

# A new dimension to understanding university teaching

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This paper reports the outcomes of a study, undertaken from a phenomenographic perspective, of academics' ways of experiencing or understanding being a university teacher. A range of understandings was found, representing in particular a varying focus on the experience of teaching as a: teacher transmission focused experience; teacher–student relations focused experience; student engagement focused experience; and student learning focused experience. This work builds on previous studies of university teachers' conceptions of teaching. However, the focus taken in this study on the experience of *being a teacher*, rather than *engaging in teaching*, has highlighted new aspects of university teaching.

## Introduction

Over the last decade, a body of research has been developing investigating university teaching from the perspective of teachers *themselves*. These studies have examined university teachers' conceptions of and approaches to teaching (Dall'Alba, 1991; Martin & Balla, 1991; Samuelowicz & Bain, 1992, 2001; Martin & Ramsden, 1992; Gow & Kember, 1993; Kember, 1997; Pratt & Associates, 1998; Prosser & Trigwell, 1999, ch. 7; Wood, 2000), as well as teachers' perceptions of student learning and the relationship between teaching and learning (Prosser & Trigwell, 1999, ch. 7; Åkerlind & Jenkins, 1998).

A core assumption underlying these studies is the importance of understanding the meaning or range of meanings of teaching, as experienced by university teachers, and the intentional nature with which teachers approach their teaching. While the outcomes of the various studies inevitably differ in certain respects, what is most striking is the consistent *commonalities* that have emerged across the studies. All show, as key dimensions of the meaning that teaching holds for university teachers, a primary focus towards: (1) transmission of *information* to students or the development of conceptual *understanding* in students; plus a primary focus towards (2) the *teacher* and their teaching strategies or the *students*, and their learning and development. This consensus is especially striking given the independent nature of the studies and the diverse range of countries, institutions and academics sampled.

In a review of 13 studies investigating conceptions and beliefs about teaching

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amongst university academics, Kember (1997) attempted to synthesize the findings. Based on his synthesis, he posited five conceptual categories, as follows:

- imparting information;
- transmitting structured knowledge;
- student–teacher interaction/apprenticeship;
- facilitating understanding;
- conceptual change/intellectual development.

The first two categories were described as representing a teacher-centered orientation to teaching and the last two categories a student-centered orientation. The middle category focused on student–teacher interaction, and was seen as intermediate between the two orientations. However, Samuelowicz and Bain (2001) have subsequently challenged the idea of an intermediate conceptual category, suggesting that all conceptions of teaching are primarily teacher-centred or student-centred.

A teacher-centered focus is consistently seen across the range of studies as constituting a less sophisticated view of teaching than a learner-centered focus and is regarded as less likely to produce high quality learning outcomes amongst students. (Pratt and Associates [1998] are an exception here as they deliberately avoids any form of judgment of different conceptions of teaching, in terms of teaching effectiveness or quality.)

An empirical relationship between teachers' approaches to teaching and students' approaches to learning has also been shown (Kember & Gow, 1994; Prosser & Trigwell, 1999, ch. 7). Prosser and Trigwell report that 'university teachers who focus on their students and their students' learning tend to have students who focus on meaning and understanding in their studies, while university teachers who focus on themselves and what they are doing tend to have students who focus on reproduction' (1999, p. 142).

The significant implications of these studies for improving university-level teaching and learning are apparent. Interest in further studies of academics' understandings of teaching continues to be high, with reports of ongoing research following Kember's review (Van Driel *et al.*, 1997; Murray & MacDonald, 1997; Pratt and Associates, 1998; Samuelowicz & Bain, 2001). In the research reported in this paper, a further study of university teachers' understandings of what they do as teachers was undertaken, with a focus on academics' experiences of *being* a university teacher, in contrast to the focus taken in previous studies on academics' experiences of teaching *per se*.

### **Aims and methods**

This article reports the outcomes of a study, undertaken from a phenomenographic perspective (Marton, 1981, 1986; Marton & Booth, 1997) of academics' ways of experiencing being a university teacher. As with all phenomenographic research, the aim was to investigate variation in the underlying meaning of or ways of experiencing,<sup>1</sup> a phenomenon—in this case, being a university teacher. The desired outcome was constitution of a structured 'space' of variation, representing key aspects of the

qualitatively different ways of understanding being a teacher represented amongst the group interviewed.

