schools: A long road to inclusion. *International Journal of Disability, Development and Education*, 70(5), pp.735-750.
- Tonkin, A., (2024). Play at home and in the community. In *Play and Health in Childhood* (pp. 147-161). Routledge.
- UNESCO. (1994). The Salamanca Statement and Framework for Action on Special Needs Education.
- Vygotsky, L.S. & Cole, M. (1978). Mind in society: Development of higher psychological processes. *Harvard University Press.*
- Whitaker, J. (2023). What is play? In Play and Health in Childhood (pp. 17-31). *Routledge.*
- Wood, J.W. (2002). *Adapting instruction to accommodate students in inclusive settings* (4th ed.). Upper Saddle River, New Jersey: Merrill.
- Zarra-Nezhad, M., Suhonen, K., & Sajaniemi, N. (2024). Keeping early social-emotional learning developmental: The development, implementation, and preliminary evaluation of a preventive intervention program for early childhood education and care. *International Journal of Developmental Science*, *17*(4), 113-125.
- Zelazo, P. D. (2020). Executive function and psychopathology: A neurodevelopmental perspective. *Annual review of clinical psychology*, *16*(1), 431-454.

Bibliography

- Ashiabi, G.S. (2000). Promoting the emotional development of preschoolers. Early Childhood Education Journal, 28(2), 79-84.
- Barblett, L., & Maloney, C. (2010). Complexities of assessing social and emotional competence and wellbeing in young children. Australasian Journal of Early Childhood, 35(2), 13-18.
- Bary, R. (2010). It is all about relationships: Infant and toddler pedagogy. Nga Tau Tuatahi. New Zealand Journal of Infant and Toddler Education, 12(2), 15- 18.
- Coplan, R.J., & Armer, M. (2005). Talking yourself out of being shy: Shyness, expressive vocabulary, and socioemotional adjustment in preschool. MerrillPalmer Quarterly, 51(1), 20-41.
- Coplan, R.J., Prakash, K., O'Neil, K., & Armer, M. (2004). Do you "want" to play? Distinguishing between conflicted shyness and social disinterest in early childhood. Developmental Psychology 40(2), 244-258
- Herndon, K. J., Bailey, C. S., Shewark, E. A., Denham, S. A., & Bassett, H. H. (2013). Preschoolers' emotion expression and regulation: relations with school adjustment. The Journal of genetic psychology, 174(5-6), 642–663. https://doi.org/10.1080/00221325.2012.759525
- Ho, S. N. J., Yu, M.-L. and Brown, T. (2024) 'The Relationship Between Children's Screen Time and the Time They Spend Engaging in Play: An Exploratory Study', *Journal of Occupational Therapy, Schools, & Early Intervention*, pp. 1–20. doi: 10.1080/19411243.2024.2333276.
- Rein, M. (2023). A Qualitative Case Study of Teacher Experiences on Implementing Social-Emotional Learning Strategies (Doctoral dissertation, American College of Education).
- World Health Organisation (2019) https://www.who.int/news/item/24-04-2019-togrow-up-healthy-children-need-to-sit-less-and-play-more

How should the Single Story in Geography be reduced in primary schools?

Yasmin Powell - Primary Teacher, Turves Green Primary School.

Introduction

The overall objective of this research is to develop an understanding of how the Single Story in Geography can shape the worldviews of primary school children. The research has been split into two key aims.

Aim One: to find out associate teachers' knowledge of the single story.

Aim Two: to find out how the single story can be reduced to provide children with a more balanced and well-rounded perspective of different countries and the world.

This topic is vital to ensure that future generations grow up with an awareness of our diverse world and to prevent the perpetuation of harmful stereotypes. The findings provide valuable feedback for policy improvements. The remainder of this section provides a contextual background of the single story.

A contextual background of the Single Story Since the inclusion of geography into the National Curriculum in 1988 (Lambert and Hopkin, 2013) there has been a greater focus on subject knowledge. The National Curriculum (2013) states children must be taught about diverse people, and resources, enabling them to grow up with a rich understanding of the world they live in. Palin (2011) and Miller (2020) believe that geography is an incredibly relevant subject that has never been more crucial that in today's world.

Literature review

Introduction
This literature review aims to explore the concept of the single story of a place in geography education and its implications for teaching and learning. It looks at key authors, and publications relating to the single story and geography, and contains a focus on the Single Story of Africa.

Single story in geography education

Catling and Willy (2018) believe that "Cultural awareness and diversity" is a key concept in geography and is a vital subject for children of today. It encompasses local and global differences, differing cultural interests, places, and identities (Rawlinson and Willy, 2019). The Geographical Association (N.D) believe that challenging the single story enables children to gain a better understanding of the world.

A single story leads to many concerns, it provides an oversimplified analysis of a place, perpetuates stereotypes (Adichie, 2009), and can lead to misunderstandings (Barlow, 2021). Ofsted (2023) analysed children's misconceptions in geography and concluded that the most frequent misconceptions related to places and people who lived there.

Single Stories are caused by generalisations, misunderstandings, and a lack of information (Barlow, 2021; Achidie, 2009). Case studies are a specific study on a place of group of people, and when portrayed accurately provide children with "real situations from the surroundings in which they live" (Hofmann and Svobodava, 2017).
However, when they are portrayed inaccurately, they can lead to an overly simplistic analysis of the place, ignoring important aspects such as culture, geography and other elements of their landscape and identity. Ofsted (2021) provides an example of Bangladesh in their subject review series. While Bangladesh is a real-world example of flooding, focusing solely on this limits the country to being known for floods, therefore creating a Single Story narrative. In other words, a Single Story narrative is limiting a place to a simple defining fact or factor, therefore ignoring everything else. There are many different thoughts surrounding how Single Stories are caused. Barlow and Whitehouse (2019) believe that the media can lead to certain groups and places being stereotyped. Madimba and Ukata (2022), explain that education is partly responsible for the biases we see today, due to how overlooked some places are in geography education. Whereas Scoffham (2017), believes that geography education is entirely responsible for "developing a secure framework of world knowledge and understanding". Adichie (2009) however, believes that media, storybooks, and the word of mouth contribute to the creation of the single story.

While often unintentional, single stories can arise due to geography lessons. Textbooks can present a stereotypical view of the world often emphasizing poverty, conflict, and underdevelopment in certain regions while overlooking the diversity and complexity

of these places. Winter (1997) discussed a single story about an ethnic group in Kenya called the Maasai. She pointed out that some textbooks about these people were written solely from a Western perspective and did not include viewpoints from the Maasai themselves, therefore portraying a limiting and incomplete perspective of the culture. Winter (1997) raised the question of how the story would differ if the Maasai had written about their own culture and beliefs. Although this study was published in 1997, many other authors have warned about ethnocentric biases; a term used when other groups are judged by one's cultural standard (Biddulph, Lambert and Balderstone, 2020). For example, this can lead to groups being portrayed as "not with the times" because they are being compared to a Western cultural standard for example.

Chimamanda Adichie

The idea of a single story has increased in popularity since Chimamanda Adichie's (2009) Ted Talk where she discussed her personal experiences surrounding the single story. While her Talk was beneficial in providing explanations and examples of the single story, it is important to note the stories included are personal to her own life and therefore may not apply to others.

Adichie's TED talk explains that single stories can perpetuates stereotypes, leads to an oversimplified perspective of a place, and can often contain outdated and problematic perspectives. She discussed how the literature from the "West" exposed to her at a young age led her to creating characters with the same traits and gave her the misconception that people like her could not exist in literature. This same idea can apply to children in the classroom; if they are only being presented with British and American texts, they too may grow up believing people like them cannot exist in literature. Adichie shared multiple examples of when the single story had impacted her life. She once visited a local village which she was told was very poor, however, to her surprise when she visited although it was poor the village had many other important aspects. This showed how easily single stories are created, in this case just using a single word to describe a place. When Adichie was in America she was victim to the same treatment, with Americans believing that all Africans were poor and could not speak English. Adichie used the example of her trip to Mexico to explain that even when the consequences of single stories are

known, they can still be believed and perpetuated

Representation of Africa

Africa is a continent that has been repeatedly subjected to a single story. It is often taught through the lens of "economic development" (Ofsted, 2023) and despite being made up of 54 countries (World Population Review, 2024), it is often misrepresented as a single place, with a focus on poverty and slavery (Scoffham, 2017; APPG Africa, 2022). Africa is thought to be hot and dusty with lots of wildlife, exotic communities, and vulnerable and disadvantaged children (Corrado, 2022; Wainaina, 2005; Corrado and Robertson, 2019). This perception of Africa not only minimises the versatile continent's rich culture, the wealth places have, but also the issues, such as corruption and conflict that Africa has had to overcome (Corrado, 2022). According to GeogLive (2023), these perspectives cause humiliation for Africa.

There have been many studies over the years, into children's perceptions of Africa. Storm (N.D) discovered that primary school children focused on the natural environment and the wildlife of Africa, with lions and the heat being the most mentioned topics. A study by Gambrill (1996) reached a similar conclusion, with children focusing on the natural environment and wildlife. This time however, disease, refugees, and wars were also mentioned (cited in Scoffham, 2017).

Although these studies are old, Oberman et al (2014) studied nine-year-old Irish Children's perspectives on Africa. They too reached similar conclusions. The children thought Africa was poor and the people travelled long distances to get drinking water. This shows that throughout the years children's views on Africa still rely on stereotypes.

An article titled "I Didn't Know There Were Cities in Africa" provides an overview of a conversation between students and their teachers about Africa (Randolph and DeMulder, 2008). Similar to previous studies, the children could tell the teacher that Africa was hot, and there were lots of animals, but when asked what jobs they had the children found it tricky. "Picking fruit" and "growing corn" were the two responses, highlighting the images children had of Africa. This shows that children's understanding of Africa is limited to a single story, ignoring the diverse urban spaces across the continent (Randolph and DeMulder, 2008).

However, this article discusses children from the US's thoughts and perspectives on Africa in 2008, so therefore may not be applied to the UK's children's beliefs today. The demographic of the children asked may also affect the results. Weigand (1991) stated that children from Indian and Pakistani backgrounds had

more knowledge of Africa than their English counterparts.

A more recent report by APPG Africa (2022) discussed perspectives and thoughts on Africa from children in the UK. The report noted that Africa is rarely discussed positively and has many negative connotations such as that it is an "exotic and primitive place in need of Britain's support" (APPG Africa, 2022). The report states that for many British people, Africa is full of stereotypes of poverty, corrupt regimes, and safaris. These generalisations are left as a form of knowledge and as seen as fact to many people, therefore leading to prejudices that can limit nations future growth. These prejudices can be damaging to children and the UK's relationship with Africa.

A survey conducted by the APPG (2022) revealed that schools are not doing enough to decrease misconceptions and prejudices about Africa among children. The survey found that simple actions could reduce the number of children who leave school with incorrect perspectives on Africa. The study identified several key issues, including viewing Africa as a single country full of poverty and struggle and having a victim narrative that defines Africa's path.

Adichie (2009) states stories have the potential to create a single story. For instance, "Handa's Surprise" (Browne, 1994), despite being 30 years old, is still commonly used in the classroom and reinforces the stereotype that Africa is a place where impoverished children live in huts and travel long distances every day. Children's films such as "The Jungle Book" (1967), Madagascar (2005), and The Lion King (1994) also perpetuate stereotypes that Africa is a large expanse of wildlife with big animals.

While these stories are more than 15 years old, more modern stories such as "The Water Princess" (Verde, 2016) and "Trash" (Mulligan, 2010), both portray Africa as a land full of poor and disadvantaged children. However, the problem is that when representing a place simplification is necessary and no story can show the complete picture (Barlow and Whitehouse, 2019). However, if Africa is repeatedly shown in the same stereotypical way, it can create a fixed and incomplete image of the continent in the child's mind (Ofsted, 2021).

While representation in story books has remained the same, children's information books,

however, have improved in recent years. The front cover of "Investigating Continents: Africa" (Juarez, 2019) shows a large city along with the landscape and environment, already disproving stereotypes from the front cover alone. The front cover of "Africa, Amazing Africa: Country by Country" (Atinuke, 2019) further shows that Africa is not a single story and shows cars, boats, cities, and technology on the front cover, therefore challenging the stereotypes of Africa. This links to Barlow's idea that we need to challenge stereotype to reduce problematic conclusions of a place (GeogLive, 2023).

How to overcome the single story?

The Ofsted review of geography (2021) has important implications for geography education as well as in primary schools. The review emphasizes the importance of carefully selecting case studies to avoid limiting children's understanding of an event or place. GeogLive (2023) build on this idea and state that case studies need to be of an increased quality, with well thought out information. Ofsted (2021) state that case studies should highlight cultures, environments, economic conditions, and how they change over time and location, to help students appreciate them. Barlow (2021) created a similar list of things he believed should be considered when teaching children about a distant place; including physical features such as landforms, climate, seasons, habitats, everyday people's lives, work, and culture. He says only then will children begin to get a sense of a place.

Hammill (2021) believes that using primary sources when teaching children is most important because it ensures accuracy and currency of the case study. This idea is supported by primary school teachers who believe showing children different pictures of a place encourage them to think about alternative views they may have not come across (Lambent Productions, 2009). This supports the important role that geography teachers play in developing children's ability to think from multiple perspectives (Winter, 1997).

The 'three lamps' model, as suggested in the Ofsted review (2021) like Barlow (2021) suggests teaching case studies in greater detail. The 'three lamp' model explains that only when we study the natural science/ positive perspective, the humanistic perspective, and the social science can we "reveal a place in all its technicolour, or multidimensional complexity" (Geographical Association, 2014).

A different way to overcome and reduce the single story is by reducing the amount of case studies. Ofsted (2023) found that many schools tried to cover too many places, using one case study per topic. This led to

limited understanding and a lack of geographical understanding, both of which increased the single story. Both Ofsted (2021; 2023) and Roberts (2013) suggest a multi-faceted approach to avoid this reductive approach.

Using a multi-faceted approach allows many topics to be explored through one case study, enabling children to gain richer, deeper geographical knowledge and to think critically about people and places (Biddulph et al, 2015; Ofsted, 2021). Teachers also need to be aware of the messages that textbooks can give about people and places (Biddulph, Lambert and Balderstone, 2020).

To summarise, the concept of the single story is a vital issue in geography. It can limit children's understanding of the world and perpetuate negative stereotypes and biases.

Research design

In this section, I will be discussing the design of my study, as well as the positives and limitations of my decisions. The data collection technique, questionnaire structure, and ethical considerations will be discussed.

Data collection technique

To collect the data for my research, a questionnaire consisting of 11 questions was distributed. A questionnaire was chosen due to the anonymised nature of the method as well as allowing me to gather participants from a large sample size, while also being inexpensive, reliable, and easy for participants to complete. Distributing and conducting the questionnaire online further helped to increase the sample size and ease of participants (Cohen, Manion, and Morrison, 2017).

Interviews were not chosen because while they provide flexible and varied data, collecting a large amount of data from the chosen population would have posed a challenge (Cohen, Manion, and Morrison, 2017).

However, questionnaires are not without their limitations. Often some participants may fail to complete and return them on time (Cohen, Manion, and Morrison, 2017). However, to account for this as suggested by Gorard (2003), I sent the questionnaires to a larger sample than necessary, to ensure there would be enough data to analyse.

Sampling

The questionnaire was distributed to associate teachers enrolled in the BA Primary Education (with QTS) and PGCE Primary Education courses at a university in the West Midlands, England. This is a type of non-probability sampling, known as convenience sampling, which involves choosing people who are available and accessible to complete the survey (Cohen, Manion, and Morrison, 2017).

The questionnaire had a low response rate due to the time-consuming nature and large number of questionnaires sent to the same population from other researchers in the same short period. The entire population of associate teachers' responses were included in this study and therefore the analysis.

The sample is limited to a single university and may not be applicable to other universities, nevertheless it provides a comprehensive insight into associate teacher's knowledge on the single story.

Structure of questionnaire

When structuring my questionnaire, I used the common sequence of questionnaires as outlined in "Research Methods in Education" (Cohen, Manion, and Morrison, 2017). The questionnaire began with a generic factual question, "Have you previously taught geography in a primary school?". Next was a series of closed questions, where participants had to answer based on a scale from strongly disagree to strongly agree. Finally, there were open questions, such as "How do you think we can reduce the single story in primary geography?" (Cohen, Manion, and Morrison, 2017).

The questionnaire was made up of both open and closed questions. The closed questions provided participants with limited answer options and gathered qualitative data, which is more specifically in the form nominal data. This allows the data to be analysed quicker, while providing reliable conclusions (Cohen, Manion, and Morrison, 2017). Closed ended questions reduced time spent on questionnaires by participants, therefore reducing ethical concerns (Bailey, 1994). However, closed questions can lead participants to choose an answer even if it is not completely representative of their thoughts and beliefs.

Open-ended questions were used to generate a rich set of valid and reliable data (Cohen, Manion, and Morrison, 2017; Krosnick and Presser, 2010). However, participants can often leave these questions unanswered, due to time constraints (Cohen, Manion, and Morrison, 2017).

Using a combination of open and closed questions, as well as differing the options given keeps participants engaged through taking the questionnaire.

Ethical considerations

Due to questionnaires being an intrusion into the lives of the participants (Cohen, Manion, and Morrison, 2017) informed consent was gathered. Informed consent as defined by Diener and Crandall (1978) is telling participants what the study is about and what is required so they can choose whether to participate in the research (cited in Cohen, Manion, and Morrison, 2017). Prior to participants completing the questionnaire an overview of the study was provided, containing its purpose, information on data protection, and information on ethics. This allowed participants to weight up the risks and benefits of being involved, therefore allowing them to make an informed decision.

Results analysis and discussion

The study is a small-scale study, with 20 participants. Due to the low number of participants, the decision has been made to include the entire population into the sample. This provides an insightful look at associate teachers opinions and perspectives of geography and the single story.

The sample is split equally between participants that have taught geography in a primary school and those who have not. Due to this, I can analyse if teaching geography leads to different perspectives on geography, place, and the single story.
The remainder of this section will be a discussion and analysis of the results from the questionnaire. Any patterns and trends will be identified and discussed to reach conclusions about the two aims of the research.

Analysis
Aim One
The first aim of this research was to find out associate teachers' knowledge of the single story.

A graph to show participants answer to "Do you know what a Single Story is in geography?"
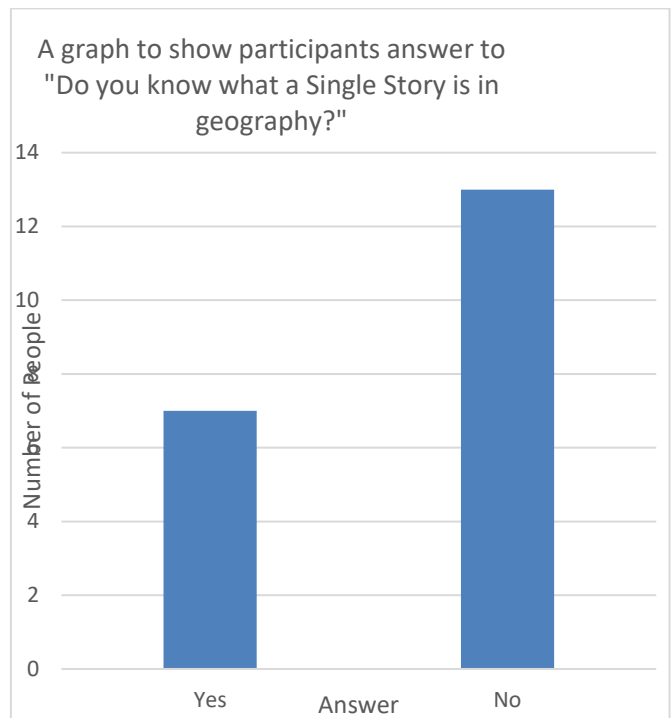
Figure One

Figure one shows participants responses to the question "Do you know what a Single Story is in geography?" As can be seen a high majority of participants (65%) did not know what the single story in geography was. This shows that associates teachers' knowledge on the single story is poor. This links to Winter's (1997) belief that geography teachers play an important role in developing children's ability to think from multiple perspectives, so if teachers are not aware of this issue, then they may be unaware of how they may contribute to the single story and the issues this may cause.

A graph to show the correlation between knowledge of the single story and geography teaching experience.
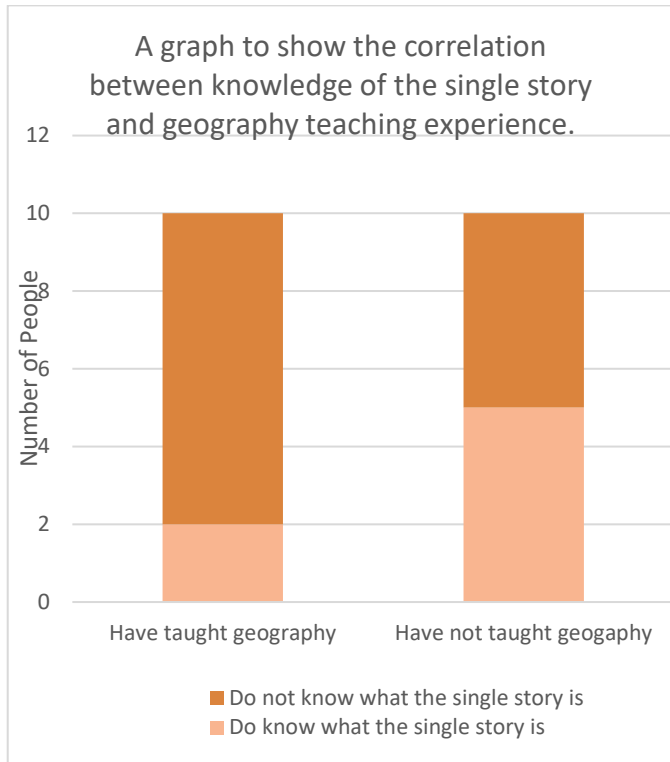
Figure Two

As can be seen from Figure Two there is a slight relation between those who have taught geography and those who are knowledgeable on the single story. Out of the ten whom had taught geography
only 20% knew what the single story was. There is a significant difference for participants who have not taught geography, with 50% of them knowing what the single story is.
Upon reflection, asking participants what year of study they were in, would have been beneficial to examine the relationship between study year and knowledge of the single story.
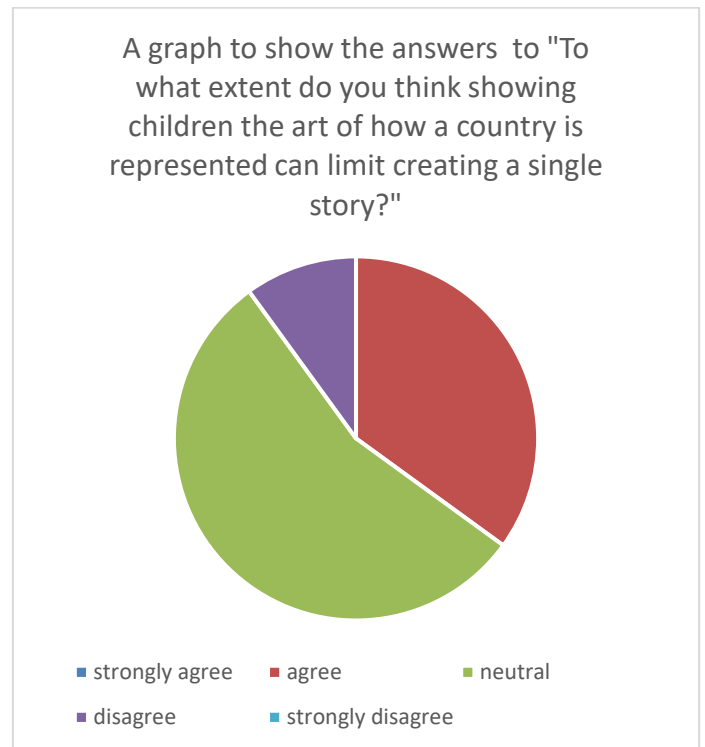
It is important to note that due to the low number of participants the difference between those who know what the single story is and have taught geography and those who have not, is only a difference of three participants. Therefore, these conclusions are not representative of all associate teachers.

