

University lecturers' evaluations and reflections on the development of their own pedagogical competence areas

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Abstract

There has been a lot of research on the pedagogical training of university teaching staff in recent years. Reflection is considered to be a key element in one's development as a teacher, but the relationship between reflection and action is not clear. This case study sheds light on the developmental relationship between reflection and experienced pedagogical competency among university lecturers. It appears from the findings that those coming from other than the soft sciences in particular do not have a clear understanding of the concept and practice of reflection. Lecturers should not only be exposed to reflection as content during their pedagogical training, they should also be supported to use it and to be reflective. Reflection needs to be reflected on so that it can become visible. The social aspect of reflection is also influential in lecturers' learning processes and in their development as teachers.

Introduction

The amount of research on the pedagogical training of university teaching staff has expanded in recent years. There have been studies on issues such as how pedagogical training has changed teachers' attitudes towards and conceptions of teaching and learning (e.g., Gibbs & Coffey, 2004), teaching skills and approaches to teaching (Gibbs et al., 2004; Postareff, 2007). According to Tynjälä (2010), self-regulation and reflection are considered to be key elements in order to develop as an expert (Schön, 1983) and a teacher (Biggs & Tang, 2007; Brookfield, 1995; McAlpine, Weston, Beauchamp, Wiseman & Beauchamp, 1999; Postareff, 2007). However, the relationship between reflection and action in teaching is far from clear (Mälkki & Linblom-Yläne, 2012).

The aim in this case study is to clarify the developmental relationship between reflection and experienced pedagogical competency among university lecturers. We use the word 'lecturer' to refer to a person who has teaching responsibilities in university, be they professors, senior lecturers or university teachers, for example.

Theoretical background

We consider development as a teacher in a wider sense from the perspective of Tynjälä's (2010) Integrative Pedagogy model, which has been applied in the context of teacher education (Heikkinen, Tynjälä & Kiviniemi, 2011). The model works on the assumption that the learning environment is ideal when all the elements of being an expert – theoretical, practical, self-regulative and socio-cultural knowledge – are present and can be integrated. Reflection is an essential tool for clarifying and giving meaning to complex ideas and experiences (Tynjälä, 2010; Moon, 1999).

Reflection is defined in many ways, most frequently from the cognitive perspective (Schön, 1983). Some researchers see it as a more complex phenomenon, however, and claim that it also has emotional (Boud, Keogh & Walker, 1985) and social (Mälkki et al., 2012) aspects.

We use reflection in this study in the sense of becoming aware of our thinking (Schön, 1983), and questioning the assumptions that guide not only our thinking but also our feelings and actions (Mälkki et al., 2012).

It is difficult to find a single concept in English to define lecturers' pedagogical skills and knowhow because there is nothing that is directly equivalent to the Finnish word that describes these things. The closest we can find is 'competence' or 'competency'. The two words are not unambiguous, however, although they are often used as synonyms. There are two paradigms concerning the use of the two concepts. In general, it seems that the European tradition is to refer to 'competence' whereas the American tradition is to use 'competency'. (Mäkinen & Annala, 2010.) Competence as a concept tends to refer to what people can do (skills) rather than what they know (e.g., UDACE, 1989). It is defined, for example, as a person's capacity to confront the requirements of work by producing the expected output (Dubois, 1993). This could be also considered the 'outcome-based' approach (Hogg, 2013). Competency, on the other hand, refers to the process rather than the mere outcome. Dubois (1993), for example, defines the concept as the potential and characteristics of the worker, such as his or her body of knowledge, skills, motives, features, self-conception and social role, all of which facilitate accomplishment of the most efficient and deserving performance that is possible (Dubois, 1993). Hogg (2013) supplements this definition, suggesting that competency also describes the behaviour that lies behind competent performance, such as critical thinking or analytical skills. These definitions could also be categorised as the 'strengths-based' approach.

Lecturers' pedagogical competency is based on 'pedagogical competence areas'. These competence areas, in turn, derive from the notions of constructive alignment and learning outcomes (Biggs & Tang, 2007; Moon, 2004), and are formulated in accordance with earlier definition work done in the field of teacher accreditation in the SEDA fellowship scheme, and subject-specific competences in the TUNING project. Reflection on these pedagogical competence areas is crucial, and enables lecturers also to evaluate their pedagogical competency as a whole.

The notion of scholarship in teaching has been gaining ground at the same time as academics are being offered introductory courses on university pedagogy. Boyer (1990) introduced the concept to highlight the apparent disregard of teaching in the academic context. Since then the idea of scholarship of teaching and learning (SoTL) has been given more emphasis. For example, Healey (2000) argues that, in order to enhance the appreciation of teaching, academics should consider the relationship between teaching and disciplinary research, systematically investigate teaching and learning, and conceive of university teaching in terms of continuous reflection on practice that is open to similar collegial reflection as research. According to Trigwell & Shale (2004), scholarship-of-teaching models have evolved from theoretical and empirically based analyses, and have as their core value concepts as diverse as reflection, communication, knowledge of pedagogical content, scholarly activity and pedagogical research. They suggest focusing on student learning, and conceive of the scholarship of teaching as a reflective and informed act of engaging students and teachers in learning. For the purposes of this study we examined university lecturers' evaluations of and reflections on their pedagogical competence areas during a nine-month university pedagogics course. All the academics on this course had previously earned approximately five ETCS credits for university pedagogical studies: one ECTS credit equals approximately 135 hours of student work, including the classes.

