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The experience of teaching creative practices: conceptions and approaches to teaching in the community of practice dimension

Abstract

This paper explores conceptions and approaches to teaching held by academics in departments of art, design and communication and explores links between the conceptions, the approaches and the communities of practice associated with the subject context.

Much of the work which has examined teachers' conceptions built on research frameworks that also explored students conceptions and approaches to learning. This study of conceptions of teaching is phenomenographic, results are presented in the form of an outcome space of the categories of conceptions.

This analysis is enhanced by a quantitative study using the Approaches to Teaching Inventory with reference to the sociocultural perspective on practice, particularly emphasising learning to practice.

This paper concludes with a discussion of the phenomenographic study of conceptions of teaching and the quantitative investigation of approaches to teaching and their relation in turn, to the concept of communities of practice.

Introduction

Most studies of conceptions and approaches to 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 creative 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. These range from the teacher offering a range of practical and technical skills 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 demonstrate 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 Reid & Davies (2000) report, 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).

Trigwell, Prosser & Taylor (1994) reported five approaches to teaching using transcripts from the interviews with 24 university physics and chemistry teachers from an earlier study to conduct their analysis (Prosser, Trigwell & Taylor, 1994). The analysis of categories of approaches to teaching was conducted in terms of the strategies teachers adopted and the intentions which informed those strategies.

Prosser & Trigwell used the outcomes of these qualitative studies to devise the *Approaches to Teaching Inventory* (1993; Trigwell & Prosser, 1996a). Use of the questionnaire confirmed the relationship between intention and strategy which was found previously. The Approaches to Teaching Inventory or ATI was developed to measure the variation in the ways teachers approach their teaching in a particular situation as it is a relational instrument. The teaching of art and design subjects is often described in ways that are quite different to descriptions of teaching in more traditional subject areas such as science. Less use is made of lecturing and lecture notes, the activities that are employed tend to be more studio and project-based, and involve smaller groups of students than in the more traditional areas.

Studies which embrace the sociocultural perspective on practice, particularly emphasise learning to practice in various settings. Learning to practice, whether in the workplace or simulated settings is seen as a move towards full participation in a community of practice (Lave and Wenger 1991; Lave 1993). That move to full participation takes place by engaging in 'legitimate peripheral participation' which is taking part in the authentic activities of the practice, albeit with guidance, and at the edges of the community. These views emphasise social practice as a premise for learning and that 'knowing in practice' arises from participation in that social practice (Billett 1998).

Learning that results from 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). Billett argues that a non-dualist view of learning is becoming more accepted, based on the concept that there is an inseparable relationship between an individual's knowing and their social life-world (Rogoff, 1990). Many would argue that preparing learners for life as a creative practitioner, be that as an artist or a photographer, is essentially preparing them for solitary work. Rogoff (1990) suggests that cultural practices and norms shape even the most apparently solitary activities. This is further confirmed by Billett (2001):

An artist working in the isolation of his studio reported shaping his practice to account for situational factors determining the kinds and purposes of his work that included physical environments and consideration of the market (p. 444)

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). Lave's study of the apprenticeship of tailors in Liberia during the seventies identifies how the tailors were primarily making ready-to-wear trousers, but the apprentices also learned other important contextual factors about being a tailor:

... they were learning relations among the major social identities and divisions in Liberian society which they were in the business of dressing. They were learning to make a life, to make a living, to make clothes, to grow old enough, and mature enough to become master tailors, and to see the truth of the respect due to a master of their trade.

(Lave, 1996, p 159)

The cornerstone of these issues for professional learning can be summarised as learning to practice or becoming inducted into a community of practice (Wenger, 1998). Wenger further defines the role of *participation* in a practice in it's relationship with the *reification* of artefacts or processes particular to the practice. Wenger regards participation as 'the social experience of living in the world' (1998, p.55) which involves acting, thinking and feeling as a whole personal experience. It is from participation Wenger argues, that an *identity of participation* is constituted through the relations formed in participation itself.

