



Engaging Undergraduates in Scholarly Activities: An Action Research Involving Pre-Qualifying Nursing Students

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Abstract

This case study describes an educational research project involving 22 nursing students as participants. The focus of the research was to explore students' perceptions and experiences of undertaking an objective structured clinical examination during semester 1 (Year 1) of their undergraduate BSc (Hons) Nursing program. The research team will provide focus on research design, the sampling process, and conducting focus group discussions using personal reflections having completed the project. The case study will also highlight feasibility issues of engaging students in academic research. We conclude the case study with a list of lessons or factors that one ought to be mindful of when designing, recruiting, and engaging student participants in a qualitative research study within an academic setting.

Learning Outcomes

By the end of this case, students should be able to

- Have a better understanding of how to access students for a research project
 - Anticipate and develop an appropriate plan of action to recruit student participants
 - Have a better understanding of the benefits and drawbacks of engaging undergraduate students as participants within qualitative research
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Project Overview and Context

The main aim of the study was to evaluate and capture the unique experiences of BSc (Hons) pre-registration nursing students while preparing for and undertaking a clinical assessment within a controlled environment. The clinical competence of nursing students is assessed by means of an objective structured clinical examination (OSCE) (Barratt, 2010). Within the School of Nursing, Midwifery and Social Work Professions, Faculty of Health, Education and Life Sciences (Birmingham City University), approximately 460 Year 1, pre-registration students undertook a timed OSCE as part of their program assessment. In Year 1, the OSCE is of 30-min duration and examines the student's competence, safety, and proficiency in the performance of commonly used clinical practice skills. During the OSCE, students are expected to (1) interact with a simulated patient (SP), (2) obtain four different physiological measurements from the SP, (3) record appropriately the readings obtained, and (4) provide an understanding of the anatomy and physiology underpinning the physiological measurements obtained via a 10-min oral examination. Such an assessment of clinical skills has become an essential structure in nurse education (Alinier, 2003). There is much literature to show that students often feel anxious and nervous about their prospective performance when preparing for an OSCE. Such anxiety and apprehension can impair physical and psychological functioning of an individual, leading to short-term negative effects that can adversely affect performance (Fidment, 2012).

Very little is published on the factors (intrinsic and extrinsic) that trigger anxiety/nervousness in students undertaking such assessments. Conversely, due to various feasibility issues, there is little or no evidence of longitudinal follow-up studies investigating employment of suitable learning, teaching, and assessment strategies to enhance the learning experience of students, and assist them to overcome such triggering-factors that lead to physical and psychological dysfunction while undertaking OSCEs. While some of the recommendations in the literature look promising, they may not be feasible within an individual educational setting and cannot be generalized for all student populations. Hence, there was a need for a bespoke, in-house appraisal to address such issues within our educational institution. A major aspect of the research, which differentiated it from the existing literature, was that it was not initiated with an intention to conceptualize a qualitative research study. In fact, it was initiated from the perspective of enhancing the student learning experience and student satisfaction. In this case study, we will highlight three aspects of the study that are of interest methodologically. First, how we decided to answer the anecdotal issues highlighted by students; second, our use of phased narrative-thematic approach; and finally, reflections on our experience of conducting and managing this study.

Study Design Process

When trying to conceptualize a solution to answer the concerns expressed by students in relation to undertaking an OSCE, the first thought that came to mind was “*Evidence Based Practice*.” Could these concerns expressed by a handful of students be a major issue for the rest of the cohort, approximately 460 students? Well, it quickly transpired that there were two possible options in answering this question. Option one was to gain a better insight into these concerns by engaging students from wider cohort, achievable to some extent via questionnaires. While this appeared a logical thing to do, I quickly realized that I was not being able to design a questionnaire based on a few student concerns and subsequently expecting the remaining 460 to answer questions without knowing if the problem existed or not. In addition, this approach may have been more time consuming and possibly less-productive for both staff and students. The second option was then to engage a number of students in focus group discussions so as to gather their experiences regarding OSCEs. This would also shed light on any existing issues (if there were any!) and act as evidence to propose any changes to our existing OSCE assessment and feedback protocols or practice. In addition, such an approach (“*Research informed Learning and Teaching practice*”) is a method commonly recommended by the Higher Education Academy (HEA) to seek improvements in learning and teaching practices within higher education institutions (Jenkins & Healey, 2005).

