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ABSTRACT

Consensus exists around the desirability of students becoming autonomous learners. However, what precisely autonomy is and how to develop it is a matter of considerable debate. This research examines how student autonomy is being supported within a research-based learning program for pre-service teachers. It presents findings of an interview study of the practices of teachers of both Bachelors and Masters programs about how and whether they are developing student autonomy. Findings suggest that teachers have varying practices in developing autonomy and that amongst other factors, these different practices are related to their varying conceptions of autonomy, their subjective theories about how to develop it and different understandings of research-based learning. Implications for practice in other contexts and for future research are discussed.

INTRODUCTION

Autonomy is a goal of, as well as an approach to, higher education (Boud, 2012). It is commonly viewed as essential for life-long learning. Research-based learning is one way to further autonomy. However, while consensus exists around the desirability of students taking responsibility in learning, what autonomy is and how it should be developed is a matter of considerable debate.

Our focus in this paper is how student autonomy is developed within research-based learning programs for pre-service teachers. McCarthy (2015) suggests that a focus on autonomy is rarely found in the literature about developing research skills, while Shin (2013, p.viii) identified a need to conduct more research "to understand how teacher educators can create contexts where pre-service teachers have opportunities to be autonomous."

BACKGROUND

Autonomy has been variously described as students' ability to take charge of their own learning and the willingness to do so (see e. g. Duarte et al, 2016). However, definitions mask conflicting elements which critically affect how, and indeed whether, autonomy can be developed. Some commentators see autonomy as a quality of the individual. Others focus on the type of learning

environment and the actions of the teacher; while others draw attention to the interactive nature of autonomy as a product both of the learning environment and students' predispositions (see e.g. Deci & Ryan, 1987).

The measurement of autonomy is equally problematic. Experimental studies (e.g. Reeve & Jang, 2006) measure "autonomy supportive behaviours" of teachers. They match these with students' perceptions. Stefanou et al (2013) point out that autonomy describes a spectrum of approaches and they question whether engaging in a range of learning tasks, some of which are more or less encouraging of autonomy, results in students cumulatively developing it. Psychological studies have tended to utilise concepts to which autonomy appears to be related, e.g. self-regulation and motivation, (see e.g. Duarte et al, 2016). Such studies raise questions about the relationship of autonomy to specific psychological constructs. The relationship is different depending on how autonomy is defined.

In research-based learning, it has been suggested that autonomy should be developed along the phases of the research process with scaffolding necessary for the development of research competence (Harmer and Stokes 2016: 543; Willison, 2012). However, it is clear that students' responses to attempts to develop their autonomy vary. Personal characteristics may influence its development more than teacher activities (Duarte et al, 2016).

Non-traditional learning environments are often considered to encourage, if not require, autonomy in learning, but it is unclear what aspects are most effective. The research on pedagogical strategies to develop autonomy suggests including e.g. freedom of choice; motivating experiences; scaffolding; constructive feedback; acknowledging students' perspectives; opportunities for decision-making; meaningful rationales; and opportunities to choose peer groups (see e.g. Harmer & Stokes, 2016; Harnett, 2012; McCarthy, 2015). Overall et al. (2011) argue that students generally perceive autonomy supportive strategies as unpopular, but they are effective in building research self-efficacy. Other teaching elements researched/ of interest are materials, tools and tasks and open course designs (see e.g. Adamson, 2010; Cakir & Balcikanli, 2012; Ewijk et al, 2015; Ting, 2015; Yildirim, 2013).

Autonomy in higher education is clearly a multi-faceted construct that has been the subject of both qualitative and quantitative studies. However, very little of this research relates to pre-service teachers engaging in research-based learning.

METHODS

Our concern is with autonomy as it is practiced by teachers using research-based learning in teacher education. In line with practice theory (Schatzki et al, 2001) our initial concern (the subject of this paper) is with the doings and sayings that constitute the practice of implementing such a course. Elements of practice theory inform the interview design including: emergence, material arrangements, relationality, situatedness, co-construction and embodiment (Gherardi, 2008; Kemmis, 2009).

In the program studied, research-based components are obligatory both in the Bachelors and Masters programs. Students are expected to learn about a specific topic theoretically, research its application in their own or others' teaching, and refer their results back to theory. Furthermore, they must learn about educational research designs and methods. These goals are

part of an international effort to educate teachers for a fast-changing reality in schools, with continuous needs for development in the classroom.

BEd students prepare and conduct a research project over two semesters, gathering data during a 6-week school practicum. MEd students are given the third semester to design and conduct a study whilst doing a school practicum. There are common general guidelines on expected course outcomes, however, how students achieve them, the type and quality of research expected and assessment strategies used, vary between individual teachers.

Twelve experienced teachers teaching the course have been invited for in-depth interview. The goal of the interviews (taking place in June/July) is to explore teachers' practices in developing autonomy and building students' research competence and confidence. Interviews ask about teaching methods, students' activities, climate setting, involving students in decision-making, student support and teachers' own experiences of becoming an autonomous teacher/researcher.

FINDINGS

A variety of practiced methods for fostering autonomy are evident, which nevertheless are often not deliberately chosen, not used systematically or not based on a certain theoretical model. Rather, they are based on teachers' understanding of autonomy, research-based learning and their own experiences becoming independent researchers. Some of the teachers would like to see their students taking more responsibility for their learning, but are unfamiliar with the pedagogical techniques to enable this. Hence they may give students too much choice over their learning, which may inhibit the very thing they wish to foster.

In the conference we will explore these and other findings and examine the implications for future research, discussing the wider implications for the development of autonomy in research-based learning courses for pre-service teachers in other contexts.

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