To summarise, the associate teachers in this sample have poor knowledge on the single story, which in the future could lead to the single story not being reduced. Among the participants that had taught geography, their knowledge was slightly better. This could be due to a lack of education in university surrounding the topic, lack of confidence from associate teachers, or lack of participation and concentration in lectures. A different possible explanation is associate teachers forgetting the information they

have learnt in favour of other topics. The implication of this is knowledge is poor and not recapped by mentors and Continuing Professional Development (CPD).
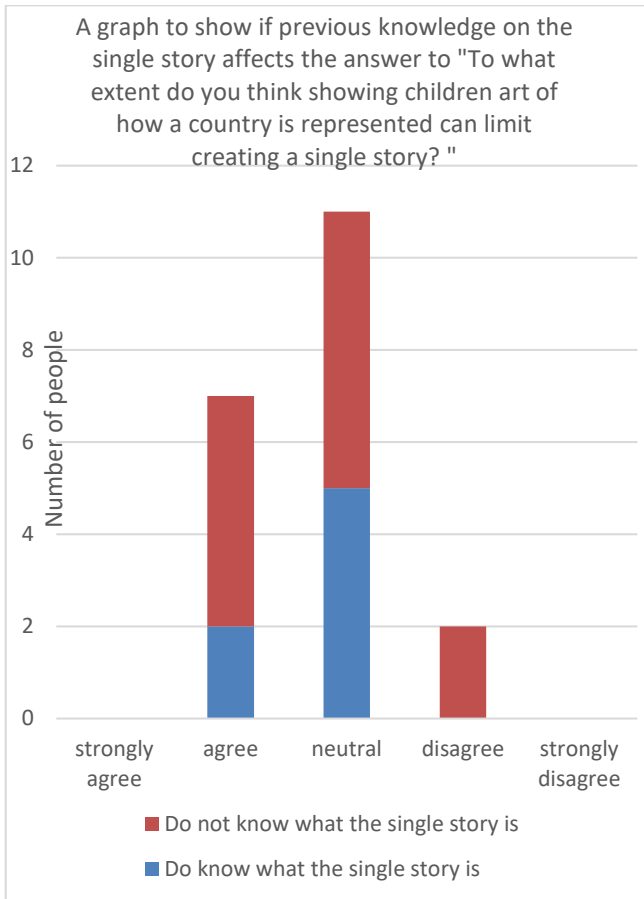
Aim two:
The second aim of this research is to find out how the single story can be reduced to provide children with a more balanced and well-rounded perspective of different countries and the world.

A graph to show the answers to "To what extent do you think showing children the art of how a country is represented can limit creating a single story?"

Figure Three

Figure Three shows the extent to which participants agree that showing children the art of how a country is represented can limit creating a single story. This figure shows that the majority (55%) of participants responded with neutral, while 35% agreed with the statement.

A graph to show if previous knowledge on the single story affects the answer to "To what extent do you think showing children art of how a country is represented can limit creating a single story? "

Figure Four

Figure Four shows if participants knowledge on the single story affect their answer to "To what extent do you think showing children art of how a country is represents can limit creating a single story?"

In the questionnaire, I briefly explained the concept of the single story, however, those who answered "yes" to the question "Do you know what a Single Story is in geography?" can be assumed to have an understanding of the single story.

When examining the responses, of those who had previous knowledge on the single story (blue), there is a narrower distribution, with the responses divided between only two bars. This is in contrast to the three-bar distribution for those who were not aware of the single story (orange).

Participants familiar with the single story, had a more positive response with 0 participants disagreeing with the statement. This contrasts with the 15% of the participants who were not familiar with the single story and disagreed that exposing children to art can limit the creation of the single story. This shows experience and understanding greatly impact associate teachers' answers.

However, while this is the case, a larger percentage (38%) of participants who did not know what the single story is agreed with the above statement compared to 28% who did know what the single story is.

Another approach to addressing aim three involved asking participants the open question "How do you think we can reduce the single story in primary geography?". This question provided a variety of responses, with many participants giving multiple ways to reduce the single story.

Suggestion to reduce the single story	Number of times suggested
More/ different perspectives	13
More/different sources	7
Include concrete resources	2
Invite guests	1
Include a comparison of different countries	1
Teach about biases	1
Unsure	2

Table One: Table One shows the categories the answers were grouped into, as well as the frequency of mentions. As can be seen, the most popular suggestion was to include more/ different perspectives, with this being suggested 13 times, more than half of the sample. Participants emphasised the importance of providing a holistic view that taught multiple perspectives. This is similar to the 90% of participants who strongly agreed or agreed that it is important for children to have multiple perspectives of a place.

One participant suggested that to reduce bias, and therefore the single story, perspectives from both low and high-income areas should be discussed. Another recommended teaching children about

perspectives from people who lived in the past as well as the present. Additionally, it was suggested to share perspectives from visitors, natives, and people with a variety of gender, age, and economic perspectives. While

some of these perspectives may be challenging to teach younger children, ensuring there is a range of perspectives is beneficial. These ideas are similar to Ofsted's (2021) "Three Lamp Model" which suggests teaching multiple perspectives of a place.

The second most popular suggestion was to include more/ different sources. These suggestions align with Barlow (2021), who suggests that to reduce the single story, rich case studies that use a variety of sources should be used. As well as Barlow, many other teachers believe that showing different perspectives via pictures encourages children to think about alternative views (Lambent Productions, 2009).

Other suggestions by the participants, included the inclusion of concrete resources, inviting guests to share thoughts, including a comparison of different countries. One suggestion that I found particularly interesting was the idea of explicitly teaching children about biases. The participant explained that children should be taught what a bias is, that perspectives on a place can be skewed, and that children should be reminded to be open-minded. Barlow (2021) agrees that in-depth discussions of a place should occur.   This links to Biddulph, Lambert and Balderstone's (2020) perspective that teachers need to be aware of potential biases.

Interestingly none of the participants suggested the multi-faceted approach as suggested by Ofsted (2021; 2023) and Roberts (2013). This could be due to their lack of knowledge regarding the single story.

To summarise, despite having poor knowledge of the single story in geography, participants had lots of beneficial ideas, which are supported by research to give as suggestions.

Recommendation

The first recommendation I would make is that single story becomes a statutory topic for all universities to teach to ensure that future teachers are aware what it is, the issues around it, and how it should be solved. It is important to note that the single story was covered in lectures at this university, however the knowledge as shown above, is still poor. To address this universities could give out work that is compulsory for associate teachers to ensure that they are engaging with the topic.

Secondly, school leadership teams should ensure that staff knowledge is high and up to date on this topic and surrounding issues. They can do this by offering CPD to ensure that not only are staff up to date, but they teach geography and distant places in a way that reduces stereotypes. As mentioned previously, schools should consider using a multi-faceted approach to ensure children receive a variety of information and perspectives on the same country. This once again should be discussed with the staff during CPD.

Another way leadership could support in reducing the single story is by inputting learning about biases into the curriculum. Giving teachers the time and resources to teach about bias allows children to acknowledge biases in the future, therefore reducing the likelihood they will believe and follow stereotypes of a place.

Finally, government leaders should make teaching about bias a statutory part of the geography National Curriculum. This will ensure that school leadership will have to give teachers the time to teach this in the classroom. This change will not only support the teaching of distant places in geography but will also be helpful for other subjects in and outside of the classroom.

Conclusion

The research concluded that overall, the participants knowledge of the single story is poor. However, they could suggest many ways to overcome the single story which is supported by research outlined in the literature review.

Changes to study
Future studies should aim to use a larger sample of participants from a range of universities so knowledge of the single story could be compared between different universities. Further studies could ask questions relating to the demographic of participants, such as what year of study they were in and their past geography knowledge, therefore allowing increased analysis.

References

- Adichie. C (2009) *The danger of the single story*. Available at: https://www.ted.com/talks/chimamanda_ngozi_adichie_the_danger_of_a_single_story#t-1101088 (Accessed: 22/04/2024)
- APPG Africa (2022) *Education Inquiry Report*. Available at: https://www.dropbox.com/sh/ttqt3l5flceoj6y/AABWRYd4FO6Bwg8JsifY0-GAa?dl=0&e=1&preview=RAS_APPGA_Education+Inquiry_A4+Report_final_1.1.pdf (Accessed: 04/05/2024)
- Atinuke (2019) *Africa, Amazing Africa: Country by Country*. Walker Books
- Bailey. KD (1994) cited in Cohen. L, Manion. L, and

Morrison. K (2017) *Research Methods in Education.* Taylor and Francis Group.

- Barlow. A and Whitehouse. S (2019) *Mastering Primary Geography.* Bloomsbury Publishing Plc

- Barlow. A (2021) 'The dangers of 'Single Stories' in primary geography education', in K. Doull's *Teaching a Diverse Primary Curriculum.* A SAGE Publishing Company: London.

- Biddulph. M, Lambert. D, and Balderstone. D (2020) *Learning to Teach Geography in the Secondary School: A Companion to School Experience.* Taylor & Francis Group

- Biddulph et al, 2015 cited in Geographical Association (2020) *Classroom strategies for tackling the whiteness of geography.* Available at: https://www.proquest.com/docview/2472670442?pq-origsite=gscholar&fromopenview=true&sourcetype=Scholarly%20Journals (Accessed: 07/05/2024)

- Browne. E (1994) *Handa's Surprise.* Walker Books

- Catling, SJ, and Willy, T 2018, *Understanding and Teaching Primary Geography*, SAGE Publications, Limited, London.

- Cohen. L, Manion. L, and Morrison. K (2017) *Research Methods in Education.* Taylor and Francis Group.

- Corrado. E (2022) *Decolonising geography to unshackle the representation of Africa.* Available at: https://pure.roehampton.ac.uk/portal/en/publications/decolonising-geography-to-unshackle-the-representation-of-africa (Accessed: 04/05/2024)

- Corrado. E and Robertson. L (2019) *Kenya: Challenging negative Perceptions around the 'African Child'.* Available at: https://pure.roehampton.ac.uk/portal/en/publications/discourses3-kenya-challenging-negative-perceptions-around-the-afr (Accessed: 04/05/2024)

- Diener. E and Crandall. R (1978) cited in Cohen. L, Manion. L, and Morrison. K (2017) *Research Methods in Education.* Taylor and Francis Group.

- Gambrill. A (1996) cited in Scoffham. S (2017) *Young Children's Ideas of Different Nations, Peoples and Cultures: A Research Perspective.* Available at: https://repository.canterbury.ac.uk/item/881q1/young-children-s-ideas-of-different-nations-peoples-and-cultures-a-research-perspective (Accessed: 04/05/2024)

- GeogLive (2023) *GeogLive 13 Place Local to Global from @EYPPC_GA.* Available at: (110) GeogLive 13 Place Local to Global from @EYPPC_GA - YouTube (Accessed: 29/04/2024)

- Geographical Association (2023) *Geography.* Available at: https://education.nationalgeographic.org/resource/geography-article/ (Accessed: 15/04/2024)

- Geographical Association (2014) 'Focus on teaching about places', *Teaching Geography.* Available at: https://portal.geography.org.uk/downloads/journals/TG_AUT_2014_ALL.pdf (Accessed: 07/05/2024)

- Geographical Association (N.D) *A Different View.* Available at: https://geography.org.uk/wp-content/uploads/2023/01/GA_ADVBookletFULL.pdf (Accessed: 24/04/2024)

- Gorard. S (2003) cited in Cohen. L, Manion. L, and Morrison. K (2017) *Research Methods in Education.* Taylor and Francis Group.

- Hammill. A (2021) cited in Ofsted (2021) Research review series: geography. Available at: https://www.gov.uk/government/publications/research-review-series-geography/research-review-series-geography#fnref:124 (Accessed: 07/05/2024)

- Hofmann. E and Svobodová. H (2017) *Case Studies in Geography Education as a Powerful Way of Teaching Geography.* Available at: https://www.researchgate.net/publication/309304649_Case_Studies_in_Geography_Education_as_a_Powerful_Way_of_Teaching_Geography#:~:text=A%20case%20study%20presents%20an,everyday%20life%20through%20geography%20education (Accessed: 17/04/2024)

- Juarez. C (2019) *Investigating Continents: Africa.* Raintree

- Krosnick. J, A and Presser. S (2010) cited in Cohen. L, Manion. L, and Morrison. K (2017) *Research Methods in Education.* Taylor and Francis Group.

- Lambent Production (2009) *Primary Geography: Overseas Localities.* Teachers TV [Online video] Available at: https://video-alexanderstreet-com.bcu.idm.oclc.org/watch/primary-geography-overseas-localities/transcript (Accessed: 07/05/2024)

- Lambert. D and Hopkin. J (2013) *A possibilist analysis of the Geography National Curriculum in England.* Available at: https://discovery.ucl.ac.uk/id/eprint/1541374/1/Lambert_A%20possibilist%20analysis%20of%20the%20Geography%20National%20Curriculum%20in%20England.pdf (Accessed: 15/04/2024)

- Madagascar (2005) Directed by: Tom McGrath and Eric Darnell. The United States: DreamWorks Animation.
- Madimba. A and Ukata. C (2022) *It's a Continent: Unravelling Africa's history one country at a time.* Coronet
- Miller. G (2020) *Geography really matters!* Available at: https://portal.geography.org.uk/downloads/journals/PG_AUT_2020_MILLER.pdf (Accessed: 16/04/2024)
- Mulligan. A (2010) *Trash.* Definitions
- Oberman, R. et al. (2014) cited in Scoffham. S (2017) *Young Children's Ideas of Different Nations, Peoples and Cultures: A Research Perspective.* Available at: https://repository.canterbury.ac.uk/item/881q1/young-children-s-ideas-of-different-nations-peoples-and-cultures-a-research-perspective (Accessed: 04/05/2024)
- Ofsted (2023) *Getting our bearings: geography subject report.* Available at https://www.gov.uk/government/publications/subject-report-series-geography/getting-our-bearings-geography-subject-report (Accessed: 07/05/2024)
- Ofsted (2021) *Research review series: geography.* Available at: https://www.gov.uk/government/publications/research-review-series-geography/research-review-series-geography#fnref:124 (Accessed: 06/05/2024)
- Palin. M (2011) *geography students hold the key to the world's problems.* Available at: https://www.theguardian.com/education/2011/aug/18/geography-top-10-alevel-subjects#:~:text=Many%20employers%20prize%20the%20knowledge,relatively%20low%20level%20of%20unemployment (Accessed:18/04/2024)
- Randolph. B and DeMulder. E (2008) *"I Didn't Know There Were Cities in Africa"* Available at: https://www.bu.edu/africa/files/2016/02/Randolph-et-al-Cities-in-Africa-2008.pdf (Accessed: 04/05/2024)
- Rawlinson. S and Willy. T (2019) 'Introduction' in Geographical Association's *Leading Primary Geography.* Severn: UK
- Roberts, M (2013) cited in Geographical Association (2020) *Classroom strategies for tackling the whiteness of geography.* Available at: https://www.proquest.com/docview/2472670442?pq-origsite=gscholar&fromopenview=true&sourcetype=Scholarly%20Journals (Accessed: 07/05/2024)
- Scoffham. S (2017) *Young Children's Ideas of Different Nations, Peoples and Cultures: A Research Perspective.* Available at: https://repository.canterbury.ac.uk/item/881q1/young-children-s-ideas-of-different-nations-peoples-and-cultures-a-research-perspective (Accessed: 18/04/2024)
- Storm. M (N.D) as cited in Fyson, N. (1984) *The Development Puzzle*, London: Hodder and Stoughton.
- The Jungle Book (1967) Directed by Wolfgang Reitherman. The United States: Walt Disney
- The Lion King (1994) Directed by Roger Allers and Rob Minkoff. The United States: Walt Disney
- Verde. S (2016) *The Water Princess.* G.P. Putnam's Sons Books for Young Readers.
- Wainaina. B (2005) *How to write about Africa.* Available at: https://www.bu.edu/africa/files/2013/10/How-to-Write-about-Africa.pdf (Accessed: 04/05/2024)
- Weigand (1991) cited in Scoffham. S (2017) *Young Children's Ideas of Different Nations, Peoples and Cultures: A Research Perspective.* Available at: https://repository.canterbury.ac.uk/item/881q1/young-children-s-ideas-of-different-nations-peoples-and-cultures-a-research-perspective (Accessed: 04/05/2024)
- Winter. C (1997) cited in Biddulph. M, Lambert. D, and Balderstone. D (2020) *Learning to Teach Geography in the Secondary School: A Companion to School Experience.* Taylor & Francis Group
- World Population Review (2024) *Countries in Africa 2024.* Available at: https://worldpopulationreview.com/country-rankings/countries-in-africa (Accessed: 04/05/2024)

CURRENT ENQUIRY AND PRACTICE

Shapes of Doctoral Supervision- A Practitioner Enquiry to Explore Elements of Co-Supervision
Dr Chris Bolton - Senior Lecturer

Introduction

Earlier this year, I was fortunate to be part of a Community of Practice (CoP) for doctoral supervision. This SEDA (Staff and Educational Development Association) approved course was the first time in my capacity as a supervisor that I had space to (re)consider my role in the supervisory relationship and it provided me with time to reflect on my impact as a supervisor for doctoral candidates and master's degree students.

The study of academic supervision is well researched (Lee, 2011; Parker-Jenkins, 2018; McAlpine, 2013; Petersen, 2007) and in no way am I attempting to re-hash what already exists! Usefully too, there are frameworks and guidance for this process, such as the United Kingdom Council for Graduate Education's 'Good Supervisory Practice Framework' (Taylor, 2019). However, this article is an attempt to add to that discourse from a personal point of view as I share some findings from my practitioner enquiry. What emerged as a key interest of mine through the CoP was exploring my private individual thinking and feelings about supervision in a more public space in an attempt to co-create relationships with fellow doctoral supervisors and further understand my own experience of being a supervisor.

Evidently, the practice of graduate supervision can be viewed as a private or hidden practice (Manathunga, 2005) with McAlpine (2013: 265) demonstrating in her research that supervision can be "viewed as a one-to-one relationship" in which both the supervisor and supervisee are "*privately* managing the experience". However, I wanted to see if my private experience(s) of supervising graduate students might align with other supervisors' experiences.

The challenge?

During my experience(s) as a supervisor I was often, and sometime still am, left asking myself if am I doing enough in supervision? Is what I am doing good enough for the supervisee? Is my role useful? These questions are often exacerbated when considering my role and involvement within one of my co-supervisory teams, where I then question where I fit in within the team, what do they think of my contribution(s), and wonder if we are moving along an aligned supervisory pathway. Essentially, these questions, and my experience(s) so far, leave me with a feeling of supervisory schizophrenia, which leads me to feelings of professional insecurity, doubt and uncertainty. Despite this, the CoP provided me with a useful pedagogical space to share these questions and feelings. As such, the CoP and I engaged in discourse as a way to develop our practice as supervisors (Ryan, 2015). From our discussions it was evident that I was not alone in my feelings of professional doubt. Making my private experiences public through the CoP became an interesting learning space for my skills as a graduate supervisor.

Emerging from this it became apparent to me, that my supervisory schizophrenia was being driven by my relationship to others (supervisee and co-supervisors) and my relationship to the supervisory process itself. I was becoming aware that my relationship to the supervisee was also being affected by my relationship with my co-supervisors. As a result, I started to think more deeply about relationships, personalities, and co-supervision.

Co-supervision forces supervisors to consider not only their intra-personal skills but also their inter-personal skills. This is something highlighted through Kálmán *et als'*. (2022: 454) work in which they state that "… the fit between supervisors and doctoral

candidates is relevant in the areas of expectations and thinking, as well as in personality and styles". This relationship between expectations and personality within supervision is interesting with Petersen (2007: 479) noting that "… in the supervisory relationship the process of producing and regulating self and others is continuously being played-out" but that framing this 'playing-out' is that all parties are "… busy getting it right".

The plan

As a result of this, I wanted to see/compare/contrast my co-supervisory team's 'styles and shapes' of doctoral supervision. To do this I adapted Lee's (2011) questionnaire about successful research supervision. Lee's
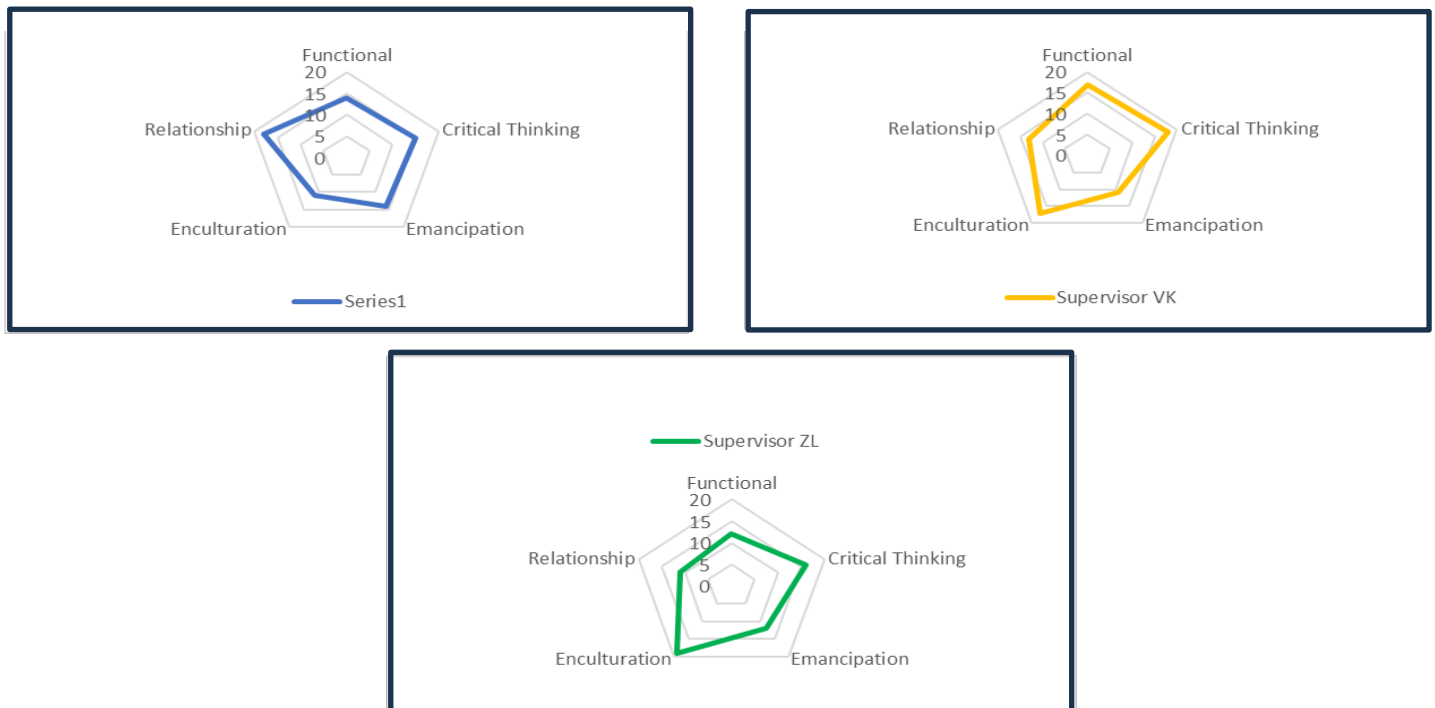
Figure 1 - Findings from self-evaluation- Co-supervision Team

questionnaire is part of a larger research based practical framework that offers a way for academics to explore their effectiveness within supervision. Underpinning this approach, Lee's work examines different approaches to supervision, such as

supervision being 'functional', a process of 'enculturation', a space to develop 'critical thinking', an act of 'supporting emancipation', and a method of 'relationship development', to advance independent skills in research and academic writing for the

supervisee.

Having adapted the questionnaire, I used it to evaluate what I believed my role in supervision was. I then informally approached my co-supervisory colleagues and asked them to complete the questionnaire with the aim of (re)considering our co-supervisory relationship to the student we were supervising. The results of the questionnaire, which linked to the five approaches outlined above, were then mapped onto a spider graph/radar chart to 'see' the different shapes of our supervisory roles.

Figure 1. below shows how each member of the co-supervisory team evaluated their beliefs about

themselves as a supervisor. The shape(s) show the strengths and deficits in Lee's five approaches to supervision. The higher the score in a particular area, the wider the shape. The orange shape represents the director of studies (DoS) within our co-supervisory team, with the green representing the second supervisor (G2) and the blue representing myself (Bm), making up this tri-partite crew!

Once completed, I then combined the colour shapes of the self-evaluation process in order to begin to compare our 'styles' of doctoral research (*figure 2.*). In doing so, I began to 'see' the different areas we believed we were collaboratively 'covering' during our co-supervision.
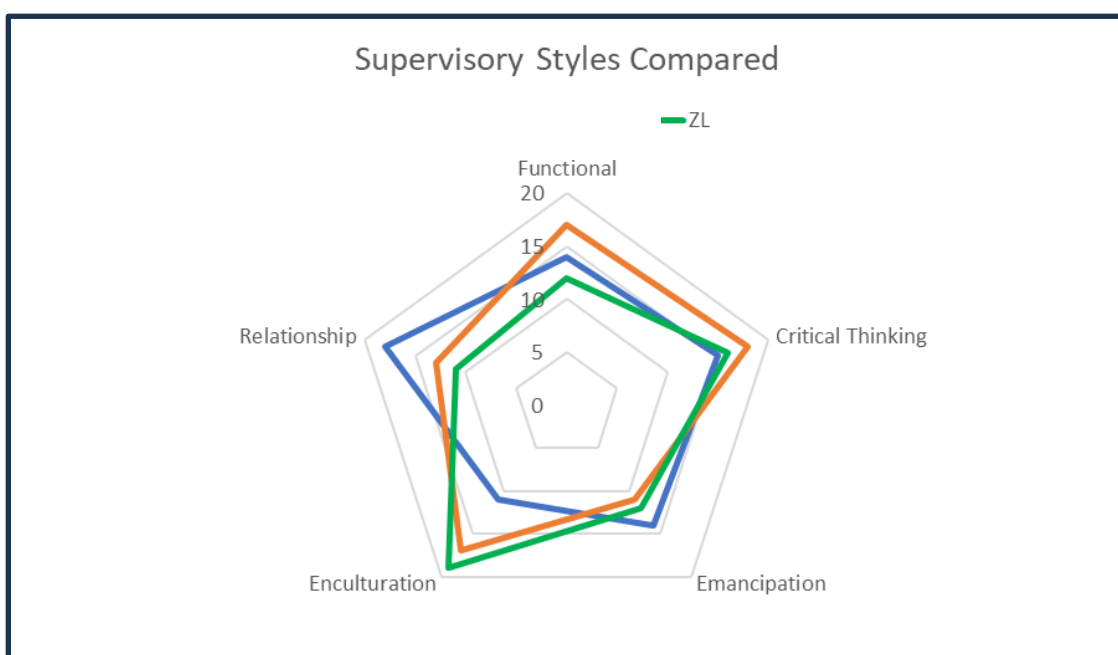

Supervisory Styles Compared

Figure 2 - *Doctoral styles compared*

Discussion

When comparing the different shapes, I was surprised to learn that a 'strongest' area of value for me in the supervisory process was the value of relationship. To some extent, this 'surprise' was not as surprising as I first thought, particularly given my feelings of supervisory schizophrenia explored earlier in this article. It was evident through the self-reflective

process, that my need for relationship within the learning process was significantly higher than that of my colleagues, and this means that potentially my feelings of insecurity are being driven by a lack of relationship. This feeling is strengthened, perhaps, as all our supervision happens online via MSTeams. Despite this, I am left questioning if I am too 'personal' in my teaching and supervisory relationships

and this might be explained by my own pedagogical background in drama education.