The second option appeared to make sense; however, a major concern was the feasibility of managing a number of focus groups over several months considering the intention was to engage all 460 students in comprehensive discussions. Hence, this approach was very time consuming. Having pondered on this, I decided to approach the module leader who was assessing via OSCE as well as other colleagues within the faculty for support and guidance. I learned that other faculty staff had similar concerns about the OSCE, and after several discussions a project team was formed. The project team included staff with expertise in Nursing,

Physiology, and a wealth of experience and expertise in conducting quantitative and qualitative research. Having a dynamic team allowed us to probe further the issues raised and how to address them. Suffice to say that the team had the essential skill set to critically analyze the given issues and design an appropriate methodology fit for purpose in terms of logistics and data collection.

Sampling Process

A decision was made by the project team that understanding the perceptions and experiences of nursing students undertaking an OSCE, along with its associated learning, teaching, and assessment strategies employed as part of the Level 4 core module offered was the main focus. The research was to be undertaken in two phases: first, a qualitative inquiry based survey approach via a number of focus groups, and second, using the data and its findings from the focus groups, a questionnaire that would be sent to all students in the cohorts. For the purpose of this manuscript, we will only be describing the design and dissemination of the primary phase of the study.

For the primary phase, we decided to employ a focus group data collection method as recommended by Barratt (2010). Julian Barratt, in his education research, describes the use of focus groups as a convenient way of collecting data from a cohort of students sharing the same learning and teaching for a course of study, consequently sharing the same learning and teaching experience. This resonates with other researchers in the field of education (Cohen, Manion, & Morrison, 2007). The focus groups would consist of 6 participants so it was decided that we would have four focus groups which required 24 participants in total. There was no restriction on gender, disabilities, or age. The main criterion was that the participants were recruited from the Level 4 pre-registration nursing program. The 24 participants would represent 5% of the cohort.

Accessing Participants

Few of the members of the project team had been a module leader for this cohort of students. This was perceived as an added bonus for recruitment of students. However, accessing students outside their lecture schedule for the research project proved problematic. It involved a range of tasks to be completed by the project team so as to gain authority to access the students prior to undertaking the difficult tasks of post-recruitment activities pertaining to capturing, recording, and transcribing the students' unique experiences. In the first instance, we had to obtain faculty ethical and indemnity approvals prior to initiation of the study. Both committees meet once per month to review prospective applications for approval, revision, or rejection. This lengthy process required detailed submission of various forms and additional supporting documentation, such as a completed research governance application; a full research proposal with references; participant information sheet; focus group questions; consent forms; permission letter from Head of Nursing department; and so forth. Permission in writing was also required from our Head of School and program director to access the cohort of students for participation with the proposed research. This was a large task and it was compounded by very tight deadlines set by the committees.

It was a mere coincidence that all the team members were available and able to invest time and effort to complete all the essential documentation according to deadlines set by the committees, which might not always be possible. Furthermore, this process allowed the project team to understand the gravity of the project we had hoped to undertake and that it was necessary to seek financial support from the faculty. The project involved a significant amount of time from both students and staff. Fortunately, we were able to submit an application for faculty funding that is made available to staff in the early stages of their careers. An application, complete with relevant documentation which included costings, was submitted for a small development grant up to a maximum of £1,500. Some of this costing was to pay for refreshments for participants during the focus groups and providing participants with complimentary high street vouchers (each worth £5). Much of the costing, however, was to pay for external transcription of the focus group data which was too much for the project team to undertake in conjunction with other academic duties. Fortunately, we were successful in obtaining funds to the value of £600 which was sufficient to cover the costs we had identified (approximately £1.41/min for transcribing audio recordings, each lasting for approximately 60 min, for a 3- to 4-day turnaround period). While this was good news, we were however informed by the funding committee that all funds had to be used within a 4-month period, prior to the commencement of the new budget year. In simple terms, it was a case of use it or lose it. The ethics committee gave the project the green light once we had responded to some minor issues that had been highlighted. One issue that was raised by the committee was the “Power Issues,” which related to the project team potentially knowing some of the recruited students. This was a valid point, so after some thought the team responded to the committee with a possible solution wherein with sufficient planning and organization in place, students would be allocated to focus groups led by a project team member that the students did not know. Thus ensuring we overcame any potential research bias or skewed research outcomes, or power issues as highlighted by the regulatory committee. The committee was happy with the response and approved the study. Now it was all down to the team to carry out the research project.

