I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

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Word count: 30,688 words

London University

Institute of Education

Doctor in Education

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2006

Title: **Perception, Interpretation, Impact - An examination of the learning value of formative feedback to students through the design studio critique**

Acknowledgements

Abstract

The studio critique (crit) is a firmly established and fiercely defended part of undergraduate art and design education, both here in the UK and in many other parts of the western world. It is an established and important part of a studio-based culture, where teachers and students can discuss, experiment with and develop ideas and concepts within a 'supportive environment.' This thesis examines the role and nature of the formative feedback received by students and given by teachers and sometimes student peers at the crit, and examines the crit's contribution to design students' current and future learning.

The data in this study is collected through a series of individual interviews with design students and teachers, together with interviewed student focus groups and crit observations in three UK Institutions. This data is analysed with reference to current literature on formative assessment and feedback and student learning.

The thesis premises that how effectively students learn in the critique and the understanding and benefit gained from the formative feedback they receive is not just reliant on the quality and focus of the formative feedback, but could also be affected by other factors such as the power position (Devas, 2004, Sara and Parnell, 2004), the stress factor (Pope, 2005) and what Kluger and DeNisi (1996) call the self or meta factor, where the quality of feedback interventions together with students' prior learning experience or understanding (Prosser & Trigwell, 1999) can impact on students' persona of themselves. This can affect the cognitive resources applied to the activities of the critique. The thesis identifies four main learning activities in the crit and suggests that cognitive learning is often impacted on by four main categories of perception of self. This, the thesis argues, can result in impaired or surface student learning.

Contents

Supporting Statement

I embarked on the EdD six years after completing an MA in Art and Design Education at the Institute of Education. When starting the EdD I knew the area I wished to focus my research around was that of assessment in art and design with reference to subjective as well as objective tacit knowledge. During my time on the programme I have changed jobs and my professional role has taken on new responsibilities that have influenced my choice, emphasis and response to assignment topics.

When I started the EdD I was a course director in charge of a studio based undergraduate design course and was very much at the 'coal face' as far as student contact was concerned. I was interested in looking at art and design assessment and the debate around subjective / objective assessment and the role of teachers' tacit knowledge within these disciplines. For example: the " I just know it's a 2:1" explanation to marking and how this is then explained to the student is a particular interesting area to examine and reflect on.

Foundations of Professionalism - Shifting Sands? The changing professionalism of art and design education - looks at professionalism and reflects on aspects of professionalism in design education. This assignment allowed me the opportunity to review the changes that were taking place in art and design education - the increase in student numbers, the rapid shifts in technological advancements which were both changing the face of the one to one atelier (master/apprentice) system of studio-based teaching. This is what Swann (2002) referred to as 'Sitting by Nellie' where the teacher sits with the student and tells them what to do next. In HE teaching and learning at this time there was an even greater shift to a more independent student-centred learning culture. This already existed and had been central to art and design pedagogic

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practice, especially in the fine arts where students had always negotiated and driven their own learning programme. I myself had experienced this system as a student. But now, with the requirement for a more paper tracking record evidence base, teachers are having to shift even more their way of working and approaches to art and design curriculum and pedagogy. In this assignment I looked at the literature on reflective practice (Schon, 1983) and at the link between 'knowledge experts' and 'pedagogic experts' and at what Hoyle (1974) discusses as extended and restricted professionalism.

This assignment introduced me to literature debates on professionalism and was a very useful piece of work in allowing me to reflect and locate my own current pedagogy within a broader theoretical forum and my EdD studies.

Method of Enquiry 1 - 'Group and Self Assessment - issues of gender and culture for overseas students developed one of the issues I was interested in and had identified within art and design pedagogy. In this piece I looked at current practice in assessment methods and explored the gaps that have appeared through the shift in culture in art and design education discussed in the previous piece -such as increase in student numbers. Bond (1995) states how this impacts on teachers and the importance self and peer assessment plays in this debate.

> This is a major challenge for all staff....They will need to become researchers of students perceptions, designers of multi-faceted assessment strategies, managers of assessment processes and consultants assisting students in the interpretation of rich information about their learning. (p.43)

I identified issues such as differing cultural approaches to teaching and learning and how the expectations of overseas students could be at odds with UK teaching practice. Also, as much of art and design is verbal discussion and

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exchange both formal and informal, the cultural differences and traditions

especially where female students are concerned raised interesting questions.

Jin & Cortazzi (1997, p.76) suggests there is a need for

> Learning to communicate across cultures and communicating for
> learning across cultures'.

As this was a methodology piece, I attempted to propose a methodology to

research this further. As in all my research, I have been more interested in

taking a qualitative perspective rather than a quantitative. Because of the

nature of art and design education the practice of studio-based teaching has

until now been about debate and exchange between students, their teachers

and peers. I wanted to design all my project methodologies to echo this, so

preferenced action research - interviews and observations with some

questionnaire response. Throughout the doctoral programme, I have always

found quantitative methodologies to be the most suitable for the small scale

studies I have been researching, my research interests being centred around

the opinion and evaluation of what individual students and teachers think.

Methods of Enquiry 2 - 'Students understanding and experience of self and

peer assessment and whether the issues are common to all students or differ

because of cultural and educational backgrounds' . This was a proposal for a

small sample study looking at a group of 30 students divided equally between

home and overseas students from my home institution. The methodologies

selected were a student questionnaire on peer and self assessment together

with students' own written self evaluation forms for project assessment. This

was a comparative study between the two groups. This assignment acted as a

trial pilot project to select and trial appropriate methodologies which I had

encountered in my taught sessions and reading. This piece of writing and

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analysis was invaluable as it showed up my inexperience as a researcher and allowed me to reflect on this before taking on a pilot study.

In my professional work the forming of the QAA had impacted on the everyday pedagogic practice. There was an increasing rise in paperwork for audit and subject review and a shift in assessment, especially with the introduction of learning outcomes into the vocabulary. The formation of the QAA and subject review meant that I took on a more quality assurance role in the school related to the introduction of the category for teaching, learning and assessment. This required a clearer articulation and specification of learning outcomes, assessment strategies and assessment criteria which now appeared in project briefs and later in module guides (much of art and design was still transferring into a modular system at this time). The newly written subject benchmarks for art and design assisted this process offering guidance on categories to be covered but erring on the side of caution -'playing safe' - which is not how the generic philosophy of the subject discipline is usually viewed. During my time on the EdD, I had been involved in subject review, both as a reviewer and in my own institution and I took on the role of quality manager in my school. In my role as a QAA peer subject reviewer for art and design I noticed that words such as creative or experimental were disappearing from learning outcomes and being replaced by 'safer' less controversial descriptors often just describing skills attainment. I observed that what staff wrote in learning outcomes became very broad and the assessment requirements were if anything more generic and less clear than previous projects. The assignments I did for the EdD helped to inform my professional role at this time. As the **Specialist Area 1** assignment came just after the first round of subject review, I decided to examine and reflect on the role and affect the QAA had had on the sector, examining its purpose and objectives and success as an organisation. - What is the rationale for the

setting up of the Quality Assurance Agency? Does the way it has been conceived, make it possible to achieve its objectives?