Evidently, this practitioner enquiry shows me that in order to develop as a doctoral supervisor, I might need to expand my supervisory 'shape' and focus on developing areas such as 'critical thinking' and 'enculturation' more strongly. Interestingly, the view of supervision as a process of enculturation was significantly higher for my co-supervisors, who both valued this similarly. Lee (2011: 48) suggests that supporting enculturation "…refers to the process of socialisation or acculturalisation into the discipline, the working milieu" and potentially my area of development here might be stymied by my relatively limited experience as a doctoral supervisor.

When looking at the shapes individually, there are a number of areas for consideration. Evidently, the DoS shape is larger and covers a greater area compared to G2 and Bm. This may be as a result of the DoS having more experience of supervision. This might also mean that the DoS's larger shape is a result of previous supervisory experiences that have been used when completing this enquiry. Interestingly, both shapes for DoS and G2 are similar, whereas my doctoral shape is different. Obviously, differences are to be expected but the similarity of my co-supervisors' shapes is notable. When we discussed this, we considered the role of gender as a potential explanation for this, with G2 and the DoS being female and myself being male. On reflection, however, this is an overly simplistic way to view the data, but it does offer some potential interesting avenues for exploration and research in the future- to what extent might gender affect the supervisory relationship?

The notion of emancipation within the supervisory process was notably scored lower for all three of us.

This might mean that we value this less compared to other areas of supervision. Lee (2011: 94) explains that in this approach "…the academic wants the student to find their own direction and values and to decide to apply them to their research". Having discussed this as a supervisory team it was felt that this is something that we collectively wanted for our 'shared' doctoral candidate but that the personality and identity of our student was potentially limiting our approach to this due to her own needs within the supervisory relationship. It is beyond the limits of this study to explore the role and impact of the supervisee on the supervisory relationship; however, this is potentially another area of research for the future- to what extent do the needs of the supervisee affect the supervisory relationship?

Linked to this, and having reflected on the collective doctoral shapes, I was left wondering to what extent our research student was overloaded. Clearly, she faces the demands of conducting a doctoral qualification on a part-time basis whilst working. However, I wondered if having three supervisors, with complimenting (and competing) styles and shapes was overloading her direction with her research. Again, whilst recognising the limits of this practitioner enquiry, this too could be another area to potentially research. Perhaps the title of this might be "Do the overlapping of 'styles' from the supervisory team provide the doctoral candidate with a good enough experience?".

Conclusion(s)

Overall, this experience of the CoP and having the space to re-consider my role as a doctoral supervisor has been useful, revealing and thought provoking. In concluding my practitioner enquiry, I believe that there are two main areas, for me personally, to

develop when working as a supervisor and as part of a supervisory team.

I think that a clearer calibration of expectations is needed at the start of any doctoral supervision work and that using a 'tuning' activity like the one at the centre of this enquiry might be useful. Taylor (2019: 14) interesting notes that there can be "…mismatches between the expectations of candidates and supervisors which can adversely affect their relationship" and that supervisors might ensure there is some form of expectation calibration. Whilst this is useful, I might extend this and suggest that co-supervisors might also engage in this type of calibration activity before supervising and/or during supervision. In doing so, this might lead to a greater sense of togetherness and relatability.

As part of this calibration, adopting a sense of openness to negotiating identity(ies) for both the supervisor and supervisee might be useful to address. Green (2005: 153) notes that "…doctoral education is as much about identity formation as it is about knowledge production" and this is something that has become evidently clear through my own reflection and enquiry into this area. By agreeing and adapting to the needs of others in the supervisory relationship it might mean that all involved in the process glean from it, what it is that they need.

Above these two aims I believe that I am committed to getting it right (Petersen, 2007), whatever that means for those involved in the supervisory relationship. As such, I am now developing a stronger interest in how to identify, and potentially overcome, 'interpersonal difficulties' in co-supervision. This development might be underpinned by a stronger focus on developing notions of 'critical thinking' and

'enculturation' into the world of doctoral study. Similarly, exploring and using the 'shapes of doctoral supervision' approach might also go some way to understanding the formation of future co-supervisory teams.

References

- Green, B. (2005) *Unfinished business: subjectivity and supervision*, Higher Education Research & Development, 24:2, 151-163. Available at https://www.tandfonline.com/doi/abs/10.1080/07294360500062953 [Accessed 21.02.2024]

- Kálmán, O., Horváth, L., Kardos, D., Kozma, B., Feyisa, M. B., & Rónay, Z. (2022). Review of benefits and challenges of co-supervision in doctoral education. *European Journal of Education*, 57, 452–468. https://doi.org/10.1111/ejed.12518

- Petersen, E.B. (2007) *Negotiating academicity: Post-Graduate research supervision as category boundary work,* Studies in Higher Education, 32: 4, 475-487. Available at https://www.tandfonline.com/doi/abs/10.1080/03075070701476167 [Accessed 21.02.2024]

- Taylor, S. (2019) *Research Supervision Recognition Programme- Guide to reflection,* UK Council for Graduate Education. Available at https://supervision.ukcge.ac.uk/good-supervisory-practice-framework [Accessed 27.02.2024]

- Lee, A. (2011) *Successful Research Supervision: Advising Students Doing Research*, London: Routledge.

- McAlpine, L. (2013) *Doctoral Supervision: Not an individual but a collective institutional responsibility,* Journal for the Study of Education and Development. Vol, 36, 3. Available at https://www.tandfonline.com/doi/abs/10.1174/021037013807533061 [Accessed 20.02.2024]

Bibliography

- Alias Masek , Maizam Alias , "A Review of Effective Doctoral Supervision: What Is It and How Can We Achieve It?," Universal Journal of Educational Research, Vol. 8, No. 6, pp. 2493 - 2500, 2020. DOI: https://10.13189/ujer.2020.080633

- Ecclestone, K., & Hayes, D. (2008) *The dangers of therapeutic education*, London: Routledge

- Parker-Jenkins, M. (2018) *Mind the gap: Developing the roles, expectations and boundaries in the doctoral supervisor-supervisee relationship*, Studies in Higher Education. Vol 23, No.1, 57-71. Available at https://www.tandfonline.com/doi/full/10.1080/03075079.2016.1153622 [Accessed 20.02.2024]
- Lee, A. (2008) *Supervision Teams: Making Them Work.* London: Society for Research into Higher Education.
- Lundgren, O., & Walter, O. (2021) *Cultivating the Interpersonal Domain: Compassion in the Supervisor-Doctoral Student Relationship*, Frontiers in Psychology, Vol.12. Available at https://www.frontiersin.org/journals/psychology/articles/ 10.3389/fpsyg.2021.567664 [Accessed 24.02.2024]
- Manathunga, C. (2005) 'The development of research supervision: "Turning the light on a private space"', International Journal for Academic Development, 10:1, 17-30.
- Ryan, J. (2015) *It ain't just what you do and the way that you do it: why discourse matters in higher education communities of practice.* Higher Education Research and Development, 24:5, 1001-1013
- Wenger, E. (1999). Communities of practice: Learning, meaning and identity (1st paperback ed.). Cambridge: Cambridge University Press.

Developing Critical Thinking in Early Childhood Education Through Playful Learning Provocations

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Introduction

O'Reilly et al. (2022) state that critical thinking is the most important skill set education systems must develop for students. Critical thinking, however, can be linked to many subcomponents of cognitive abilities such as logic, reasoning, inferences, abstraction, problem-solving, and making informed choices that educators must understand and implement consciously while working with young learners. It plays a pivotal role in the cognitive abilities of an individual. It informs one's decision-making, self-directed, and reflective skills to think abstractly or with purposeful intention and logical reasoning. It is a metacognitive thinking process that propels cognitive decision-making to all dimensions of a person's life, such as social-emotional, psychological, and physiological contexts. Therefore, what does critical thinking look like in early childhood, and what is the relevance of nurturing it?

In a world that is changing so rapidly, the onset of the digital age has played a vital role in the decline of play and critical thinking in young children (Gray 2011). According to Noviza (2019), Research on the prolonged use of gadgets in early childhood hampers development in many areas, including cognitive development and critical thinking. However, Lai's (2011) Research suggests that critical thinking can be developed at a very early age and is seen as a crucial competence and skill for innovation, it lends itself to the creative thinking process imperative to the 21st century. It, therefore, must be taken into consideration that young children can develop critical thinking through cognitive stimulations and provocations in the learning designs within the curricular framework. To understand and analyse how young learners can develop critical thinking, the practitioner plays an important role in stimulating metacognition in young learners.

The metacognitive abilities of young learners are potentially undervalued, with some practitioners being unconscious of how learning and thinking are demonstrated through play. In my observation of my local context of preschool environments in private and public schools in Bangalore, India, most educators still primarily focus on developing cognitive faculties in young learners through a didactic pedagogical approach, with more emphasis on factual information and knowledge, with limited application of child-appropriate developmental learning processes. Gholam (2019) Societal needs have changed over the course of time and decades; hence, it is of utmost importance that, as educators, we can design and perceive the challenges that lie ahead of our learners to be better equipped with core competencies such as critical thinking for future success. Therefore, competency building and lifelong learning in early childhood education play an important role in the repertoire of an early childhood practitioner. Playful provocations provide opportunities for young learners with open-ended resources, materials, and experiences that can create a context for learning to further explore ideas or inquiry either independently or in groups through play. While analysing learners' thought processes and fostering critical thinking through play, the skill of using playful provocations with open-ended questions to engage in shared meaning-making allows for multiple interpretations and perspectives.

Context

The present study was conducted in a preschool environment with learners aged 4 to 5 years old. The context of learners was multicultural and comprised of different nationalities and linguistic abilities. The focus of the study is to analyse how practitioners can enhance critical thinking through playful learning provocations. This study seeks to focus on the role of a teacher's pedagogical understanding and ability to identify opportunities to nurture critical thinking while keeping in mind the cognitive abilities, of young learners without being intrusive while at play and interrupting the flow of thinking by answering primarily two questions;

How can critical thinking opportunities be captured and developed in young learners?

How do open-ended questions encourage critical thinking or metacognition, even in young learners?

Literature Review

2.1 Manifestation of Critical Thinking through Play
Play is the highest form of learning, demonstrating multiple cognitive abilities that a learner exhibits naturally. According to Vygotsky (1896–1934), young learners demonstrate the highest level of thinking and abstraction through play. These mental processes can be studied and developed with the help of a knowledgeable other in the zone of proximal development. Therefore, according to Kangas et al. (2023), children do not see play as a tool for learning but rather as an innate desire to explore the world. During play, children create meaning-making, frequently using skills and agency that operate within the zone of proximal development, resulting in the creation of new knowledge and skill development that is crucial to growth and development.
In a study conducted by Kamarulzaman (2015), young learners learn through play, which increases their ability to think; however, it is not clear how pre-service and in-service teachers perceive how play increases the ability to think and, if so, how they use

opportunities in play to build critical thinking. If play is seen to enhance critical thinking in young learners, many factors contribute to play. The learning environment, observations of play to inform pedagogical practice, and provocations designed to cultivate critical thinking, including the practitioner's active participation in the learning process, play a pivotal role in enhancing and stimulating cognitive abilities; therefore, the understanding of a practitioner's role in enhancing such learning opportunities and identifying when they are taking place organically is crucial, to further stimulate metacognition in young learners.

2.2 The Role of the Practitioner in Cultivating Critical Thinking

Paul and Elder (2020) propose that if educators are to teach critical thinking, it must come from a place of clarity. Therefore, in my practical experience, play is viewed as a way of building a concrete understanding of the world through interactions with the physical world and harnessing critical thinking that is crucial to development. While working with young learners, it is important to take into consideration various learning contexts about the learner and work to design a conducive environment that is sensitive to the learner's needs. The most important aspects of my recent early childhood education teacher training programme in Finland were the power of observation and active teacher agency. According to Kangas et al.'s (2021) research on Nordic early childhood pedagogy, pedagogy serves in early childhood education to promote and scaffold learning. In co-creating new knowledge, skills, and competence, teachers are seen as equal active agents of learning, hence it is imperative to have an ongoing reflective practice. Murdoch (2021) mentions that of all pedagogical

tools used to cultivate curiosity, a practitioner's greatest repertoire is questioning. Teacher questions not only focus on what the learner is learning but also on how learning unfolds, giving insightful ways to understand how thinking occurs. Questions lie at the heart of inquiry not only from the teacher's perspective but also redirect our focus to understanding and taking interest in the types of questions young learners use at play, giving practitioners insights into the way young learners develop critical thinking. Questions have a powerful influence on a learner's reflective abilities and metacognition, even in the early years. However, in my personal experience, it also must be noted that the art of questioning is a skill or competence that most practitioners are continuously working on and, if not done well, can also limit critical thinking in young learners.

Korthagen (2022) states that core reflections help practitioners become aware of the obstacles and understand the patterns, creating alternative ways in which action-oriented reflections become a way of building competence in educators. According to Dewey (1933), It is important to develop independent thinking rather than receiving answers. For Dewey, critical thinking should be activated by engaging Learners in a problem-based learning experience, rather than on the information available to them. In support of this notion, McBride (1991) distinctly highlights the difference between thinking and critical thinking. In the broadest sense, meaning-making is made out of something that has no meaning or out of an experience; on the other hand, critical thinking is focused on the processes and skills that are required to develop decision-making for problem-solving.

Reflective Discussion

3.1 The Power of Observation in Play

Through my observations of young learners at play in my professional role as an early childhood educator, I was able to analyse the use of provocations as a teaching strategy while taking a developmental perspective to acknowledge learners' understanding. This helped me gain insight into how learners replicate and analyse thinking through play. I maintained observational records of these play sessions of learners from multicultural backgrounds and multilingual abilities over time to inform my observation of how play is an integral way of shared meaning-making out of experiences while at play.

Observation of Group 1 Time duration: 40 Minutes Age Group: 4 to 5 Year Olds Structured Play	It is interesting to see how learners despite diverse linguistic backgrounds still found ways to communicate with each other for shared group work during structured play. Learners were given the task of constructing any model of choice using different kinds of materials such as Lego blocks. Learners were seen conversing with each other about the textures of different types of materials they had collected and agreeing or disagreeing with each other if the materials would be able to support the model of the house. It was interesting to see that critical thinking in young learners could also mean negotiation of ideas, experimenting exploring and taking from a social construct context as well.
Observation of Group 2 Time Duration 40 Minutes Age Group 4 to 5 Year Olds Free Play	learners were seen playing with a tool kit to fix a tricycle. It was interesting to observe that learners were able to create imaginary problems and scenarios such as a garage and broken cars that needed to be fixed. It was observed even though the toolbox sparked the imaginary idea, however, what was more interesting was the shared notion of the things that needed to be fixed. Therefore, it is not always explicit how learners demonstrate critical thinking through play, but could be implicit shared ideas that are connected to finding the problem, in this case, the imaginary broken cars in the garage.

Table 1 Observation of Play

During my observations, I have come to understand that play stimulates curiosity and imagination which became evident when young learners quite often use multiple skills while at play, such as non-verbal and verbal cues like listening, communicating, making inferences, attaching meaning to experiences and objects, and quite often displaying scientific thinking competencies like predicting, testing, experimenting, and problem-solving ideas. Thus, it becomes evident that learning is dynamic and there is no compartmentalisation. If all of these skills are observed through simple play-based activities that young learners are engaging in, then it is a missed window of opportunity if educators do not utilise these self-directed play engagements to enhance critical thinking.

3.2 The Use of Provocations During Play

The use of provocations to cultivate curiosity in early childhood education is a skill that educators could seamlessly blend into the curriculum and the learning engagements to ensure that it would be natural for the learners to engage in and build on critical thinking. As per Gholam (2019), Provocations used in the inquiry-based learning model support an instructional practice that is student-centric and allows learners to take ownership of their learning by posing questions and thinking about their learning as active participants in the learning process. This is even more crucial to developing such skills with young learners.

The use of open-ended questions can ascertain the students' past knowledge and challenge their assertions with a thought-provoking inquiry to obliquely connect their reasoning to fresh ideas. It is important to be careful not to overwhelm learners with too many questions while they are engaged in free play but to watch and think about the learning

context instead. From what I observed, even simple things like creating an inviting environment with stimulating materials and arranging the space so that learners can interact with one another also contribute to a vital part in helping learners develop critical thinking skills as part of provocative thinking. Provocations are one method of encouraging critical thinking, but regardless of age group, the learning environment is just as vital in granting learners agency. Frequently, I've seen that even basic objects and environments may spark imagination, creativity, and curiosity, which are prerequisites for critical thought.

3.3 Pedagogical Decisions to Enhance Critical Thinking

Wright and Perkins (2013) Research also proves that the structure of the brain is altered and synaptic connections are formed by experiences and exposure, learning takes place through experiences in a social context. Therefore, my understanding is that pedagogic relevance in context to young learners is largely based on experiences that young learners are exposed to leading to several skill and cognitive development. In my observations of learners, critical thinking looks, sounds, and feels very different in young learners than in older learners. It was interesting to see how young learners automatically incorporate different sets of skills through play. To develop an understanding of how critical thinking develops in young learners and their applications of concepts through playful learning, it is equally important to have parameters to measure and document it, but also what can teachers do with that information. It should be used to inform practice and pedagogical approaches to alter or adjust the learning process following the learning needs. Children learn through play however the perceptions of play by practitioners also play an important role in determining how learning can transcend from the

curriculum by methods of playful provocations. Following my analysis, three areas: critical thinking, problem-solving, and imagination were brought to light in understanding the developmental parameters for critical thinking when observing play. UNICEF's 2020 report on early childhood and development

served as a source for this work. As shown in images 1 and 2 given below, I was able to design a developmental milestone reference sheet, that was used as a guide when analysing developmental milestones of learners.

Cognitive Domain						
	2- 3 years	3-4 years	4-5 years	5-6 years	6 to 7 years	7- 8 years
Critical Thinking	•Builds tower of five to seven objects •Lines up objects in 'train' fashion •Engages in making believe and pretend play •Recognises similarities and differences •Is aware of space through physical activity •Can work toys with buttons, levers, and moving parts	•Builds towers of more than 6 blocks •Plays make-believe with dolls, animals, and people •Understands what "two" means •Copies a circle with pencil or crayon •Turns book pages one at a time •Screws and unscrews jar lids or turns door handle •Does puzzles with 3 or 4 pieces •Can name things and colours •Understands concept of numbers •Understands concept of time •Pretend and fantasize more creatively •Remember parts of story •Sort object by shape and colour	•Learning to distinguish between opinion, argument and evidence •Understanding the importance of self esteem •Promoting self-esteem •Understanding emotions •Managing emotions	1.Elaborates stories 2.Hypothesizes 3.Understands Cause and Effect relation 4.Draws conclusions Forms an opinion	•Inference: understanding the difference between reality and fantasy •Identification: comprehending concepts: same, different, season, time of the day •Determining relevance: classifying objects according to more specific traits like form, colour and what it is made of •Research and curiosity: making predictions, justifying decisions, providing solutions and giving explanations •Identifying biases: start expressing own feelings	• Acquisition of Information and structuring thoughts: the learning or developing of a skill, habit, or quality to gather information •Reflection: opinion formed or a remark made after careful thought.. • Analysis: ability of thorough study doing a careful analysis of the problem • Decision making
Problem Solving & Reasoning	•Uses symbolic play, e.g. use a block as a car •Shows knowledge of gender-role stereotypes •Does puzzles with 3 or 4 pieces •Turns book pages one at a time •Enjoys playing with sand, water, dough; explores what these materials can do more than making things with them •Identifies picture as a boy or girl •Begins to count with numbers •Asks questions 'why', 'how'	•Understands that events are connected, although their interpretation may not be logical. •Resolving a fight over the same toy •Reaching a ball that is stuck in a tree or in a corner •Forming a circle with a group of friends •Making a bridge to connect two block towers •tying or untying a shoe •Making up rules for a new game •Trying to get things right and in order •Solving a riddle •Solving mathematical problems •Solving hypothetical problems •Thinks of possible answers through exploration •Understand the difference between things that are same and are different •knowing the difference between fantasy and reality •Asks 'why' questions during	•Identify the problem from real life/day to day experiences. •Brainstorm possible ways to solve a problem •Develop at least 5 possible solutions •Identify the pros and cons of each solution •Pick a solution •Test it out	•Is able to build a challenging and more complex structure using materials like boxes and blocks •Is able to put more 10 pieces puzzle •Is able to provide solutions for basic social problems between peers 5. Is able to find an alternative solution to age appropriate real life problems •Plays boards games •Is able to play games like treasure hunt •Can draw a person with at least 6 body parts •Copies a triangle and other geometric shapes •Knows about things used every day, like money and food •Has a longer attention span •Understand the basic	• Display greater awareness of surroundings outside the home •Analytical skills: ability to collect information to make decision •Adaptability and flexibility: begin to enjoy dramatic play and assume different roles •Enjoy the challenges of games and puzzles •Logical reasoning, verbal reasoning, non verbal reasoning, evaluation and synthesis •Learn to question things- all Wh- questions	•Giving sound judgments and more resilience building •Team working: ability to bring people round to your way of thinking about a certain topic, without force • Logical reasoning, evaluation and synthesis

Image 1 Cognitive Domain for Critical thinking and Problem Solving

| Imagination | •More controlled scribbles
•Begun to think in terms of mental pictures by naming artwork.
•Begin to express representational thinking.
•Experiments with colours and resources to create art
•Engages in Dramatic play
•Is able to create rhythm using musical instruments and materials like boxes or other surfaces
•Is able to move on different rhythms
•Is able to hum a song/rhyme | •Threes' play with real life experiences including props and lots of language.
•Child often assigns roles to the others - who may find creative ways to make up their own.
•Imaginary friends can play a big role in a child's day-to-day life.
•The pretend play becomes more realistic and detail oriented.
•makes explicit artwork with one's own colour choices and combinations.
•draws and writes thought bubbles and conversation like characters in the art piece
•adds voice and drama to characters while playing and in artwork too
•can come up with their own version of a song/rhyme | • Breaking up of old ideas
• Making new connections
• Use of language to showcase ideas •
Creating stories, music, art forms. | Able to express in details through graphically representation (Weekend and holiday recount)
•Able to enact basic emotions, expressions and short stories
•Able to modulate voice to suit the character and situation
•Understand the pitch and rhythm in songs
•Able to make more complex movements while dancing and create dance sequence
•Able to use safety scissors to cut circles and straight lines
•Able to colour and paint within the boundaries
•Able to create various objects using play doh, beads, paints etc
•Able to use different patterns and design in their | •A lateral mindset: the ability to use your imagination to look at a problem in a fresh way and come up with a new solution
•Power of imagination, creativity, breaking the comfort zone
•Retain high fantasy in their play
• Take pleasure in challenge
• Becoming experts in various domains | •Creativity: the use of imagination or original ideas to create something
•Ultimate the power of innovation
•All prerequisites for creativity |

Image 2 Cognitive Domain for Imagination

Conclusion

The observational data gave me an insight into how young learners can develop critical thinking if given a conducive environment to explore and learn through playful pedagogy by employing age-appropriate provocations. The present findings in this study, like previous studies on critical thinking by Kamarulzaman (2020) prove that young children learn through play however the perceptions of play, by practitioners also play an important role in determining how learning can transcend from the curriculum by methods of playful learning.

