

**Faculty Conceptions of Teaching: Implications for teacher professional development**  
**Conceptions de la Faculté en rapport avec l'enseignement : Implications sur le développement professionnel des enseignants**

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Article abstract

In this paper, the need to assist university teachers in thinking carefully about what they are teaching, and how this relates to and coheres with their own professional development, is outlined. The underlying argument being made is that any efforts designed to extend and encourage scholarly teaching require us to consider the faculty experiences of understanding their subject matter, and in doing so, to help them to see how their understanding relates to what and how they teach. In other words exploring lecturers' conceptions and epistemological beliefs about teaching may assist in the improvement of teacher education, professional development programs and teaching centres at the university.

# FACULTY CONCEPTIONS OF TEACHING: IMPLICATIONS FOR TEACHER PROFESSIONAL DEVELOPMENT

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**ABSTRACT.** In this paper, the need to assist university teachers in thinking carefully about what they are teaching, and how this relates to and coheres with their own professional development, is outlined. The underlying argument being made is that any efforts designed to extend and encourage scholarly teaching require us to consider the faculty experiences of understanding their subject matter, and in doing so, to help them to see how their understanding relates to what and how they teach. In other words exploring lecturers' conceptions and epistemological beliefs about teaching may assist in the improvement of teacher education, professional development programs and teaching centres at the university.

## CONCEPTIONS DE LA FACULTÉ EN RAPPORT AVEC L'ENSEIGNEMENT : IMPLICATIONS SUR LE DÉVELOPPEMENT PROFESSIONNEL DES ENSEIGNANTS

**RÉSUMÉ.** Dans ce papier sont soulignés la nécessité d'aider les enseignants à réfléchir soigneusement à ce qu'ils enseignent, et sur comment cela se rapporte à et coïncide avec leur propre développement professionnel. L'argument sous-jacent étant que tout effort visant à développer et à encourager l'enseignement universitaire exige que nous prenions en considération les expériences de la Faculté en rapport avec la compréhension de la matière enseignée et, ce faisant, les aider à voir comment leur compréhension se rapporte à ce qu'ils enseignent et à comment ils enseignent. Autrement dit, en explorant les conceptions et les croyances épistémologiques des enseignants sur l'enseignement pourrait contribuer à améliorer la formation des enseignants, des programmes de développement professionnel et des centres d'enseignement à l'Université.

**M**any researchers have pointed out that university teaching and classroom behaviour activities are determined by a set of theoretical frameworks that is belief driven (Clark & Peterson, 1986; Marland, 1995, 1998). Over the years, a growing body of research has helped to provide evidence that undercover such beliefs (known also as epistemological beliefs) offer insights as to how lecturers promote their actual conceptions of teaching across educational settings.

These “beliefs” appear to play an influential role in lecturers’ judgements about what knowledge is relevant to a particular situation (Pajares, 1992). From this, it can be concluded that there may be a direct relationship between lecturers’ beliefs and their conceptions of teaching. Identifying such a relationship could be valuable in supporting the arguments that lecturers’ theoretical frameworks are, indeed, belief-driven (Marland, 1995, 1998). Through the years, many studies have demonstrated that there are definite links between these concepts (Brown & Rose, 1995; Kagan, 1992; Nespor, 1987).

According to Schommer (1994), **personal epistemological beliefs vary from “naïve” to “sophisticated.”** For example, a lecturer who holds naïve epistemologies generally believes that knowledge is simple, clear and specific, whilst the learning ability is innate and fixed and can be transmitted directly to the students. A lecturer who holds sophisticated beliefs will assume that knowledge is complex, uncertain, and tentative, and can only be gradually constructed by the learner (Howard, McGee, Schwartz, and Purcell, 2000; Schommer, 1994).

Findings by Hashweh (1996) stated that teachers who held constructivist or sophisticated beliefs were more likely to encourage students’ conceptual change than teachers who held more dualistic or naïve beliefs. As such, they were more able to conceive of teaching as facilitating, rather than transmitting knowledge.

Building on the epistemological beliefs argument, Kember, over 14 years ago, found similar findings after his review of literature on the conceptions of university teachers. Kember (1997) concluded that there was a high level of agreement between the findings regarding teacher-conceptions (similar to the naïve beliefs) and student-conceptions (similar to sophisticated beliefs).