By **Specialist Area 2** I definitely wanted to concentrate my further study around the area of formative assessment and student interpretation and understanding of feedback. I needed to have a greater knowledge of the current and past literature around this area to inform future projects/ assignments so for my sixth assignment I wrote a 'Critical review of formative feedback/assessment examining how it effects learning'. This assignment has informed both my IFS and my Thesis, although both of these have been updated since this original piece was produced. This assignment allowed me the opportunity to look at assessment in more detail and to interrogate what was validity in assessment (Messick, 1993). This area I found quite challenging but interesting, coming from a subject area where much of what is assessed remains subjective. An important aspect this piece highlighted was that within the art and design pedagogic area there was very little research into formative assessment, although this is such a central element in the pedagogic framework and curriculum.

At this stage in my course, I moved Institutions and took on a senior management role without any teaching responsibility but with a strong facilitating role in learning and teaching. My contact with undergraduate students was now through examination boards and student forums. It was evident in these fora that students had an unclear understanding of assessment and feedback. I was interested in the students' understanding of the whole assessment process and so I looked at this in more detail during my **Institution Focused Study** - Interpretations of Assessment - A study of students' understanding of the assessment criteria used in Art and Design

<u>undergraduate courses</u>. This assignment allowed me the opportunity to carry out a small focused study in my home Institution. This was an invaluable exercise as it allowed me to try out action research and discover the weaknesses and strengths of my methodology and analysis before carrying out my final thesis piece of work. I discovered that there is often more data collected than you can use and keeping the data collection focused is vital and that the size and time management of the project is critical. I really enjoyed doing this assignment and was excited by some of the findings that resulted. After completion of this piece I shared the findings with colleagues in my institution and at two international conferences. This allowed a further debate and scrutiny of my work, which was invaluable. The IFS led quite seamlessly to my thesis topic, which is more focused on the learning value and understanding of formative feedback to students. Before writing this summary I thought the individual assignments had some synergy but what has become evident is the clear evolvement of the thesis, informed and focused through my previous assignments and influenced by my changing work environment and practice.

When I started the EdD I did have a conception of the work commitment I was undertaking, but I was less aware of the motivational and emotional commitment which was required. The support I have received from my supervisors and the staff on the course has been key. The whole programme has given me a unique opportunity to reflect on learning and teaching practice within my subject area and contextualise this within the theory of a wider practice. It has also changed my perception of my own pedagogic role. Before the EdD I regarded myself as a design practitioner who was also a teacher. I am now a design pedagogic researcher and learning and teaching facilitator.

Chapter 1

Introduction:

> What we say is often less telling than how we say...What we see is
> often more potent than what we are told...What we learn is often
> not a matter of fact, but a matter of being, a way of thinking.
> (Senturer, A and Cihangir, I. 2000. p.73)

How we communicate and what we communicate to each other, together with

the experience of what is communicated to us, can influence our outlook and

attitudes and help to mould the way we respond to situations and environments.

Design education, as in all creative arts, is not an exact science and much of

what is taught and what is learnt is interpretative. Within the discipline, there is

an ongoing, continual debate between whether feedback is objective or

subjective.

> Design itself is an activity which is both utilitarian and expressive ...
> the designed object is orientated both inward, towards the designer's
> personal choices, and outward, towards the requirements of, for
> example, the manufacturer or consumer. (Oak, 2000, p.87)

In undergraduate design education, teachers or peers communicate their mainly

subjective observations to the student, through verbal and written dialogue and

feedback. This feedback can be received through a variety of forums, both

formal and informal, the most common formal environment for this feedback

being through the studio critique. This thesis examines how design students

interpret the formative verbal feedback they receive at studio critiques (referred

to in future as the 'crit') and how they perceive the impact this has on their

current and future learning.

Design development involves the individual designer in much conceptualisation

and inward-looking analysis, which may not always be obvious to those

observing the product from outside. Understanding this conceptualisation is not

a necessary requirement for an outside audience, in order to comprehend or

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appreciate the design. Within design education, the studio crit can allow the opportunity for a critical verbal analysis, a clarification and understanding of the creative idea or concept, together with an explanation of the thinking process the design student has gone through. This analysis and understanding is of benefit to both the designer and to their student peers and teachers, as it allows a clarification of thinking and understanding for all parties and a sharing of process. It would seem, from this description, that the value of the crit, and what students can learn through this event, is a sound pedagogic experience for all involved. So why question its worth?

Rationale

My rationale for carrying out this study is:

- a review of practice. The crit, as a learning and teaching tool has stayed more or less the same for the last 50 years, unlike most pedagogic development and practice.

  It is also striking quite how universal the model of the crit is throughout the world – a kind of unthinking, and uncritical, perpetuation of what is thought to be best. (Sheffield Architecture review.2004)

- that with the exception of architecture, there has, within the design discipline, been minimal research into the role and function of the crit in student learning. Why has the practice remained the same? Is the crit as sound educationally as we believe? Does the 'if its not broken don't mend it' scenario ring true?

- my research interest in formative assessment in Art and Design. The studio crit is a key arena where this takes place. Prior research (Blair, 2003; 2004) indicates that the verbal feedback students receive in studio crit sessions, together with student written feedback, concludes that students' interpretation and understanding of verbal formative

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feedback is not always the same as that perceived by their teachers. What effect does this have on the students' current and future learning experience?

Oak (1998), during her observation of a studio crit, concluded that the design activity, although it may not be seen as such when first considered, is a 'profoundly social' activity, where designers, and I include architects in this definition, are often working in groups with other designers and also with technicians, clients and consumers. This scenario is traditionally replicated in design education, where students work in communal 'studio' spaces and workshops alongside design students and students from other disciplines, together with their design teachers, technicians and visiting design consultants - occasionally also working with invited outside clients.

Within design education, students spend the major proportion of their contact time with their peers and teachers in the studio / workshop environment. There is both a continuous, ongoing, informal dialogue within the studio environment as well as the more formalised timetabled verbal sessions. These formalised sessions usually take place within the following scenarios;

Briefing sessions of projects, where the teacher or client introduces the students to the project requirements and where students have an opportunity to clarify what these requirements are.

Tutorials which in the case of design can vary from one to one sessions with a teacher to small group sessions of 5-6 students facilitated by a teacher. These can be to clarify queries or for students to get feedback on the work and for teachers to monitor student progress and thinking.

<u>Seminar groups</u>, which can be student or teacher led and, as above, are used for clarification, discussion and feedback between small groups of students or to allow generic feedback to the group by the teacher.

<u>Crits</u> as explained in the next paragraph.

Design education currently consists of between 75%-80% of the student curriculum; being concentrated around 'doing' and 'making' rather than the more traditional 'solitary reading, attending lectures and seminars' (ibid. p.416) which is the common practice of many other higher educational disciplines. Students work to project briefs that can be either set by others - teachers, professional clients - or are student self-initiated. These projects encourage students to 'look inward' and develop further their own individual creative expression, inspiration and style, whilst at the same time keeping sight of the function of the design and who the client or consumer for this design product /artefact may be. Much of the conversation that takes place in the studio is informal, with students discussing and exchanging ideas with each other, as well as individually and in small groups with their teachers. These sessions allow students the opportunity to ask questions for clarification or to seek their teacher's approval to develop and take an idea or concept forward to the next stage.   This activity continues throughout the project and the development process.