Holmes et al (2013), highlighted that to develop critical thinking in young learners, multiple factors must be taken into consideration, such as the use of age-appropriate instructions and avoiding too many instructions to be given. I consciously am aware of my learner's contexts of multicultural backgrounds and linguistic abilities to be able to communicate thinking. This has helped me gain awareness that, while working with young learners, due consideration must be given to the above-mentioned contexts of ways in which learners engage with materials, spaces, and places. Communicative thinking also takes place through non-verbal communication, this must also be given due consideration. This is most evident with younger learners aged 2 years and below, who may not necessarily have developed vocabulary as yet but certain observable behaviours that articulate thought that need to be recognized by early childhood educators. It must therefore be noted that while observing the learner's articulation of thought, it is linked to language development in accordance to the age, and the practitioner must not make preconceived notions that the learner is not able to think critically. It therefore emphasises the role of the teacher in identifying critical thinking through play and provides

opportunities to stimulate cognitive thinking by consciously nurturing it through pedagogical decisions that need to be made to cultivate critical thinking. This brings forth the usefulness of understanding that playful provocations through open-ended questioning can be used as a strategy to inculcate critical thinking and metacognition in young learners within a curricular framework or during free and unstructured play. It gave me insights into critical incidents of observation of young learners and how learning can be dynamic. It brought to light that, despite the various contributing factors that enable provocation and critical thinking, one must deliberately reflect on pedagogic practice how decision-making is linked to observations being made, and what informed choices practitioners make to support learning according to developmental needs.

According to the Queensland Studies Authority (2006), teachers become more reflective when they analyse their practices to develop alternative methods of teaching and learning when familiar methods fail. Therefore in my practical experience in an early childhood education setting, many important aspects must be taken into consideration, such as effective curriculum planning to ensure high-quality pedagogic practices that nurture critical thinking, such as the use of meta-language, co-construction of learning, using provocations to scaffold learning, and nurturing learners to be active agents of learning. According to Lund (2016), a teacher engages in continuous professional development when they investigate, consider, and collaborate with peers to find out how instructional approaches enhance better practices. Even though my discoveries helped me better understand how young learners manifest thinking through play, this has influenced the way that I see things and has inspired me to be more consciously

aware, observant and actively co-constructing meaning as an active participant in the learning process.

References

- Dewey, J. (1933). *How We Think,* Google Books, DigiCat, Available at: https://books.google.fi/books?hl=en&lr=&id=ozCcEAAA QBAJ&oi=fnd&pg=PT7&ots=J4lbu_MAac&sig=izPyfGsPF xiSAl9hCD0mPaCclkI&redir_esc=y#v=onepage&q&f=fal se [Accessed 25 August 2024]

- Gholam, A. (2019) *Inquiry-Based Learning: Student Teachers' Challenges and Perceptions. Journal of Inquiry & Action in Education,* [pdf] 10(2), Available at: https://files.eric.ed.gov/fulltext/EJ1241559.pdf [Accessed 22 August 2024]

- Gray, P. (2011) *The Decline of Play and the Rise of Psychopathology in Children and Adolescents,* Available at: https://files.eric.ed.gov/fulltext/EJ985541.pdf [Accessed 28 August]

- Holmes, R., Liden, S. and Shin, L. (2013) *Children's Thinking Styles, Play, and Academic Performance. 219 American Journal of Play,* 5(2). Available at: https://files.eric.ed.gov/fulltext/EJ1003951.pdf [Accessed 25 August 2024]

- Kamarulzaman, W. Binti (2015) *Affect of Play on Critical Thinking: What are the Perceptions of Preservice Teachers. International Journal of Social Science and Humanity,* 5(12), pp.1024–1029. Available at: http://www.ijssh.net/papers/598-C10005.pdf [Accessed 25 August 2024]

- Kangas, J., Lastikka, A.-L. and Arvola, O. (2023). *Inclusive Play: Defining Elements of Playful Teaching and Learning in Culturally and Linguistically Diverse ECEC. Education Sciences,* 13(9), pp.956. Available at: https://doi.org/10.3390/educsci13090956 [Accessed on 23 August 2024]

- Kangas, J., Ukkonen-Mikkola, T., Harju-Luukkainen, H., Ranta, S., Chydenius, H., Lahdenperä, J., Neitola, M., Kinos, J., Sajaniemi, N. and Ruokonen, I. (2021) *Understanding Different Approaches to ECE Pedagogy through Tensions.* Education Sciences, 11(12), pp.790. Available at: https://helda.helsinki.fi/server/api/core/bitstreams/77789 dc9-9e07-4cb8-b422-345893a5913a/content [Accessed 28 August 2024]

- Korthagen, F. and Nuijten, E. (2022) *The Power of Reflection in Teacher Education and Professional Development: Strategies for In-Depth Teacher Learning.* [online] Google Books. Routledge. Available at: https://books.google.co.in/books?hl=en&lr=&id=yYNlEA AAQBAJ&oi=fnd&pg=PT11&dq=Korthagen+reflection+ cycle&ots=95UG0J9iJZ&sig=2AQEqnaP44fT1J3kFGmEly AktZc&redir_esc=y#v=onepage&q=Korthagen%20reflec tion%20cycle&f=false [Accessed 29 August 2024]

- Lai, E.R (2011) *Critical Thinking: A Literature Review.* Available at: https://citeseerx.ist.psu.edu/document?repid=rep1&type =pdf&doi=b42cffa5a2ad63a31fcf99869e7cb8ef72b44374 [Accessed 28 August 2024]

- Lund, L. (n.d.) *How Teachers Reflect on Their Pedagogy: Learning from Teachers' Pedagogical Vocabulary,* [pdf] Available at: https://files.eric.ed.gov/fulltext/EJ1177050.pdf [Accessed 22 August 2024]

- McBride, R.E. (1991) *Critical Thinking An Overview with Implications for Physical Education.* [pdf] Available at: https://www.researchgate.net/profile/Ron-Mcbride/publication/232504506_Critical_Thinking-An_Overview_with_Implications_for_Physical_Educatio n/links/56e07da408ae979addf0f4bb/Critical-Thinking-An-Overview-with-Implications-for-Physical-Education.pdf [Accessed 27 August 2024]

- Noviza, O. (2019). *Critical Thinking and Technology in Young Children: Do We Need Technology to Help Children Improve Critical Thinking?* [pdf] Available at: https://www.researchgate.net/publication/343170859_Cr itical_Thinking_and_Technology_in_Young_Children_D o_We_Really_Need_Technology_to_Help_Children_I mprove_Critical_Thinking/fulltext/5f1a367c92851cd5fa4 2076b/Critical-Thinking-and-Technology-in-Young-Children-Do-We-Really-Need-Technology-to-Help-Children-Improve-Critical-Thinking.pdf [Accessed 23 August 2024]

- O'Reilly, C., Devitt, A. and Hayes, N. (2022) *Critical Thinking in the Preschool Classroom - A systematic literature review. Thinking Skills and Creativity,* 46, Available at: https://www.sciencedirect.com/science/article/pii/S18711 87122001134 [Accessed 23 August 2024]

- Paul, R. and Elder, L. (2019) *The Miniature Guide to Critical Thinking Concepts and Tools.* [online] Google Books. Rowman & Littlefield. Available at: https://books.google.fi/books?hl=en&lr=&id=Cm6pDwA

AQBAJ&oi=fnd&pg=PA4&ots=Yd0z9lBfUK&sig=ATBcG
gfdAyZM0QNJubOO0Nt7SW8&redir_esc=y#v=onepag
e&q&f=false [Accessed 22 August 2024]

- Wirth, K. and Perkins, D. (2013) *Learning to learn.* [pdf]
Available at:
https://www.montana.edu/rmaher/barrier_courses/Learn
ing%20to%20Learn%20Wirth.pdf [Accessed 24 August
2024]

- Queensland Studies Authority (2006) *Early Years
Curriculum Materials, reflecting on my teaching practices,*
[pdf] Available at:
https://www.qcaa.qld.edu.au/downloads/p_10/ey_lt_refle
ct_teaching_prac.pdf [Accessed 27 August 2024]

Perceptions of the Impact TeacherGram has on Primary Educators' Practice in Britain

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Introduction

Social media is commonplace in our lives as 21st century citizens and a tool educators frequently utilise for personal and professional purposes. The recent introduction of online searches on shortlisted candidates as part of safer recruitment checks depicts social media in a negative light, emphasising concerns that these sites are a place of incidents and issues (Department for Education (DfE), 2024). Furthermore, there is a breadth of existing research which focuses on problems associated with social media for individuals, communities and organisations (Aula, 2010; Ilakkuvan et al., 2019; Kross et al., 2021). Nevertheless, emerging research challenges this idea, presenting social media as a platform for collaboration, professional development and entrepreneurship for educators (Carpenter et al., 2020; Richter et al., 2022). In previous studies on educators' use of social media, many researchers have focused on Twitter (Greenhow et al., 2021), Facebook (van Bommel et al., 2020), YouTube (Copper and Semich, 2019) and Reddit (Staudt Willet and Carpenter, 2020), presenting multiple benefits and challenges. Despite its popularity as the third most used social media platform in the United Kingdom (Meltwater, 2024), existing research into educators' use of Instagram is scarce with most of the limited studies focusing on its use in the United States. Despite this, educators who use Instagram as a platform have coined the term *TeacherGram* as the name for accounts and posts that document their lives as educators with *#TeacherGram* amassing over 1.7 million posts. The extent to which educators engage on Instagram and the impact this has on their practice is as yet unclear in the United Kingdom. This research project aims to address this gap and to contribute to the existing literature on primary educators' use of *TeacherGram* focusing on their perception of the impact it has on practice in Britain. This research seeks to address the following questions:

- How do primary educators in Britain use Instagram?
- Why do primary educators in Britain use Instagram?
- To what extent does *TeacherGram* influence primary educators' practice in Britain?

First, a systematic review of the existing literature on this topic was carried out to develop a background understanding. Second, data was collected through a questionnaire to explore how and why educators

currently use *TeacherGram* in Britain. Finally, a discussion takes place exploring primary educators' perceptions of the impact *TeacherGram* has on their practice in Britain prior to concluding the implications of these findings.

Literature Review

It is important to recognise that there is limited research on the impact *TeacherGram* has on primary educators in Britain: the research to date has tended to focus on the impact of alternative social media applications (Facebook, Twitter, YouTube) in other countries (United States, Australia and Canada) (Barrot, 2021). Many recent studies have focused on the value of professional development. As technology evolves, so do the opportunities for teachers to undertake professional development. While there has been much research on Twitter, few researchers have taken Instagram into consideration as a tool for professional development. Therefore, for this literature review there will be a focus on related themes beginning with professional development, teachers on social media and finally, *TeacherGram*.

Teachers Professional Development

Teachers' Standard eight (DfE, 2011: 13) emphasises the importance for educators to "take responsibility for improving teaching through appropriate professional development". The term professional development (PD) is defined by DfE (2016) as opportunities that develop knowledge and skills to secure effective teaching to improve pupil outcomes. Furthermore, it encompasses formal and structured, or informal, unstructured and collaborative training activities (Ofsted, 2023). It has conclusively been shown that PD plays a crucial role in improving teaching quality, having a significant positive effect on pupils' learning and improving teacher retention (Fletcher-Wood and

Zuccollo, 2020; Ofsted, 2023; World Bank, 2018). There is a consensus that effective PD should build upon existing knowledge, include motivating opportunities for collaboration, be underpinned by robust evidence and expertise, and embed practice focused on improving and evaluating pupil outcomes (DfE, 2016; Education Endowment Foundation (EEF), 2021; Fletcher-Wood and Zuccollo, 2020). While research on high-quality PD demonstrates improvements on pupil attainment, what is not yet clear is the effect of PD on pupils' long-term learning outcomes. Despite this, PD is recognised as a key component of improving the quality of education.

Over the past decade, the way in which we access information through the internet and technology has drastically evolved. Drawing on an extensive range of the world's most interesting examples of technology-assisted PD, McAleavy et al. (2018) captured the potential of technology to enhance the professional learning of teachers. They highlighted the potential role of social media in teacher PD, allowing teachers to take ownership of their PD, facilitate cross-school collaboration and promote reflective practice (British Council, 2015; McAleavy et al., 2018; McCulloch et al., 2011). One of the first people to suggest a learning theory for the digital age was Siemens (2005), proposing that the connections that enable us to learn (beyond an individual such as through social media and online networks) are becoming increasingly significant with a focus on connecting specialised information sets. Siemens (2005) coined the term 'connectivism', emphasising the idea of a cycle of knowledge development to foster and maintain knowledge flow allowing learners to stay up to date in their field through their network's connections. In education practice, this can be seen in professional learning networks (PLNs), defined as a "system of interpersonal

connections and resources that support informal learning" (Trust, 2012: 133). During the COVID-19 pandemic, learning, training and PD undertaken through PLNs became commonplace and continues to have value (Ofsted, 2021; Parkin and Spear, 2021). Based on the findings of Parkin and Spear (2021), it can be argued that PLNs meet the requisites of effective PD proposed by Hunzicker (2011: 117) who state that PD should be "supportive, job-embedded, instructionally focused, collaborative, and ongoing". One drawback of PLNs is their potential to be a source of pressure and negativity for some educators, particularly those who struggle with their wellbeing and usual workload (Parkin and Spear, 2021). Nevertheless, Parkin and Spear (2021) argue that PLNs motivate teachers to engage in their PD as they offer flexibility and autonomy over the areas in which they wish to develop. To determine access to PD, Ofsted (2023) surveyed 1,953 teachers, reporting that 21% engaged through self-study. Although Ofsted (2023) offers no explanation for how self-study is undertaken, Trust (2012) suggests that PLNs are evident in teacher networks on social media platforms whereby this self-study could take place. Nevertheless, social media has seen rapid developments over the past century resulting in a lack of clarity on the scale of these PLNs today.

Teachers on Social Media

The relation between teachers' PD and social media is well-established; a meta-analysis by Barrot (2021) concluded that there is an increased focus on social media in education showing that as the number of platforms and users increase, so does the research undertaken related to their pedagogical value. However, the research fails to synthesise findings of the studies so cannot be used to make generalisations to the efficiency of social media as a tool for PD. Nevertheless, conclusions from several studies have

identified social media as an effective platform for PD through its ability to connect educators with others through a wide and responsive support network (Jackson, 2019; Linden, 2022). This research has tended to focus on the positives rather than the drawbacks of social media use for educators. Critics argue that not only does social media have the potential to be harmful (Cho et al., 2024), but peer pressure to connect can leave educators susceptible to privacy breaches, reputation risks and inappropriate use, which could potentially jeopardise a teacher's livelihood (Fox and Bird, 2017; Mercado and Shin, 2023). Some authors (Boa Academy, 2015; Linden, 2022) have suggested teachers using social media need to be mindful of these risks, actively taking steps to manage them and safeguard themselves as those with accounts can be vulnerable. Although these sources raise concern over educators' use of social media, individuals' motives and behaviours vary greatly, associated with different predictors and outcomes.

In 2023, Higgins (2023) reported that four in five British educators use social media for work-related purposes, with Twitter, Facebook and WhatsApp being the most popular platforms. Arguably, since 2023 there has been a mass exodus from Twitter and a growth of BlueSky, therefore these findings may not accurately represent current social media trends (Radivojevic, 2024). Evident within educator communities on social media, PLNs allow educators to support their ongoing PD (Greenhow et al., 2021; Trust, 2012). A review of existing literature has revealed three key themes regarding the nature of social media PLNs: collaboration and emotional support, developing and filling gaps in knowledge, and current and 'just-in-time' advice. Throughout the literature, there is consistent evidence that PLNs present an opportunity to motivate educators to take ownership of their PD and expand

their opportunities through collaborative learning processes which foster and maintain knowledge flow (Lantz-Andersson et al., 2018; Macià and García, 2016; Marcelo-Martinez et al., 2024; Prestridge, 2019; Rigall and McAleavy, 2019). In their review of the educator professional landscape, Carpenter et al. (2023) discuss the challenges of the 'education influencer' identifying their impact resulting in unhealthy social comparisons, illegitimate popularity and paid product testimonials, monetizing their perceived influence. In light of this, researchers have become increasingly interested in the accuracy of expertise within social media PLNs for PD.

Many scholars hold the view that social media PLNs are increasingly important for educators effective, informal PD (Cook et al., 2017; Feyman Gök and Ölmez, 2023). In their thorough survey of educators' use of social media, Higgins (2023) found that participants viewed direct experience of schools, doing good and being honest as valuable influencer characteristics. Subsequently, Higgins (2023) reports almost a fifth do not trust educational content on social media. Similarly, Feyman Gök and Ölmez (2023) assert that educators are aware that they should be careful about misinformation. However, all the previously mentioned studies suffer from limitations as they focus on perceptions failing to compare content with facts. In their comprehensive analysis of teacher Facebook groups, van Bommel et al. (2020) reported opportunities for PD in 88% of discussion threads and posts. However, the generalisability of these results is limited due to the exclusive focus on Facebook. Despite this, the combination of findings provides some support for the presence of social media educator PLNs as hubs where collective knowledge building takes place, a key component of Siemens' (2005) connectivism theory for learning. By way of illustration, Donelean (2016) found that teachers who integrated social media for PD

opportunities had motivations related to self-development and experienced career progression as a result.

In a rapidly changing education landscape, PLNs support responsive, current learning. Much of the available literature on responsive PLNs focuses on Twitter, promoting the platform for professional use in bridging the time and experience gap in schools, supporting PD by timely responding to educators' questions and concerns through a flexible environment (Greenhalgh and Koehler, 2017; Greenhalgh et al., 2021; Greenhow et al., 2021; Owen et al., 2016). It is encouraging to compare these findings to Greenhow et al.'s (2023) more recent work which corroborates these findings replicating them to further social media platforms, highlighting their ability to provide opportunities to engage with current practice from a wide range of perspectives. Whilst social media PLNs provide current PD, Greenhow et al. (2023) highlights how this learning is generally informal and self-initiated resulting in varying impacts for individuals. There is a possibility that promoting interaction with PLNs through social media for PD could increase awareness, access and development opportunities.

Social media PLNs could be a valuable tool for trainee and early career teachers PD. Several studies have explored the difficulty of teaching as a profession, concluding that PLNs can offer development opportunities to overcome challenges (Curcio et al., 2023; Iredale et al., 2020; Staudt Willet, 2024). An example of this is the study carried out by Sawyer and Myers (2018) which confirmed that trainee teachers use internet resources when planning lessons due to their quick availability and support in reducing workload. One criticism of Sawyer and Myers (2018) study is that it focused on American pre-service teachers and failed

to explore the quality of the resources, therefore the validity is questionable. These claims have been strongly contested in recent years by a number of writers. Participation in social media PLNs could result in educators feeling overwhelmed, with a potentially damaging impact on work-life balance due to an increase in time spent both producing and consuming work-related content (Curcio et al., 2023; Parkin and Spear, 2021; Staudt Willet, 2024). While this is the case, the evidence presented in this section suggests that social media PLNs have the potential to support PD among educators.

TeacherGram

Despite being the second most widely used platform in the world with over 2 billion users (Statista, 2024), and over half of UK internet users reporting use of the service (the specific context of this research; Statista, 2022), compared to other platforms Instagram has received relatively limited attention from education researchers to date (Barrot, 2021). Created in 2010, Instagram is a social networking site focused on photo- and video-sharing alongside various ways to communicate via the platform (messages, posts and stories). Despite not being specifically designed for educational purposes, there are indications of substantial educator Instagram uptake with educators coining the term *TeacherGram* and the related hashtag amassing over 1.7 million posts. Unfortunately, TeacherGram remains a poorly defined term. In this project, the term *TeacherGram* will be used it its broadest sense to refer to Instagram PLNs offering opportunities for informal PD.

Although some research has been carried out on Instagram use by educators for professional use, no single study exists which explores the impact *TeacherGram* has on educators' practice in Britain.

Recent evidence suggests that there seems to be general agreement on the positive effects of *TeacherGram* as a sustainable, collaborative, supportive tool contributing to PD (Carpenter et al., 2020; Dogru, 2023; Fassbender, 2020; Newton and Williams, 2022; Richter et al., 2022). However, Carpenter et al. (2020) reports a major motivation for educators' professional engagement was to look at other educators' ideas and content, learning from their wisdom to reduce workload, while Richter et al. (2022) sees engagement as a consequence of participants' desire and emotional resources to invest in work-related activities. While Carpenter et al.'s (2020) work has some limitations in that it focuses on the views of an American based self-reporting convenience sample, its main value lies in the conclusions from findings being based on significant majorities from a high volume of responses. Other studies (Davis and Yi, 2022; Shelton et al., 2020) have considered the relationship of influencers and *TeacherGram*, noting their motivations lie in participating as a form of advertising and selling educational content to profit from the community. One criticism of this literature is that the argument relies too heavily on American pre-pandemic content of a small sample size, therefore lacking generalisability to primary educators' *TeacherGram* use in Britain. Nevertheless, the presence of these 'influencers' can result in individuals comparing themselves to others online, resulting in feelings of inadequacy (Carpenter et al., 2020). Subsequently, the quality of *TeacherGram* content has not escaped criticism; Richter et al. (2022) indicated that despite an abundance of PD opportunities, it is difficult to establish the credibility of the information within *TeacherGram* PLNs. While this is the case, overall, there seems to be some evidence to indicate the relevance of *TeacherGram* as a platform for PLNs and PD. Given indications of a substantial *TeacherGram* uptake by British female and younger teachers (Higgins, 2020; 2023), this research

addresses a gap in the literature by exploring the extent to which *TeacherGram* influences primary educators' practice in Britain.

Summary

Overall, a growing body of literature presented thus far has provided evidence of the value of social media in connecting communities of users with a common purpose facilitating PD through connectivism in PLNs. The research to date has tended to focus on educators' use of social media globally rather than Instagram for educators in Britain. Furthermore, researchers have not treated *TeacherGram* in much detail. This indicates a need to understand the various perceptions of *TeacherGram's* impact on practice that exist among primary educators in Britain.

Methodology

In this section, a clear account of how the research was undertaken will be provided. In most recent studies, social media use among educators has been assessed through questionnaires and interviews. Each has its advantages and drawbacks.

Research Design

The present study uses a self-administered online questionnaire distributed through social media platforms to examine how and why educators use Instagram. The questionnaire approach has a number of attractive features: easy and convenient for respondents, cheap and quick to administer, reaching a large group of respondents across geographical areas (Walliman, 2022). Interviews were considered for this research due to their particular value in gathering rich qualitative data and opportunities for findings to be in-depth but were disregarded due to being time-consuming, resource-intensive and subject to potential researcher bias (Burton et al., 2014; Walliman, 2022;

Winwood, 2019). It was decided that the best method to adopt for this research was to use questionnaires due to researcher bias being reduced, ease of statistical analysis and representation and the potential to produce a high number of responses to establish a range of thoughts and views in relation to primary educators' Instagram use in Britain (Bartram, 2019; Walliman, 2022). However, there are certain drawbacks associated with the use of questionnaires, notably difficulties in regard to time, place and arrangements for collection and return of questionnaires (Bartram, 2019). These challenges can potentially be mitigated through the use of a web-based questionnaire, minimising cost and time factors, speeding up analysis of results as they are already in electronic format and reaching an unlimited number of respondents from across the country (Bartram, 2019; Walliman, 2022). Despite this, selectivity effects must be carefully examined when considering the validity of the data generated and therefore what can be claimed on this basis as it is difficult to know how representative the sample will be. Notwithstanding these limitations, questionnaires were deemed the most appropriate tool for this research due to their adaptive, flexible and efficient nature, allowing large amounts of data from numerous respondents to be collected conveniently promptly through a variety of question types and formats.

Data Collection Instrument

The primary instrument for data collection was a questionnaire. The design of the instrument was developed based on previous studies, including multiple statements about how and why educators use Instagram (Carpenter et al., 2020; Prestridge, 2019; Richter et al., 2022). An initial list of demographic items, social media use and Instagram specific prompts were consolidated through a discussion with the project

supervisor, reducing the total number of items to 12 (four demographic, two social media use prompts and six Instagram specific prompts). As a basis for question sequencing, guidance from Cohen et al. (2018) was drawn upon, beginning with unthreatening factual questions followed by a set of closed questions before finishing with the most demanding open ones. Closed-ended items included multiple-choice, matrix field, and Likert-scale items. Special consideration was taken to ensure question phrasing avoided leading, double or overly complex questions and took into account clarity of presentation and instruction to ensure the instrument was user friendly (Walliman, 2022). A pilot study was undertaken and expert feedback was sought and acted upon to ensure that the questionnaire was as clear, valid and effective as possible.

Ethical Considerations

Prior to commencing the study, ethical clearance was sought from Birmingham City University. Ethical consideration covered aspects such as consent, withdrawal, confidentiality and the safe storage of data (Cohen et al., 2018). Participants were informed about the purpose of the questionnaire and how to request a copy of the participant information sheet prior to indicating whether they agreed to take part in the research. Measures were taken to ensure the confidentiality of participants' responses as all responses were anonymous. Aside from four demographic characteristics to gauge representativeness (gender, age, role and duration of service), participants did not share personal information for this research. A key advantage of using a web-based questionnaire was that anonymity of the research and respondents was easily ensured alongside emphasising the voluntary nature of completion and assurances of confidentiality.

Population and Sampling

The questionnaire was administered to participants online. Data was collected using the google forms platform. Upon securing ethical approval, to reach potential participants, invitations to complete the questionnaire were posted to multiple closed online spaces on social media platforms including Instagram and Facebook, making this a convenient sample. Facebook was chosen in addition to Instagram as prior literature suggests it as a popular site amongst educators. To increase the post's visibility, an infographic (Figure 1) was published alongside the invitation with further information, QR code and a direct link. The post was published three times in total: the initial day, two days after, and five days after the initial post. From the day the post was published, educators had access to the questionnaire for eight days.