The structure of the resulting ‘outcome space’ is based on the *relationships* between those different views, in terms of the *critical aspects* of variation in meaning that both distinguish and relate the different ways of experiencing from and to each other. This focus on critical aspects of and structural relationships between different ways of understanding a phenomenon is seen as having powerful *heuristic value* in aiding insights into teaching and learning.

The outcomes presented are based on interviews with 28 university academics, all on teaching and research appointments at a traditional, research-intensive university in Australia. Within the university context, the academics interviewed were selected to represent as much variation in experience as possible, being from varied disciplines, cultural backgrounds and gender, with varying levels of experience as an academic and on varying conditions of appointment:

- *Discipline*—six from social sciences, two economics/commerce, eight natural sciences, eight humanities/languages, four information sciences.
- *Academic experience*—a few months to approximately 35 years.
- *Appointment*—12 tenured/tenureable appointments, 12 fixed-term (3–5 years), four short-term (12 months).
- *Gender*—18 men, 10 women.
- *Age range*—mid-20s to late-50s.
- *Language background*—20 native English speakers (including some from North America and New Zealand), eight from non-English speaking backgrounds (four European/Russian, two Middle Eastern, two Asian).

To the extent that the variation within the sample reflects the variation within the desired population—in this case, university teachers—it is expected that the *range* of meanings within the sample will be representative of the *range* of meanings within the population. This sample is limited by having participants who are all on teaching and research appointments and does not include any teaching-only academics. In addition, the sample is drawn entirely from one university. However, many of the participants had previously worked in other universities, in Australia and internationally.

Interviews were semi-structured, asking academics what being a teacher meant to them, how they went about teaching, what they were trying to achieve, why they did things that way ..., but working primarily off examples of teaching activities volunteered by the interviewees during the course of the interview. Unstructured follow-up questions were used to encourage further elaboration of the topic or to check the meaning that interviewees associated with key meaning-laden words or phrases that they used. These questions commonly took the form of ‘Could you tell me a bit more about that?’, ‘Could you explain that further?’, ‘What do you mean by that?’, ‘Could you give me an example?’. In many cases, the follow-up questions were more important in eliciting underlying meanings than the pre-determined questions. However, the aim at all times was to provide opportunities for the interviewees to reveal their current experience of the phenomenon as fully as possible, without the

interviewer introducing any new aspects not previously mentioned by the interviewee.

Interviews were recorded and transcribed verbatim, then analysed in an iterative manner. This involved repeatedly reading through transcripts, searching for the underlying foci and intentions expressed in them, comparing and contrasting them for similarities and differences, and looking for key relationships that related, as well as distinguished them, to and from each other.

Phenomenography argues for a non-dualistic ontology, which is an assumption underlying the approach (Marton & Booth, 1997). This leads to the expectation that different ways of experiencing a phenomenon would typically be *internally related*<sup>2</sup>—related through the phenomenon being experienced and through the inherently related nature of human experience. Consequently, one would expect that the qualitatively different ways of understanding a phenomenon constituted during a phenomenographic analysis would typically represent more or less *complete* experiences of the phenomenon, rather than different and unrelated experiences. Thus, the set of conceptual categories that emerges from phenomenographic analysis may commonly be ordered along a hierarchy of inclusiveness.

Within this study, the ordering of categories and the positing of hierarchical relationships between them emerged through an iterative process, involving interactive alternation between searching for logical and empirical evidence of inclusiveness. That is, hypotheses about likely orderings and inclusiveness sometimes originated from logical argument and sometimes from the content of interview transcripts, but in all cases needed to be confirmed by the data before being accepted. Empirical confirmation required evidence that at least some of the transcripts from which particular categories of description were constituted showed some reference to aspects of growth and development present in categories lower in the hierarchy, but *not* vice versa.

## Results

Four categories of description, describing qualitatively different ways of understanding being a university teacher, were constituted, varying in focus on the experience of teaching as:

- a teacher transmission focused experience;
- a teacher–student relations focused experience;
- a student engagement focused experience;
- a student learning focused experience.

Each category is described in more detail below, with a brief illustration of key aspects of the categories through verbatim quotes from relevant interview transcripts.