Method

The context of this case study was a university pedagogical course (10 ETCS) for university lecturers held at a multidisciplinary Finnish university, which was the core course of a larger pedagogical training programme (25 ETCS). The goal of the larger programme was to support teachers in developing their teacher identity and teachership. With regard to the 10 ETCS course, the aim was to support the participants in terms of recognising and evaluating their own strengths and development needs as lecturers, and thus to facilitate their development as teachers. Thirty-one lecturers (24 male, 7 female) with different disciplinary backgrounds (engineering, business, design) completed the course.

The course was a pilot project and lasted for nine months. There were nine contact sessions, approximately one session per month. Each session had a theme: 1) my path as a teacher, 2) learning theories, 3) approaches to learning, 4) teaching and learning methods, 5) curriculum planning, 6) teaching practice, 7) quality of teaching and learning, and evaluation, 8) expert work and 9) developing as a teacher. Between these sessions, there were eight small group meetings in which the lecturers discussed and pondered upon thoughts raised during the course. They also had orientation tasks (writing, reading) before each contact session, and reflective writing tasks afterwards. The working methods used in this course were activating and required reflective working. All the learning assignments were connected with the lecturers' own work and their teaching community, the idea being to enable them to apply what they had learned.

We applied mixed methods in our study. The lecturers were asked to complete a quantitative self-evaluation questionnaire in order to assess their pedagogical competency in different competence areas. They did this twice, at the beginning and at the end of the course. Pedagogical competence areas were self-assessed on a zero-positive five-point Likert scale ranging from 1 (competence is not recognisable) to 5 (excellent competence).

The quantitative data was subjected to quantitative statistical analysis. Because of the limited number of participants on the course (n=31) we used non-parametric analytical methods.

The lecturers' reflective writings constituted the qualitative data. The course participants were required to produce such writings after every contact session, thus they all handed in nine of them during the course. There were no restrictions on the form of the reflections, thus the participants could express their thoughts freely. Some general questions were given to stimulate the writing, however. These were the same every time and did not vary according to the theme: e.g., *What kinds of thoughts and feelings came up? Is there something you are pondering on? Have you noticed any changes and if so, how did they show in practice?*

The reflective writings were subjected to qualitative content analysis, carried out in co-operation by the two researchers. The aim was to find out how the lecturers reflected on their development as teachers, and to assess the possible changes in their pedagogical competency during the course. The analysis was conducted from two perspectives: on the deductive level we used themes that emerged from the quantitative data as the framework, and on the inductive level we also took into account the strong common themes that arose from the qualitative data.

Findings

Our focus in this case study was on how university lecturers evaluate and reflect on the development of their pedagogical competency during university pedagogical training.

The participants estimated their level of pedagogical competency as being on a developing level at the beginning. The second self-evaluations were more positive, and at the end of the course competency was interpreted as good in general. Analysis of the changes between the first and second self-evaluations revealed an improvement in all areas of pedagogical competence among all the participants.

Some of the most significant ($p < .01$) positive changes concerned the lecturers' ability to recognise their own strengths and development needs as teachers; their ability to apply methods of planning, teaching and evaluation as well as to choose teaching methods that supported students in achieving learning outcomes; and their ability to identify their own concept of learning and to apply it in their teaching. There was also a statistically significant increase in their self-evaluated ability to experience joy when succeeding in teaching.

Analyses of the reflective writings the lecturers produced after each contact session revealed that they reflected actively on their development during the process. The writings also reflected many of the self-evaluated themes or pedagogical competence areas.

The most common themes in the reflective writings were, 'methods of planning, teaching and evaluation' and 'recognising one's own conception of learning'. The tendency to reflect on these themes was stronger in the middle of the course when the focus was on planning and teaching methods and the teaching practice was about to begin, and at the beginning when approaches to learning and teaching and different learning paradigms were discussed.

The third most popular theme for reflection was 'development needs as a teacher'. The participants recognised their needs quite well even at the beginning of the course, and even better at the end. Counterbalancing their developing needs, they also reflected on their 'strengths as a teacher' in their writings, both at the beginning and at the end of the course.

The reflections also included broader and strong, common themes that were not exactly the same as in the self-evaluations: these included 'developing as a teacher', 'reflection' and 'learning from others and peer support'. The first of these was a theme that recurred throughout the course in the participants' discussions and reflective writings, although it was more focused at the end. Reflections on the theme of 'reflection' seemed to feature at the beginning and in the middle of the course: it was described as a thought-provoking concept. It was also evident from the writings that the lecturers attached a lot of importance to the social aspect of reflection, and within the theme of 'learning from others and peer support' they clearly pondered on what they had learned from others' experiences, and on the impact on their own development as a teacher.

Discussion and implications

To conclude, we found evidence of both quantitative and qualitative development in this study. However, there are some limitations to be taken into account. Some of the themes for reflection were also covered and discussed during the course, which may have influenced the reflective writings. Nevertheless, writings on these themes were produced throughout the course and not only at the time when they were discussed.

The results of this study support findings from earlier research in this field. It appears from our findings that although reflection is an important tool in terms of developing as a teacher (Biggs & Tang, 2007; Brookfield, 1995; McAlpine et alia, 1999; Postareff, 2007), the concept and practice is not self-evident to lecturers, especially to those coming from other than the soft sciences (e.g., Biglan, 1973; Becher, 1989, 1994; Becher & Trowler, 2001). Reflection should not only be part of the course content: lecturers should be encouraged to be reflective during their pedagogical training (see also Russel, 2005; Mälkki & Lindblom-Ylänne, 2012). It would seem that focused actions are required to turn reflection into action and to support lecturers in developing their teaching and themselves as teachers. The reflection needs to be 'reflected on' so that it can become visible (e.g., Tynjälä, 2010). The social aspect (e.g., Mälkki & Lindblom-Ylänne, 2012) is also significant with regard to lecturers' learning processes and development as teachers.

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