Figure 3: *Example of survey invitation posted to social media platforms.*

In total, 54 educators agreed to partake in the study. Respondents were on average 30 years old (SD = 9.2 years) and most were actively practicing with a quarter (25.9%) currently training in education. The majority of participants were female (85.2%) qualified teachers (51.8%). For comparison, the primary teacher workforce in England was 86% female (National

Statistics, 2023). The others were trainees or in leadership roles.

Data Analysis

The study uses quantitative analysis through descriptive statistics including averages, standard deviations and percentages. Due to the low response rate for open-ended qualitative questions a coding process is not necessary as these comments lack generalisability and will therefore be drawn upon on an individual basis.

Limitations

It is important to acknowledge the limitations of the study, such as the small scale of the sample in relation to the population, data gathered from a convenience sample and a lack of descriptive responses. These limitations may have affected the results and should be considered in the interpretation.

Summary

In conclusion, this methodology provided a systematic approach to conducting the questionnaire on how and why educators use Instagram and their perceptions of the impact *TeacherGram* has on their practice. Recommendations for improving the methodology for future research include increasing the sample size, expanding reach beyond a convenience sample and building upon data collected from questionnaires with interviews.

Analysis of Results

How Primary Educators in Britain use Instagram
Participants overwhelmingly indicated that they used Instagram for personal purposes with 94.5% using the platform daily for non-professional purposes (Table 1). It can be seen from the data in Table 2 that participants reported intensive professional Instagram use over other social media platforms with 66.6% using Instagram daily for professional purposes. It is apparent that the sample involved educators who appeared to be active users of numerous social media platforms, with over 40% of the respondents indicating at least weekly professional use of Facebook, YouTube, TikTok, Pinterest and WhatsApp (Table 2). Despite this, no other platform attracted professional use on a daily or greater basis by over half of the respondents (Table 2).

Question	More than once a day		About once a day		Weekly		Monthly or less		Never	
	%	n	%	N	%	N	%	N	%	n
Instagram	81.5	44	13.0	7	3.7	2	1.9	1	0.0	0
Facebook	57.4	31	16.7	9	16.7	9	1.9	1	7.4	4
Twitter (X)	13.0	7	14.8	8	14.8	8	25.9	14	31.5	17
TikTok	38.9	21	7.4	4	7.4	4	20.4	11	25.9	14
Pinterest	9.3	5	1.9	1	18.5	10	51.9	28	18.5	10
Snapchat	33.3	18	5.6	3	5.6	3	16.7	9	38.9	21
WhatsApp	83.3	45	14.8	8	1.9	1	0.0	0	0.0	0
YouTube	24.1	13	13.0	7	48.1	26	13.0	7	1.9	1
LinkedIn	1.9	1	5.6	3	3.7	2	42.6	23	46.3	25
Reddit	3.7	2	0.0	0	1.9	1	40.7	22	53.7	29

Table 1: "Indicate how frequently you access the following social media/technologies for personal purposes."

Question	More than once a day		About once a day		Weekly		Monthly or less		Never	
	%	n	%	N	%	N	%	N	%	n
Instagram	37.0	20	29.6	16	24.1	13	7.4	4	1.9	1
Facebook	9.3	5	25.9	14	25.9	14	22.2	12	16.7	9
Twitter (X)	7.4	4	9.3	5	14.8	8	31.5	17	37.0	20
TikTok	13.0	7	16.7	9	14.8	8	24.1	13	31.5	17
Pinterest	11.1	6	3.7	2	25.9	14	31.5	17	27.8	15
Snapchat	3.7	2	1.9	1	1.9	1	25.9	14	66.7	36
WhatsApp	14.8	8	16.7	9	9.3	5	24.1	13	35.2	19
YouTube	13.0	7	11.1	6	37.0	20	22.2	12	16.7	9
LinkedIn	3.7	2	3.7	2	0.0	0	33.3	18	59.3	32
Reddit	0.0	0	1.9	1	0.0	0	33.3	18	64.8	35

Table 2: *"Indicate how frequently you access the following social media/technologies for professional and/or educational purposes."*

Regarding post content (Table 3), there was overwhelmingly mixed responses with 26% indicating that they did not post professional educator content on their Instagram account. More than a fifth of participants reported frequently posting each of the following: examples of teaching and learning strategies, classroom design, resources (not for sale) and continuous professional development. Participants were prompted to detail any other post types they shared where some respondents reported contributing "neurodivergent teaching support", "personal updates" and "tips and tricks for teachers and student teachers".

Post Type	Frequently		Occasionally		Never	
	%	n	%	n	%	n
Asking for advice or advising others on personal educational experiences	9.3	5	50.0	27	40.7	22
Examples of teaching and learning strategies	29.6	16	25.9	14	44.4	24
Examples of behaviour management strategies	11.1	6	35.2	19	53.7	29
Examples of classroom layout/design	22.2	12	33.3	18	44.4	24
Examples of resources (not for sale)	25.9	14	29.6	16	44.4	24
Examples of resources (for sale)	9.3	5	13.0	7	77.8	42
Commentary on education policy, issues or movements	18.5	10	27.8	15	53.7	29
Continuous professional development (CPD)	24.1	13	22.2	12	53.7	29
Professional work outfits/attire	18.5	10	14.8	8	66.7	36
Contribute to an educator community or support network	18.5	10	37.0	20	44.4	24

Table 3: *"How often do you post/contribute the following content on Instagram professionally (TeacherGram)?"*

Why Primary Educators in Britain use Instagram
In terms of the motivations for their professional Instagram use (Table 4), 96.3% reported a common use as viewing examples of teaching and learning strategies, and over 80% reported viewing examples of behaviour management strategies and classroom layout/design. Fewer than a quarter (16.7%) report using the platform to frequently purchase paid resources though over half (53.7%) reported that they frequently view or download free resources. A small number of respondents further commented that they also viewed "advice for interviews", "neurodivergent classroom support" and "podcast snippets".

Post Type	Frequently		Occasionally		Never	
	%	n	%	n	%	n
Receive emotional support on personal educational experiences (e.g. inspiration, motivation)	25.9	14	51.9	28	22.2	12
Examples of teaching and learning strategies	64.8	35	31.5	17	3.7	2
Examples of behaviour management strategies	44.4	24	48.1	26	7.4	4
Examples of classroom layout/design	46.3	25	42.6	23	11.1	6
View or download free resources	53.7	29	37.0	20	9.3	5
Purchase paid resources	16.7	9	37.0	20	46.3	25
Commentary on education policy, issues or movements	35.2	19	42.6	23	22.2	12
Continuous professional development (CPD)	38.9	21	37.0	20	24.1	13
Professional work outfits/attire	33.3	18	25.9	14	40.7	22
As part of an educator community or support network	33.3	18	48.1	26	18.5	10

Table 4 "Why and how often do you access/view Instagram professionally (TeacherGram)?"

The influence of *TeacherGram*

Regarding the effects of their Instagram activities on their own development as educators (Table 5), 88.9% either strongly agreed or agreed that their *TeacherGram* use had increased their knowledge of current events within the educational sector. More than 75% of respondents strongly agreed or agreed that their *TeacherGram* use had enhanced their teaching and learning knowledge, behaviour management and confidence that they can positively impact pupil learning.

Question	Strongly Agree		Somewhat Agree		Neither Agree nor Disagree		Somewhat Disagree		Strongly Disagree	
	%	n	%	n	%	n	%	n	%	n
My TeacherGram use enhances my subject knowledge	25.9	14	35.2	19	20.4	11	13.0	7	5.6	3
My TeacherGram use enhances my teaching and learning knowledge	29.6	16	53.7	29	11.1	6	3.7	2	1.9	1
My TeacherGram use enhances my behaviour management	31.5	17	46.3	25	14.8	8	0.0	0	7.4	4
My TeacherGram use increase my confidence that I can have a positive impact on pupil learning	51.9	28	29.6	16	11.1	6	5.6	3	1.9	1
My TeacherGram use reduces my workload	13.0	7	24.1	13	29.6	16	20.4	11	13.0	7
My TeacherGram use increases my knowledge of current events within the educational sector	44.4	24	44.4	24	11.1	6	0.0	0	0.0	0
My TeacherGram use supports my mental health and wellbeing	18.5	10	42.6	23	25.9	14	7.4	4	5.6	3

Table 5: "Please indicate your level of agreement or disagreement with the following statements."

Open-ended responses

The final section of the questionnaire was optional, prompting respondents to detail any points they had not shared in relation to how and why they use *TeacherGram*. Given the open nature of this prompt, only three (5.5%) participants responded with additional information. The overall response to this question was poor. Among those who responded to this item, comments regarding pressure, teacher persona and job support arose.

Two respondents (3.7%) shed light on a potential critique of *TeacherGram* causing them to feel inadequate regarding their own teaching. One individual stated that "some 'influencers' and businesses have a way of shaming and pressuring people into one way of thinking". And another commented "sometimes *TeacherGram* makes me feel at more pressure to be the same as teachers I see."

However, for some participants, *TeacherGram* fared well providing specific career support. One participant commented "I actually found a teacher online whose side job is helping teachers get jobs and places on courses. That teacher actually helped me to secure a place on my teacher training course."

Together these results provide important insights into how and why primary educators in Britain use Instagram and their perceptions of the impact *TeacherGram* has on their practice.

Discussion

The present study was designed to determine primary educators' perceptions of the impact *TeacherGram* has on their practice in Britain. As mentioned in the

literature review, the ways in which educators access professional development has drastically evolved through the internet, technology and social media. The results of this study begin to explore how and why primary educators in Britain use Instagram for professional purposes, indicating two thirds use it daily. Most educators use Instagram to view behaviour management, teaching and learning strategies and embark upon self-directed professional development. An overwhelming majority believe their *TeacherGram* activities have increased their knowledge of current educational events and enhanced their pedagogical knowledge, all of which could impact their teaching and pupils' learning. Despite this, some educators feel pressured to be like teachers they see online. This study contributes to research on educators' social media use in Britain by examining the characteristics of use and the influence this has on their practice. In the next three sections, the results are discussed in relation to the research questions.

How Primary educators in Britain use Instagram

In this study, social media was found to be popular among educators although the percentage of respondents using Instagram professionally daily was much lower at 66.6% than the 90% reported in Carpenter et al. (2020). This may be due to this study targeting British opposed to American educators. Despite this, Instagram attracted greater professional use on a daily or greater basis by over half of the respondents, contrary to Higgins (2023) who reported Twitter, Facebook and WhatsApp as the most popular networks among educators. There are several possible explanations for this result. This discrepancy could be attributed to the convenience sample employed in this research. Another possible explanation for this could be as a result of the predominantly female, young demographic of participants as Higgins (2020; 2023)

indicated substantial Instagram uptake is more common amongst British female and younger teachers. There is some evidence to suggest that these high usage rates support the view that Instagram PLNs are increasingly important for informal PD (Cook et al., 2017; Feyman Gök and Ölmez, 2023).

As has been observed with other social media (Donelan, 2016; Greenhalgh et al., 2021; Greenhow et al., 2021; Marcelo-Martinez et al., 2024; van Bommel et al., 2020), this research suggests Instagram can serve various professional purposes for educators. Participants appeared to use Instagram for both emotional, supportive needs and knowledge acquisition. This finding is in agreement with Carpenter et al.'s (2020) findings, which showed a quarter frequently posted professional content on Instagram. Despite a large presence of educators on Instagram, these results would seem to suggest that educators are more likely to observe oppose to posting and generating content, perhaps due to workload constraints (Curcio et al., 2023; Iredale et al., 2020; Parkin and Spear, 2021; Staudt Willet, 2024). It is interesting to note that over 50% of respondents reported asking for advice, advising others or contributing to an educator network as an occasional use. This finding corroborates the ideas of Richter et al. (2022), who suggested that educators can receive digital support through collaboration on Instagram. These findings, while preliminary, suggest that primary educators' general use of Instagram in Britain is similar to conclusions from previous research.

Why Primary educators in Britain use Instagram

Regarding educators' motivations for accessing Instagram, a significant majority of respondents reported viewing teaching, learning and behaviour pedagogies as a major reason for use. These results are consistent with those of other studies (Dogru, 2023;

Fassbender, 2020) and suggest that *TeacherGram's* PLNs foster and maintain knowledge flow, supporting informal learning through connectivism (Siemens, 2005). However, prior studies have noted that despite the plenitude of opportunities for PD, educators should be careful about misinformation as it is difficult to establish the credibility of the information within *TeacherGram* PLNs (Feyman Gök and Ölmez, 2023; Richter et al., 2022). Higgins (2023) has highlighted how a fifth do not trust educational content on social media platforms though noted Twitter was the least trusted platform. With an ever-changing social media landscape and recent mass exodus from Twitter it might be suggested that educators' behaviours and trust will continue to change as this field evolves. It is therefore unclear how much value there is in accessing *TeacherGram* as a PLN.

The results of this study did not show advertising or purchasing paid resources as a major motivation for Instagram use. These results differ from some published studies (Carpenter et al., 2023; Davis and Yi, 2022; Shelton et al., 2020) which suggest that influencer 'teacherpreneurs' noticeably participate in PLNs to market educational content and profit from users. This rather contradictory result may be due to differences in practice between American and British educators. It is possible to hypothesise that British educators receive greater support from schools in the way of schemes, support and planning, so do not need to rely on purchasing third-party resources commonly associated with American educators (Davis and Yi, 2022; Shelton et al., 2020).

The influence of *TeacherGram*

In terms of the influence *TeacherGram* has on primary educators' practice in Britain, respondents overwhelmingly reported that their use enhanced their teaching, learning and behaviour management

pedagogical principles in addition to their confidence that they can have a positive impact on future learning. Based on these findings, it can be argued that *TeacherGram* meets the requisites of professional development as it provides informal, unstructured training opportunities that develop knowledge and skills to secure effective teaching to improve pupil outcomes (DfE, 2016; EEF, 2021; Ofsted, 2023). However, with a small self-reporting sample, caution must be applied, as the findings might lack validity in relation to the quality of PD. Furthermore, some authors have speculated that interaction with PLNs is generally informal and self-initiated, relying on individuals having a realistic notion of their areas for development and suitability of training, resulting in varying impacts for individuals PD (Greenhow et al., 2023; Richter et al., 2022). Further research is required to establish this.

It is interesting to note that the percentage of respondents who agreed that *TeacherGram* use had increased their knowledge of current events within the educational sector was much higher than expected at 88.9%. This result has not previously been described with Twitter being the platform commonly referred to for 'just-in-time' PD through responsive PLNs (Greenhalgh and Koehler, 2017; Greenhow et al., 2021; Owen et al., 2016). The reason for this is not clear but it may have something to do with the increased popularity of the platform and visual nature being popular particularly among younger users (Meltwater, 2024; Richter et al., 2022; Statista, 2022; 2024). Further studies on this topic are therefore recommended.

In relation to *TeacherGram's* influence on workload and mental health and wellbeing, findings align with the literature emphasising variable differences in experiences with PLNs in a single online space (Carpenter et al., 2020; Newton and William, 2022). It seems possible that the difference of *TeacherGram's*

influence on workload could be attributed to time spent information seeking, producing and consuming work-related content, with a potentially detrimental impact on work-life balance (Parkin and Spear, 2021; Richter et al., 2022). It is important to bear in mind the possible bias in these responses as participants self-reported. Regarding *TeacherGram's* impact on health and wellbeing, seven respondents disagreed that it supported their mental health and wellbeing. This finding is consistent with other research which found some respondents reported negative impacts in terms of potential issues jeopardising careers, harmful nature of social media, unhealthy comparisons and peer pressure to connect (Carpenter et al., 2020; Cho et al., 2024; Fox and Bird, 2017; Linden, 2022; Mercado and Shin, 2023). Despite this, 61.1% agreed that their *TeacherGram* use supported their mental health and wellbeing and 37.1% agreed that it reduced their workload. Therefore, the evidence for this relationship is inconclusive. From the previous discussion, it can be seen that variations in users' experience can impact the influence that *TeacherGram* has on primary educators' practice in Britain.

Limitations

Although this study provides new insight into how and why primary educators in Britain use *TeacherGram* and the influence it has on their practice, it features several limitations. First, as previously mentioned in the methodology, this study was based upon a convenience sample of active Instagram users in the United Kingdom. Despite this limiting the generalisability of the results, the sample seems to represent the typical population of British educators as the sample features a large number of female and young teachers (National Statistics, 2023). Nevertheless, it must be taken into account that the sample size was relatively small in relation to the population so may not represent trends

among all primary educators in Britain.

Second, the respondents self-reported their Instagram use and no attempts were made to observe or analyse their actual behaviours and content. Despite being quick and easy to administer, self-reports rely on individual's own views which may not accurately represent their actions and are particularly subject to social desirability bias when results are not anonymised (Gaete et al., 2018). Though self-reports are limited, they can provide useful initial data regarding educators' use of social media and perceived impact on their practice.

Another source of uncertainty is the lack of qualitative data. This data must be interpreted with caution because quantitative data may oversimplify or ignore certain motivations or experiences of the respondents. Although participants were prompted to provide additional detail for their answers, responses were low. More credibility could be given to this study if coupled with quantitative research.

Notwithstanding these limitations, the study is valid for the purpose of answering the research questions and the results are presented so that fellow researchers and educators can further interpret the findings alongside their experiences.

Future Research

More research is needed to comprehend the complexities of educators' uses of Instagram in Britain. While respondents commonly reported positively about *TeacherGram*, it could be beneficial to explore the views of those outside of the convenience sample and who were perhaps not motivated to complete the questionnaire. Further studies on the current topic are therefore recommended with a larger more

representative sample, coupled with qualitative research. Several questions remain unanswered at present, further lines of inquiry for research could include:

- Examining the quality of content on *TeacherGram*
- The role of the 'edu-influencer' and 'teacherpreneur' in Britain
- *TeacherGram* as a platform for 'just-in-time' professional development
- The impact of *TeacherGram* on workload, mental health and wellbeing

Implications

This study's findings have implications for existing theories, further teacher education and professional development.

The influence of *TeacherGram* may align with the previously described connectivism theory proposed by Siemens (2005). Siemens' (2005) connectivism theory for learning emphasises the importance of connections that foster and maintain knowledge flow allowing learners to stay up to date in their field. In this study, a high user rate overwhelmingly reporting positive impacts on pedagogical principles and awareness of current events in the educational sector most closely linked to the focus on connecting specialised information sets of Siemens' (2005) theory. The results of this study aligned with Siemens' connectivism theory that connections enable us to learn. However, the quality of these connections is subject to potential pitfalls and misinformation. The results of this study suggested that *TeacherGram* has a role to play as a PLN to support informal learning and PD.

This combination of findings provides some support for the conceptual premise that social media has a role in

PD. The results from this study align with previous reports regarding educators' use of social media. However, the extent to which 'influencers' and 'teacherpreneurs' are present among *TeacherGram* PLNs in Britain has been challenged in comparison to their significance in other countries. The data reported here appears to support the assumption that educators in Britain engage in PD through Instagram to connect with others and engage in various kinds of professional exchanges. Considering these potential benefits and previously mentioned challenges, training providers, senior leadership teams and educators could develop ways in which sensible professional uses of social media could be supported and encouraged while managing and reducing potential difficulties. Trainee and early career teachers could benefit from *TeacherGram's* access to otherwise unavailable resources, knowledge and communities supporting their PD.

Conclusion

The main goal of the current study was to determine primary educators' perceptions of the impact *TeacherGram* has on their practice in Britain. The evidence from this study suggests that the way in which educators in Britain engage in professional development opportunities is evolving. Educators in Britain access a range of social media for various professional reasons, making use of sites not originally developed with them in mind. Instagram presents itself as an example of this, providing access to digital communities, professional learning networks and opportunities for professional development. Although the current study lacks generalisability, overall, this study expands knowledge about how and why primary educators in Britain use Instagram, suggesting it has a positive influence on their practice. Still, further research needs to establish the credibility of *TeacherGram* as a professional development tool and contribute to the growth of

support and training for educators to fully harness the potential of *TeacherGram* and alleviate some of its

challenges as a tool for professional development.

References

- Aula, P. (2010) Social media, reputation risk and ambient publicity management. *Strategy & Leadership, 38*(6), pp. 43-49.

- Barrot, J.S. (2021) Scientific mapping of social media in education: A decade of exponential growth. *Journal of Educational Computing Research, 59*(4), pp. 645-668.

- Bartram, B. (2019) Using questionnaires. In: M, Lambert, ed. *Practical Research Methods in Education: An early researcher's critical guide.* Abingdon, Routledge, pp. 1-11.

- Boa Academy (2015) *What Every Teacher Needs to Know About Social Media.* [pdf] Available at: https://www.boa-academy.co.uk/attachments/download.asp?file=4449&type=pdf [Accessed 17 March 2024].

- British Council (2015) *Technology for Professional Development: Access, interest and opportunity for teachers of English in South Asia.* [pdf] Available at: https://www.britishcouncil.in/sites/default/files/digital_teachers_report_final_low_res.pdf [Accessed 16 March 2024].

- Burton, N., Brundrett, M. and Jones, M. (2014) *Doing your Education Research Project.* 2nd edn. London: SAGE.

- Carpenter, J.P., Morrison, S.A., Craft, M. and Lee, M. (2020) How and why are educators using Instagram?. *Teaching and Teacher Education, 96*, pp. 1-14.

- Carpenter, J.P., Shelton, C.C. and Schroeder, S.E. (2023) The education influencer: A new player in the educator professional landscape. *Journal of Research on Technology in Education, 55*(5), pp. 749-764.

- Cho, H., Cannon, J. Lopez, R. and Li, W. (2024) Social media literacy: A conceptual framework. *New Media & Society, 26*(2), pp. 941-960.

- Cohen, L., Manion, L. and Morrison, K. (2018) *Research Methods in Education.* Eighth edition. Abingdon: Routledge

- Cook, R.J., Jones-Bromenshenkel, M., Huisinga, S. and Mullins, F. (2017) Online professional learning networks: A viable solution to the professional development dilemma. *Journal of Special Education Technology, 32*(2), pp. 109-118.

- Copper, J.M. and Semich, G.W. (2019) Professional development in the twenty-first century: YouTube teacher training and professional development. *Advanced Online Education and Training Technologies,* pp. 185-199.

- Curcio, R., Schroeder, S. and Lundgren, L. (2023) Affordances and constraints of teacher-to-teacher online marketplace of ideas: understanding early career elementary teachers' perceptions. *Journal of Research on Technology in Education,* pp. 1-19.

- Davis, S. and Yi, J. (2022) Double tap, double trouble: Instagram, teachers, and profit. *E-Learning and Digital Media, 19*(3), pp. 320-339.

- Department for Education (2011) *Teachers' Standards: Guidance for school leaders, school staff and governing bodies.* [pdf] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040274/Teachers__Standards_Dec_2021.pdf [Accessed 16 March 2024].

- Department for Education (2016) *Standard for Teachers' Professional Development.* [pdf] Available at: https://assets.publishing.service.gov.uk/media/5a750b16ed915d5c54465143/160712_-_PD_Expert_Group_Guidance.pdf [Accessed 16 March 2024].

- Department for Education (2024) *Keeping Children Safe in Education 2023: Statutory guidance for schools and colleges.* [pdf] Available at: https://assets.publishing.service.gov.uk/media/66d7301b9084b18b95709f75/Keeping_children_safe_in_education_2024.pdf [Accessed 5 December 2024].

- Dogru, M.S. and Yüzbasioglu, F. (2023) Science teachers' perceptions of social media platforms: an exploration of educational Instagram pages. *Research Square,* https://doi.org/10.21203/rs.3.rs-2836818/v1.

- Donelan, H. (2016) Social media for professional development and networking opportunities in academia. *Journal of Further and Higher Education, 40*(5), pp. 706-729.

- Education Endowment Foundation (2021) *Effective Professional Development: Guidance report.* [pdf] Available at: https://d2tic4wvo1iusb.cloudfront.net/production/eef-guidance-reports/effective-professional-development/EEF-Effective-Professional-Development-Guidance-Report.pdf?v=1710590469 [Accessed 16 March 2024].

- Fassbender, W.J. (2020) *Teachers who "Tech" and the Tethered Classroom: An actor network filmic ethnography.* Ph.D. Thesis. University of Georgia.

- Feyman Gök, N. and Ölmez, E. (2023) An examination on the views of preschool teachers on the use of social media

for professional development. *Journal of Educational Research, 10*(1), pp. 101-117.

- Fletcher-Wood, H. and Zuccollo, J. (2020) *The Effects of High-Quality Professional Development on Teachers and Students: A rapid review and meta-analysis.* [pdf] Available at: https://epi.org.uk/wp-content/uploads/2020/02/EPI-Wellcome_CPD-Review__2020.pdf [Accessed 16 March 2024].

- Fox, A. and Bird, T. (2017) The challenge to professionals of using social media: Teachers in England negotiating personal-professional identifies. *Education and Information Technologies, 22,* pp. 647-675.

- Gaete, A., Gómez, V. and Benavides, P. (2018) The overuse of self-report in the study of beliefs in education: epistemological considerations. *International Journal of Research & Method in Education, 41*(3), pp. 241-256.

