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# Applying Learning: Student Experience of Research Skills Module

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**Abstract.** Social Care students undertake a research methods module with a focus on quantitative methods. A core aim of the module is for students to develop their research skills by applying them to a project. This paper will explore the student experience of engaging in this process and the impact on their learning and skill development. The impact on the students' engagement in the exploration of ethical issues and critical thinking is also explored. Bloom (1956) [2] emphasises the key ways that learning happens, with higher levels focusing on Application, Analysis and Synthesis. This research explores the extent to which completing a continuous assessment project, applying research, may impact on student skill development and learning. Links are made to social constructivism and the impact on learning. The research methodology used is a quantitative approach involving an online survey of students who have engaged in the module. Ethical considerations were carefully applied including informed consent, confidentiality and anonymity. The findings highlight the participant's view of the impact of the research project on their knowledge and skill development.

## 1. Introduction

Social Care students undertake a research methods module with a focus on quantitative methods. A core aim of the module is for students to develop their research skills by applying them to a project. This paper will explore the student experience of engaging in this process and the impact on their learning and skill development. The delivery of the module will be detailed making links to the theoretical approach of social constructivism. The research methods will be outlined followed by a presentation of findings and discussion.

The project consisted of carrying out a small piece of research using quantitative research methods, entering the data into SPSS and presenting a short written piece including ethics, methodology and a short findings section. This project was done in small groups.

The delivery of the module was broken down into three distinct sections: Lecture, Lab and Drop-in lab. The lecture was delivered to a group of up to 110 students, the labs were broken into three groups of 30-40 students and the drop-in was available to any student from the larger group who wanted to have access to a lab and the lecturer.

The lecture was mainly delivered using PowerPoint, with opportunities for questions and some limited small group work. The labs were structured using a social constructivist model. This included "help from the teacher in the form of scaffolding"

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(Cruzon and Tummons, 2013, p. 110). The students worked in small groups of three to four. This allowed for peer learning and support within the zone of proximal development (ZPD) from both fellow students and the lecturer. Prichard (2018) [6] asserts that “we learn best when we actively construct our own understanding” (p. 19). The students had an opportunity to work through tasks in small groups and had the opportunity to consult with the lecturer throughout the class.

As part of a formative assessment process the students had a choice of topics and worked as a group to; form a research question, design a questionnaire, find research participants, enter the data onto SPSS, analyse the data using SPSS and present the findings.

Supporting students to learn and develop is a key role of any teacher or lecturer. A key task therefore may be finding the strategies that support our students. However student motivation is a factor that may need to be considered. Cruzon and Tummons (2013) assert “it is assumed that motivation is a background factor in the promotion and encouragement of students engagement in the kinds of activities that afford opportunities for learning” (p. 260). The engagement of students in particular elements of a programme can be challenging.

The role of formative assessment may support students to engage in the learning process. This may be linked to a wide variety of planned elements which inform a formative assessment and not just a grade. The key elements which formed part of this module were practical application with ongoing constructive feedback, reflection on the learning process and skill development (Cruzon and Tummons, 2013). The research project undertaken by the students was part of the learning process. It was integrated into weekly labs.

The ideal of student centred learning also informed the module delivery. The role of the process, the experiential nature and experience, and the move away from focusing on a product were key elements [7].

The continuous assessment project was broken down into tasks that were worked on in the labs, with supporting theory presented in the lecture. This links closely to Vygotskys idea that “tasks should be structured into segments or chunks” (Cruzon and Tummons, 2013, p. 112). The students worked through each step with the support of their small group and the lecturer. Further support was available in the drop-in class.

The continuous assessment project was also influenced by the higher levels of learning as outlined in Bloom (1956) [2]. There was a focus on application, analysis and to a lesser extent synthesis.

Another element informing the research is the upcoming registration of Social Care workers through CORU. A number of proficiencies have been identified which can be linked directly to understanding ethics and ethical practice.

## **2. Methodology**

The research used a quantitative approach. An online survey was used. The survey was accessible to the students from the module Moodle page. The lecturer gave information about the research in class and invited students to complete the survey. Anonymity was guaranteed and there was no way of knowing who did or did not complete the survey.

Bryman (2012) asserts the importance of informed consent. Part of this ethical consideration was the power relationship between the student and the lecturer. This was

addressed by the use of an online survey which could be taken at any time, ensuring the lecturer would have no way to determine who had participated. Ethical clearance was granted through the IT Tallaght Ethics Committee, ensuring a robust approach was taken.

The lecturer also presented the research as a reflective practice tool, inviting constructive criticism which could benefit future students of the module. The questionnaire consisted of ten questions which explored the students experience of the module and their assessment of their own skill development. The questions explored the students perceptions of the three types of delivery, as detailed above, as well as their views on the impact of the continuous assessment on their learning and skill development. Eight of the 10 questions were closed while two allowed for a narrative response from the students.

This research explores the extent to which completing a continuous assessment project, applying research, may impact on student skill development and learning.

Out of a possible 110 students, 66 completed the online survey. This equates to 60% of the class. The role of non-response bias informs us that the students who do not participate may not have had similar responses [5]. However having 60% response rate gives sufficient credibility to the results in relation to the whole class.

### **3. Findings and discussion**

The findings of the research will be presented. The students completed the survey online, using survey monkey. The key findings from the data will be presented below.