*Teacher transmission focused category*

In this category, the teacher is seen as imparting information to students, who are experienced as then absorbing that information in a passive way. The role of students in the teaching-learning process is largely unconsidered, although it is recognized that material may be easier to absorb if presented or organized in some ways than in others. The primary aim of the teacher is to cover material, which the teacher may modify and structure for students or simply recycle from existing texts. In terms of what teachers may gain personally from the teaching-learning process, if they are very familiar with the material presented they are seen as gaining nothing, but if they are not so familiar with the material they are seen as potentially gaining knowledge of new or 'rusty' content areas, new techniques of application or additional real world examples that may help illustrate content material. To illustrate:

My wife told me that I like to show-off; probably that's why I like to be a teacher. You stand in front of a big class, in my case 50–60 students, talking about things that they don't have any clue what it is. That makes me feel some achievement for some reason. But the reason I like to teach is because I found that in some students' case, it is fun. In other words, I can think about things from one point of view and probably I know 90% of it, but the students do teach me the rest, 10% to reach 100%, and that makes me improve in knowledge and teaching ... but I have to say, nowadays I start feeling a bit disappointed about the students' performance. There is a continuous trend in students' learning capability, they are probably distracted by things around them, their learning capability is dropping all the time.

*Has that kind of change affected your teaching?*

Because of that, I don't get as much feedback as I had before and that disappointed me, a little bit ... More like a one way transfer now. You teach them everything you know, but really you can't get any feedback from them so you can improve yourself ... In the early days, to get students interested in your subject, was nothing but explain to them clearly, so that they can follow your lectures ... But now ... they don't show any eagerness to get the knowledge you want. Because of that, if you want to get an interest or attract them into the area that you are teaching, you have to give lots of examples. It is not knowledge giving any more, it is more like a show. The show means what you are saying is not the only factor you have, it is a performance. You say things, but on top of it you have to put in your body language. You have to put in examples that may not be, in terms of time, may not be efficient to deliver the knowledge, but in terms of attracting students' interest it is very important. So, for a 1-hour lecture, I used to be able to cover and say 100% of the materials I wanted to cover. Now, because of the importance of performance, body language and examples, I probably cover about 70%. (Male, Engineering).

*Teacher–student relations focused category*

The emphasis here is on teaching as involving developing good relations with students. The teacher wants students to be satisfied and to respond positively to his/her teaching. The teacher aims to motivate students, and to help develop students' problem solving abilities and practical skills. Nevertheless, there is a clear focus on the teacher him/herself, in terms of what they are doing within this

relationship, with students experienced primarily in terms of their responses to the teacher. As a product of the teaching–learning process, the teacher is seen as potentially gaining not only new content knowledge, but a sense of satisfaction from the experience of teaching well. To illustrate:

I think that being a good teacher necessarily implies having a good relationship with the students. And that's always been one of my priorities, to have a good relationship with the students, to be very open with the students, to be available, but not to let them do whatever they want to do, to set very clear criteria of what you expect from them and what you are prepared to give them ...

... I think that's important in teaching any subject, but particularly important in teaching languages, because a lot of the students are afraid of making mistakes ... So, it is crucial that you create a relaxed atmosphere, an atmosphere in which they feel comfortable and in which they can make mistakes and it does not matter ...

If you have had a really great class and the students come up to you after the class and say, 'That was a great class! We learned so much and now we want to go and look for this', it continues on after the class. Then you feel so much better in yourself that you are a better person. And you have a more positive outlook on the world as well. (Female, Languages).

### *Student engagement focused category*

In this category, there is a greater focus on the student in terms of what they are doing, rather than on the teacher and the students' reactions to the teacher. The aim is to engage students with the material or subject in order to develop students' enthusiasm and self-motivation for learning. The teacher achieves this by building students' interest, including involving students in active learning activities, using real-world and relevant examples, etc. Again, the teacher sees him/herself as potentially gaining both content knowledge and satisfaction or enjoyment from the teaching experience. To illustrate:

... You do have a set of aims for a session, but if it gets railroaded, something else interesting might happen ... So, you can set up the structures, but the students have to take it up. It's when you've got something that somehow connects with their interests or other knowledge and they can build on it, and they can move from wherever they are at, they can move onto something ...

Well, your job in a lecture is to give them some kind of overview, a framework, information ... I think the lecture is just a small part of the process, obviously ... I'm more interested in what I can give them as a teacher than as a lecturer ... Enthusiasm for pursuing something. Encouraging engagement, I suppose.