- Greenhalgh, S.P. and Koehler, M.J. (2017) 28 days later: Twitter hashtags as "just in time" teacher professional development. *TechTrends, 61,* pp. 273-281.

- Greenhalgh, S.P., Rosenberg, J.M. and Russell, A. (2021) The influence of policy and context on teachers' social media use. *British Journal of Educational Technology, 52*(5), pp. 2020-2037.

- Greenhow, C., Lewin, C. and Staudt Willet, K.B. (2023) Teachers without borders: professional learning spanning social media, place, and time. *Learning, Media and Technology, 48*(4), pp. 666-684.

- Greenhow, C., Staudt Willet, K.B. and Glavin, S. (2021) Inquiring tweets want to know: #Edchat supports for #RemoteTeaching during COVID-19. *British Journal of Educational Technology, 52*(4), pp. 1434-1454.

- Higgins, S (2020) *Teachers' Media Habits Report.* [pdf] Available at: https://www.edge.co.uk/documents/108/Edge_Teachers_media_habits_report.pdf [Accessed 18 March 2024].

- Higgins, S. (2023) *The Social Media Habits of Teachers.* [pdf] Available at: https://www.edge.co.uk/documents/365/Teachers_media_habits_report_FINAL.pdf [Accessed 17 March 2024].

- Hunzicker, J. (2011) Effective professional development for teachers: A checklist. *Professional Development in Education, 73*(2), pp. 177-179.

- Ilakkuvan, V., Johnson, A., Villanti, A.C., Evans, W.D. and Turner, M. (2019) Patterns of social media use and their relationship to health risks among young adults. *Journal of Adolescent Health, 64*(2), pp. 158-164.

- Iredale, A., Stapleford, K., Tremayne, D., Farrell, L., Holbrey, C. and Sheridan-Ross, J. (2020) A review and synthesis of the use of social media in initial teacher education. *Technology, Pedagogy and Education, 29*(1), pp. 19-34.

- Jackson, G. (2019) Social media and reflective practice – a world-wide support network. In: C. Scutt and S. Harrison, eds. *Teacher CPD: International trends, opportunities and challenges.* London: Chartered College of Teaching, pp. 187-189.

- Kross, E., Verduyn, P., Sheppes, G., Costello, C.K., Jonides, J. and Ybarra, O. (2021) Social media and well-being: Pitfalls, progress, and next steps. *Trends in Cognitive Sciences, 25*(1), pp. 55-66.

- Lantz-Andersson, A., Lundin, M. and Selwyn, N. (2018) Twenty years on online teacher communities: A systematic review of formally-organized and informally-developed professional learning groups. *Teaching and Teacher Education, 75,* pp. 302-315.

- Linden, S. (2022) Social media, teachers and schools: How to avoid the pitfalls. *Headteacher Update.* [blog] 7 February. Available at: https://www.headteacher-update.com/content/best-practice/social-media-teachers-and-schools-how-to-avoid-the-pitfalls/ [Accessed 17 March 2024].

- Macià, M. and García, I. (2016) Informal online communities and networks as a source of teacher professional development: A review. *Teaching and Teacher Education, 1*(55), pp. 291-307.

- Marcelo-Martinez, P., Yot-Dominguez, C. and Marcelo, C. (2024) How and why teachers use social networks for professional learning. *Teacher Development*, pp. 1-13.

- McAleavy, T., Hall-Chen, A., Horrocks, S. and Riggall, A. (2018) *Technology-Supported Professional Development for Teachers: Lessons from developing countries.* [pdf] Available at: https://files.eric.ed.gov/fulltext/ED593386.pdf [Accessed 16 March 2024].

- McCulloch, J., McIntosh, E. and Barnett, T. (2011) *Tweeting For Teachers: How can social media support teacher professional development?* [pdf] Available at: http://www.itslifejimbutnotasweknowit.org.uk/files/libraryfrom2012/Tweeting-for-teachers.pdf [Accessed 16 March 2024].

- Meltwater (2024) *Digital 2024: Global overview report.* Available at: https://indd.adobe.com/view/8892459e-f0f4-4cfd-bf47-f5da5728a5b5?allowFullscreen=true [Accessed 13 March 2024].

- Mercado, F.M.S. and Shin, S. (2023) Teacher professional development in the 21st century: how social media has revolutionized the practice. *Research, Practice and Innovations in Teacher Education during a Virtual Age,* pp. 227-254.

- National Statistics (2023) *Reporting Year 2022: School workforce in England.* Available at: https://explore-education-statistics.service.gov.uk/find-statistics/school-workforce-in-england [Accessed 25 March 2024].

- Newton, J.R. and Williams, M.C. (2022) Instagram as a special educator professional development tool: A guide to teachergram. *Journal of Special Education Technology, 37*(3), pp. 447-452.

- Ofsted (2021) *Teaching Teachers During COVID-19.* Available at: https://www.gov.uk/government/publications/teaching-teachers-during-covid-19/teaching-teachers-during-covid-19 [Accessed 16 March 2024].

- Ofsted (2023) *Independent Review of Teachers' Professional Development in Schools: Phase 1 findings.* Available at: https://www.gov.uk/government/publications/teachers-professional-development-in-schools-phase-1-findings/independent-review-of-teachers-professional-development-in-schools-phase-1-findings [Accessed 16 March 2024].

- Owen, N., Fox, A. and Bird, T. (2016) The development of a small-scale survey instrument of UK teachers to study professional use (and non-use) of and attitudes to social media. *International Journal of Research & Method in Education, 39*(2), pp. 170-193.

- Parkin, J. and Spear, S. (2021) *Staying Connected: The informal learning of primary teachers during the COVID-19 lockdown to meet the challenges of emergency remote learning.* Available at: https://my.chartered.college/impact_article/staying-connected-the-informal-learning-of-primary-teachers-during-the-covid-19-lockdown-to-meet-the-challenges-of-emergency-remote-learning/ [Accessed 16 March 2024].

- Prestridge, S. (2019) Categorising teachers' use of social media for their professional learning: A self-generating professional learning paradigm. *Computers & Education, 129,* pp. 143-158.

- Radivojevic, K., Adams, D.J., Laszio, G., Kery, F. and Weninger, T. (2024) *Reputation Transfer in the Twitter Diaspora.* [pdf] Available at: https://arxiv.org/pdf/2405.12040 [Accessed 5 December 2024].

- Richter, E., Carpenter, J.P., Meyer, A. and Richter, D. (2022) Instagram as a platform for teacher collaboration and digital social support. *Computers & Education, 190*, pp. 1-15.

- Riggall, A. and McAleavy, T. (2019) Harnessing the power of technology to support professional learning. In: In: C. Scutt and S. Harrison, eds. *Teacher CPD: International trends, opportunities and challenges.* London: Chartered College of Teaching, pp. 168-175.

- Sawyer, A.G. and Myers, J. (2018) Seeking comfort: How and why preservice teachers use internet resources for lesson planning. *Journal of Early Childhood Teacher Education, 39*(1), pp. 16-31.

- Shelton, C., Schroeder, S. and Curcio, R. (2020) Instagramming their hearts out: What do edu-influencers share on Instagram?. *Contemporary Issues in Technology and Teacher Education, 20*(3), pp. 529-554.

- Siemens, G. (2005) *Connectivism: A learning theory for the digital age.* Available at: http://www.itdl.org/Journal/Jan_05/article01.htm [Accessed 16 March 2024].

- Statista (2022) *Most Popular Social Media Platforms in the United Kingdom (UK) as of the Third Quarter 2022, by Usage Reach.* Available at: https://www.statista.com/statistics/284506/united-kingdom-social-network-penetration/ [Accessed 18 March 2024].

- Statista (2024) *Most Popular Social Networks Worldwide as of January 2024, Ranked by Number of Monthly Active Users.* Available at: https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ [Accessed 18 March 2024].

- Staudt Willet, K.B. (2024) Early career teachers' expansion of professional learning networks with social media. *Professional Development in Education, 50*(2), pp. 386-402.

- Staudt Willet, K.B. and Carpenter, J.P. (2020) Teachers on Reddit? Exploring the contributions and interactions in four teaching-related subreddits. *Journal of Research on Technology in Education, 52*(2), pp. 216-233.

- Trust, T. (2012) Professional learning networks designed for teacher learning. *Journal of Digital Learning in Teacher Education, 28*(4), pp. 133-138.

- van Bommel, J., Randahl, A.C., Lijekvist, Y. and Ruthven, K. (2020) Tracing teachers' transformation of knowledge in social media. *Teaching and Teacher Education, 87,* pp. 1-9.

- Walliman, N. (2022) *Research Methods: The basics.* 3rd edn. Abingdon: Routledge.
- Winwood, J. (2019) Using interviews. In: M, Lambert, ed. *Practical Research Methods in Education: An early researcher's critical guide.* Abingdon: Routledge, pp. 12-22.
- World Bank (2018) *World Development Report 2019: Learning to realize education's promise.* [pdf] Available at: https://elibrary.worldbank.org/doi/abs/10.1596/978-1-4648-1096-1 [Accessed 16 March 2024].

Principle-Centered Adolescence – An Investigation Using English Literature

Niranjana, D

Introduction

'Principle Centered Adolescence- an investigation using English Literature' is an attempt to investigate the role of English Literature in developing an individual who will make ethical decisions in the future, and shape society by influencing and improving the community at large. Living a principle-centered life gives importance to emotional intelligence. Poetry and prose in literature can ensure that these values are identified and built in an individual via different pedagogies like inquiry-based approach, constructive approach, and reflective approach. Literature offers morals and value-based education through cautionary tales making the learners reflect on their actions. Through various activities like recreating history in drama and writing an argumentative essay or speech, the learners shall experience love, honesty, friendship explore self-analysis, and the importance of decision-making, etc. Thus, creating a conducive classroom environment and a learner-centered education will encourage learners to become principle-centered adolescents. This study also explores why creating principle-centered adolescents should be a part of the education system.

The study on creating principle-centered adolescence captured my analysis of how certain qualities like honesty, valuing relationships, and decision-making could be imbibed in learners through English literature. My teaching philosophy is to give learners the freedom to present their ideas, enabling them to be critical thinkers and problem-solvers. I strive to broaden this vision and explore all possible ways to aid my learners in achieving their goals. I use experiential and project-based learning to motivate and grab the attention of my learners. I am currently teaching in an International School, which follows an integrated curriculum of the Indian Certificate of Secondary Education and International General Certificate of Secondary Education, in the middle

school. The learners I selected from middle school for my study were with me for three years.

Aspect

A principle-centered adolescent is a responsible person who, in the future, will mould society. According to Sagiv et al. (2017), values influence a person's thinking, choices, opinions, and decisions. Knowing what is good and worthy will govern a person's life. This will collectively influence individuals and society. Living a principle-centered life is affirming oneself and acknowledging the potential strengths in a person. Enabling learners to identify their strengths and weaknesses and motivating them to be persistent and good decision-makers will prepare them to face the world in the future. Principles are the anchors of life, and they provide strong life support. According to Covey (1995), when one makes choices driven by values to the best of their and others' interests, they will attain their highest potential. The learners will be valuable citizens if they are built with morals. Gul (2017) believes that being a role model for the students, a teacher becomes an ethical and loyal companion of society. As a teacher, I needed to prepare the learners for these as I could impact the learners' actions. The learners from the school, aged twelve and thirteen in middle school, required guidance to identify their potential strengths and the values that needed focus. They had to become confident and responsible and value principles. Lindsay (2016) states that the success or failure of a teen depends on whether one lives by principles or not, and a principle-centred life is the foundation for a valuable life. It is vital to excel in all areas and never disappoint or let one down in life. Zhu (2023) announces that learners walk into society during adolescence, so it is identified as the most essential time for moral shaping. Hence, I realised teaching the learners how to live a principle-centered life is vital. So, I strived to create a classroom atmosphere and a

learner-centered education that would boost the learners to become principle-centered adolescents. I recognised that imbibing these values would always be essential, and we might fail to create a better future for them otherwise.

Background

Principle-centered living has its core in philosophical, psychological, and sociological foundations. Though it has no definite history or background, it has evolved through the years. Lee (2019) suggests that Confucianism, the concept of Eastern philosophy, talks about principle-centred living. According to Confucius, virtue is not doing anything to others we wish not to do to ourselves. As societies evolve, there has been a significant change in how humans move from a material life to a holistic life. Adolescent age is a susceptible age that needs guidance on this. Gongola (2023) declares that during adolescence, learners are vulnerable as they face multiple problems, and not checking and guiding them will lead to various other issues in life. When I noticed the learners' lack of perseverance and indecisiveness in the classroom and not valuing themselves and others, it made me question my role. The learners struggled to put in the required effort and appreciate themselves and others regarding expected work ethic or cultural behaviour in a classroom. I believed that the lack of understanding of these values would put them in a challenging situation where they would find it challenging to face the world in the future. So, I was responsible for instilling certain principles in the learners.

Context

The main objective of this study was to explore, investigate, and discover a principle-centered approach to adolescence, which I conducted with middle school students. I designed the literature course to aid students in believing in value-based life because poetry and prose in literature can ensure that these values are identified and built into them via different pedagogies like inquiry-based, constructive, and reflective approaches. Olaniyan-Shobowale (2016) suggests that the methodology used by the teacher in the classroom can enhance or curb learning in learners. Hence, using innovative approaches in a school is essential. Values cannot be taught but can be integrated and modelled through the aid of the curriculum. According to Prahaladaiah (2021), literature offers value-based education through cautionary tales and ensures learners reflect on their actions. Panchatantra, a popular collection

of Sanskrit beast fables on wisdom and virtue, for example, speaks of righteous living.

The study on creating principle-centered adolescence was conducted with two learners whom I believed required immediate guidance and attention based on my class observation. Behera (2020) insists that individuals and institutions collaboratively can create a prosperous future for our society, so the organisation needs good teachers as mentors to develop principled individuals. I knew if the two learners succeed during the course of study, the learners would benefit in the classroom and at home. It would help the learners value themselves and their peers. As an organisation, we could create leaders for the future environment whose lives would be centred on principles. The role of education is to aid learners in identifying the difference between values and superficial things, which was a step I took to aid my learners.

Covey's (1989) book 'Principle-Centred Leadership' talks about how the fundamental principles we adopt can enhance our lives in all possible ways. He focuses on the four main principles: security, guidance, wisdom, and power. Similarly, his son Covey (1998) published a book entitled 'The Seven Habits of Highly Effective Teens' that discusses the problems teens face worldwide. He discusses seven habits, from being proactive to balancing the four dimensions of self: body, mind, heart and spirit focusing on self-renewal to guide teens. Also, Canfield and Hanley (2008), in their book 'The Success Principles for Teens: How to Get From Where You Are to Where You Want to Be' discuss success strategies teens have used. All these books act as elemental guiding forces to learners, but certain basic principles like staying honest and humble still need to be addressed. To one's surprise, these books do not discuss decision-making. Even in the latest research papers, very few have been spoken of decision-making. Driscoll (2023) says 21st-century schools should aim to give students the power of decision-making and motivate them to take ownership. As a facilitator, I aimed to make the learners reflect on themselves and understand how important the principles are in life. The key focus was on decision-making and promoting emotional intelligence which would, in turn, teach them self-discipline, loyalty, perseverance, and ownership.

Restate the aspect

In Stimatze's (2018) words, principles do not define us; instead, we define principles. One should align one's standards to the correct principles. The pivotal

point of my study was to cultivate principle-centred characteristics in learners, with a distinct focus on nurturing honesty, decision-making, and valuing relationships. The teaching of these core values involved a multi-faceted approach. McMullen (2023) proposes using multiple approaches to teaching in the classroom as it will promote learning positively, and students will be more engaged, resulting in their growth. So, the whole process was achieved through personalised learning, project-based learning, and questioning techniques through a flexible learning environment.

2.1 Discussing the aspect (pre-intervention)
I was determined to do this study with the students as I was stunned to see the learners' approach during class discussions. There was absolute silence when they were questioned about who they value or see as an inspiration in life. When prompted, most students came up with an answer, unlike the two students involved in this research. One said that he was neither motivated by anyone nor valued anybody. The other student said that he was unable to decide. There seemed to be no exposure to ethical values. Their responses made me question my role. According to the UK Therapy guide (2023), a lack of principles, even led by circumstances, can result in sadness, disappointment, and guilt and eventually will impact mental health. So, I decided to observe the learners' current levels of approach towards the values mentioned above to understand their mindset in depth. It revealed that they lacked exposure to values. Afterwards, I hand-picked literature lessons to help the learners understand these values and designed projects tailored to their needs.

Discussing the Learning
Examining the aspect of creating a principle-centred

adolescence involved multiple strategies. Varied tools needed to be used to have in-depth insights. According to the editorial team of the Resilient Educator (2013), so much data can be collected in a classroom setting. While some information can be gathered without the learner's knowledge, others can be managed by engaging the learners so they can provide the information. So, a teacher could use multiple assessment methods to understand the student's behaviour. I used case study observations and a questionnaire to understand the learners' actions, attitudes, and behavioural approaches and gather data. The data analysis revealed that learners must know an individual's ethical guidelines in a given situation. They potentially took things for granted and were too casual about valuing relationships. The case study suggested that decision-making had been the biggest challenge as they struggled with clarity in each scenario. You and Bebeau (2013), in their article, notify that based on the Four-Component Model of Morality (FCM)(1982), designed by Rest, a person must be able to judge their course of action to know what is morally right to do in a situation. If a learner acts according to moral values and can make decisions on ethical grounds, they will be valued. Values will benefit anyone, but my learners needed help identifying actual values. Covey (1991) suggests that the traditional method of the teacher-student relationship should be shifted to a model where all stakeholders are tied together to empower the learners. Hence, the key stakeholders must be a part of the learning journey.

Figure 1 shows the critical stakeholders in a principle-centred learning environment.
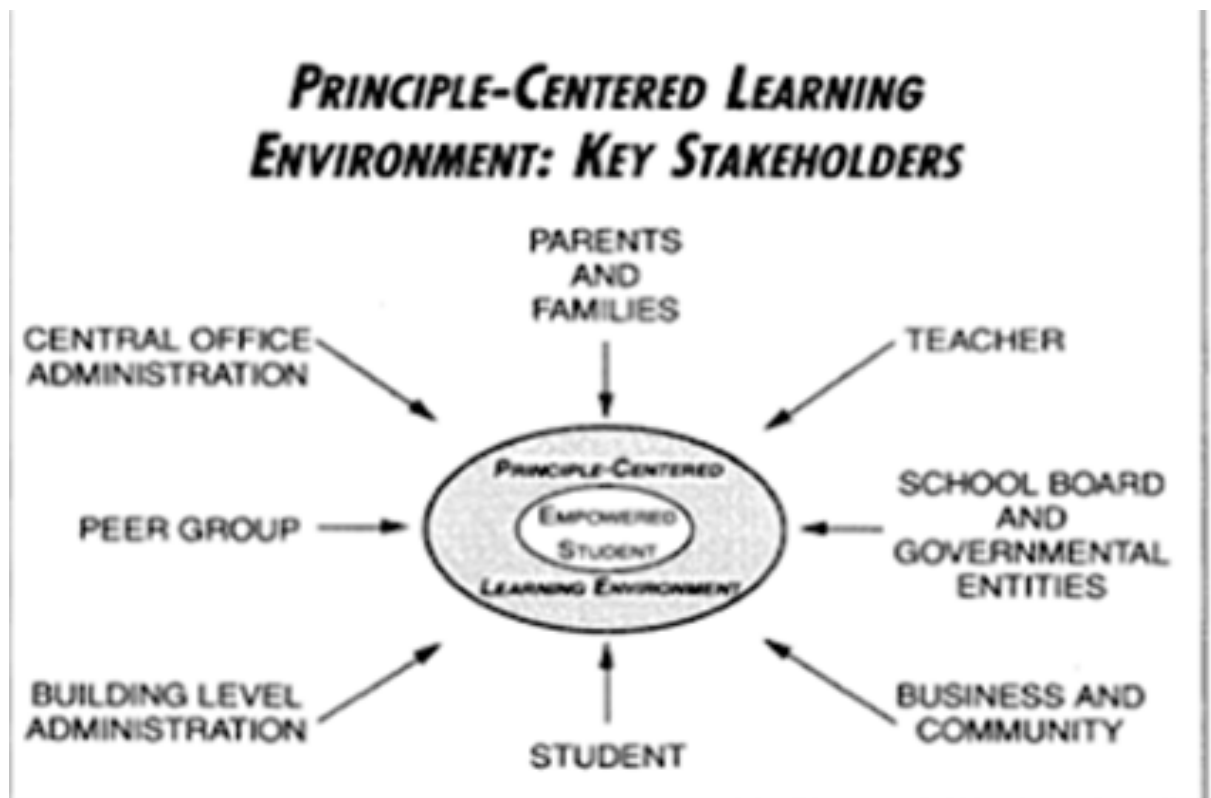
Figure 1. Principle-centered learning environment: Key Stakeholders by Covey. Source: DOCPLAYER, PRINCIPLE-centred LEADERSHIP By Stephen R. Covey (2015)

I realised my importance in addressing the concerns about creating principle-centered adolescence. To achieve this, the learners needed a vivid and comprehensive guide emphasising the importance of honesty and decision-making. I knew if these two values, along with valuing relationships could be addressed, my role as a teacher in creating a principle-centred adolescence would be fulfilled. Thus, I aimed to create a morally ethical individual by providing a conducive learning environment. Prose and poetry could achieve this in an English classroom through project-based learning, experiential learning, inquiry-based learning, interactive discussions, writing exercises, podcasts, and reciprocal teaching as per the classroom requirement. In addition, the learners should learn to take ownership. I realised the criticality of the situation, but as a teacher, it was challenging to make adolescent learners understand the values one might adhere to in one's life. Hashmi and Fayyaz (2022) state that adolescents will not readily accept the views of either their teachers or parents. So, creating an emotional bond was essential to avoid a feeling of hostility. Proper guidance and continued support were given to improve their self-confidence and self-esteem. They also learned to be independent, and I believed all these together would aid them in performing well in academics. Hence, I

ensured that the learners learned principle-centered learning in an exciting and engaged manner through projects and discussions. It was crucial that I create a strong bond with the learners, develop trust, and motivate them to believe in themselves. However, all those were not easy for me because of the time constraints towards completing the syllabus, getting the adolescent learner to communicate their thoughts openly, and certain ethics connected to the classroom. Proper planning with a well-structured year plan and lesson plan at the beginning of the year would have helped.

Interventions

English Literature aims at the holistic development of learners in a balanced manner, integrating the physical, emotional, and intellectual aspects that will produce valuable human beings for society. Literature provides information and helps learners know about ethical behaviours. Understanding the importance of narratives, I selected lessons from the curriculum and designed a lesson plan. The classic, The Pied Piper of Hamelin, written by Browning in 1842, and the short story Leela's Friend from the collection Malgudi Days written by Narayan were introduced to learners from the curriculum to be analysed critically. Simultaneously, the learners were asked to maintain a reflective journal that discussed broken promises and

promises that were fulfilled or lies they uttered in a day following the marking of the feelings wheel. I learned that this reflective journal created responsibility in one learner while the other learner considered it as a fun activity. I understood the need for a different approach.

Smallhorn (2017) believes that the flipped classroom technique can redefine the teacher-student dynamic in a classroom situation. I used the flip classroom technique to break the traditional teaching method, where learners viewed materials outside of the class, and it encouraged them to think and question their thoughts. Nouri (2016) believes that the flip classroom technique encourages students to learn at their own pace, and learners will be more engaged and take responsibility for their work. However, Lag and Sæle (2019) state that a flipped classroom can increase student workload. I also observed that when the learners worked independently, interpretation of the context and analysis of the text suffered. Though this technique is widely used to save class time for debates and discussions, contributing to higher-order thinking skills, it consumed time as I had to revisit specific themes and analyses. I realised the importance of technology-based mediums in promoting student-centered learning. Gopo (2022) suggests that learners enjoy and value technology usage in their learning. Bergmann and Sams (2012) and Campillo-Ferrer and Mirallas-Martinez (2022) state that interactive technologies can encourage collaborative learning, research, and exploration. Driven by technology, flipped classrooms offer learners multiple teaching resources like videos and other educational tools. After analysing the themes, the learners were asked to come up with 'what if…' questions to examine alternate perspectives than the one given in the story.

As students explored multiple perspectives, that was the right juncture to introduce a debate to extend their thinking. I chose topics such as war and the pandemic for them to talk about. Debate helped students to be creative and confident in the classroom. Stockdale (2020) restates that debate promotes collaborative learning as learners challenge their peers during discussions, allowing them to share their opinions and views on a particular topic. However, in the classroom situation, I needed to be extremely careful as topics like COVID-19 and war are pretty sensational, so setting a boundary had been a challenge. In the future, I would set boundaries and discuss the dos and don'ts before having sensible discussions.

According to UNESCO (1998), Twenty-first-century education aims to create critical thinkers, and inquiry-based learning is the chief approach. Alameddine and Ahwal (2016) suggest using inquiry-based learning as it can make the classroom highly active and cater to diverse needs. It focuses on the learners' questions and reflections. I recognised that the students had to learn to question life-like situations to analyse their behaviour. This reflective approach would guide them to be ethically committed to themselves. So, I asked learners to write inquiry-based questions that questioned the character's decisions and actions in the prescribed stories.

