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Pre-service students' perceptions of research and inquiry (0050)
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The understanding of research based teaching is still ambiguous and often ideologically biased, despite expositions of conceptual models of curriculum change (Barnett, Parry and Coate 2001), and inquiry-based learning (Healey and Jenkins 2009). Moreover, studies of the students' own experiences have until recently been quite few, and the research-teaching nexus and its role in institutional development have primarily been investigated in the context of universities and other research-intensive institutions. Nevertheless research based teaching is considered highly relevant across disciplinary and professional courses and the higher education sector.

A study of students from a vocational oriented UK university indicates large differences between discipline areas (Healey et al. 2010). Our point of departure is that a greater sensitivity to field and programme differences in student learning and aimed learning outcome (e.g. Neumann, Parry, & Becher, 2002; Stark, 1998) is important to develop adequate understanding of the research teaching nexus and appropriate ways to strengthening the relationships. This paper examines *how pre-service students' in teaching, nursing and social work perceive research and inquiry, how they describe such elements in their programmes and how they evaluate this in terms of their impact on preparation for professional practice.*

Data

Norwegian university college professional programmes are a suitable case for such investigations because of the strong emphasis placed by Norwegian authorities on the role of scientific research in the quality of education and professional practice. The data comprised 12 focus group interviews of 1.5 hours each with two groups of student teachers (N = 12), two groups of student nurses (N= 12) and two groups of social work students (N = 7), all studying at a large university college in the eastern part of Norway. The group size varied from 2 to 7 students, and each group was interviewed twice. The sample was self-selected. The interviews were tape-recorded and transcribed verbatim.

Results

Student teachers had very vague understanding of the term research based teaching. It was not until the interviewers clarified the concept that the students were able to provide a few examples. Students stated they have carried out a couple of practical and written assignments,

such as conducting and writing reports on practical science experiments and using methods for collecting and presenting data in social science, geography and history. It was also emphasised that there were substantial differences between the various school subjects in this respect and seldom related to professional topics and challenges. An exception was one of the student teacher who noted that his third-year mathematics classes combined method courses with field experiences so as to develop his ability to assess the strengths and weaknesses of pupils' mathematical skills and subsequently make instructional decisions. All the students claimed that insights and skills within research and inquiry are highly relevant for school-based teaching. It seemed, however, that they considered research as a repertoire for reflection rather than evidence for best practice.

By contrast, the student nurses were well informed about the term research-based teaching and they reported being engaged in several and highly clinically relevant research and inquiry activities during their study. In each year of their three-year programme, student nurses are required to find, read, cite and discuss two or three peer-reviewed research articles in all their student papers on a variety of topics. In their second year, they also carry out an inquiry-oriented practicum project. For this group assignment, the student nurses are initially assisted in developing literature search techniques and learned how to refer to and outline results from recent research. Most students were quite confident in their development of skills in finding, evaluating, presenting and discussing recent research articles and they anticipated that they would engage in such activities after graduation, including the use of research in clinical practice. Students considered research quite similar to facts for instrumental use and expressed no doubt in the reliability or the utility in clinical contexts.

Social work students had a less clear cut understanding of the concept research-based teaching than the nurses, and discussed being engaged in research and inquiry in several ways. For example, they talked about a few lectures on philosophy of science that were presented in the first and third year of their programme, with those held in the third year as part of the preparation for writing a bachelor's degree thesis. They also mentioned receiving instructions on how to retrieve relevant literature from databases, lectures on social science research methods and information on how to write a report, all in preparation for their larger inquiry-oriented project in second year. Whilst working on this project, students were supposed to gain insights into a specific social work topic and develop knowledge and experience in organising projects, understanding group dynamics and using communication and social

science methods for collecting and interpreting data. Learning about social work theory and research, they argued, helped them gain meaning, first and foremost, as tools for personal development. Some students stated that their experiences in the programme have encouraged them to develop a critical attitude towards what they read – for example, to reflect on the sources from which written texts are drawn and the theoretical positions that are implicitly used. Other students also connected the notion of ‘being critical’ to social work.

Conclusions

Our study shows that research and research-based teaching is emphasised to a varying degree in the three professional programmes and that many students do not have a clear-cut understanding of the term. Moreover, while the student teachers brought up reflection as the key aspect, student nurses emphasised the instrumental usefulness of research-based knowledge. Student in social work stated that critical thinking and personal development was the most important outcome. These differences illustrate the particular features of professional fields and programs. Such differences are important to address in order to develop an adequate understanding of the research-teaching nexus and to find appropriate ways to develop and strengthen the relationships. Nevertheless, it may be argued that all these dimensions should be emphasised in each programme, at least to some extent.

References

- Barnett, R., G. Parry and K. Coate. 2001. Conceptualising curriculum change. *Teaching in Higher Education* 6(4), 435-49.
- Healey, M. and A. Jenkins. 2009. *Developing undergraduate research and inquiry*. York: The Higher Education Academy.
- Healey, M., Jordan, F., Pell, B., Short, C. 2010. The research-teaching nexus: A case study of students' awareness, experience and perceptions of research. *Innovation in Education and Teaching International* 47, 235-46.
- Neumann, R., Parry, S., & Becher, T. (2002). Teaching and Learning in their Disciplinary Contexts: a conceptual analysis. *Studies in Higher Education*, 27(4), 405-417.
- Stark, J. S. (1998). Classifying Professional Preparation Programs. *Journal of Higher Education*, 69(4), 353-383.