#### *3.1. Attendance*

In relation to attendance the findings showed that the labs were the best attended of the three modes of delivery and they were also seen as the most useful.

The students rate of attendance at lectures was 55% attended over 75% of the time. This figure increased to 76% attendance at over 75% of labs, this figure rises to over 90% when looking at attendance above 50%. The lowest rate of attendance was at the drop-in with just over 11% having over 75% attendance. However those who attended over 75% of the drop-in classes also attended over 75% of labs and lectures. This informal class environment which allowed for scaffolding within the learning environment for students who sought extra support.

The attendance linked with how useful students found each type of class. 45% found the lectures useful or very useful while 81% found the Labs useful or very useful. The higher rates of attendance link to the students view that the Labs were most useful. They attended in higher numbers and rated their experience at a higher level of usefulness.

#### *3.2. Knowledge and skills*

The students responded to skill development positively. All sections were rated 55% and above in relation to improvement or significant improvement.

In relation to critical thinking the highest number of students (almost 14%) felt their knowledge of this had not improved. However almost 87% reported that they felt more

knowledgeable or somewhat more knowledgeable in relation to critical thinking. This links closely to the higher levels of learning as outlined in Bloom (1956) [2] and is an important outcome for all modules.

In terms of knowledge gained every student felt they are more knowledgeable or somewhat more knowledgeable about ethics. Of this 91% reported that they are more knowledgeable of ethics. This is a very interesting finding as these are Social Care students and ethics is a key element of their professional development. It also links to my experience in the Labs. There were keen and heated discussions about the ethics of research and links made with the ethics in Social Care practice. The students had to think about bias, language, research participants etc. This is a key aspect of their learning and development especially as it links back to the importance of understanding ethics and ethical practice as a core element of the Standards of proficiency for Social Care Workers [3].

Ahern-Rindell and Quackerbush (2015) [1] also suggest that engagement in ethical issues associated with undergraduate research may improve students' ability to make good decisions in their future careers and can encourage attitudinal changes that support professional development.

In relation to skills the students reported the highest were related to practical research skills, including survey design and use of SPSS with 80% and 85% respectively. They also reported that they felt their SPSS skills had improved significantly in the narrative section without prompting.

An interesting finding is that 73% reported improved team work skills. Again team work is a core skill necessary for working in Social Care. The ability to work through conflicts, with lecturer support if needed, was a key part of the process during Labs. The structural elements that may have aided this were minute taking of the process (including recording tasks assigned) and visibility in class being recorded. In relation to working in a group it was the only element of the project that some students found unhelpful, 17%. However almost 70% found it useful.

The philosophy of using a social constructivist model appears to have been a positive element of the process from the students perspective. 95% reported that working in class was helpful while 75% felt that the support of the lecturer was helpful. These are the two elements that are core to the social constructivist model in the delivery of this module. The role of scaffolding may be one of the elements that led to these high rates, however as the question wasn't addressed directly we may only draw tentative links. The ZPD is also linked to peer learning and as already mentioned almost 70% found working in a group useful.

The survey also gave the students the opportunity to offer more detailed feedback on the module. In relation to skill development most student who answered this question referred to an improvement in a limited number of areas including, use of SPSS and statistics, interpersonal and group work skills, and general and organisational skills.

The final question allowed for general feedback from the students. This was mainly positive and gave a richer, fuller sense of the statistics already presented, with comments such as:

“Labs were very enjoyable”

“I also like the practical in class learning of the research process”

#### **4. Conclusion**

The findings from this research support the delivery of this practical research methodology module using a social constructivist model. The flexibility of this model supports peer learning, practical application of knowledge leading to skills development and the role of the lecturer as facilitator supporting students within the ZPD.

It also highlights the idea that students vote with their feet! The attendance at the practical labs was over 25% higher than at the lectures. The students reported enjoying the labs while also feeling like they supported their skill development. Over 95% felt that working in class was either helpful or very helpful- and their attendance reflected this.

The role of applied learning, or active learning is a core element of many higher education programmes and it has been useful to explore this approach from the students perspective. In relation to this module the students have supported this method of delivery and identified knowledge and skill development as a result.

#### **References**

- [1] Ahern-Rindell, A. and Quackenbush, A. (2015) Applied Ethics Can Foster the Teachers-Schoar Model and Impact Undergraduate Research Campus-Wide. *CUR* 36(1) 19-24.
- [2] Bloom, B.,(Ed) (1956) *Taxonomy of Educational Objectives*. Longman. London
- [3] (2017). Standards of proficiency for Social Care Workers. Available online at: [http://coru.ie/uploads/documents/Standards\\_of\\_Proficiency\\_for\\_Social\\_Care\\_Workers\\_\(31.05\).pdf](http://coru.ie/uploads/documents/Standards_of_Proficiency_for_Social_Care_Workers_(31.05).pdf) (accessed 29<sup>th</sup> of May 2018).
- [4] Curzon, L. B. and Tummons, J. (2013). *Teaching in further education: An outline of principles and practices*. Seventh edition. Bloomsbury publishing. London.
- [5] Denscombe, M. (2014). *The good research guide- for small-scale social research projects*. 5<sup>th</sup> Edition. Open University press. England.
- [6] Prichard, A. (2018). *Ways of learning*, 4<sup>th</sup> edition. Routledge. New York.
- [7] Tangney, S. (2014). Student-centred learning: a humanist perspective. *Teaching in higher education*. Vol. 19, No. 3, 266-275.