> Knowledge is viewed as a set of conditional interpretations,
> descriptions and models, subject to continual change and revision.
> Notions of 'objectivity' have tended to be replaced by ideas in which
> observer and observed, subject and object, are interdependent
> rather than discrete. (Danvers, 2003, p.56)

As mentioned above, the main formalisation of this studio dialogue takes place through the studio crit, which usually happens near the end of a project, either just formatively, giving the student the information on 'how to get there' (Stobart, 2006) before any summative marking is done, or, in some institutions this may

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be given parallel to the summative marking. At the studio crit, students are asked to present their ideas and 'product' to the group, explain their thinking process and receive formative feedback, most commonly in a verbal form, from their tutors and sometimes also their student peers. The crit allows teachers to bring together and share, in a group environment, points of clarification or discussion which may arise as areas of concern, weakness or strength during the development of the project. The crit also allows the student to practice and develop presentation skills and the articulation of their thoughts to an audience.

> Crits are significant occasions in a student's educational career as it is partly through them that the students gain experience in expressing their design-related ideas. (Oak.1998. p 416)

But what do students learn from this experience - and is what they learn the same as that which teachers and the literature state should be taking place? In practice, the picture is more complex than the literature would suggest. Crits have a dual orientated pedagogic interaction: both being directed inwards towards the course requirements but also outwards, looking at the requirements of the 'real professional design world'.

> Instructors assess a student's design work as an assignment and in terms of how successful it would be if it was a 'real' object or building out in the 'real world'...
> Teachers take on the role of the client and students act as 'hypothetical professional designers.' (Ibid. p.419)

I have taught in art and design higher education for 30 years and have been involved in studio-based pedagogy through my own practice as a designer and teacher. The whole premise and concept of design is communication to an audience, whether this is of the conceptual thinking and the initial idea or of the final product / artefact. If this communication, whether through dialogue or through the matching of audience perceptions to product, is not articulated successfully then the design can fail to communicate its' function or relevance. Despite this, there remains an expectation from some designers that the

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'product', if it is successful, will always 'speak for itself' and there can be reluctance, from some designers - both teachers and students, to have to verbally articulate or justify their 'creation'. They expect it to either stand or fall on its own merits, without further explanation.

How will this research add value to my professional role and career?

In my current academic post, I oversee 20 undergraduate studio courses with about 1700 students. My role is to ensure a parity of experience for all students, regardless of course. My professional role includes being that of a facilitator, to help develop and disseminate good practice within these studio-based courses. I would like this research to help inform future design education practice, with particular reference to the role of the crit within studio-based teaching. As will be illustrated through this study, the pedagogic literature in design disciplines is still very small, especially in the UK. I hope that this study will contribute to and help widen the forum for this debate.

Chapter 2

Critical review of formative feedback/assessment and how it can affect student learning

<u>What is formative evaluation?</u>

Black and Wiliam (2003) tell us that although formative evaluation in connection with the curriculum and teaching had been discussed by Scriven (1967) 'it was Bloom et al. [1971] who first used the term in its' generally accepted current meaning' (Black & Wiliam. 2003. p.623). At this time, summative evaluation tests were differentiated, as those tests given at the end of episodes of teaching (units, courses, etc.) for the purpose of grading or certifying students, or for evaluating the effectiveness of a curriculum. Bloom et al (1971) defined formative evaluation as that which the student and teacher 'would find useful in helping them to improve what they wish to do' (p.117). This formative feedback can take place at any time during the project or unit of study, one purpose being to allow an opportunity for ongoing improvement, but it is a complex concept which I will go on to explicate.

Although formative feedback / evaluation is not new (Ramaprasad, 1983; Sadler, 1989; Elshout-Mohr, 1994), it is around the 1990s that the research literature started to recognise that it was an important element in student learning in schools and also, more importantly for this study, in higher education. There could be a variety of factors influencing this:

- the change in structure of higher education and the introduction of modularity to the course curriculum

- the increase in student numbers entering higher education and a review of assessment practices in light of these numbers

- the growth in a more visible accountability with the introduction of QAA audits and subject reviews (which categorised assessment together with learning and teaching)

Also, at this time there were many studies into the function and role of assessment (Boud, 1989; 1990; Race, 1996; Shepard, 1989; Torrance, 1993; Wiliam & Black, 1996).

This meant that the process and role of assessment was more closely 'under the magnifying glass,' resulting in a review of practice and more varied approaches to assessment being sought.

To allow as broad a perspective as possible, I have examined the literature both in school and higher education and research studies from a range of subject areas, not just art and design. I have also looked at the education literature from other countries, especially Australia and New Zealand, (Crooks, 1989. 2001. 2002; Boud, 1989.1990) where parallel research into formative feedback and assessment was being carried out at the same time as that in the UK.

Unlike the established practice of formative feedback / assessment in art and design, which goes back to before the 1950s, the educational literature on formative assessment in art and design is small and only fairly recent. The main research on design assessment in studio-based courses can be found mainly within the discipline of architecture.

In order to inform my study, I intend to examine

- how the literature defines formative feedback / assessment
- what the literature states is the role and effectiveness of formative assessment in student learning, examining what the teacher's and

students' roles are in this process and what circumstances need to be present for this to take place.

- what are the factors according to the literature that may interfere with learning taking place?

Finally I will examine

- The relevance of the literature findings to the formative assessment practices in art and design education.

What is Formative Feedback / Assessment?

Assessment is discussed in educational literature in both summative and formative terms. As Black (1993, p.7) concluded in his investigation into assessment and classroom learning,

> the term formative assessment does not have a tightly defined and widely accepted meaning.

Through my own research, I have also found this often to be the case and that there is still a confusion within design education, with conflicting definitions being given by both teachers and students when questioned on what exactly is meant by the term formative assessment (Blair, 2003; 2004) and how this differs from summative assessment. Crooks, 2001; and Elwood and Klenowski, 2002; offer a simple and clear definition of summative versus formative:

> Assessment of learning versus assessment for learning

Roos and Hamilton (2005, p.18) in their 'cybernetic' viewpoint of formative assessment, conclude that formative and summative assessment require different conceptions of learning and these conceptions entail 'distinct conceptions of mind'. They define cybernetics as the study of inputs and outputs, but these do not necessarily have to compliment each other with each input being matched to a recognised output at the same time. They see

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cybernetics as a 'formative element' that can be stored and utilised at a later time. It is a part of on-going rather than instant learning. In some recent literature studies, the emphasis of formative assessment / feedback has shifted from the establishment by both teacher and student of 'present understanding and skill development to determine the way forward' (Ramaprasad, 1983) and keeping the student on the right path (closing the gap) to more of a focus on student-centred learning, where the student takes a more pro-active role and more responsibility for their own learning.

> Formative assessment is intended to promote further improvement
> of student attainment. (Crooks, 2001,p.1)

Crook's definition implies that there is now a greater recognition that formative assessment is an integral part of the learning process, and that feedback can lead to further learning development, rather than just being a clarification of present learning and what needs to be achieved to fulfil the assignment's goals. It is this form of formative feedback / assessment which has relevance to this study and the pedagogic requirements of art and design, where, rather than the more traditionally accepted mechanistic approach of 'closing the gap', the standard or goal cannot be clearly specified. Divergent beliefs are encouraged in these disciplines rather that the more widely practiced convergent beliefs of some other subject disciplines, such as medicine or engineering.