The Approaches to Teaching Inventory (ATI) has been used to measure variation in approach to teaching in design teaching contexts (Trigwell, 2002). In that study it was found that, as in other teaching contexts, there is significant variation in descriptions of how teaching is approached in design subjects, and that overall, the approaches adopted by design teachers are described as being more student-focused than in most other areas of higher education teaching. The results also suggest that when design teachers describe their approaches as student-focused they are more likely to say they learn more during the teaching of their subjects and are more likely to give students the opportunity to explore their own creative ideas, than when the teaching is described in terms of teacher-focused, information transmission. The Approaches to Teaching Inventory was found to be an acceptable indicator of qualitative variation in teaching approaches in creative fields such as design.

Qualitative Method

The data is from an interview study of 44 teachers from eight UK Universities and is explored with a phenomenographic approach (Marton and Booth, 1997). The analysis was grouped into three discrete sub-disciplines, fine art (11), design (18) and media (15), through which variation in the practice dimensions could also be discerned. Opportunity sampling was used to identify the eight university departments of art, design and communication. This paper adopts a second-order perspective on the experience of teaching a practice-based subject in art, design and communication departments.

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. 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 case the experience of teaching a practice based subject in media, fine art and design. 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 teaching, rather it is a description of those aspects of teaching that are seen to have qualitative variation. (Table 1)

Conceptions of Teaching Creative Practices

For the purposes of this study, creative practice teaching is described in the context of media, fine art and design. These subject areas include teaching the practices of journalism, film making, television and video production, animation and photography, fine art, painting, sculpture, printmaking and related visual arts, graphic design and illustration, interior design and architecture, 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.

This teacher discusses the focus of his teaching, to demonstrate a process, observe the students practising it and check they can do it.

First of all I will demonstrate how to correct, then we move onto something a bit more complicated, I've got these cans of Coke in the studio back there. Then I can show, if I have the camera that way they're all out, with the movement,

they're all sharp. Okay that's fine, they're all sharp, But the camera's off thickness, the camera is called a female, you need to get it sharpened over there, we lose light so we have to increase the exposure and so on, just the basics, and then I've got them to do it, and I've got observation sheets which I tick off and they can demonstrate to me that they can actually do it, and I observe and tick off the observation sheet. (Media: PR13)

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.

So reflection, there's a kind of debate over whether journalists reflect or not, but we feel its important for students here to play out a lot of ethical situations and scenarios and practical professional situations is a safe environment before they enter the industry, so we do encourage them to reflect, compare and contrast, look at real life journalism is and how it compares to what they're doing. (Media: PR15)

The 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. Some teachers of fine art further described their teaching role as being an artist with students in the role of apprentices to the practice of fine art making. Apprenticeship is seen as a positive experience of being inducted into the fine art social context as well as the extension of practice and making art.

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.

Well, from the seminar presentation I guess that we are encouraging them to do what I was saying before, to take an area of theoretical work and to apply it to an example or a case study, and they have to learn to critically examine and reflect on that theoretical work in terms of what their thoughts are on that topic. But of course more generally, more generically, I think that they are developing their skills for research and presentation. I think that that's very important in terms of everyone doing this thing, but I mean, these are transferable skills, the ability to take a brief, and come back with a lively and animated presentation on that and to engage other people in it I think is a skill that is essential to a lot of areas in the media practices anyway. So in the seminar I think that that is an important element of it, they are developing still, or researching presentations, and working with colleagues as well. (Media: PR11)

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. Teachers talks about expressing ideas, changing conceptions and also about learning beyond the subject boundaries as an aim for teaching in this subject.

Conception E: Teaching is helping students to change as a person

Teachers holding this conception again emphasise original research and conceptual thinking skills and peer learning and process. They differ from those holding Conception D in seeing teaching as a way of enabling students to change themselves as a person or to make changes in their lifeworld.

...each student comes away with having achieved something, and achieves something that takes them to another level of their existence, that's a bit ambitious but they have grown whether or not they have learnt anything technical about photography, is of less interest too me, I think they need to move on in their own lives and if they can produce a project with some collaboration with outside agencies or in the wider sense that it might be a scientific institution or a group of young mothers in an organisation, so, photography is not seen simply a means to an end, but as a real way of shaping how people understand themselves and the world around them. (Media: FC14)

Teachers also express aspects of changing as a person in this conception as relating to their practice, to concepts of creativity and beyond the practice into the student lifeworld.

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, D and E.