Broadly speaking, a teacher-conception of teaching is one where the teacher’s job is conceived of as knowing the subject and then accurately transmitting that knowledge to the students. In this way, students are dependent on the lecturer for knowledge – hence these conceptions may be also referred to as “lecturer-dependent” (Varnava-Marouchou, 2007).

A student-conception is one in which high quality learning is viewed as “requiring active construction of meaning and the possibility of conceptual change on the part of the learners” (Watkins 1998, p. 20). From this point of view it is the teacher’s role to facilitate and to encourage the student to seek responsibility for their own development –hence these conceptions may be referred to as “student-dependent” (Varnava-Marouchou, 2007).

Nevertheless, the importance of conceptions about the nature of knowledge and epistemological beliefs and their relevance to any teacher professional development are still unexplored, despite the fact that there is an increased need to understand how lecturers’ conceptions affect their classroom practices (Hofer & Pintrich, 1997; Prawat, 1992).

## TEACHER PROFESSIONAL DEVELOPMENT: THE CURRENT PROFILE

The current arguments in favour of enlarging teacher professional development are increasingly widespread: the need to improve student learning experiences; to enhance teaching efficiency; to increase the use of information and communications technologies, and to raise awareness of the impact of globalisation on academic life (Nicoll & Harrison, 2003) are just some of the benefits sought from such programs. But perhaps the most prominent argument remains the promotion of quality and excellence in education. The improved quality of education, however defined, “often requires teachers to change their classroom practices, sometimes radically” (James, 2005, p. 105), but these ideas can only take place if the lecturers “themselves have learned” (p. 105). Teacher learning is therefore a necessary condition for student learning. To this end, several studies have illuminated the importance of making teacher education programs compulsory for all those wishing to teach.

The most comprehensive research published in the UK (Gibbs & Coffey, 2004) studied, over a long period of time, trainee lecturers and their students in 22 universities in eight countries. It concluded that training can indeed improve various aspects of teaching as evaluated by students. Most importantly, however, training can help lecturers improve their students’ learning. That is, if you “train higher education teachers to teach, they will do a better job than untrained ones” (Trowler & Bamber, 2005, p. 80). In light of these arguments, some countries including Sweden, Australia and the UK are considering introducing compulsory teacher training for higher education lecturers. Some have even gone as far as implementing such a policy.

The National Council of Universities (NCU) of Norway, for example, has already decided that all appointed lecturers should go through training of about 100 hours (3-4 weeks) to achieve “basic pedagogical competence.” Progress in the UK towards compulsory training in the UK has been slower, and although it was planned to take effect in 2006, it has not yet been fully implemented. This policy originated with the introduction of the Dearing Report (National Committee of Inquiry into Higher Education [NCIHE]) in 1997. The report stated that university lecturers should receive professional development training in order to improve teaching quality and student learning: “It should become the norm for all permanent staff with teaching responsibilities to be trained on an accredited course” (NCIHE, 1997, para. 70).

On the recommendations of the committee, the Institute for Learning and Teaching in Higher Education (ILTHE) was established, subsequently to become a key component of the national Higher Education (HE) policy (Gibbs, 2003). As a result, many universities in the UK started providing teacher training courses for higher education lecturers.

The fundamental argument made here is that good teacher training, professional development programs and teaching centres should concentrate on

the development of the student and, in particular, on the improvement of student competences rather than on the development of the discipline and transmission of the subject. If this argument holds true, then it justifies the compulsory training policy both in Norway and now in the UK. It is believed that making educational development courses compulsory will eventually lead to “better equipped lecturers, who are able to use a range of methods to develop the competences of a new type of student for a post-industrial society” (Trowler & Bamber, 2005, p. 83). However, there are reasons to question the vigour of this argument.

***The importance of “conceptions of teaching” on the professional development of lecturers***

There is, as yet, little research linking effective student learning with improvements deriving from lecturer training (Trowler & Bamber, 2005). Of the studies that have been involved in such research, there is no apparent attempt to link teacher training and student learning outcomes (Radloff, 2002; Rust, 2000). Indeed, in a recent study, Hobson (2003) found that many student teachers were sceptical about the potential benefits of their teacher training program, especially the “theoretical” part. However, this does not mean that teacher training courses are not effective, simply that “significant evidence has not yet been gathered” (Gibbs, 2003, p. 130).