> Individuals and groups within a particular cohort may develop
> radically different modes of learning and signification grounded in
> divergent beliefs and values. In contrast to convergent learning in
> which learners are drawn towards a common body of knowledge,
> beliefs and values - towards definite conclusions and pre-
> established solutions - in which differences of opinions, ideas and
> practices may be discouraged, and risk taking minimised. (Danvers,
> 2003, p.51)

Feedback may be both received or given at different points in a project / assignment of work. In the design studio, this can be at the end of an assignment, with or without a summative grade, or more often at an interim or

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pre-grading stage, to allow changes, development and further learning to take place during the process and concept / development stage. In the context of this study, I am looking at the verbal formative feedback students receive from teachers and their student peers at crits, which are purely formative and separate activities to the awarding of summative grades.

> Evaluation, used to improve the course, while it is still fluid, contributes more to improvement of education than evaluation used to appraise a product already in the market place. (Roos and Hamilton. 2005. p.8)

The role and effectiveness of formative assessment in learning.

A variety of research studies have established that formative assessment and feedback can affect the quality of the learning (Sadler, 1989; 2005; Crooks, 1988; 2001; Harlen & James, 1997; Ramsden 1997; Torrance, 1997; Black & Wiliam, 1998; Torrance & Pryor, 1998; Gibbs, 1999). Even though there are varying definitions as to what is formative assessment, the characteristic which is shared is that formative assessment is intended to promote learning. Black & Wiliam (1998) state that a consistent feature they found in all of the studies they reviewed was that

> attention to formative assessment can lead to significant learning gains. (p.17)

How can we ascertain, from the literature, how effective formative assessment / feedback is to learning - and is this formative feedback promoting a deep rather than surface learning experience, or at worse no learning experience at all? It may be useful at this point to define what is meant by deep and surface learning, as often the literature refers to students as either deep or surface learners. Marton and Saljo (1976) are credited with originally recognising these two approaches to learning, defining them as learning applied to a particular task and not just the characteristics of a student. This research was taken up in the UK by Entwistle (Entwistle and Ramsden, 1983) and in Australia by Biggs

(1987, 1999). Although these researchers came with different conceptual
frameworks their common focus was always the learning context. Biggs (1999)
defines surface learning as

> An intention to get the task out of the way with minimum trouble,
> while appearing to meet requirements. Low cognitive level activities
> are used, when higher-level activities are required to do the task
> properly. ... Emotionally, learning becomes a drag, a task to be got
> out of the way. Hence the presence of negative feelings about the
> learning task: anxiety, cynicism, boredom. (p.15)

In contrast to this, a deep learning experience is defined as a more fulfilling
experience for the student who engages with the task in an appropriate and
meaningful way. A deep learning experience results in

> Students having positive feeling: interest, a sense of importance,
> challenge, even exhilaration. Learning is a pleasure. Students
> come with questions they want answered, and when the answers
> are unexpected, that is even better. (ibid, p.16)

Black & Wiliam (2003) give us a clear cybernetic definition of what they think
should result from feedback and result in deep learning.

> Good feedback causes thinking (p.631)

I recognise that what the term effective learning means is, for the student, the
teacher or the institution, not necessarily the same as what is meant by deep or
surface learning. This may be variable according to the personal interpretation
of the individual. Also I am aware that students, who are the focus of this study,
are not a homogenous group and that some processes will work better for some
students than for others.

Askew & Lodge (2000) describe effective learning in terms of outcomes and
processes.

> Effective learning can be seen as a virtuous cycle, where effective
> learning promotes effective learning processes: the distinction between
> a process and an outcome decreases (P.14)

I have categorised below, from my previous findings (Blair, 2003), what I think are the most important factors for effective learning. When examining these requirements, I intend to comment on issues that could be factors, whether positively or negatively, that can affect effective learning. Although itemised, these points are not prioritised:

- Assessment and feedback and its purpose should be explained and understood fully by both parties (students and tutors).

- Formative feedback / assessment has to be central to the curriculum and central to the learner's needs.

- The involvement and active participation of both the learner and the teacher is required.

- Teachers need to regularly feedback to students on their performance.

1. Assessment and feedback and its purposes should be fully understood by both parties

> We should be asking how the tutor comes to construct the feedback, how the student understands the feedback (how they make sense of it), and how they make sense of assessment and the learning context in general. (Higgins et al, 2001. p.273)

As above, one of the most important requirements in this list is that assessment and its purpose should be fully understood by both parties. As with any comprehension, if this is not as clear and transparent as possible, then confusion may cause misinterpretation by the student and result in an increased teacher dependency.

What the literature (Black & Wiliam, 1998; Elwood & Klenowski, 2002) does tell us is that the relationship which is established between the teacher and the student, together with a common understanding of what is required for success in assessment tasks is crucial for effective learning to take place. My previous

research into students' understanding of assessment (Blair, 2003) showed that this is not always happening, with students relying heavily on their teachers' tacit knowledge and blindly trusting rather than always understanding teachers' judgements.

> Successful lecturers [in terms of fostering creativity] are themselves self-motivated, creative thinkers, acting as models for their students (Dineen and Collins, 2005, p. 46).

Tacit Knowledge

What is of importance in the teacher / student relationship is how they perceive and interact with each other and how they interpret and make sense of this interactive process. There are many factors that can come into play in this relationship and it is my experience that the understanding of the process and what is taking place can often be perceived completely differently by the student and the teacher (Ibid). This could be through the active encouragement of divergence of thinking, where a common understanding of what is expected is difficult to establish from the start of the module / assignment. In art and design there is never one prescriptive route with a specified goal at the end. Students are expected to challenge accepted dogmas. The 'standard' cannot be specified and is continually open to reassessment and modification.

> Learners are encouraged to progressively extend the arena of possibilities within which they operate, not to seek enduring solutions or answers but to open up unfamiliar territory and new ideas. (Danvers, 2003, p.50).

Tacit knowledge, retained in the teacher's head, plays an important and critical role in formative assessment and feedback in the art and design fields. This can sometimes be difficult to articulate and transfer into a form that the student can easily access, understand and take forward.

> Teachers' conceptions of quality are typically held, largely in unarticulated form, inside their heads as tacit knowledge. By definition, experienced teachers carry with them a history of previous qualitative judgements, and when teachers exchange

> student work among themselves or collaborate in making
> assessments, the ability to make sound qualitative judgements
> constitutes a form of guild knowledge. (Sadler, 1989. P.126)

These 'intuitive modes of learning and doing' (Danvers, 2003) play a major role in the pedagogy of art and design.

> These intuitive modes may be very resistant to analysis or
> conscious awareness but are central features of practice and
> learning in art and design. (Ibid, p.52)

Literature studies state that there are many variants that can influence how effective formative assessment and feedback can take place. It has been found that the quality of collaboration between the student and both his teachers and peers could affect the student's learning outcome (Vygotsky 1962; Torrance, 1993). Harlen and James (1998, p.368) suggest that cognitive psychology has shown that the active participation of the learner, together with a familiarity of the context of the material, needs to be established before these links can be made.