*Why do you think that is important for the students? Or for you?*

[Laughter] Why is that important for me? Because it certainly makes the teaching process more enjoyable and interesting ... The hour just goes quickly and you have enjoyed it and they have got pleasure out of it. They will say that. And there is group dynamics and I think that's really nice. I hate walking into a tutorial and no one is talking to each other. To me that's a success. Success is when you come in and they are all chatting and someone is talking about the reading. That's important because you want them to do as well as they can in the subject, and to find a way to do well in the

subject that relates to them ... So, for them to know how to develop strategies where they can see their own way into the subject, and tasks that will mean something to them, that they will get something from and be able to put something into these tasks. (Female, Cultural Studies).

*Student learning focused category*

The emphasis in this category is on students' learning and development. The aim is to encourage students to think critically and originally, to question existing knowledge, explore new ideas, see new dimensions and become independent learners. This may include a focus on helping students to develop a broader sense of the discipline and underlying principles of the discipline. In this category, not only is the teacher seen as gaining both knowledge and enjoyment from the experience of teaching, but also an opportunity to extend his/her own understanding of the area. Furthermore, they see the potential for broader benefits to the discipline and/or society arising from students' learning. In some cases, the sense of broader benefits may form part of a social mission for the teacher. To illustrate:

I think of myself primarily as a learner. I don't see a one-way flow of learning or teaching; it is a two-way flow. And that is very important for me because it helps me not to stagnate, I want to keep developing. And the classroom is a very propitious environment for engaging others in that two-way learning ...

... So, this area of knowledge you've been wrestling with and cultivating, and you too are being cultivated by it, and you become entangled in it. The classroom becomes the area where you disentangle it, where you share whatever you've been learning with others. And I think the greatest thing about that is, once you tell or disseminate it in the classroom, suddenly it becomes something else that everyone owns or appropriates it with you, and I think that is fairly dynamic...

... I see myself as having a role, a position on lots of things. And one of them is my commitment to anti-Orientalism ... I bring in lots of new information and expose students to narratives by Islamics themselves. I usually put them on a transparency, translated and transliterated and it shocks the students because it is something that they never saw before and never expected and it really changes their whole perspective on East and West and us and them, and really they appreciate that so much... And I think it has made them also really critical because it has really exposed them to being able to question any type of knowledge ... there are always a wide range of viewpoints, and no matter what I say or what anybody else says, there is another view, another perspective. So for me that is really the best thing you could teach students—to think. Because information is no longer a problem, you can always go to the Internet. But to really instil in them that particular ethos, because then you are really creating thinking citizens and thinking human beings, and you're combating orientalism and racism, amongst so many other things. (Male, Cultural Studies).

**Relationships between the categories**

To help deal with the complexity of the data, the description of relationships between categories (below) has been largely separated from the description of the way of experiencing represented by each category (above), even though they have

been constituted in an interrelated way. The focus on inclusive relationships provides a way of extending our understanding of the experience represented by each category, by providing the opportunity to look at the variation in experience *holistically*.

As described below, the four qualitatively different ways of experiencing university teaching are marked by variation along four key and interrelated themes, which expand in an inclusive way, serving to both link and separate the different categories.

#### *The role of students in the teaching-learning process*

This theme is represented by a key expansion in focus between Categories 1–4 from perceiving students as passive recipients of knowledge or facts to seeing students as active creators of their own learning.

To elaborate, in Category 1 the role of students in the teaching-learning process is barely considered. The teacher (and possibly the textbooks) is seen as possessing the required knowledge and passing that knowledge onto students. In Category 2, teachers see themselves as engaged in a similar knowledge transfer process as in Category 1, but they also place a strong emphasis on building up a positive relationship with students, in their desire to have students feel satisfied with them as teachers. In Category 3, there is an additional emphasis on creating active learning opportunities for students based on a strong sense that students learn best when actively engaged in the process. In Category 4, students are seen as active creators of their own learning, with teachers as guides and facilitators of the process.

#### *What students gain from the teaching-learning process*

This theme is represented by an expanding focus between Categories 1–4 from seeing students as potentially acquiring knowledge or facts to perceiving them as potentially developing knowledge, skills, interest in the subject matter and personal growth.

To elaborate, in Category 1 the student is seen as gaining only knowledge or facts from the teaching-learning process. In Category 2, the student is seen as acquiring problem solving and technical skills, in addition to knowledge or facts. In Category 3, the student is additionally seen as becoming actively engaged in the learning process, with associated enjoyment of learning. In Category 4, the student is seen as also experiencing personal development through their learning, in terms of developing greater awareness of how they operate as individuals, and how the subject, discipline and/or society operates.