We worked very closely with the BSc (Hons) Nursing program team to gain insights into the course plan and schedule of the nursing students. In addition to lectures, tutorials, and workshops, the students would be on placements at various times throughout the year. This gave us an overview of their availability on campus and so some insight into when we could capture the students to participate in the study. With appropriate permission from session leads in place, we decided to target all the students (approximately 460 students from four different nursing fields—adult, child, mental health, and learning disability) with a face-to-face project briefing session lasting 10 min. Participant information sheets were given to all students in the cohort year group. Those students who expressed an interest to participate were offered the opportunity to complete the consent form at the briefing sessions and informed that they would be contacted to attend a more detailed briefing session prior to starting the study. Interestingly, students were very forthcoming as they were keen to share their experiences of the OSCE.

Managing Focus Group Discussions

Following the briefing sessions, a total of 23 students expressed their interest to participate in the focus group

discussions and were subsequently recruited for this study. Of which, 13 students represented the adult field, 8 students represented child and mental health field, and 2 students represented learning disability field. One of the student nurses (from mental health field) was unwell during their focus group and hence was unable to attend the focus group discussion. A final tally revealed that we had 22 willing student participants.

A mailing list of all participants was created. E-mails were sent to identify their availability for focus group dates and time which was subsequently mapped against the availability of project team members. Having studied the academic commitments/hectic schedule of nursing students (all the four nursing fields) undertaking the program, the student participants were independently allocated into four focus groups (Group 1 = six adults, Group 2 = seven adults, Group 3 = four children together with two learning disability, and Group 4 = three mental health nursing students). So as to preserve the confidentiality and anonymity of the participants, we came up with pseudonyms for all the participants and definitive ground rules for the focus group discussions (Walden, 2008). A project team member undertook the role of focus group facilitator, a second acted as a note taker, and a third team acted as a moderator and time keeper. To maintain consistency and reliability, the nominated facilitator conducted all the focus group discussions by ensuring that all participants were actively involved in discussions at all stages. Each focus group discussion lasted an hour and was conducted on different days across several months spanning May to November to fit around the hectic placement and academic schedule of the participants. As anticipated, this had serious implication on time and thus funds allocated for the project. This issue was escalated to the Associate Dean of Learning, Teaching and Research within the faculty who was responsible for fund allocation. As an exception, we were allowed to roll on the remaining funds to the new budget year.

All the focus group discussions commenced with a formal introduction or something like an ice-breaker, initiated by the facilitator so as to establish a rapport with the participants. This then allowed the facilitator to highlight the essential ground rules prior to discussions. The discussion was pretty much like a storytelling process which had to be stimulated at times using non-verbal signs such as reinforcing mms, nods, and smiles to indicate interest and empathy. Indeed, this encouraged participants to reflect and share their perceptions and experiences of preparing for, and undertaking an OSCE. Nevertheless, so as to maintain etiquette, consistency, and streamline the discussion, we had the approval to only adhere to the following simple questions:

Prior to OSCE

1. What kind of learning resources (visual/aural/reading/kinaesthetic) did you utilize to prepare yourself for an impending OSCE?
2. While preparing for your OSCE, which OSCE preparation did you find most useful—videos, SPACE (Skills Practice and Clinical Enhancement), others?
3. During your OSCE preparation, were you able to identify the key skills or areas for further development?
4. Following your OSCE preparation, explain your level of confidence and competence to undertake an OSCE?

During OSCE

1. Tell me about your positive/negative experiences on the day of the OSCE?
2. How competent and confident did you feel in recollecting and applying the clinical skills that you had learnt previously?
3. Were there any element(s) of OSCE that you were not comfortable with?