A further factor to consider is the way that different students respond to feedback. Purdie & Hattie's (1996) comparative study of Japanese and American students indicated that student response can be culturally determined, and that sometimes feedback may be seen as critical rather than constructive, as an indicator of low ability and failure rather than development. Students may also perceive seeking advice and help as an 'affirmation of low ability' (Blumenfeld, 1992).

> It is the experience of the recipient of the feedback, which
> determines whether the gift is positive or negative. (Askew & Lodge,
> 2000, p.7)

I will return to these points in my analysis of the studio crit, later in this study.

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For effective learning to take place, there has to be an understanding, by teachers, of how different students think, what they are capable of, and where they are coming from (prior learning experience). There needs to be a 'coming together'.

> Teachers use feedback to make pragmatic decisions with respect to readiness, diagnosis and recommendations. Students use it to monitor the strengths and weaknesses of their performance, so that aspects associated with success or high quality can be recognized and unsatisfactory aspects can be modified or improved (Sadler, 1989, p121).

Students have to be clear as to how they can utilize the feedback they receive in order to be able to take this forward and develop further.

> Students have to be able to judge the quality of what they are producing and be able to regulate what they are doing during the doing of it. (Ibid, p121)

Unless teachers understand this, they cannot help students to progress fully, whilst, until students come to understand their strengths and weaknesses and how to utilise them they will not progress effectively. Without this development, feedback remains very much owned by the teacher and students are placed in reactive rather than proactive roles. What is taking place can be difficult for students and also teachers to monitor and act upon, where there are few set parameters and even those can be continually shifting and developing. As Wolf (2003) states

> Assessment is not only intrinsic to learning but that the way in which it is used can make a significant difference to the effectiveness with which students learn.

2. Formative Assessment has to be central to the curriculum and central to the learner's needs

> The effectiveness of formative work depends not only on the content of the feedback and associated learning opportunities, but also on the broader context of assumptions about motivations and self-

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perceptions of students within which it occurs. (Black & Wiliam, 1998. P.17)

Students need to clearly see how the feedback they receive is helpful and relevant to their learning. If they understand how they can use this feedback to move forward, then they are more likely to be proactive participants. Research by Torrance and Pryor (1998, p.131) found that whilst formative assessment always interacts and has some impact on learning, this impact is not necessarily always positive. The form that feedback takes and its' relationship may not match the learner's needs at that time.

Crooks (2001) also found that if the feedback does not relate to the learner's current understanding of the problem and the process they have undertaken, then it is difficult for them to relate to it and identify how they can effectively utilise and learn from this information and move forward. This might seem obvious, but in our enthusiasm to use formative assessment and feedback, these issues can sometimes be overlooked to the detriment of the learning experience.

> even when teachers provide students with valid and reliable judgments about the quality of their work, improvement does not necessarily follow. Students often show little or no development despite regular, accurate feedback. (Sadler.1989, p.119)

Research has evidenced that assessment can be a major driver in student learning (Gibbs 1992; Black & Wiliam, 1998). In the last section, the literature states that research has shown that clarity of the requirements and an understanding of what is being assessed, together with how this fits within the curriculum, is an important requisite for successful, effective learning to take place. If students are unclear or confused as to what they are being assessed on and what the expectations of the learning process are, this can encourage and result in a surface rather than a deep learning experience taking place.

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(Samuelowicz, 2002, p.198). Design does not fit neatly into the accepted 'this is where you need to be at the end of the tunnel' scenario. A substantial part of the literature on formative feedback / assessment leads us to believe that this is the purpose of formative assessment, but art and design follows the Roos and Hamilton's (2005) 'cybernetic' viewpoint, where feedback is used, by the student, more as a continual self monitoring approach and is an ongoing 'mediation' between the teacher and the student.

> Cybernetic feedback, therefore is at the heart of constructivist monitoring. It operates within the learner (where am I?) between learners (where are we?), and between a teacher and a learner (where do you want to go from here?). (Roos & Hamilton, 2005, p.17)

Meyer, Parsons & Dunne (1990), in their study into higher education, found that students who show a deep strategic approach are better able to discern and utilise the aspects of a learning environment which will support their way of study. Students who take a deep approach are more able to accommodate the assessment requirements. In order to achieve this, assessment tasks need to be designed to allow the opportunity for students to take a deep approach to learning. This again, requires clearly defined learning outcomes and assessment tasks, which relate to and are embedded in the curriculum and have been explained to and understood by the learner. This is of particular importance where there are non-specified outcomes and individual solutions are sought. Clarity of feedback is critical.

> Students are less likely to take a surface approach to assessment if they understand the judgements and how they are made during assessment (Davies 2002, p.175).

The involvement and active participation of both the teacher and the learner

When examining the role and effectiveness of formative assessment in learning, we need to establish what the teacher's and student's roles are in this

experience. As discussed, there has been a shift in teaching and learning practice (Samuelowicz, 2002; Elwood & Klenowski, 2002; Askew & Lodge, 2000) from the reproduction of taught facts through tests to a learning and making sense of the facts and an on-going learning development, with greater student autonomy. This places formative assessment in a central role to student learning and requires both active teacher and student participation. Maclellan (2001) calls this learning shift a process of 'knowledge construction' rather than of knowledge reproduction.

> To promote effective learning, teachers need to consider what is important to assess, as this will strongly determine what is considered important to learn. (p.30)

Design pedagogy encourages individual thought and development and requires a large element of self-motivation and autonomy from the student, if they are to succeed in their profession. How then can teachers offer feedback that encourages this to take place? Askew and Lodge (2000) put forward three models of feedback to learning;

1. The receptive-transmission model, where feedback is

> only positive if it helps learning and negative feedback de-motivates by discouraging, being overly judgemental, critical, giving unclear or contradictory messages and encouraging dependence on others for assessing progress. (p.7)

In this model the teacher is the expert imparting knowledge and skills and the cognitive dimensions are stressed. Students respond to the information the teacher gives them without any input or self-reflection on their learning process.

2. A constructivist model, where information processing skills are encouraged to make connections and explore understanding. Although students are required to reflect on their learning, this is still within the teacher's agenda. Again the

receiver of the feedback (student) does not have any control over or decision in how the feedback is given. The teacher / learner dynamic is not challenged, but there can be an exchange of dialogue between the student and teacher. This Askew and Lodge refer to as the 'ping pong' method'. Much of what is regarded as assessment feedback still remains within this category.

Finally, they describe a

3. A co-constructivist model that involves 'reflective processes, critical investigation, analysis, interpretation and reorganisation of knowledge.' Responsibility for learning is shared and can develop a *'meta' view which can lead to meta-learning.' (p.13)*

This model would be the one which design education aspires to, but in practice is this always the case? The teacher's role in feedback and assessment is key in the process. On that the literature is in agreement, but we live in an educational culture of modularity, examinations and assessment, and the practice of formative assessment / feedback can be squeezed or limited by the demands of the final product assessment (summative grade).

> Modularity inhibits deep learning, divergent thinking, risk-taking and reflection. It does not acknowledge the need to respond to differing learning styles, to the ebb and flow of learners' motivation or to variations in students' prior knowledge. (Dineen and Collins, 2005, p.47)

Pressure on teachers can also have a detrimental effect on formative assessment. Boud (1990) argues that resource pressures have increasingly led teachers, even if they fundamentally believe in the value of formative assessment, to protect assessment for accreditation at the expense of assessment for learning.