Table 1: Conceptions of Teaching Creative Practices: Outcome Space

The structural and referential aspects of the categories of conceptions

Structural	Referential			
Focus of the teaching	Skills	Critical language	Concept ual	Student lifeworld
Giving information to individual students	A	ianguage	uui	mewona
Developing students through		В	C	
groups (and individuals) Changing students through groups (and individuals)			D	Е

Quantitative Method

The additional 9 items used to capture aspects of skills and communities of practice were designed using data from interviews with teachers (Drew & Williams, 2002). The interviews were conducted with 44 practice-based teachers of art, design and

communication to explore their experience of teaching in terms of both conceptions and approaches to teaching. The interview data on approaches informed this version of the inventory (ADC-ATI). Items were added to the ATI using data collected from the interviews which pertained to aspects of teachers focus on skills and developing communities of practice. The ADC-ATI was distributed to teachers of art, design and communication in UK universities and institutes. 73 returned questionnaires were analysed. The Approaches to Teaching Inventory or ATI (Prosser & Trigwell, 1999) was developed to measure the variation in the ways teachers approach their teaching in a particular situation.

It has 16 items.

- 8 on a sub-scale describing an approach which is intended to change student's conceptions or ways of seeing things through a focus on the student. This sub-scale is labelled conceptual change/student-focused or CCSF for short
- 8 on a sub-scale describing an approach concerned with information transmission and a teacher-focus, labelled ITTF

The full 16 item inventory and its use as a relational instrument is discussed by Prosser & Trigwell in their book (1999). The declared aim of this research is to seek relations between these areas, that is, student learning and teaching, in order to derive conclusions for the development of teachers. Research into teacher approaches therefore acknowledges teachers' conceptions and consequently aims to help to improve student learning outcomes by coming to a better understanding of what it is that teachers think and do when they go about their teaching. The only issue for the use of the ATI in the art, design and communication context was the language used in the inventory itself. An adaptation of those items had already been undertaken for a study into approaches to teaching in design contexts (Trigwell, 2002) and as a consequence I gained permission from the inventory's authors to use this version.

I added to this version of the inventory items which pertained to aspects of teachers focus on skills and developing communities of practice. I added items to the ATI using data collected from the interviews, in other words, I used statements made by interview respondents in the approaches section of their interviews and clarified aims, intentions and important issues relating to teaching which focuses on skills or on developing communities of practice.

A factor analysis of the responses to the nine items (table 2) shows that three items which focus on skills development (3, 6 and 9) load heavily on Factor 2, and four items which focus on developing a community of practice (15, 18, 24 and 25) load heavily on Factor 1. These items were combined to form scales, called Skills and Practice respectively.

Table 2 Principal Components factor analysis (with Varimax rotation) results of the nine skills/practice inventory items

		Factor	
Item	1	2	3
3	098	.810	029
6	040	.856	036
9	.126	.681	.337
12	.162	.137	.740
15	.738	.026	159
18	. 811	.069	.255
21	.126	020	578
24	.574	.316	492
25	.798	273	015

N = 73; Eigenvalues >1.00

I added four items relating to practical skills development (items 3, 6, 9 and 12). Following analysis item 12 was not used in the Skills Scale.

Skills Items

- 3 My aim in this subject is to develop students' technical competence in basic skills.
- 6 I think that an important reason for running teaching sessions in this subject is to demonstrate technical procedures correctly.
- 9 Being able to use the basic skills is a key aim I have for students in this subject.
- 12 In this subject, I think it is important for students to have opportunities to practise their skills with my support.

I also included five items relating to developing communities of practice (items 15, 18, 21, 24 and 25). Following analysis item 21 was not included in the Practice Scale. Item 25 helped respondents to discern whether a *Practice* approach was more or less important to them than a *Skills* approach.

Practice Items

- 15 I feel that it is important for students to experience the practice in a "real world" situation in this subject.
- 18 In this subject I help students apply their skills to "real world" projects.
- 21 I think it is important in this subject for students to develop their practice through individually negotiated study.
- 24 To get students to think and act like a practitioner is my aim in this subject.
- In this subject I feel it is more important for students to engage with "real world" projects and to act like a practitioner than to develop and practice basic skills.

Results

The structure of the scales has been explored by factor analysis and correlation analysis. In this section, overall scale scores for all four scales are further subject to PCA factor analysis (Table 3). The four scales are also analysed in a correlation matrix (Table 4).