#### *What teachers gain from the teaching-learning process*

This theme is represented by an expanding focus between Categories 1–4 from teachers perceiving themselves as potentially gaining nothing from the teaching experience to seeing themselves as potentially gaining a range of benefits, including developing additional knowledge of new subject areas, experiencing enjoyment or



satisfaction from the teaching-learning process and extending their own understanding of the subject area.

To elaborate, in Category 1 teachers see themselves as potentially gaining new examples, techniques or content knowledge, primarily in unfamiliar teaching areas or when refamiliarizing themselves with previous areas of knowledge. However, this outcome is largely dependent upon the area they are teaching being unfamiliar to them; if it is a well known subject area, then they may be seen as gaining nothing from the teaching-learning experience. In Categories 2 and 3, the potential benefits to teachers are perceived as more reliable, in terms of the satisfaction or enjoyment they experience from the interaction with students. This is in addition to the possibility of gaining additional content knowledge, techniques or examples. In Category 4, teachers also see the potential for extending their own understanding of familiar content areas through the process of preparing material for students, receiving feedback from students and other forms of interaction with students.

#### *The breadth of benefit from the teaching-learning process*

This theme is represented by an expanding focus between Categories 1–4 in the perceived potential impact of the teaching-learning process, from benefits which affect the student only to benefits that potentially affect both the student and teacher, then subsequently the discipline and/or society as students take their learning into those areas.

To elaborate, in Category 1 either the students only or both the students and teachers are seen as potentially, but not reliably, benefiting from the teaching-learning process. In Categories 2 and 3, the perceived benefits are reliable for both students and teachers. However, in Category 4, there is a substantial expansion in the perceived possibility for benefits from the process, to include a potential impact upon the wider discipline and society in which the student is embedded.

*Inclusive relationships between categories.* Clearly, the four different ways of experiencing being a university teacher are seen as linked in a hierarchical relationship based on inclusivity (see Table 1). That is, the experience of teaching represented by later categories (i.e. those higher in the hierarchy) includes awareness of aspects of teaching represented by earlier categories (i.e. those lower in the hierarchy)—though these aspects need not be the primary focus of the experience, often being in the background more than the foreground of awareness. In this sense, the categories also represent a hierarchy of increasing complexity or breadth of awareness of different aspects of being a university teacher.

As shown in Table 1, the hierarchical nature of the relationship between categories is dialectically reflected in the four themes or dimensions of the experience that emerged. Experiences of teaching *lower* in the hierarchy are marked by a focus on students as passive recipients of knowledge or facts. In addition, teachers are seen as providing the knowledge that is transferred to students and thus may gain nothing personally from the teaching-learning process, unless they are teaching in a content area with which they are not very familiar (in which case they might acquire new content knowledge, examples or techniques).

Table 1. Key aspects of the variation in ways of experiencing being a university teacher

Key themes	Categories			
	1 Teacher transmission focused	2 Student-relations focused	3 Student engagement focused	4 Student learning focused
Role of student	Passive recipients	Responsive recipients	Active recipients	Active creator
Benefits for students	Knowledge as facts	Knowledge and Skills	Knowledge, skills and enjoyment	Knowledge, skills, enjoyment and development
Benefits for teacher	Nothing or new content knowledge	New content and teaching enjoyment	New content and teaching enjoyment	New content, enjoyment and understanding
Breadth of benefit	Student only or student and teacher	Student and teacher	Student and teacher	Student, teacher and field, etc.

Experiences of teaching *higher* in the hierarchy are marked by a focus on students as active creators of their own understanding of the subject. In addition, students are regarded as potentially developing not only new knowledge and skills, but an active interest in the subject and a sense of its relevance to them and their lives. Furthermore, there are potential outcomes that extend *beyond* the subject studied *per se*, by way of students' personal growth in terms of developing greater understanding of themselves and others. Teachers are also seen as benefiting from the teaching-learning process, which is experienced as providing an opportunity to extend their own understanding of the subject, in addition to the benefits experienced in earlier categories. Furthermore, the perceived benefits from the teaching-learning process extend beyond those directly involved (i.e. beyond the students and teacher), through the possibility of leading to future change in the discipline and/or society, as students take on substantial roles in these areas.