Finding the time to give formative feedback to students and helping them develop a

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critical evaluation of their work, whilst explaining the assessment criteria and

process as well as adjusting curriculum in response to formative feedback, can be

seen by some teachers as just 'adding to their load' - just something else that

teachers have to do, rather than formative feedback being regarded as beneficial

and resulting in assessment being of greater value to both parties.   Whilst the

teacher's role is key in the feedback process, even more central is the role of the

student (Harlen & James, 1997; Torrance & Pryor, 1998; Black & Wiliam, 1998).

For effective student learning to take place, students' active participation is critical.

Unlike summative assessment, where students are the recipients, in formative

assessment / feedback, if students are not fully committed and actively involved in

the process then formative assessment is unlikely to assist effective learning.

Harlen & James' study concluded that

> Pupils have to be active in their own learning (teachers cannot learn
> for them) and unless they come to understand their strengths and
> weaknesses, they will not make progress. (1997, p.372)

Teachers need to regularly feed back to students on performance

> Timely, relevant feedback is essential to increasing students'
> understanding of how criteria are applied and how they can move
> forward, e.g. integrating into feedback descriptions, ways in which
> students might move from one level to the next higher level, making
> explicit for them what they need to do to get to the next stage.
> (Elwood & Klenowski, 2002, p.255)

This may seem a fairly obvious statement - but what is also important, as has

been previously discussed, is the quality of feedback given and received in

these sessions. If feedback is irregular, judgemental or not understood,

students may lose direction or drift away from the objectives of the learning

experience.

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There could also remain an issue, especially for students and also at times for teachers, in not being able to separate the formative from the summative feedback. This is because, as Higgins et al (2001) state

> The feedback process is particularly problematic because of the particular nature of the power relationship. The tutor occupies the dual role of both assisting and passing judgement on the student (p.273).

Meta / self perception

There is a further important aspect, pivotal to this study and key to design education, which the literature evidences. Meta / self perception can impact on the students' learning experience, especially in scenarios where students have to verbally present work and receive verbal feedback, such as in the design studio crit. This I will refer to as the 'perception of self'. Kluger & De Nisi (1996) in their meta-analysis of feedback interventions (FIs) on performance, found that because of the perception and impact of self, feedback, no matter how constructive, may not always have the effect that might be expected.

> Anxious participants whose self-related goals were activated are more likely to experience cognitive interference, that is, shifts of attention away from the task and towards the unmet goals of the self (p.266).

Their research found that the impact of the feedback intervention on self could affect the cognitive resources applied to the performance, as well as influencing the attention given to the task and task details. This could result in a negative effect on the student's motivation and learning. They state that the impact of these interventions is

> Likely to shift attention away from the task towards other goals of the self and consequently may debilitate performance. (Ibid.p.267)

Their research found that, as well as feedback interventions having a detrimental effect on student performance,

> verbal feedback that involves the saliency of another person was related to lower FI effects (ibid.p.275)

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In most cases this person is the teacher. Does this undermine the student's confidence or voice?

This, I think problematises the idea of effective learning, as the teacher cannot fully control how feedback is perceived by the student. The verbal feedback the student receives could result in a poor learning experience.

Kluger and DeNisi's research has an important relevance to the study in this thesis. As, in design education, such emphasis is put on verbal dialogue, i.e. the studio crit and the learning benefits of this activity - we must investigate, in light of this research, whether these findings influence the learning incurred. The studio crit is, as will be explained throughout this study, an opportunity for students to give a presentation, explain their work and receive feedback from both tutors and peers. It should also be an opportunity to learn, in a comparative way, from viewing, reflecting on, and listening to explanations of their peers' work. But how much does the element of 'self' play in this activity and what impact does this have on learning?

Formative feedback in design cannot be prescriptive. There is no one right answer, or known final destination or conclusion to a given problem or project. Teachers and other students give opinions based on tacit knowledge

> Meaningful knowledge of assessment and standards is best
> communicated and understood through the use of a combination of
> both explicit and tacit processes (O'Donovan et al, 2004. p.331)

but as there is no definitive or right solution, these opinions are, in the main, subjective. This can result in the student receiving conflicting or sometimes non-related feedback from a variety of individuals. Designers are expected to self-monitor and self-navigate their own pathway. This can result in the level of

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response shifting to a self / ego level in which the learners' energies go into

reconciling the mark with their view of themselves as learners (Stobart, 2006).

What teachers perceive as their role in this learning process can also impact on

the students' learning experience. Stobart (ibid. p136) states that teachers'

views on learning and teaching can undermine or support formative

assessment. The quality of the reflection on their practice related to the

students' practice might impact on the learning experience. Davies' (2000)

research found that

> In higher education, one of the main problems is that many staff still
> rely on a very limited discourse about teaching and learning. When
> they are asked about their teaching, lecturers typically reply in terms
> of their teaching procedures, and find it difficult to provide either
> explanations or justifications for their actions. (p.113)

Formative assessment and feedback in the undergraduate design studio

Having discussed in the previous sections some of the circumstances that are

generically required for student learning to take place, I would now like to

examine further which of these are relevant to current undergraduate design

studio education.

Unlike many subject areas, where recognition of formative assessment and

feedback is a fairly new, or, until recently, an irregular component, formative

assessment and feedback has been an integrated and established part of the

curriculum practice in design for over 50 years and is seen as a positive and

critical element in the learning process.

Because of the nature of the subject discipline and the emphasis on 'process'

together with the individuality of the 'product', teachers and often students have

never regarded summative assessment alone, as sufficient feedback.

Cobb (2000) in reference to the studio crit states

> Critical reflection and evaluation in art and design has always been an integral part of the creative process. Art and design tutors have used critical feedback for formative and summative assessment in order to encourage reflection on and enhancement of students' own creative and critical faculties (p.110).

Summative feedback may give an indication as to the student's standing within a group and their overall performance in the task, but may not be sufficient to allow the student to develop their work further. A major part of the learning experience in the production of the design or artefact is the continual and ongoing debate and dialogue around the development of the work and the processes involved, whether technical, physical or cerebral.

> Art and design differs significantly from most other forms of higher education. Students are encouraged to take risks and explore the limits of the subject. Their work consists largely of projects. Examinations of a traditional kind are rare. First hand experience is valued above textual description. While many projects involve a brief set by staff, the responses are 'owned' by the students, who see them as a part of their own personal development. High levels of motivation are common. Students learn important skills through undertaking project work and research, many skills that are never explicitly taught. This approach emphasises the experimental nature of design, acknowledging that designers are best able to innovate when they have an intimate understanding of their craft brought about by extensive practical experience and that a high level of critical awareness of the potentialities of the media and tools available is essential to creative activity. (Boyd Davis, 2000, p.64).

Further explanation, as to the assessment, teaching and learning methods utilised by design will better assist the reader's understanding of the context of the discipline and this study.

