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## Variation in the Experience of Teaching Design: the Community of Practice Dimension.

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This paper explores conceptions of teaching held by academics in departments of design and explores links between those conceptions and the communities of practice associated with the subject context.

This paper explores the qualitatively different ways that teachers of design experience their teaching. The study focuses on teachers of practice based subjects in design. Much of the work which has examined teachers' conceptions built on research frameworks that also explored students conceptions and approaches to learning. Studies of conceptions of teaching have ranged from the phenomenographic (e.g. Martin and Balla, 1991; Prosser et al 1994) to those studies of belief orientations (e.g. Fox, 1983; Kember, 1997).

The data is from an interview study of 18 teachers from eight UK Universities and is explored with a phenomenographic approach (Marton and Booth, 1997). The analysis identified the qualitatively different ways teachers of design experience their teaching within which variation in the practice dimensions could also be discerned.

This paper reports variation between the qualitatively different ways the teachers conceive of teaching. The important feature of this analysis is the community of practice dimension, in particular how teaching is perceived as contributing to engaging with the social practices which constitute the particular design practice (Billett, 2001).

The community of practice dimension is further explored in relation to how teachers may enhance the experience of learning and the learning environment by developing strategies which address the application of knowledge in practice based settings as well as their activity systems. Participation in a community of practice is a key premise to understanding learning to practice, including learning the values and appropriating an identity related to that practice.

# Variation in the experience of teaching design: the community of practice dimension

## Abstract

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*The community of practice dimension is further explored in relation to how teachers may enhance the experience of learning and the learning environment by developing strategies which address the application of knowledge in practice based settings as well as their activity systems. Participation in a community of practice is a key premise to understanding learning to practice, including learning the values and appropriating an identity related to that practice.*

## Conceptions of teaching

Much of the work which has examined teachers' conceptions built on research frameworks that also explored students conceptions and approaches to learning. Studies of conceptions of teaching have ranged from the phenomenographic (e.g. Martin and Balla, 1991; Prosser et al 1994) to those studies of belief orientations (e.g. Fox, 1983; Kember, 1997). There are however some recurring themes in studies of conceptions of teaching which are well summarised by Kember (1997). At one end of the spectrum there are teachers who focus on information transmission and, at the other end, there are those that focus on changing students' conceptions or understanding of the world (Prosser et al 1994; Samuelowicz and Bain, 1992).

Most studies of conceptions of teaching have chosen to focus on traditional university subject disciplines e.g. sciences and humanities. There are however some studies of conceptions of teaching in practice based disciplines including music (Reid, 2000) and design (Drew, 2000a, 2000b).

In an earlier study of design teachers (Drew, 2000b) five qualitatively different conceptions of design teaching are described as ranging from the teacher as

offering something to students, through to the teaching as helping to change students' conceptions. These categories of description illustrate a dimension of the qualitative variation in design teaching. Conception A in this study illustrates that even one-to-one teaching contexts can still be conceptualised in transmission terms, the other four conceptions identified incorporate a degree of student centredness which increases from B to E. Categories D and E also demonstrated a community of practice dimension as a focus for the context of teaching.

The practice-based context of studio teaching can be seen as a student centred approach, but as this study also reports, some teachers in this context hold conceptions of teaching as instructional and teacher focused rather than co-operative and collaborative learning. The quality of this learning environment relates to the context and the conceptions of learning and teaching held by both teacher and student (Reid and Davies, 2000).

### **Learning to practice and participation**

There is also a significant literature which embraces the sociocultural perspective on practice, particularly emphasising learning to practice in various settings. Learning to practice, whether in workplace or simulated settings is seen as a move towards full participation in a community of practice (Lave and Wenger 1991; Lave 1993). These views emphasise social practice as a premise for learning and that 'knowing in practice' arises from participation in that social practice (Billett 1998). The community of practice has been further conceived as constituting smaller units or activity systems (Engeström 1987) which engage in practice through expansive learning, learning by extension and diversification of activity. Teachers and their learners, engaged in collective work and learning demonstrate all of the principles of the activity system (Engeström, 2001).

Jean Lave describes the social participatory perspective on learning as individuals developing and changing their identities, "... people are becoming kinds of persons" (Lave 1996, p 157). Learning which is the result of participation in social practices means that the participants appropriate ways of seeing the world inherent in those practices. These situational and social factors are a key part of learning to practice (Billett, 2001) and are valued highly by practice based teachers in this study who demonstrate related conceptions of teaching.

The community of practice dimension is most certainly about "becoming kinds of persons", about developing ways of seeing the world through practice.

### **Method**

The data is from an interview study of 18 teachers from eight UK Universities and is explored with a phenomenographic approach (Marton and Booth, 1997). Opportunity sampling was used to identify the eight university departments of

design. The departments were identified as part of a wider study conducted whilst working for the UK Learning and Teaching Support Network for Art, Design and Communication. Within each of these departments the participants were selected in such a way as to ensure a spread across the discipline and to maximise the variation in possible conceptions of teaching. This paper adopts a second-order perspective on the experience of teaching a practice based subject in design.