Table 3 Factor analysis of all four scales

Scale	Fac	ctor
	1	2
CCSF	249	.786
ITTF	.872	.168
PRACTICE	.244	.796
SKILLS	.866	171

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization, a Rotation converged in 3 iterations.

Two factor solution: Eigenvalues >0.1

The figures shown in bold are for loadings above 0.5. Information transmission/teacher-focused approach to teaching and Skills load heavily on one factor and a conceptual change/student-focused approach and Practice load heavily on the other factor. This factor analysis says nothing about the individual teachers, but does say that more of a student-focused approach is related to more time spent on real world and practitioner related problems. Conversely a teacher-focused approach is related to the development of skills.

This result has implications for the development of teachers of practice-based subjects if both a student-focused approach to teaching and a practice orientation are observed to have strong relations. This set of relations in the factor structure of the scales is further explored in the correlation matrix of the scales (Table 4)

Table 4 Correlation analyses (Pearson, r) for the four scales in the ATI-ADC

	Scale					
Scale	CCSF	ITTF	SKILLS	PRACTICE		
CCSF	-	-0.05	-0.22	0.27*		
ITTF		-	0.56***	0.23		
SKILLS			-	0.02		

CCSF approach scores correlate positively (r=0.27) and statistically significantly (p <0.05) with a focus on using "real world" problems (*Practice*). CCSF approaches also correlate positively (r=0.36) and statistically significantly (p <0.01) with the view that learning to act like a practitioner and to tackle "real world" problems is more important than the development of skills (i25) (not shown in Table 4). However, these teachers still do develop and practice basic skills with their students, but in the context of the studio or project based learning. This finding helps us to understand that, in the teaching of creative practices, the student-focused approach also aligns with an approach in which teachers encourage their students to learn through authentic practices ("real world" projects).

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 to 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; Lave & Wenger, 1991).

There is a widely held view in university level teaching that a student-focused or student-centred approach helps students to develop as individuals and also fosters approaches to learning which can lead to higher quality learning outcomes (Trigwell, Prosser & Waterhouse, 1999). From the study described here, it can also be added that in the teaching of creative practices the student-focused approach also aligns with an approach in which teachers encourage their students to learn through authentic practices ("real world" projects). If teachers of these subjects value the induction of their students into the community of their practice then it also follows that they should develop both a student-focused approach and a related practice focus to their teaching. This has significance for the development of teachers in these subjects if high-level student learning outcomes in practice-based courses are a desired aim for the teaching.

When teachers describe their approach as being more student-focused, they spend more of their teaching time on "real world" and practitioner related problems. On the other hand, when teachers describe their approach as being more teacher-focused, they report

adopting a focus mainly on skills development. It should be emphasised here that most or all of the teachers in this study do develop skills with their students, but those with a student-focused approach focus more on inducting students into the community of practice by using "real world" projects and studio or practice-based approaches. If teachers of these subjects value the induction of their students into the community of their practice then it also follows that they should develop a student-focused approach and a related practice focus to their teaching.

This study confirms the views held by both Wenger (1998) and Billett (2001) that a skills based approach to learning to practice is simply not enough on its own. There also is evidence here that a skills based approach corresponds with an Information Transmission/Teacher-focused approach to teaching. Those teachers who do integrate skills into "real world" projects and studio or practice-based approaches, help learners develop competence in those skills so that they can construct an experience of meaning.

The approaches to teaching scores in art, design and communication obtained in this study, as with one previous study (Trigwell, 2002), show high levels of adoption of student-focused approaches. These teachers are describing their approaches in terms of using time to question students ideas, of using difficult or undefined examples to provoke debate, of engaging in discussions with students, and of assessing students in ways that get at their changing conceptual understandings.

In all reported cases of its use, including the results from this study, described above, the Approaches to Teaching Inventory yields interpretable data in the form expected using the educational principles from which it has been developed. For example, Conceptual Change/Student-focused approaches are found to relate positively with students' deep approaches to learning (Trigwell et al, 1999), with perceptions of a manageable workload, some control over what is being taught, a manageable class size and small variation in student characteristics (Prosser and Trigwell, 1997) and with teacher learning (Trigwell, 2002). From this study can also be added the correlation with a focus on the development of professional knowledge for the 'real world'.

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