> Individuals explore and articulate a range of different ideas and material constructs within a framework of collective experimentation, risk taking and mutual responsiveness. Outcomes are sought which are more rather than less unpredictable. (Danvers. 2003. p.50)

The involvement and participation of both the student and the teacher is evidenced through a variety of interactions. As mentioned above, formative assessment has been central to the teaching and learning experience in design and is a well-established form of pedagogy in studio-based work. Student

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presentations, portfolio reviews, self and peer assessment, tutorials, seminar

presentations and the crit, together with a studio-based culture and

environment, all allow the opportunity for formative feedback and assessment to

take place. These forums facilitate the student's and teacher's understanding

and interpretation of the work to be debated, developed and clarified.

When asked to define their role in design education

> Teachers often describe their role as facilitating or encouraging the
> process of learning and of developing confidence in learners. (Drew,
> 2004, p112)

Crits can enable the teacher to obtain a further understanding of the thinking,

development and direction of the student's work, informing interim and final

presentations. The student has the opportunity, through this dialogue with their

peers and teachers, to clarify for themselves and their audience their intentions

and to reflect, clarify and comprehend better their own creative development

and learning.

> The crit offers a unique opportunity for open discussion, in a public
> forum, of individual project work. (Cobb. 2000, p.110)

But this desire for creativity and innovation, as I have already alluded to,

presents challenges for the assessment of design projects.

> A design assignment will thus consist of a brief which details certain
> constraints of site, manufacturer, client, or consumer, while leaving
> unspoken the expectation that these outside needs will be met in an
> object that also displays the student's creative individuality. (Oak.
> 1998)

The breadth of interpretation is varied and often a teacher is heard, in response

to a student asking what is expected from them at the end of a project, to state

they 'cannot say'; 'surprise me'; 'there is no one solution or right answer'. Often,

students on a design course find they are told by their teachers to 'chance their

arm' and try things and see what happens, rather than being systematically

guided along a more obvious prescriptive path.

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In the arts diversity and variability are made central (Eisner, 2002, p.197)

Examples of assignments can range from 'designing your way out of a paper bag'; 'packaging and sending an egg through the post' to 'designing an indoor cycling arena'. Innovation and the breaking of accepted traditions are often rewarded more highly than following to the letter what a project specifies. 'Playing safe' is not an attribute aspired to in design education and assessment can often be interpreted as being subjective. This can present challenges for students in being able to judge the effectiveness of the learning that takes place during and as a result of formative feedback sessions, such as at crits.

> Project work, which forms the backbone of post-compulsory art and design education, is invariably heuristic, demanding a challenging synthesis of cognitive, creative and motivational abilities. (Dineen & Collins, 2005, p.47)

A critical factor in design education is an agreed understanding, by both the teachers and students, of the assessment feedback. This is what is most likely to affect the learning process. Because of the continuous evolving nature of the idea and concept, flexibility is paramount. To accommodate this flexibility, assessment criteria are usually written in as broad terms as possible. This breadth allows the student to take a broad interpretation to their project work. The vocabulary used in design learning outcomes allows students to maintain a flexible interpretation in the breadth of realisation. Cannatella (2001) reasons that this is because

> the particular character and activity that goes into the making of art does not fit comfortably into any system of general assessment criteria. One major reason for this is that the individuality of the art work and its making cannot be reduced into common properties independent of and detachable from what is being creatively fashioned. The distinctiveness of the individual artwork is of paramount importance in art making and understanding. (p.319)

To accommodate flexibility and retain distinctiveness requires broad

parameters, and teachers have to balance these factors in both the design of their curriculum and the feedback given to students.

> The form of assessment must always complement a curriculum and a curriculum cannot be devised without considering it. It must also reinforce the teaching and learning methods, not undermine them. There is no point in devising a course supposedly committed to project work if this is contradicted by the assessment methods (Boyd Davis, 2000,p.76).

But within the studio environment, how do we ensure that formative assessment / feedback is not just being 'carried out' within a receptive-transmissional model (Askew & Lodge, 2000, p.3) without any promotion of effective student learning? Students are expected to be pro-active in individual and group student led activities such as presentations and seminars, but the students' participation within the crit scenario can be more variable, either through the set-up of the crit environment or the way the event is stage-managed.

> Since the studio is somehow a distinct pedagogical method of higher education (Bennett,1988), it is assumed to have a higher potential for being emotionally saturated. (Austerlits, N & Aravot, I. 2002. p.87)

This emotive aspect is because the nature of studio design work involves

- Experimental learning and reflective processes

- Personal creative /design processes

- Exposure and self disclosure (Ibid p.87)

Sometimes, teachers can make subjective comments about the work, without any prior dialogue with the individual student. In these cases, there may be no check for the teacher as to whether their comments are valid or in line with the thinking of the student or any check as to what the student's understanding of the feedback might be. The teacher's approach and delivery of feedback can also affect how this is received by students. Percy's (2004) study into the studio crit found that

the pattern of behaviour served to put students in a subordinate position dependent on the critical direction and intervention of the academic member of staff (p.149).

Percy goes on to state that there is variability in the active participation of both students and teachers within these crit sessions, from all students engaging and being involved in the process to the 'tutor monologue'.

> It would appear that a primary function of the crit lies not in the opportunity for students to demonstrate their learning, or debate with their peers and their staff, but rather to witness the virtuoso performance of their tutors (Ibid, p.150).

Davies (2002), in his study of design assessment practice, observed how important it is to ensure there is a common understanding of terminology taking place. He found that even within projects at subject level, students' perceptions of the key concepts, such as 'analyse', 'research', 'create', etc. as well as common concepts, such as 'design' varied substantially from each others' and particularly from those of the teacher. Often, the terms can mean different things to different disciplines. He found that students analyse differently in sociology to the way they do in, say, psychology or business studies. The key here is to construct the introduction to any dialogue, so that students are given the opportunity to test out their understanding of these concepts against those of other students and, of course, those of the teacher and a common understanding is reached. Issacs (1999) in his powerful study into dialogue states that

> The intention of dialogue is to reach new understanding and, in doing so, to form a totally new basis from which to think and act (p.19).

The literature tells us that students can resort to other means to get the feedback they need, but this again can be variable dependent on how students interpret this feedback. Oak (2000) found that

> although they may not always vigorously dispute the critic's comments, the students usually pay close attention to what is

being said, as the critic's words indicate whether the objects under discussion are considered good or bad. If the explicit content of the critic's remarks is not understood, then the students attend to cues of form, as Donald Schon (1987) notes when he quotes an architecture student who says 'you hang on the inflection of the tone of voice in your crit to discover if something is really wrong'. (p.89)

So in summary:

If there has been a regular constructive dialogue and feedback experience between student and teacher, then there is a greater chance that there will be a shared understanding of the assessment requirements and effective learning, as specified in the earlier sections, is more likely to take place.

Regular contact, through the studio culture, is an integral part of the design curriculum. Establishing a common language for this dialogue is vital and teachers need to articulate, and not take for granted, that the language they are using is familiar and understood by all involved in the project. (Blair, 2004)

Conclusion

The literature shows strong evidence and agreement that formative assessment and feedback does affect the quality of learning and can lead to significant learning gains and that feedback can play

a subtle, complex and enormously important role in the students' experiences of learning. (Maclellan, 2001)

There are clear indications as shown in this chapter of what the literature sees as needing to be evident for student learning to be effective. My findings indicate that because of the particular nature of design feedback and assessment, studies such as Ramaprasad, 1983; Sadler 1989; 2005; Black & Wiliam, 2003; - which discuss formative feedback and assessment as 'closing the loop', could be regarded as having too mechanistic an emphasis to relate fully to the pedagogic requirements of design feedback. The cybernetic stance

on assessment (Roos & Hamilton, 2005) offers a more suitable model for design education.