There is, therefore, a surprising lack of a developed theory or validated research in this area (Trowler & Bamber, 2005; Trowler & Cooper, 2002). Perhaps, however, in order to improve learning in higher education, we do not so much need more research into the psychology of learning or teaching methods, so much as we need a different type of research (Ramsden, 1987).

A different way of looking at teaching possibly involves a drastic shift of perspective: a change in the way of looking at the educational world (Ramsden, 1987). This is undoubtedly different from some previous beliefs about learning, even though it may in the end prove to be a complementary rather than a conflicting approach. For example, whilst there are no direct relationships between lecturer training and student outcomes (Trowler & Bamber, 2005), there is an abundance of research linking teaching conceptions, teaching practices, learning conceptions and learning outcomes (Biggs, 1999; Dunkin & Precians, 1992; Kember & Kwan, 2000; Martin, Prosser, Trigwell, Ramsden, & Benjamin, 2000; McAlpine & Weston, 2000; Ramsden, 1992).

There are at least three arguments that have led to the current debate regarding university teachers’ conceptions and their relevance to the professional improvement of university teaching.

First, there is clear evidence indicating the links between teaching conceptions, teaching methods, and student learning. Two studies in particular stand out: that of Trigwell and Prosser (1996a, b) and that of Kember and Kwan (2000). In

both studies, it was reasonable to draw the conclusion that university lecturers adopted teaching methods that were in line with their beliefs about teaching. Other researchers have repeated the same view: “Fundamental changes to the quality of university teaching are unlikely to happen without changes to professors’ conceptions of teaching” (McAlpine & Weston, 2000, p. 377).

Similarly, Pajares (1992) argued that the conceptions of teachers influence their judgements which, in turn, affect their classroom teaching behaviour. In the same way Kane, Sandretto, and Heath (2002) suggested that such research is embedded in the understanding that teaching conceptions direct and influence teachers’ practices.

Furthermore, many researchers argue that the teaching practices adopted by lecturers are based on their beliefs and conceptions, and in turn affect the way in which students approach their own learning. For example, Gow and Kember (1993) claimed to have found empirical evidence that adopting predominantly “transmission conceptions” in teaching (as defined by Kember, 1997) discourages students from adopting deep approaches to learning.

Secondly, over the last 25 years or so, there has been much research evidence concluding that teaching improvement depends on the existence of student-centered conceptions of teaching. Empirical evidence such as that provided by Gow and Kember (1993) and Trigwell and Prosser (1996b) has led to the assumption that improvements in university teaching must be underpinned by conceptions of teaching that are likely to lead to high quality student learning outcomes. Literature in this area indicates that university teachers’ thinking must move away from a teacher approach and towards a student one in improving both teaching methods as well as student learning outcomes (Saroyan & Amunsden, 2001).

Thirdly, there is an increase in evidence indicating that the professional development of teachers which focused entirely on improving teaching methods has limited prospects in improving actual teaching. According to Ho, Watkins, and Kelly (2001), a number of educationalists stated that “providing tertiary teachers with prescribed skills and teaching recipes” (p. 144) will not necessarily improve their teaching practices and thus improve student learning. Ho, et al added that teacher professional development work must go beyond teaching methods and address the issue of conceptions that may “bring about fundamental changes toward teaching excellence in tertiary teachers” (p.144).

Whilst it is important therefore to identify the various ways in which university teachers can develop professionally, it is equally important to identify the ways in which they conceive of teaching, and how these conceptions may relate to students’ learning. If relationships to student learning could be established, as many researchers have indicated in recent years, then helping lecturers change their teaching conceptions would probably improve the quality of student learn-

ing (Trigwell, 2002). As such, the lecturers' conceptions of teaching may have a significant role to play for teacher education programs, university teaching centres, and in-service training courses in particular.

### CONCEPTIONS OF TEACHING: IMPLICATIONS FOR TEACHER PROFESSIONAL DEVELOPMENT

An important result of any research on university teaching is its application in supporting faculty, especially the less experienced ones, in their professional development. It is suggested that a more consistent faculty development policy based on conceptions would help lecturers to develop and manage their beliefs. Subsequently, the links described between conceptions of teaching and learning are hoped to assist in any future teacher development programs and teaching centres in general. Gibbs (1995) argues for a greater awareness in research into student learning and its implications for lecturer development.