Following this, the learners created a series of questions like 'Who and what influenced the mayor's decisions' and 'Why did the police believe the parents and not Sidda?'. They submitted their work for peer feedback, and the same was open for discussion with the whole class. The other students in the classroom recorded their points of view for the given questions. They identified the problems in the decision-making process, came up with possible solutions, and expressed their thoughts under the topic, 'If I were the mayor….' and 'If I were Leela's father…'. This activity helped them to be decision-makers. I gave feedback based on the students' work and found that the peer feedback was biased. As a result of this, I decided to provide a rubric for peer feedback in the future to avoid unhealthy competition. The students would also have a checklist to structure their feedback.

The whole process demonstrated that the students were engaged as they took ownership of forming questions, and it also helped them relate fiction to real-life situations. I observed the changes in the behavioural approach of one student who shared a real-life story wherein he helped his friend when he was in primary class. In contrast, the other student had no significant or visible behavioural change. The inquiry-based approach did not work for him. Mao (2023) discusses inquiry-based learning and says that learners read, understand, and analyse gathered information during the process. They work with their peers and share their understanding. It burdens some learners as they are overloaded with information, and the learning goal is eventually lost. Hence, a different strategy should be used for this kind of learners to get them involved. I would design a play-based learning project in the future to bring in some fun in the learning.

After the above discussions, activities, and analysis, I proposed to give the learners a writing project. As one learner always struggled to articulate his thoughts in writing, I gave them the option of a podcast or any other way to present the idea as a project. Personalised learning works on the current knowledge that the teacher has of the student. Providing support and flexibility in learning was intended to motivate the learner to be sincere in his approach. The learner was asked to communicate with his parents, listen to real-life contexts, and weave a story around any one of the principles of life. So, basic instructions were given, and I also shared a video for the learners to understand the difference between values and principles. Wride (2017) remarks that self-assessment promotes lifelong learning and will support future development. Learners judge their achievements and learning outcomes. So, they were given the authority to decide their topics and create rubrics for their assessments. After seeing the project's outcome, I provided feedback aimed at constructive learning and found that there was a significant transistion in their personality. The learners appreciated the importance of the values and ethics one has to follow in life.

Implications

The above findings provided varied implications for the learners and myself. The learners gained some insight that contributed to their personal and ethical development, which was proved through the questionnaire's results. The data showed that exploring multiple perspectives through stories and engaging in debates fostered a sense of responsibility, logical reasoning, and moral reasoning in them, and I learned the importance of cultivating these ethics in my learners. The exit slip, which served as the formative assessment, assured that the learners had a positive learning experience but also allowed them to freely ask for support in developing an understanding of the concept. I also collected feedback from peers and parents to analyse my teaching. I looked forward to refining the pedagogical methods by critically reflecting on my practice. Similarly, for students, adopting a principle-centered living should be a lifelong learning process and should be continued as they move to consecutive grades in school to influence society. A learner enriched with these moral standards would hold promise for himself and society. They would be able to navigate complex predicaments and be strong decision-makers.

Conclusion

The whole intent of the study was to create and explore a principle-centered approach to adolescence and to unravel the intricacies of morals and ethical values, such as honesty, valuing relationships, and decision-making skills. It discussed the development of this behaviour in adolescent learners. The adolescent development stage was identified as the crucial stage of student development, so the whole process was to tune them to become better individuals. Exploration of the student behaviour in the classroom set-up through flip classroom, inquiry-based learning and project-based learning gave insights into their behavioural approach. Peers and family were two significant contributors that helped develop the learners. Principled decision-making skills were the tying factors of all these core values.

Comprehensive school curricula and a positive teacher mindset are the need of the hour and should be developed keeping in mind the needs of societal values. Adolescence is the crucial period, and imbibing these values in their study routine will foster knowledge and provide them with a window of opportunity in the future. It is a learning that he should journey with all his life. Because of this study, my learners understood the importance of having principles and showed their ability to think critically while doing projects. They cultivated a sense of responsibility and resilience.

In conclusion, the study significantly delved into creating principle-centered adolescents by recognising various pedagogical methods and influences. The study aimed for a holistic approach, including interventions with the family, peers, and teachers. This study promoted further questions like how this could be part of the education system from early years through middle to senior school. Continuous learning and a collaborative approach from all stakeholders of society would ensure that the goal of creating a principle-centered education could be achieved.

References

- Alameddine, M. and Ahwal, H. (2016) Inquiry-Based Teaching in Literature Classrooms. Procedia - Social and Behavioral Sciences, 232. pp. 332-337.
- Behera, H. (2020) The Importance Of Value Education & Role Of Teachers In The Present Society For The Auspicious And Prosperous Future. International Journal Of Research Culture Society 4, 12. Available at: https://ijrcs.org/wp-content/uploads/IJRCS202012001.pdf [Accessed 5 January 2024]

- Bhattacherjee, U. (2024) "Panchatantra". Encyclopedia Britannica. Available at: https://www.britannica.com/topic/Panchatantra-Indian-literature. [Accessed 17 November 2024]
- Bijami, M., Kashef, S.H. and Sharafinejad, M. (2013) Peer Feedback in Learning English Writing: Advantages and Disadvantages. Journal of Studies in Education, 3(4).pp 91-97.
- Campillo-Ferrer, J.M. and Mirallas-Martinez, P. (2021) Effectiveness of the flipped classroom model on students' self-reported motivation and learning during the COVID-19 pandemic. Humanit Soc Sci Commun 8, 176. Available at: https://www.nature.com/articles/s41599-021-00860-4 [Accessed 29 December 2023].
- Driscoll, M (2023) Education in the 21ST Century. Available at: https://thinkstrategicforschools.com/education-21st-century/ [Accessed 27 November 2023].
- Gongala, S. (2023) 11 Common Problems Of Adolescence, And Their Solutions. Available at: https://www.momjunction.com/articles/problems-of-adolescence_00381378/ [Accessed 25 November 2023].
- Gopo, C. (2022) The role of technology in the 21st century education of learners. Available at: https://www.researchgate.net/publication/359849731_The_role_of_technology_in_the_21st_century_education_of_learners [Accessed 29 December 2023].
- Gul, S.B.A. (2017) Teacher And Value Education: An Exploratory Study. Available at: https://files.eric.ed.gov/fulltext/ED607089.pdf [Accessed 10 December 2023].
- Hashmi, K. and Fayyaz, H.N. (2022) Adolescence and Academic Well-being: Parents, Teachers, and Students' Perceptions. Journal of Education and Educational Development, 9(1). Available at: https://files.eric.ed.gov/fulltext/EJ1347671.pdf [Accessed 30 November 2023].
- Health, C. (2015) Principle-centered Leadership By Stephen R. Covey. Available at: https://docplayer.net/10941306-Principle-centered-leadership-by-stephen-r-covey.html
- [Accessed 27 November 2023].
- Låg, T. and Sæle, R. G. (2019) Does the Flipped Classroom Improve Student Learning and Satisfaction? A Systematic Review and Meta-Analysis. Available at: https://journals.sagepub.com/doi/full/10.1177/2332858419870489 [Accessed 5 January 2024].
- Lee, J. K. (2019). and Wood, J. P. (2009) Design for inquiry-based learning case studies. Journal of Learning Development in Higher Education, 1. Available at: https://files.eric.ed.gov/fulltext/ED600708.pdf [Accessed 25 November 2023].
- Lindsay. (2016) Living a principle-centered life. Available at: https://triumphyouthservices.com/living-a-principle-centered-life/#:~:text=A%20principle%2Dcentered%20life%20is,centered%20lives%20becomes%20most%20important. [Accessed 19 November 2023].
- Mao, Y. (2023) Issues and Strategies in Inquiry-Based Learning Evaluation. Open Journal of Social Sciences. 11, pp. 422-440.
- McMullen, K. (2022) Innovative Teaching Strategies: Nine Techniques for Success. Available at:https://educationadvanced.com/resources/blog/innovative-teaching-strategies-nine-techniques-for-success/ [Accessed 27 November 2023].
- Nouri, J. (2016) The flipped classroom: For active, influential and increased learning – especially for low achievers. International Journal of Educational Technology in Higher Education, 13(1), Available at: https://files.eric.ed.gov/fulltext/EJ1086201.pdf [Accessed 30 November 2023].
- Olaniyan-Shobowale, K.O., Jimoh, A.S. and Shittu, R. (2016) A Study of The Inculcation of Moral Values Using Prose Literature-In-English Among Senior Secondary School Students of Ewekoro Local Government Area of ogun State. IOSR Journal Of Humanities And Social Science, 21(11), pp. 15-20.
- Prahaladaiah, D. (2021) Value-Based Teaching English Language and Literature. Journal of Education Culture and Society. 6, pp. 59-66.
- Sagiv, L., Roccas, S., Cieciuch, J. and Schwartz, S.H. (2017) Personal values in human life. Nature Human Behaviour, 1(9). Available at: https://www.researchgate.net/publication/319269391_Personal_values_in_human_life [Accessed 10 December 2023].
- Siegle, D. (2014) Technology: Differentiating instruction by flipping the classroom. Gifted Child Today, 37(1), pp. 51-55.
- Smallhorn, M. (2017) The flipped classroom: A learning model to increase student engagement not academic achievement. Student Success, 8(2), pp. 43-53
- Stimatze, M.(2018) Principle centered Life. Available at: https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-016-0032-z [Accessed 30 November 2023].
- Stockdale, F. (2020) Finding Voice: Debating in Secondary School English. Available at: https://discovery.ucl.ac.uk/id/eprint/10126045/1/Stockdale_Finding%20Voice%20Debating%20in%20Secondary%20School%20English%20Fiona%20Stockdale.pdf [Accessed 30 November 2023].
- The Editorial Team, Resilient Educator (2013) Collecting Data in the Classroom: A Teacher's Guide. Available at: https://resilienteducator.com/classroom-resources/collecting-data-in-the-classroom-a-teachers-guide/ [Accessed 29 November 2023].
- Tianotak, U. S. (2021) The Challenges of Peer Feedback in EFL Writing Classroom: Viewed from Students' Perspectives. English Department of UMMU Journal (EDU Journal), 1(2), pp. 1-9.
- UK Therapy guide (2023) Moral principles: what they are, examples, and how they can influence your life choices. Available at: https://www.uktherapyguide.com/moral-principles-what-they-are-examples-and-how-they-can-influence-your-life-choices [Accessed 27 November 2023].
- University of Technology Sydney(n.d.) The Importance of Reflective Writing. Available at: https://www.uts.edu.au/research-and-teaching/teaching-and-research-integration/learning-

journeys/students/students-resources/importance-reflective-writing [Accessed 1 December 2023].

- US ARMY CORP OF ENGINEERS (n.d.) Principle centered Living. Available at: https://simpsonexecutivecoaching.com/wp-content/uploads/2021/04/18-principle-centered-living-stephen-covey.pdf [Accessed 25 November 2023].

- Write, M. (2017) Guide to self-assessment. Available at: https://www.tcd.ie/academicpractice/Assets/pdf/Academic%20Practice%20Resources/Guide%20to%20Student%20Self%20Assessment.pdf [Accessed 30 November 2023].

- You, D. and Bebeau, M.J. (2013) The independence of James Rest's components of morality: evidence from a professional ethics curriculum study. Ethics and education, 3. Available at: https://ethicaldevelopment.ua.edu/uploads/8/4/9/8/84986096/_2013__the_independence_of_james_rests_components_of_morality_-_evidence_from_a_professional_ethics_curriculum_study.pdf [Accessed 27 November 2023].

- Zhu, H. (2023) Three Factors Affecting the Moral Development of Adolescents. Journal of Education Humanities and Social Sciences 8:1153-1157. Available at: https://www.researchgate.net/publication/368384472_Three_Factors_Affecting_the_Moral_Development_of_Adolescents [Accessed 5 January 2024].

INDIVIDUAL ENQUIRY AND SCHOLARSHIP

To What Extent Are Secondary School Physical Education Teachers Prepared to Teach Trans-Inclusive Physical Education?

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Introduction

The overall number of people in England and Wales who identify with an LGBTQ orientation was …1.5 million" with "1 in 100 people identifying' as transgender" (OfS, 2023 p.2). Transgender 'is a broad term that can be used to describe people whose gender identity is different from the gender they were thought to be when they were born' (A4TE, 2024). In addition to this, some individuals may undergo a process where they are transitioning from one gender to another (male to female, or female to male). This can include such steps as using a different name, using alternative pronouns, dressing differently, updating legal documents, hormone therapy and surgery. The minimum age for gender reassignment surgery in the UK is 18 years old (Lee, 2017)- children in secondary school, aged between 11-17, have not undergone any legal surgery for them to physically be another gender, instead it's a self-identification transitioning process. Indeed, some transgender people identify as neither a man or a woman and may use terms such as nonbinary.

The UK parliament, in their paper "Factors shaping gender incongruence and gender dysphoria and impact on health services' suggest that 'referrals to specialist child and adolescent gender identity health services increased from 210 per year for 2011-12, to over 5,000 per year for 2021-22' (UK Parliament, 2023). These were referrals for gender dysphoria, where children have 'a strong, lasting desire to live a life that matches or expresses their gender identity' (NHS, 2020, p.1). It is further stated that '50 children a week are being referred to the UK's main gender identity clinic, yet only around 25 percent of young children (10-18) with gender dysphoria go on to be trans adults' (Lee, 2017). The 'Non-statutory Guidance for Schools and Colleges in England: Gender Questioning Children' states that 'in recent years, we have seen a significant increase in the number of children questioning the way they feel about being a boy or girl' (Gov.uk, 2024).

In English secondary schools, PE teaching is segregated by gender. This presents challenges for students who do not identify as one gender or who are gender fluid, meaning a person is flexible regarding the gender with which they identify. Over half of teachers within England say they have "at least one pupil who has come out as transgender" and "eight in 10 teachers say they want more help and guidance to support transgender students" (Clark, 2022 p.1). The norms and values of sports in the English PE curriculum and subcultures often overlook the experiences of transgender pupils. This is reinforced by Piedra (2016, p.3), who notes that PE "mirrors the gender binary structure found in extracurricular sports". Consequently, PE teachers often feeling ill-equipped to support transgender students effectively (Drury et al., 2022, p.1). "PE can have ingrained traditions and routines that perpetuate certain stereotypes" (Scarborough, 2023 p.1), and can favour "certain forms of gender, particularly hegemonic masculinities" (Joy, 2021).

Drury et al., (2022, p.3) identify that "uncertainty prevails in relation to what is considered good practice regarding the inclusion of trans young people in PE".

Within PE, this raises potential challenges such as changing and changing rooms, PE kit modifications, fellow pupils' questions and concerns and supporting emotions that come with a transitioning as an adolescent.

Drury et al., (2022) provide four key factors that denote trans-inclusive PE:

1. Transgender young people's voices are central in any consultation regarding strategies.
2. A whole school approach to supporting transgender young people in school and clear strategies for managing transphobic bullying.
3. Exploring beyond gender binary provision when planning uniforms, changing facilities and curriculum content
4. Maintaining a critical stance on the place of competition in PE

Parry (2023), reports that "some teachers worry that whatever they did would not only be criticised but publicly vilified', whilst others feared "doing the wrong thing" (Parry, 2023 p.1). Parry (2023) further denotes schools that have come up with their 'own approaches' after feeling not sufficiently supported or guided with what to do and how. 'Ellie' [nonbinary child] stated that they feel teachers "can't do their jobs properly" and were just "learning as they went" ('Ellie' in Parry, 2023, p.4). Yet despite these challenges, there seems to be little to no training provided to teachers. Parry (2023, p.1) identified that the UK the government first promised guidance for schools in relation to transgender pupils more than five years ago.

Materials and methods

This small-scale study aimed to evaluate the preparedness of secondary school PE teachers in England teaching trans-inclusive PE. Firstly, by examining the real-life experiences and perspectives of secondary school PE teachers concerning their confidence in their ability to foster inclusivity in the domain of physical education. Secondly, to understand the challenges and potential opportunities of teaching trans inclusive PE. Ethical approval was granted by the authors' awarding institution.

This research project employed an ethnographic methodology centred upon perceptions and experiences within a social group (Cohen, 2018). Ethnography is suited to small scale research, it involves a descriptive, analytical, and explanatory examination of the culture, values, beliefs, and practices within a group. A potentially sensitive topic, this approach allows research to be conducted prioritising meaning, personal belief and lived experience, which will shape a more authentic and meaningful conclusion. This study was grounded in a qualitative and interpretive paradigm, which recognises diverse experiences and responses and an acknowledgment that individuals interpret their reality differently.

The inclusion criteria were two-fold.

1. Teaching PE in an English Secondary school.
2. Participants feel comfortable in sharing their experiences (if any) of teaching transgender students.

A total of 18 responses were gathered from secondary school physical educators. Among these respondents, 61% (n=11) identified as male. The teaching experience varied, with a range spanning from 1 to 27 years. The predominant type of school represented among participants was State and Local Authority institutions.

The survey was distributed online via X. The survey included closed demographic and fact-finding responses and open-ended questions. The open answer data was analysed using thematic analysis. The themes that emerged were **confidence and experience, training and policy and challenges and opportunities.**

Findings

The focus of this paper is on trans inclusive practices in PE, however, the survey began by gauging the understanding and awareness of the participants regarding the challenges faced by the wider LGBTQ+ community (LGB referring to Lesbian, Gay and Bisexual and therefore sexual orientation and TQ+ referring to Transgender and Queer/ questioning and therefore identity) and transgender identity. 8 participants indicated they possess a 'broad understanding' of LGBTQ+. 7 expressed feeling 'very' confident in this subject and 4 participants reported being 'not very confident' in their understanding. 15 participants indicated that they 'understand and know' what transgender means. 6 participants had prior experience of teaching transgender students 12 did not.

Confidence and experience

According to the survey responses, teachers with fewer years of teaching experience (typically between 1 to 4 years) express the highest confidence in their understanding of the wider LGBTQ+ community. Newer teachers are perhaps more exposed to training on diversity, equality, and inclusion, including LGBTQ+ topics, as part of their teacher education programmes. Conversely, respondents who have been teaching for 8 years or more indicated they are 'not very confident' in their understanding of the LGBTQ+ community. One participant who has been teaching for over 10 years stated that their 'biggest issue [in working with transgender young people] is the '*them and they*' versus '*him or she*'(P1). Participants offered their experiences from their settings which included a review of curriculum content, class structure and when addressing students, seeking clarification on pronouns and correct terminology.

Training and policy

Williamson and Sandford (2018) highlight that PE

teachers' 'lack of knowledge about trans issues generally and how to appropriately support trans youth in PE'. When asked if their school 'had a policy surrounding LGBTQ+ for staff and students?' 10 participants stated no, 8 stated yes. The lack of training for PE staff was evident, 17 participants indicated that their school does not provide any form of training to prepare teachers for teaching transgender pupils. Additionally, 10 participants reported their schools lacked LGBTQ+ policies. Those who indicated their school had a policy, suggested this was focused *on learning pronouns or gaining insight into the LGBTQ+ community rather than how to develop adaptable and supportive teaching practices (P6)'*. 10 participants indicated a lack of support within their school environment in addressing potential challenges and opportunities regarding transgender-inclusive physical education.

Challenges and opportunities

Participants expressed concerns about the inadequate training, policies, and information available regarding LGBTQ+ issues, particularly in making physical education classes trans-inclusive.

All participants identified changing rooms as one of their primary concerns and challenges when teaching a transgender student. This presents complexities for PE teachers regarding changing room assignments, as they may face challenges in determining whether a student should be placed in a changing room that aligns with their biological sex or their gender identity. Within the non-statutory guidance for schools and colleges in England regarding 'Gender Questioning Children' 'schools must not allow a child, aged 11 years or older, to change or wash in front of a child of the opposite sex, nor should they be subject to a child of the opposite sex changing or washing in front of them' (gov.uk, 2024). This places additional pressure on PE teachers when addressing situations where a child of one gender expresses a desire to use the changing room

corresponding to their gender identity, with 'changing rooms further exacerbating feelings of otherness' (Ahmed, 2020, p.24).

The guidance also states, 'if a child does not want to use the changing rooms and showers designated for their biological sex… they may wish to consider whether they can provide or offer the use of an alternative changing or washing facility, while continuing to ensure spaces are single sex' (gov.uk, 2024). In response to the challenge of changing facilities participants suggested practical solutions seen in their settings;

> '…provide an alternative space for just the child to get changed, e.g., our school has an 'everyone' toilet, meaning any gender can use this'. (P1)

> 'The children are all advised to come into school with their PE kit on for the day if they have PE on their timetable, to avoid changing room implications'. (P4)

This aligns with recommendations of what trans-inclusive PE could be (Drury et al., 2022) in the logistical nature of provision but lacks perhaps the voice of the trans young people. Indeed, 9 participants stated that fearing parental involvement was their biggest concern when teaching a transgender pupil. When asked who they would seek advice from when teaching a transgender student, 4 participants indicated 'The parents of the child'. Engaging with parents may provide PE teachers with valuable guidance and support, as parental involvement is 'positively associated with students' educational success (Schmid et al., 2021). But this potentially neglects the consultation and agency of the young people.

10 participants identified 'being mindful of other students' discomfort and concerns' (P18) as one of their primary concerns, Drury et al., (2022) identify that a whole school approach is required in managing transphobic bullying. This situation arguably increases the pressure on teachers to effectively navigate and maintain a balance

for the PE teacher to 'get it right' (P7) for everyone and teachers can 'play a significant role in challenging heteronormative educational frameworks and fostering spaces of safety for trans youth' (McQuillan and Leininger, 2021, p.159).

11 participants worried bullying would occur towards the trans students and 12 participants stated they were not confident in being able to adapt their lessons to satisfy and incorporate trans identities.

Conclusions and recommendations

This study aimed to explore secondary school physical education teachers' preparedness to teach trans inclusive PE. It also sought to identify challenges and opportunities encountered by these teachers and evaluate the support provided to both teachers and students in the PE community, aiming to assess existing support structures and areas for improvement. The participants had opinions on what transgender meant and the implications for practice, yet there remains a gap in training and policy provided for them to support them in their own knowledge and understanding. This study recommends the adoption of the non-statutory guidance (GOV.UK, 2024) as a starting point from which to design and implement local level policy.

The need to design and develop trans inclusive curriculums remains challenging whilst PE provision and uniforms remain gender specific. The participants in this study recognise good practice in their setting such as mixed classes, a review of curriculum content and mindfulness around terminology when addressing students.

Practical challenges such as changing room implications, parental involvement, fear for the child's welfare and further concerns regarding other pupils' emotions within the lesson present a continuing dilemma that currently has limited guidance. The participants in this study offer practical solutions such as alternative changing facilities,

PE kit on PE days, strong relationships with pupils and their families and open and honest communications with the entire student body.

Trans inclusion continues far from PE provision and should be embedded into any setting's mission. There is a willingness in the participants of this study to learn more and to feel more confident in the support they can offer trans young people. A whole school approach that values the voice of trans young people could support schools to make wider changes when planning for trans inclusion e.g. school trips, school uniforms and toilet facilities.

References

- Advocates for Trans Equality (A4TE) 2024 Understanding Trans Gender People: The Basics. Understanding Transgender People: The Basics | A4TE (transequality.org) [Accessed 8.7.24]
- Ahmed, D. (2020). Physical education and transgender youth: Supporting all students. *Physical Education Matters*, *15*(3), pp.23–25
- Allan, L. (2023). All About Gender Dysphoria. [online] CPD Online College. Available at: https://cpdonline.co.uk/knowledge-base/safeguarding/gender-dysphoria/#:~:text=In%20the%20UK%2C%20there%20are.
- Clark, C. (2022). *Majority of teachers in England want more guidance on how to support trans students, survey finds*. [online] GAY TIMES. Available at: https://www.gaytimes.com/life/majority-of-teachers-in-england-want-more-guidance-on-how-to-support-trans-students-survey-finds/ [Accessed 16 Aug. 2024].
- Clarke, G. (2013). Challenging heterosexism, homophobia, and transphobia in physical education. In G. Stidder and S. Hayes (Eds.), Equity and inclusion in physical Education and sport (pp. 87–101). Routledge.
- Cohen, L, Manion, L, and Morrison, K. (2018), Research Methods in Education, Taylor & Francis Group, London.
- Drury, S., Stride, A., Firth, O., and Fitzgerald, H. (2022). The transformative potential of trans*-inclusive PE: the experiences of PE teachers. Sport, Education and Society, 28(9), 1, pp.118–1131. https://doi.org/10.1080/13573322.2022.2034142
- GOV.UK. (2024). *Gender questioning children: draft schools and colleges guidance*. [online] Available at:

- https://www.gov.uk/government/consultations/gender-questioning-children-draft-schools-and-colleges-guidance.
- Goldstein-Schultz, M. (2020). Teachers' Experiences With LGBTQ+ Issues in Secondary Schools: A Mixed Methods Study. *International Quarterly of Community Health Education*, 42(2), p.0272684X2097265. doi:https://doi.org/10.1177/0272684x20972651.
- Joy, P., Zahavich, J.B.L. and Kirk, S.F.L. (2021). Gendered bodies and physical education (PE) participation: exploring the experiences of adolescent students and PE teachers in Nova Scotia. Journal of Gender Studies, 30(6), pp.1–13. doi:https://doi.org/10.1080/09589236.2021.1937080.
- Lee, G. (2017). *FactCheck Q&A: How many children are going to gender identity clinics in the UK?* [online] Channel 4 News. Available at: https://www.channel4.com/news/factcheck/factcheck-qa-how-many-children-are-going-to-gender-identity-clinics-in-the-uk.
- McQuillan, M. T., & Leininger, J. (2021). Supporting gender-inclusive schools: Educators' beliefs about gender diversity training implementation plans. *Professional Development in Education*, *47*(1), pp.156–176. https://doi.org/10.1080/19415257.2020.1744685.
- NHS. (2020). *Gender dysphoria*. [Online]. NHS. Last Updated: 2023. Available at: https://www.nhs.uk/conditions/gender-dysphoria/
- Office for National Statistics (2023). *Sexual orientation, England and Wales - Office for National Statistics*. [online] www.ons.gov.uk. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/bulletins/sexualorientationenglandandwales/census2021
- Parry, J. (2023). *Teachers walk tightropes in face of no trans guidance*. [Online]. BBC news. Available at: https://www.bbc.co.uk/news/education-65473198
- Piedra, J. *et al.* (2016) Homophobia and heterosexism: Spanish physical education teachers' perceptions. *Sport in society*. [Online] 19 (8-9), pp. 1156–1170.
- Scarborough, S. (2023). *Embracing Gender Diversity in PE*. [online] PE Scholar. Available at: https://www.pescholar.com/insight/embracing-gender-diversity-in-pe/
- Schmid, E. and Garrels, V. (2021). Parental involvement and educational success among vulnerable students in vocational education and training. *Educational Research*, [online] 63(4), pp.456–473. doi:https://doi.org/10.1080/00131881.2021.1988672.
- The Independent. (2022). Half of England's teachers say they have at least one pupil who has come out as trans.