Following OSCE

1. Based on your performance, did you expect a specific grade being awarded to you? Explain how the grade and feedbacks met your expectation?
2. With the level of pre-OSCE preparation and effort you had undertaken, do you think you could have performed better in your OSCE?
3. What additional support (as in terms of additional resources or practical sessions) do you think could have helped you to perform better in your OSCE?

All the discussions were recorded using an audio recorder and audio files were outsourced to transcription services in order to transcribe the discussions verbatim. Simultaneously, for back-up purposes, one of the team members always undertook the role of a note taker during all the active discussions. In addition, such a strategy worked very well for us in terms of cross-checking the reliability of the transcribed data. A horizontal/vertical method of theme identification was used in highlighting themes and analyzing individual piece of data collected from each of the student.

Data Analysis

Analyzing the data from various discussions was a process by itself and required creativity to a great extent. However, for one who realizes that the creativity is all about making the right connections, comprehending the data from all the four group discussions could be quite straightforward. Having chosen the right set of questions, interpreting the transcribed data along with the entries made during the group discussions, allowed the team to capture the essence of an interview and its associated outcome. We initially analyzed the data collected from Group 4 as it comprised only three participants and this group had completed their discussion earlier compared to the other three groups due to their placement schedule. Analysis of the data from this group of participants gave us a baseline of whether or not the focus group had actually been productive. Nevertheless, the overall analysis focused on similarities and differences between participants' reported experiences and explored all possible reasons such as the field of nursing, their previous educational qualifications. Predominantly, a recurring number of issues highlighted by students from all the nursing fields were pertaining to SPs, clinical and non-clinical learning/teaching resources, standardization of OSCE management protocols, and need for mock-OSCEs/mock-OSCE videos (with unlimited access) prior to an impending clinical assessment. In fact, it was very interesting to know that all the students recollected their experiences (both good and bad) without any memory issues and some of the facts disclosed by students did bring a smile to our faces while interpreting the results as we knew exactly where they were coming from. The baseline populated from this study was then laid as a foundation to design, develop, and disseminate the secondary phase of the study, the questionnaire with the wider cohort as mentioned earlier.

So What?

As a means to respond to the above feedback obtained from students, we consulted the Associate Dean Learning, Teaching and Research and Associate Dean Academic how best the project team could address the issues raised from data analysis. Next steps in response to our data could obviously impact and subsequently enhance the overall learning experiences of the nursing students. Having gained the requisite permission, we identified several ways of addressing these issues and devised a plan of action to enable the students to revise the practical aspects of managing vital clinical skills within an exam environment prior to an OSCE:

- Initially, we collaborated with staff members from the wider nursing program team to develop learning videos related to “How to undertake an OSCE” which students had unlimited access to. In addition, we collaborated with faculty IT (information technology) to develop live video capture techniques while students were taking their OSCEs as a form of performance review of each student. Access to such videos, which is pretty much visual feedback, would allow students to focus and further develop any areas of weakness that they and their personal tutors had identified.
- Second, various experts from the wider program team developed standard protocols or rubrics to eliminate the issues around OSCE management. This involved standardizing various assessment elements of OSCE without altering the number of items of assessment that had been originally validated for this core module.
- Last but not the least, various “Refreshing” tutorial/drop-in sessions were organized to effectively utilize the man-power and the resources within the school and the faculty so as to prepare these students for an impending OSCE.

Inferences

Much of what an institution does is likely to affect the quality of the student experience and consequently student access and retention (National Audit Office, 2007). The study reported here may appear to look like an evaluation of student experience as part of an on-going review process that usually takes place toward the end of each module in all the programs within higher education institutions. However, there is a tipping point between evaluation and research; the key is the strategic process and robust methodology adopted in undertaking research which invariably allows one to distinguish between an evaluation and research. Interestingly, to some extent this also depends upon the requirements of the institution. Hence, knowing exactly what your faculty/institution requires from you and telling them exactly what you intend to undertake will place you in a better position and help you to utilize the resources optimally. This can be a learning curve, at times, to many novice staff members within an educational institution, especially when you are at an early stage of your research or teaching career. On the other hand, for many students who may have participated in similar activities sometime during their degree programs, will be able to reflect on their then personal experiences and appreciate the number of hurdles staff members have to go through to access student

community for any such scholarly/pedagogic-research activities. Nevertheless, it is all a part of sharing and imparting good practice to the staff/student community.