The interviews were semi-structured and consisted of questions designed to encourage the respondent to talk about the way they perceived their teaching role and related strategies and intentions. Each respondent was interviewed for approximately 45 minutes. The interviews were focussed on one particular aspect of their teaching e.g. a specific course, module, unit or project which is practice based (i.e. with an aim for the students to learn a practice). Their responses were continually followed up with prompts to probe for a better understanding of the meanings behind their statements.

The interviews were taped and transcribed verbatim, and were read thoroughly and repeatedly. The aim of phenomenographic analysis is to develop categories of description which illustrate the limited number of qualitatively different ways of experiencing a phenomenon. In this paper, a provisional analysis of the categories of conceptions was proposed which was then tested and contested by questioning and probing from a co-researcher. This process is seen as an essential part of researcher learning in phenomenography and also ensures internal consistency and validity (Bowden, 2000; Prosser, 2000). The categories were devised by looking for the variation between responses, and the similarities between statements within categories. Then final descriptions were produced to reflect these similarities and differences. The descriptions of the categories were developed using two components – how the explanation is given and what is focused on (Trigwell, 2000, p. 74).

The categories of description, described in the next section, are internally related to each other. Categories were sorted into a meaningful order, with the 'lower' less complete conceptions first, moving into 'higher', more complete conceptions. The higher conceptions encompass the lower conceptions and are therefore more complete. This is known as a hierarchy of categories of description, the logical relations between these categories are illustrated in the outcome space. The outcome space is not a full rich description of design teaching, rather it is a description of those aspects of design teaching that are seen to have qualitative variation.

(Table 1)

### **Conceptions of Teaching Design**

For the purposes of this study, the subject areas include teaching the practices of graphic design and illustration, interior design, fashion and textile design. The

constant context of each interview was the teachers' practice based teaching as opposed to teaching visual studies for example.

### **Conception A: Teaching is offering students a range of practical and technical skills**

The teacher aims to reinforce technical ability by giving demonstrations and showing individual or groups of students ways of making or doing. The teacher believes that the students need to follow technical topics based on what the teacher feels they need to learn. The emphasis of the learning is on a product or artefact. The intention is to demonstrate or give examples of technical skills.

Structural aspects of this conception are concerned with the teacher's role, in this case demonstrating, showing or instructing students how to make or do something. There is an emphasis on correct procedures and observing or checking that these are carried out correctly or for the students to demonstrate some technical competence. The focus of the teaching is on technical and practical skills. The teacher feels that they know best what skills to develop or to teach and often refer to content or objectives of the course, rules of the practice or other practical parameters which they feel the students must master before progressing in the subject.

The referential aspects of this conception are concerned with a focus on skills or techniques and this is predicated on the teacher's knowledge and experience of those skills. This teacher discusses the focus of her teaching, to demonstrate a process, observe the students practising it and check they understand the practical requirements of the task.

I mean in a discussion group for example, I would also introduce showing examples of mood boards, theme boards, that fashion forecasters use, so I would come to some of those small group tutorials with lots of examples of work, that we would layout and discuss.

*Q: What do you intend the students to learn from looking at the examples?*

For those students who've never had to do a mood board or theme board, I'm hoping that they will through the examples see what it is they're required to do... I show them a variety of different examples which demonstrates perhaps a minimalist look... (Design: SU10)

In this conception the teacher decides what to teach on the basis that they feel the students, although they may have some prior knowledge or experience, need to either start from demonstrations of the basic skills or to improve their practice with teacher guidance. The rules of the practice are seen as foundations of learning in this conception.

Early on it is to increase their visual awareness, the awareness of typography specifically in this module and to become aware of letterforms... and the way these letterforms are used... One of the objectives I suppose is to get them to determine between what is a good typeface and a bad typeface. I know some people would argue that there is no such thing as a bad typeface and that all letterforms have a place. In some ways I prefer them to use a limited number of typefaces and to get to know those typefaces well rather than just using anything and everything at that stage. (Design: SI 1)

### **Conception B: Teaching is developing students' critical, practical and technical skills through student interaction**

The teacher aims to enable students to develop a critical language by working together in groups or teams to present their own work and to see the work of others. The emphasis of the learning is on peer learning and process. The teacher works with individuals, groups or teams with the intention to enable students to form opinions and ideas.

In this conception the teacher still feels it is important for students to develop practical and technical skills, but the emphasis is on learning with others, sometimes in team or group situations and often with an opportunity for critical debate.

...to encourage the way the group works, the peer group interaction is really important, for example, what student over that side of the group might have a key fabric that somebody over the side of the group might be looking for and if there are not using it then its like, well can you give them they address of that. So it is very much dealing with practical issues and it is also reassuring them, a lot of them really do get unsure and quite worried about this module because it is such a big thing. (Design: NT2)

Teachers often describe their role as facilitating or encouraging the process of learning and of developing confidence in learners. In this conception, teachers are keen to emphasise elements of the process which actively engage with students.

### **Conception C: Teaching is developing students' skills and conceptions in the context of professional practice**

The teacher encourages students to manage projects involving complex problem solving skills which are set in the context of professional practice. The emphasis of the learning is on peer learning and process. The teacher works with students

to develop conceptions with the intention to increase self-awareness, individual and team autonomy and for professional preparation.