[online] Available at: https://www.independent.co.uk/life-style/health-and-families/trans-schools-students-research-england-b2025994.html.

- Williamson, R. and Sandford, R.A., (2018). "School is already difficult enough...": Examining transgender issues in physical education. Physical Education Matters, 13 (3), pp.57-61.

- UK Parliament (2023). *Factors shaping gender incongruence and gender dysphoria and impact on health services.* [online] UK Parliament . Available at: https://post.parliament.uk/research-briefings/post-pb-0053/

Influence of School Timetable on ICT use In Teaching Biology in Kwara North, Nigeria

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Introduction

The Nigerian Educational Research and Development Council (NERDC) outlines the framework for secondary school timetables through its curriculum development guidelines. In Nigeria, as in the UK, lessons are generally timetabled in secondary schools. The NERDC provides specific subject curricula and teacher guides to ensure structured lesson delivery. These guidelines are part of the broader educational reforms aimed at aligning secondary education with the National Policy on Education, covering both junior and senior secondary school levels. The NERDC's structured curriculum ensures that timetabled lessons are the norm, facilitating the delivery of subjects across science, arts, and vocational disciplines

School timetabling as a term refers to the construction of weekly timetables for schools of secondary education (Schaerf, 1999). Timetables show where a school allocates its resources, in particular the important ones of teacher-time and room-space. Ajayi (2010) defined a school timetable as a plan of action on which the subjects of the curriculum are distributed over the teaching periods of the school day of the weeks that make up the terms and the academic sessions. It regulates the teaching and learning activities in the school. School timetable is strongly dependent on the curriculum of the particular school. Each class consists of a number of attending students as well as a teacher that is able to tutor in that particular class (Andrea, 1999). Usually, every teacher has been allocated in advance and the task is to match them up with the classes scheduled during certain periods of time so that all the teachers can attend to all their classes (Andrea, 1999). Teacher's gender and experience can influence the use of Information Communication Technology (ICT) in teaching

biology in classroom timetables (Wang, 2011; Woreta, Kebede, & Zegeye, 2013; Kandasamy & Shah 2010; Tezci 2013).

Teaching through ICT resources aim to compensate for the inadequacy in teaching through virtual classes, thereby ensuring that learning becomes accessible to all, facilitating the diffusion of technology in society, and promoting a broader understanding of continuous learning. However, the successful integration of ICT in education depends on a thorough comprehension of when, how, and where to employ these technologies (Daramola, 2011). Mumtaz (2000) identifies the lack of time as a major impediment to the integration of technology in schools, which displays in two ways: (a) insufficient release time and (b) inadequate time allocation within the school schedule (Mumtaz, 2000).

In a study executed by Heinrich, Aduana, & Martin, (2020) on the potential and prerequisites for effective tablet integration. The findings revealed that teachers often excluded students perceived as slow learners during technology integration. Some teachers explained that the limited time allocated for a lesson prevented them from adequately addressing the academic challenges faced by these learners.

In a study on the potential and requirements for effective tablet integration in rural Kenya, Heinrich et al. (2020) observed the integration of ICT. The study revealed that teachers often omit students who were considered slow learners during technology integration. Some educators reported that due to the limited time available in a lesson, they were unable to support students facing academic difficulties. Conway, Kane, Bunting, Hambrick, Wilhelm, & Engle. (2005) found that the issues of time and validation need to be dealt with during first-time teaching. According to Conway et al. (2005), new teachers are often reluctantly afraid to neglect the norms or cultures they find in the school and to try new things including integrating ICT in their teaching activities. In another study, Gorder (2008) proves that teachers with experience have more opportunity with the use of

Gender	N	X	SD	df	t	Sig. (2-tailed)	Remark
Male	76	3.60	.27				
				143	.018	.986	Rejected
Female	69	3.60	.24				

technology and should be more willing to use it. The established-teachers would have opportunities to be more creative than new teachers who are still trying to get accustomed to teaching and learning at school.

Barriers to using ICTs in teaching can be divided into two broader categories. The so-called first-order (or extrinsic, institutional) barriers involve factors such as a lack of access to ICTs, lack of time to incorporate ICTs in teaching, and a lack of technical support in schools (Ertmer, 1999; Mouza, & Karchmer-Klein, 2013). Cheung et al. (2013) reported gender differences in the use of ICT for reading comprehension. Similarly, Bebetsos and Antoniou (2009) proved that there were gender differences in the perceived usefulness of ICT, whereby the male respondents had a higher mean score than the female respondents.

In teaching Biology being a natural science subject consisting of contents from microscopic organisms to the biosphere in general, encompassing the earth's surfaces and all living things (Okwo & Tartiyus, 2004; Abanikannda, 2018). ICT was found to be used in various Biological aspects. The ICT was found to be used in virtual laboratories (Muhamad, Zaman, & Ahmad, 2012). The virtual laboratories are crucial in carrying out the experiments that were impossible in physical laboratories due to the lack of adequate laboratory materials and reagents (Yildirim, 2021). On the other side, they could be used for performing the harmful experiments to the students to prevent possible accidents that could arise during physical experiments (Muhamad et al., 2012). Providing flexibility towards the time and place, and facilitate the access to the global resources (Osborne & Hennessy, 2003). Regardless to different benefits provided by ICT in educational practice, its full integration has been

challenged by many factors. According to Veen (1993), the effective use of ICT in teaching and learning process has been affected by technical support provided by school. Other studies revealed that personal factors such as teachers' competence, teachers' attitudes and school timetable, may also influence the successful use of ICT in teaching and learning process. In comparison to other regions in Nigeria, disparities might exist due to variations in resources, teacher training, gender, experience and school infrastructure. However, no significant studies have specifically focused on the influence of timetables on ICT integration in Kwara North, highlighting a gap in the literature that this study addresses.

Research Hypotheses

The following research hypotheses were tested at a 0.05 level of significance in this study:

H_o1: There is no significant difference in school time-table influence on ICT use in teaching secondary school Biology between male and female teachers in Kwara North Senatorial District.

H_o2: There is no significant difference in school time-table influence on ICT use in teaching secondary school Biology between experience and less experience biology teachers in Kwara North Senatorial District.

Methodology

This study adopted a survey research type. The population of the study consisted 171 Biology teachers in Kwara North Senatorial District, Kwara State, Nigeria. Kwara North senatorial district covers five local government areas which include Baruten, Edu, Pategi, Kaiama, and Moro. Proportionate stratified sampling technique was used to select 145 biology teachers from the entire population. For this study, a researcher-designed questionnaire was employed. The questionnaire was tagged "School Timetable Influence on Biology

Teachers Use of ICT Questionnaire (STIBUICT)". The Instrument was validated by two lecturers of Science Education and a lecturer of test and measurement, University of Ilorin, and Ilorin. The reliability coefficient of the instrument was determined using Cronbach alpha at 0.05 level of significance, and the instrument yielded a reliability index of 0.92. Inferential statistics of t-test was employed to test research hypotheses.

To ensure that ethical considerations were thoroughly addressed, this investigation conformed to established research ethical protocols. Ethical clearance was acquired

from a reputable Institutional Review Board (IRB), thereby ensuring adherence to regulations governing research involving human subjects. All participants were apprised of the study's objectives, methodologies, potential hazards, and advantages via a comprehensive informed consent document. Participation was entirely voluntary, with participants guaranteed their prerogative to withdraw at any moment without facing any detriment. In order to safeguard their confidentiality, anonymity was preserved by employing coding for responses and securely

H$_O$2: There is no significant difference in school time-table influence on ICT use in teaching secondary school Biology between experience and less experience biology teachers in Kwara North Senatorial District.

Result from table two showed that there was significant difference between experience and less experience teachers on the use of ICT for teaching biology in school time table. This was reflected in the findings of the hypotheses tested df (143), t= .013, p<0.05.

Table 3: *t-test analysis* of school timetable influence on experience and less experience teachers on the use of ICT for teaching biology

archiving all gathered data. Furthermore, measures were implemented to mitigate potential harm to both participants and researchers, thereby fostering a safe and respectful environment for data collection. These initiatives exemplify a dedication to maintaining ethical principles within the realm of educational research.

Results

Hypotheses Testing

H$_O$1: There is no significant difference in school time-table influence on ICT use in teaching secondary school Biology between male and female teachers in Kwara North Senatorial District.

Results from table one showed that there was significant difference of male and female teachers on the use of ICT for teaching biology in school timetable. This was reflected in the findings of the hypotheses tested df (143), t= .018, p<0.05.

Table 2:
t-test analysis of school timetable influence on male and less female teachers on the use of ICT for teaching biology

Experience	N	X	SD	df	t	Sig. (2-tailed)	Remark
Experience	71	2.99	.21				
				143	.013	.713	Rejected
Less Experience	74	2.91	.19				

Discussion

The findings of the study revealed that school timetable influences ICT use in teaching secondary school Biology in Kwara North Senatorial District, Nigeria. This can be attributed to limited time slot, teacher competence, attitude, and technical support, work life balance in the school. This is in line with the study of Becta (2004) on what the research says about using ICT. The study's findings align with prior research that highlights the impact of school timetables on the integration of ICT in teaching. Similar studies, such as those by Heinrich, Aduana, and Martin (2020), have observed that time constraints within school schedules can limit teachers' ability to integrate technology effectively. This resonates with Mumtaz's (2000) findings, which identified insufficient time as a significant barrier to ICT integration in schools. The findings in this study might differ from those in urbanised areas of Nigeria due to the unique challenges faced in Kwara North, such as limited access to ICT facilities and teacher training. Comparisons to other regions could be drawn from studies like those of Veen (1993) and Ertmer (1999), which suggest that factors like teacher competence, attitude, and technical support influence ICT usage across diverse educational contexts. Furthermore, studies focusing on ICT integration in rural Kenya (Heinrich et al., 2020) provide a regional parallel, indicating that resource constraints and time allocation are consistent barriers in sub-Saharan Africa. Comparisons to other regions could be drawn from studies like those of Veen (1993) and Ertmer (1999), which suggest that factors like teacher competence, attitude, and technical support influence ICT usage across diverse educational contexts. Additionally, studies focusing on ICT integration in rural Kenya (Heinrich et al., 2020) provide a regional parallel, indicating that resource constraints and time allocation are consistent barriers in sub-Saharan Africa.

The results revealed there is no significant difference in school timetable influence on ICT use in teaching secondary school Biology between male and female teachers in Kwara North Senatorial District. This can be as a result of confidence, enthusiasm level and scheduling conflicts. This is in line with Chen, Lai, and Tsai (2011) who observed Gender differences in Taiwan high school students' computer game-playing behaviours reported that male teachers tend to express more confidence and enthusiasm towards integrating technology in their teaching practices compared to their female counterparts. The results indicated that there is no significant difference in school time-table influence on ICT use in teaching secondary school Biology between experienced and less experienced biology teachers in Kwara North Senatorial District. This can be attributed to fear of trying new things, prior knowledge of the use of ICT in biology class and rigidity on the adoption of instructional strategies. This is in line with the study of Gorder (2008) who investigated a study of teacher perceptions on instructional technology integration in the classroom, reported that teachers with experience have more opportunity with the use of technology and should be more willing to use it.

Conclusion

This study established that there is a significant difference based on ICT use in biology school timetable among male and female teachers in Kwara North Senatorial District. Also, it indicated significant difference in both gender and experience on ICT use in biology school timetable highlighting challenges such as training and support needs, limited time and flexibility, perceived relevance and effectiveness limited time and resource constraints.

Recommendations

Based on the findings of this study, specific recommendations are made;
1. Timetables should be restructured to allocate dedicated time slots for ICT-enabled lessons, ensuring that all teachers have equitable

opportunities to incorporate technology into their teaching practices without scheduling conflicts.

2. Specialised training programs should be designed to cater to the distinct requirements of each group of gender and teaching experience.

References

- Abanikannda, M. O. (2018). Effect of technology tools on students' interest in biology: A survey of Osun State high schools in Nigeria. *African Research Journal of Education and Social Sciences, 5*(3), 2312-0134.
- Adedokun-Shittu, N. A., Ajani, H. A., Nuhu, K. M., & Shittu, A. J. K. (2019). Effectiveness of mobile-based augmented reality instructional technology on geography students' performance in State of Osun, Nigeria. In *Massification and Quality: ICT in the Service of Education. Abuja 2019. 3rd International Conference and Workshop on Innovation, Technology and Education*, Abuja, Nigeria.
- Adeyemo, S. A. (2010). The impact of information and the use of ICT in senior secondary schools. In Z. C. Njoku (Ed.), *56th Annual Conference Proceedings of Science Teachers' Association of Nigeria* (pp. 274–283). Ibadan: HEBN Publish.
- Ajayi, I. A. (2010). *Issues in school management.* Taisoft Publishers, Ketu, Lagos.
- Al-Alwani, A. (2005). Barriers to integrating information technology in Saudi Arabia education (Doctoral dissertation, University of Kansas).
- Ambe-Uva, T. N., Iwuchukwu, O., & Jibrin, L. J. (2008). Gender analysis in National Open University of Nigeria (NOUN): Implications and policy issues in bridging the divide. *Journal of Applied Science Research, 4*(7), 814-825.
- Andrea, S. (1999). A survey of automated timetabling. *Artificial Intelligence Review, 13*(2), 87–127.
- Baek, Y., Jung, J., & Kim, B. (2008). What makes teachers use technology in the classroom? Exploring the factors affecting the facilitation of technology with a Korean sample. *Computers & Education, 50*(1), 224–234.
- Bebetsos, E., & Antoniou, P. (2009). Gender differences on attitudes, computer use and physical activity among Greek university students. *Online Submission, 8*(2), 45–56.
- Becta. (2004). What the research says about using ICT in geography. Coventry: Becta.
- Beggs, T. A. (2000). Influences and barriers to the adoption of instructional technology. In *Proceedings of the Mid-South Instructional Technology Conference*, Murfreesboro, TN.
- Chen, Y. H., Lai, Y. H., & Tsai, C. C. (2011). Gender differences in Taiwan high school students' computer game-playing behaviors. *Computers & Education, 57*(1), 1414-1422.
- Cheung, K. C., Mak, S. K., & Sit, P. S. (2013). Online reading activities and ICT use as mediating variables in explaining the gender difference in digital reading literacy: Comparing Hong Kong and Korea.
- Conway, A. R., Kane, M. J., Bunting, M. F., Hambrick, D. Z., Wilhelm, O., & Engle, R. W. (2005). Working memory span tasks: A methodological review and user's guide. *Psychonomic Bulletin & Review, 12*(5), 769–786.
- Daramola, F. O. (2011). Information and communication technology literacy levels among students' teachers of universities in selected states in North Central Nigeria (Ph.D. dissertation, Department of Science Education, University of Ilorin, Nigeria).
- Ertmer, P. A. (1999). Addressing first- and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development, 47*(4), 47–61.
- Gorder, L. M. (2008). A study of teacher perceptions on instructional technology integration in the classroom. *Delta Pi Epsilon Journal, 50*(2), 63-76.
- Heinrich, C. J., Aduana, J. D., & Martin, C. (2020). The potential and prerequisites of effective tablet integration in rural Kenya. *British Journal of Educational Technology, 51*(2), 498–514.
- Inan, F. A., & Lowther, D. L. (2010). Factors affecting technology integration in K-12 classrooms: A path model. *Educational Technology Research and Development, 58*(2), 137–154.
- Kandasamy, M. P., & Shah, H. M. (2010). Knowledge, attitude and use of ICT among ESL teachers. *Global Journal of Education.*
- Kola, J. K. (2013). Effective teaching and learning in science education through information and communication technology. *International Journal of Scientific and Engineering Research, 7*(10), 2229-5518.
- Mathews, J. G., & Guarino, A. J. (2000). Predicting teacher computer use: A path analysis. *International Journal of Instructional Media, 27*(4), 385–392.
- Mouza, C., & Karchmer-Klein, R. (2013). Promoting and assessing pre-service teachers' technological pedagogical content knowledge (TPACK) in the context of case development. *Journal of Educational Computing Research, 48*(2), 127–152.
- Muhamad, M., Zaman, H. B., & Ahmad, A. (2012). Virtual biology laboratory (VLab-Bio): Scenario-based learning approach. *Procedia - Social and Behavioral Sciences, 69*(1), 162–168. https://doi.org/10.1016/j.sbspro.2012.11.395
- Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: A review of the literature. *Journal of Information Technology for Teacher Education, 9*(3), 319-342.
- Nigerian Educational Research and Development Council (NERDC). (n.d.). *Curriculum development: Secondary education.* Retrieved from https://nerdc.gov.ng/content_manager/curriculum.html.
- Nigerian Educational Research and Development Council (NERDC). (n.d.). *Basic education curriculum: Primary and secondary education.* Retrieved from https://nerdc.gov.ng
- Nzewi, U. M. (2010). It is all in the brain of gnder and achievement in science and technology education. *51st Inaugural Lecture of the University of Nigeria*, Nsukka.
- Ojaleye, O. (2002). Promoting the utilization of information technology education in mathematics classes among pre-service teachers. *Mathematics Education Summit*, National Mathematical Centre, Abuja.
- Okoye, P. O. (2014). E-learning utilization: An approach to dimensions of creativity for effective STEM curriculum

delivery in colleges of education in Nigeria. *55th Annual Conference Proceedings of Science Teachers' Association of Nigeria* (pp. 3-14). Ibadan: HEBN Publisher.

- Okwo, F. A., & Tartiyus, C. (2004). Effect of position of the diagram and cognitive style on biology achievement of pre-national diploma students. *Journal of the Science Teachers Association of Nigeria, 39*(1 & 2), 89-93.

- Osborne, J., & Hennessy, S. (2003). *Literature review in science education and the role of ICT: Promise, problems and future directions* (No. 6). Nesta Futurelab.

- Schaerf, A. (1999). Local search techniques for large high-school timetabling problems. *IEEE Transactions on Systems, Man, and Cybernetics, 29*(4), 368–377.

- Schoepp, K. (2005). Barriers to technology integration in a technology-rich environment. *Learning and Teaching in Higher Education: Gulf Perspectives, 2*(1), 1-24.

- Sicilia, C. (2005). The challenges and benefits to teachers' practices in constructivist learning environments supported by technology (Unpublished master's thesis, McGill University, Montreal).

- Tezci, E. (2013). Attitudes and knowledge level of teachers in ICT use: The case of Turkish teachers. *International Journal of Human Sciences.*

- Ugwu, O. I. (2006). Improving instruction in agricultural education in universities through the application of information communication technology (ICT) and other resources. *Review of Education, 17*(1), 49-61.

- Veen, W. (1993). How teachers use computers in instructional practice: Four case studies in a Dutch secondary school. *Computers & Education, 21*(1-2), 1-8.

- Wang, L. N. (2011). Impact of information technology on accounting. *Advanced Materials Research, 219-220*(1), 1224–1227.

- Woreta, S. A., Kebede, Y., & Zegeye, D. T. (2013). Knowledge and utilization of information communication technology (ICT) among health science students at the University of Gondar, North Western Ethiopia. *BMC Medical Informatics and Decision Making, 13*(1), 1.

- Yildirim, F. S. (2021). The effect of virtual laboratory applications on science process skills of middle school students. *Eurasian Journal of Science and Environmental Education, 4*(2), 11–17.

Inclusive Legal Education, Linking Arendt

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The very notion of 'inclusion' evokes themes of equity and participation, institutional access and integration, a commendable and un-pressured sense of satisfaction of quality of educational delivery for progressive outcomes, also of belonging, non-discriminatory best practices, and person-centred support. A right to use spaces without feeling awkwardly out of place, or naively not knowing if information to navigate a social complex environment or curriculum exists. While some might class it as oversight, for a learner accustoming to their new world of study it may be daunting. Though a fine thread exists between being spoon fed with relevant support, and developing independent skills, the weariness is condoning an obnoxious blissful ignorance to persist. While innovation may assist create new spatial tools and high tech to aid learning, tweaking content to meet learners' needs could similarly provide positive engagement opportunities. For the law school exploring all of this combined potential is true, both within Further and Higher Education sectors.

Where Hannah Arendt's (1961) work on "Between Past and Future" comes in is her canvassing for a more credible educator role with responsibility to usher the learner as beneficiary of the dividends of education. Somewhat of a treasure chest to unveil. Not quite unleashing trade secrets, but almost all of it. All in the class would need to hear it. The law school inclusive system would be effective where learning approaches are geared towards preparing her students for the world of work, with a clear understanding of the competitive legal field, and the possibility of drawing connections through work placements at viable law firms with credible opportunity for exercising their legal skills, observational moments in law courts, traditional lectures, tutoring and mentoring sessions, enabling blind peer-reviewed research competitions, joining mooting sessions and legal drama programmes, attending networking dinners, and so on. All of which is to enable the right mannerism and expansion of creative imagination of possibilities. Treated as central to the law curriculum, facilitating a deeper culture of interest, with high level governance and assessable points.

For the law student the competition starts early with ready interests from other excellent fields, but fairness means everyone has a chance. And the scientific precision to supporting well trained student to progress is vital, with formal and informal executive education. Also, equality legislation guarantees non-discriminatory practices both for prospective and admitted student and extends to securing the potential of outcomes. Arendt's philosophical argument enables the thinking of need to think about developing for the student- "For education belongs among the most elementary and necessary activities of human society, which never remains as it is but continuously renews itself through birth, through the arrival of new human beings. These newcomers, moreover, are not finished but in a state of becoming." This would need to be viewed in the law specialisation context mainly, supporting the student to be proficient in their chosen area, not discountenancing inter-disciplinary perspectives, for embellishing the core mandate. For instance, studying law's relevance in society.

Transferring the keys of managing legal affairs as it were to the next generation, not leaving a vacuum, without no valued hierarchy of relevance, pinpoints Arendt. Imbibing persuasive arguments for comparative outlook will help hone large essential principles, and also clarify binding norms, but more importantly assist the students' research ability across a whole range of areas, which in the future could best assist the court with sound arguments and support their client professionally. To consider how the inherent legal education wealth or cultural capital is secured for the student, is now an inclusive concern. The question now is whether the inclusive law teacher is the one that has equipped the student to gain mastery of the law and provided the information for positive gamification of the system? Perhaps, also could be one working with policy makers to champion pathways for success in the arena of work, with hope to see if the erudition of their best learned emerging scholars now sees the light of day; not shelved for another day. That said, culture, social class, political wrangling, funding questions, wellbeing issues, caselaw workload challenges, pedigree choice of branch of law for study inter alia, all have a technical part in crossing the street of analysing effectiveness outcomes.

A couple of recommendations: first we need to prioritise education that embeds and deepens utility of practical skills, second, not pay lips service to inclusive practice but extol successful experimental models, also consider how

teacher training is encouraged and reshaped to enable delivery and implementation systems, and finally but not exhaustive to drive merits of good listening and reading etiquettes- because what matters is that feeling of belonging that ensures learners are supported and redirected towards their goals as part of the long-term thinking, but truly with applauding short term targets met as well. Inclusion in legal education is the grundnorm for longevity and churning out credible agents for permissible societal transformation and guidance as needed, to close legal analytical deficiency gaps. But effective preparedness must be in place to bridge the current inclusion gap and ensure a calculated psychological readiness for the progression challenge. The wholistic outcomes beyond grade scores is also important, transcending sound bites.

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