In the current economic climate, all our students spend an enormous amount of funds (almost triple the amount of tuition fees), to qualify and obtain a degree from a higher education institution. While all of us could be inclined to the belief that students are our customers, establishing and sustaining a trust-worthy rapport between tutors and students, especially in a large group teaching environment, is pivotal to enhance their learning experience. This can be compromised to a great extent if students are to be solely perceived as customers. In a way, such a belief can compromise our perceptions of students, the need for their relationship with tutors, peers, faculty, and the university, and ultimately the kind of support that a student can expect from their tutors. In fact, we wouldn't be reporting this study if we perceived our students solely with such a belief. This then allowed us to empathize with their situation and respond to their concerns proactively despite our hectic schedule and other academic commitments. We made every effort to study and understand the academic schedule of Level 4 nursing students and to contact them on an individual basis to ascertain their availability for focus group discussion sessions. Although such arrangements prolonged the completion time of our study, it delivered some key findings which has shaped the Nursing curricula in our faculty going forward. Furthermore, as part of the module/program annual quality monitoring process, these changes will be periodically evaluated to ascertain their suitability for diverse student population undertaking the undergraduate nursing program.

Conclusion

“Oh my God—My hands are shaking!,” “I have completely forgotten everything,” and “I am going to fail in my OSCE” are some phrases we commonly hear from students pre-, intra-, and post-OSCE. These reveal nerves, apprehension, and to some extent lack confidence in undertaking an assessment for which they have been thoroughly prepared. These are not words an academic wants to hear after investing much time and dedication to support the students to excel in their assessments. In this case study, we highlighted and elaborated on an approach that was initiated to generate synergy within the faculty to find effective solutions to student concerns pertaining to assessment and feedback. We have shared with you all our practical experiences right from the stage of formulating a research question to designing and implementing a robust methodology so as to actively engage more and more undergraduates in scholarly activities and enhance their learning and teaching experiences during their student days.

Exercises and Discussion Questions

1. Reflect and list the step-by-step procedure involved in accessing students for a research study within your institution?
2. Name the regulatory committees within your institution whose approval is essential prior to the commencement of any?

3. What are the different ways of recruiting student participants for a research study?
 4. Think about a project that you were recently involved with and try to come up with a list of factors in one such project which the team could have budgeted—roughly estimate how much would it have cost?
 5. Discuss the practicalities of engaging undergraduate students as participants within a qualitative research study?
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Further Reading

Cohen, L., Manion, L. & Morrison, K. (2007) *Research methods in education* (6th ed.). London, England: Routledge.

Jenkins, A., & Healey, M. (2005). *Institutional strategies to link teaching and research*. York, UK: The Higher Education Academy.

Staying the course: The retention of students in Higher Education. (2007). Birmingham, UK: National Audit Office.

Walden, G.R. (2008). *Focus groups: A selective annotated bibliography*. Lanham, MD: Scarecrow Press.

References

Alinier, G. (2003). Nursing students' and lecturers' perspectives of objective structured clinical examination incorporating simulation. *Nurse Education Today*, 23, 419–426.

Barratt, J. (2010). A focus group study of the use of video-recorded simulated objective structured clinical examinations in nurse practitioner education. *Nurse Education in Practice*, 10, 170–175.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). London, England: Routledge.

Fidment, S. (2012). The Objective Structured Clinical Exam (OSCE): A qualitative study exploring the healthcare student's experience. *Student Engagement and Experience Journal*, 1(1), 1–11.

Jenkins, A., & Healey, M. (2005). *Institutional strategies to link teaching and research*. York, UK: The Higher Education Academy.

Staying the course: The retention of students in Higher Education. (2007). Birmingham, UK: National Audit Office.

Walden, G. R. (2008). *Focus groups: A selective annotated bibliography*. Lanham, MD: Scarecrow Press.