In this conception teachers believe that real world scenarios or projects as a simulation of professional practice enable high level learning outcomes including problem solving skills.

This teacher believes that if students are brought into contact with practising subject experts they can bring a professional context to bear in relation to their work as well as developing ideas and concepts.

I think one of the things that's most interesting is that when they do come in they're quite gauche and they're very insecure in their ideas, by the end of the module they really should become confident in expressing ideas – visually, orally and intellectually... I think it's because it's a combination of teaching and practice. It's not just one-to-one tutorials. It's also bringing them into contact with experts in the area so that they can actually have a reference point and they can contextualise their ideas in relation to what is actually going on outside. (Design: BN 4)

### **Conception D: Teaching is helping students change conceptions**

The teacher emphasises original research and conceptual thinking skills. The emphasis of the learning is on peer learning and process. The teacher works with students with the intention to improve self-directed research, practice and conceptual skills.

The teacher feels that students should have an ability to relate key concepts to the practice, or to develop practice through critical examination of concepts or theories. Teachers in this conception also stress 'real world' and practice based contexts as in Conception C.

The structural aspects of this conception are still concerned with the teacher's role as a developer and mediator, not just to develop the students' professional practice but to change the student response to design practice in a wider context. The teacher sees their role as a catalyst to change students' conceptions, through critiquing ideas and experiments and by enabling them to engage in wider design issues.

The teacher feels that students should have an ability to relate key concepts to the practice, or to develop and change their practice through critical examination of concepts by which they can develop their own position or voice. Teachers in this conception also stress 'real world' and practice-based contexts as in Conception C. This is also exemplified by a desire to invite practitioners, not teachers, to join in the assessment and critiquing process as a mark of authentic



practice. These invited critics may offer other perspectives such as ethical, sustainable or community elements to design issues which engage with other facets of lived experience beyond the student lifeworld. These invited critics also continue the theme of inducting the student into a wider community of practice by legitimate peripheral participation in authentic design practices.

...students are able to consider the world that they are entering into, the design world. So in a design sense, that they are engaging in wider design issues, which might not be articulated in some narrow practice. There are practices and practices, there are some very good ones, but I am sure you are aware a lot of the criticism that students are no good for anything but practice when they come out, because they have been trained by practices to draw properly and such. I would still maintain that students come out being able to think in a wider context also and that they should certainly should have the wider skills.

*Q: So what do you think is important for them to learn?*

It is quite interesting at undergraduate level, probably students need to have certain skills and be able to be clear about their ability to operate within a design practice. At a wider level I would like them to be quite actively seeking out and looking at a lot of good design and examining what they think to be good driving ideas behind this design. They need to engage with issues of wider design, about design as a whole. I suppose the third thing is, ultimately that they are looking to have their own voice, their own riches and their own position. (Design: BN7)

Referential aspects of this conception focus on the student changing conceptions. To enable students to change conceptions of the subject, of the world and of their work is seen as an integral part of this conception. These teachers talk about expressing ideas, changing conceptions and also about learning beyond the subject boundaries as an aim for teaching in this subject.

I think you're more trying to prepare them just to negotiate the world and negotiate with people, really... I think if we're just assuming they're going into design jobs, I don't think that life works like that any more, there's people doing all sorts of stuff...you're hoping it will enable them to articulate themselves sufficiently to navigate the world and navigate people in it. And then be successful, ultimately, I think, maybe in design, hopefully, but, you know, I've known students go on and become successes in other fields, which means we've done something right, you know... (Design: PR5)

An analysis of these conceptions in terms of their structural and referential components is shown in Table 1. This demonstrates the way the categories have a logical ordering within the outcome space. The community of practice dimension is present in conceptions C and D.

Table 1: Conceptions of Teaching Design: Outcome Space  
**The structural and referential aspects of the categories of conceptions**

Structural	Referential		
Focus of the teaching	Skills	Critical language	Conceptual
Giving information to individual students	A		
Developing students through groups (and individuals)		B	C
Changing students through groups (and individuals)			D

## Discussion

The conceptions of teaching which are described as demonstrating the community of practice dimension illustrate how teachers see learning as engaging with a practice, by exemplars, stories, narratives and through experience. The process of learning becomes one of apprenticeship to the practice, by engaging with the 'real world' practice and understanding the process through narration, collaboration and social construction (Billett, 2001, 2002; Lave and Wenger, 1991). These teachers' experiences, their own practice and engagement with other practice based professionals gives a different dimension to the learning, a non-canonical practice (Orr, 1987; Brown & Duguid, 1996).

Where many teachers of design talk about industry and commerce in relation to a community of practice, some teachers also tend to discuss this in terms of 'being' or 'becoming', suggesting that they see design as a way of life rather than a set of skills for employability or as something that can be easily separated from other parts of a student's lived experience.

Instead of a pedagogy based on institutional teaching cultures a pedagogy of community (Billett, 2002) is based on participation and access to the activities and requirements of the community. Participation in a community of practice is a key premise to understanding learning to practice, including learning the values and appropriating an identity related to that practice.

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