## Discussion

In line with previous research investigating academics' understandings of what they do as teachers, the research reported here shows a key variation in ways of experiencing teaching, from a primarily teacher-focused to a primarily student-focused experience. Again, in line with other studies, as part of the most teacher-focused experience of being a university teacher found in this study (the teacher transmission focused category) is a view of students as passive recipients of knowledge or facts, and of teachers as providing knowledge that is transferred to students. Conversely, as part of the most student-focused experience of being a teacher (the student learning focused category) is a view of students as active creators of their own learning, including the potential for learning outcomes that extend beyond the subject studied to include developmental changes for students in their understanding of themselves and others.

However, unlike any other study of university teaching, two new dimensions in ways of experiencing teaching were found, with an expanding focus across the different ways of experiencing in:

- what teachers themselves are seen to gain from the teaching-learning process;
- the perceived breadth of potential benefit from the teaching-learning process.

These findings are significant, as previous studies of conceptions of teaching have *not* highlighted potential benefits to teachers, nor variation in academics' perceptions of the potential impact of teaching on the broader field, community or society in which they are situated. Pratt and Associates (1998) are an exception here, as they describe a focus on social reform as the defining feature of one of the five perspectives on teaching that they propose. However, unlike the perspective described by Pratt, the focus on disciplinary or social change that emerged in this study does *not* necessarily have a reform intention associated with it.

These findings are particularly exciting in view of Kember's (1997) conclusion, in his review of 13 studies of conceptions of teaching, that the high degree of consensus amongst studies indicates that there is little value in undertaking further exploratory investigations of academics' conceptions of teaching (p. 273). In contrast, my findings indicate that we may still have much to learn about the various facets of university teaching.

The emergence in this study of two previously unreported dimensions of the university teaching experience may be due to the focus I have taken in this investigation on the experience of *being* a teacher, rather than the experience of teaching *per se*. This suggests that there is more to the experience of being a teacher than simply teaching. Furthermore, the results indicate that a focus on academics' experience of teaching *separated from* their larger experience of being a teacher may encourage over simplification of the phenomenon of university teaching, in particular in terms of academics' underlying intentions when teaching.

This is a view that is becoming more widespread in the literature. For instance, Palmer's extensive discussion of the inner life and self-identity of the university teacher emphasizes the impact of this upon academics' teaching and their students' learning (Palmer, 1998). Furthermore, I have reported elsewhere an exploration of interrelationships between university teachers' views of teaching and their views of growing and developing as a teacher (Åkerlind, 2003). There, I argue for the importance of considering academics' underlying *intentions* in approaching their own growth and development as a teacher, and not just the developmental methods and strategies they engage in. Teaching and teaching development involve more than content, methods and outcomes; being a teacher involves more than choosing content, employing appropriate methods and aiming for appropriate learning outcomes. Teachers' views of the nature of teaching and learning in their discipline and of their role as teachers are also important, but are rarely considered.

However, in line with the focus suggested here, a number of authors are now suggesting that the best approach to take towards programs of teaching development is to focus on developing university teachers' conceptual understanding of the nature of teaching and learning, in contrast to the traditional approach of focusing on

teaching methods and techniques (Trigwell & Prosser, 1996; Prosser & Trigwell, 1997; Wood, 2000).

The findings reported here also have implications for different ways of experiencing the interplay between teaching and research. At one level, these findings provide potential insight into the varying commitment to teaching versus research commonly found amongst academics (e.g. Boyer *et al.*, 1994; Altbach, 1996). It seems likely that the sense of satisfaction, enjoyment and development in content understanding that forms part of some academics' experiences of being a teacher would encourage a commitment to teaching that would not be felt by academics who experience little personal benefit from teaching.

Similarly, these findings potentially provide insight into different perceptions of the relationship between teaching and research. Where the teaching-learning process is experienced as of no benefit to academics themselves, time spent on teaching is likely to be experienced as in competition with or at least of no benefit to academics' research. Conversely, where the process is experienced as potentially extending academics' own understanding of familiar content areas, then one might speculate that teaching may be perceived as enhancing, or of potential benefit to, the research process.

## Notes

1. As is common with phenomenographic research, I use terms such as experience, awareness, meanings, conceptions, understandings, perceptions, views, etc., interchangeably.
2. An internal relationship implies that neither object would be the same without the other (Marton & Booth, 1997).

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