Research has undoubtedly highlighted the important role conceptions play in the development of teaching practices. Gow, Kember, and Sivan (1992) identified faculty development as an important part of their research on conceptions. They emphasised the significance of "mak[ing] changes in line with the practitioner's beliefs" (146). Entwistle and Walker (2000) argued for faculty development that would support lecturers in developing more sophisticated conceptions of learning and teaching. Ho, Watkins, and Kelly (2001) provided concrete evidence that conceptions can indeed lead to improvements in teaching strategies and eventually in student learning.

So the evidence is clear: university lecturers' conceptions of teaching are seemingly related to their teaching practices and consequently to their students' learning outcomes. This has led to the acknowledgement that genuine improvements in lecturers' practices have to begin with a change in their thinking about teaching (Bowden, 1989; Gibbs, 1995; Gow & Kember, 1993; Ramsden, 1992; Trigwell, 1995).

This leads to the conclusion that if we wish lecturers to adopt "student-centred" (Kember & Kwan, 2000) approaches to teaching, and students to adopt meaningful "learning-oriented" (Varnava-Marouchou, 2007) approaches to learning, then it is important to direct lecturer development and training efforts towards evaluating their conceptions of teaching and to engage in teaching for understanding (Ho, 1998). An appreciation of university teaching is therefore incomplete without a consideration of the lecturers' conceptions about teaching and a systematic examination of the relationship between those conceptions and actual teaching practices.

It is evident that current teacher training programs and the development of university teaching centres in recent years are not doing enough to challenge lecturers' conceptions or preconceptions about "what learning to teach ought to entail" (Hobson, 2003). The notion that effective learning involves conceptual

change (Ho, 1998) has already gained acceptance in the context of teaching school-age students (Ramsden, 1988; Svensson & Hogfors, 1988). However, in the field of teacher development in higher education, it is only recently that this idea has been taken up with some degree of seriousness. Staff developers have begun to argue that educational development is itself a learning process for lecturers and that effective teaching programs need to bring about conceptual changes. Even though lecturers' conceptions are known to be inflexible and difficult to change (Fosnot, 1996), some methods for shifting these conceptions have met with some success (Hollingsworth, 1989).

One suggestion arising from this debate is that formal teacher training programmes would place greater emphasis on the ambiguities that exist between what lecturers and their students perceive as good teaching. Such a process would offer students and faculty an opportunity to express their own priorities in their own words, which could then provide a basis for improvements in any future teacher education and training programs. In the professional context, this would mean investing in specific training programs to tackle conceptions of teaching. Similarly, workshops and seminars can provide a good opportunity for building awareness regarding the importance of conceptions of teaching. Indeed, Bowden (1989) designed a one-day workshop which focused on helping teachers to match their teaching practices to their intended learning outcomes for students. In his workshop, Trigwell (1995) attempted to change participants' conceptions of teaching by increasing their awareness of the existence of other conceptions that were more helpful to better learning.

Thus, teaching conceptions are expected to become more significant in the analysis of teacher education, not only in understanding meta-cognitive activities and processes, but also in understanding how to teach. This suggests that, if academic practice in teaching and learning is to be effectively developed, then not only do the existing beliefs of university teachers need to be the starting point for improving approaches to teaching, as a number of researchers have advocated (see, for example, Gow, Kember, & Sivan, 1992; Trigwell & Prosser, 1996a; Elby & Hammer, 2001), but also much more attention needs to be given to the way in which different beliefs operate in a particular context, and the means by which individuals construct their role as teachers in relation to perceived contextual constraints. For example, Ho (1998) and Ho et al. (2001) emphasize the importance of encouraging teachers to examine, confront and challenge their conceptions and argue this is a necessary first step to better teaching practices. Martin and Ramsden (1992) supported an approach that gently builds on the conceptions that teachers bring with them to the development processes, suggesting that "the knowledge, skills, and the concepts must be integrated and reintegrated by each teacher during a slow process of gaining understanding" (p. 155). Devlin (2003) and Hativa (2000) provide some evidence that conceptions may shift through coaching the application of teacher practices in student or learner focused ways in particular contexts.



Eley (2006) suggested focusing on developing skills/repertoires within specific contexts and noting whether changes to conceptions follow.

These arguments provide a good start to any future progress in teacher training and professional development programs. The conceptual change approach has developed as a way of achieving real progress in higher education teaching, even though the actual task of changing such conceptions remains enormous. The challenge now for research around university teaching development is to determine more precisely the part that conceptions play in the process of teaching improvement and, ultimately, in ensuring the quality of student learning.

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