What is also evident is that the impact this feedback can have, can be negative as well as positive (Torrance & Pryor, 1998) and is not just reliant on the content of the feedback given, but that effective student learning is further reliant on a group of secondary factors, including the social interaction of students and teachers with each other (Percy, 2003), as well as the psychological and meta /self factor (Kluger & DeNisi, 1996). Awareness of these factors can be variable and dependent on the context and individual requirements or perceptions of both the teacher and the student. It may be difficult to evaluate and quantify the effect these factors have on effective learning, and how we can improve practice, but the literature does suggest that formative assessment, to have validity (Messick, 1989), needs clear constructs and that student learning has to be evident and ongoing (Stobart, 2006).

In design education, it has been established that formative feedback / assessment is central to the curriculum, as evidenced through a range of learning and teaching methods such as crits / presentations, tutorials and seminars. Discussion at these formative sessions together with discussion re the development of the portfolio of work, is an indicator to the teacher as to whether the student understands the project tasks and that the learning outcomes of the projects are in place. Whether the crit is a vehicle for effective student learning, this study hopes to investigate. The study will also investigate the teacher and student relationship in the crit.

Formative assessment and feedback is an established and regular component of the teaching and learning structure in design, and the circumstances for effective student learning are evidenced. Even where the list of identified

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factors are established as being present, monitoring and evaluation are required to ensure that what is being fed back to students through formative assessment and feedback is relevant to what their individual educational and learning requirements are at that particular time.

Chapter 3

Methodology

In this chapter I outline my ontological and epistemological position and give a detailed account of my methodology and research methods.

This study is concerned with the verbal formative dialogue and feedback received by students from their teachers and peers through the studio crit. The main questions addressed are how is this information delivered to the recipients and how is the studio crit and its function perceived by both students and teachers. The study examines the functions of these events as defined by the students and their teachers and how these events are perceived as influencing and affecting student learning. I have selected methodologies which would allow me, as the researcher, to both have an interchange with the 'givers' and 'receivers' of this feedback - through semi-structured interviews - and as a non-participant observer to the dialogue taking place at the crit. My epistemological position is that people's experience of the world and how this affects their outlook and future approach to situations is factored in their prior experience and interpretation of their environment. This research is very much taken from a relational perspective and is concerned with the understanding, interpretation and perceived impact on learning, through the verbal communications between the crit participants.

This research is informed by an interpretative ontology. There is some reference to discourse analysis, which allowed me to pursue in some depth what was said. An advantage to this approach is the opportunity to analysis the individual's answers to the questions asked, looking at the real language used by the participants in the study.

A large part of a design students' ongoing learning and development is through and reliant on the ongoing dialogue with their peers and teachers, the feedback they receive and the student's own evaluation of their learning. Because of the characteristics and pedagogy of the design disciplines, as explained in previous chapters, I wanted to design a study which would allow a flexible methodology, where I would be able to encompass new or additional elements which may not have been considered when the study was originally proposed and designed. These would be addressed through the addition of further questions to the interviewees, in response to the answers given at interview or through actions or comments observed at particular crits. For this study, I decided that semi-structured interviews allowed the participants a stronger voice and that this was the most appropriate methodology. I also wanted this to be very much in keeping with the nature of the design disciplines; where the process is continuously evolving, flexible and changing. I chose to reference grounded theory in my chosen methodology because of its 'interactive qualities'. This allowed me, throughout the study, to retain the flexibility of collecting the data through both formal and informal interview questions and pursue new topics as they might arise. These may not have been part of my original agenda but can be seen to have relevance to the study.

This study is a continuation of the qualitative approach I used for my Institution Focused Study (Blair, 2003). The reason for choosing a qualitative approach for my data collection is threefold.

1. The research problem is attempting to understand the meaning or nature of experience of persons. (Ibid,p.11).
2. These subjective thought processes and perceptions are best understood and evaluated through quantitative methods.

3. The creativeness of the subject discipline and my own experience as an artist / designer and from my teaching experience of design makes this approach to research familiar, mirroring closely the processes already practised by designers and design students.

Patton (1990, p.434) states that a qualitative approach allows creative thinking

> being open to multiple possibilities-generating a list of options; exploring various possibilities before choosing one; making use of multiple avenues of expression

This is a natural extension of my own professional practice - and it seemed appropriate to apply the same problem solving principles, which are applied during the designing process, to this study.

Research design and methods

I set out to explore the experience and perceptions of a group of undergraduate design students and the teachers who taught them, and to give an account of what participants think is the learning value gained through the studio crit through the exchange of formative verbal feedback.

To carry out my research study, I selected three art and design institutions. Three institutions were selected, as I considered this would give me a broad enough sample for this small survey. Two institutions could have become a comparative study, which I wanted to avoid. I wanted this to be a 'snap-shot' survey of current practice. All the institutions are in the South East of England and include my own workplace university. These institutions were selected because of their similar undergraduate profiles, both in course disciplines, size and student profiles - all courses in this study are full time 3-year BA (Hons) degrees. My reason for this was to minimise as far as possible variants in the

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sample. The institutions were also selected for their close proximity to each other, so access was convenient and travelling time manageable. My data was collected from two selected undergraduate design disciplines at each institution. The data collection concentrated mainly on the student learning experience, at level 1 (1st year) and level 2 (2nd year) through the activities of the studio crit. I selected these two levels because the crit is a regular element in level 1 and level 2 design curricula. In design education, it is not as regular a practice to use the crit as a form of formative feedback at level 3. At this level work is often of a more individual and self directed nature with individual self initiated or student selected projects being the norm; rather than the compulsory group projects set by a teacher and carried out by all students. However, I did interview a student at level 3 from one of the selected courses at each institution, to obtain their reflective feedback on their experience of the crit process throughout their time on their course.

As explained in the last chapter, the formative dialogue and feedback in the crit is standard practice in all design disciplines. Today, with a greater emphasis on student learning, alongside the ever increasing demand on space and an increase in student numbers, this dialogue is becoming more formalised with less informal dialogue happening during studio workshop sessions. The crit is regarded as one of the most important formal sites where feedback can take place.

Data Collection:

My data was collected primarily through a series of interviews with students, both individually and in focus groups, together with a small number of interviews with the teachers who taught these student groups and managed the crit sessions. Before the interviews, I also collected data through sitting in on and

observing 3 crit sessions, one at each Institution. Findings from these

observations informed the knowledge of the practice of the studio crit and where

appropriate, the interview questions.

Observations

For this study, I carried out an observation of a studio crit in one of the selected

undergraduate courses from each institution. Observing and recording the crit

session was chosen as a methodology for its 'directness' (Robson, 1993,p.191)

and because it allowed me as the researcher to

> develop more intimate and informal relationships with those they are
> observing, generally in a more natural environment than those in
> which surveys are conducted. (Cohen & Manion,1994, p.110)

Within the crit environment, I wanted to observe the interaction and relationship

between the student, their teacher and the student group. Through observation,

I was able to capture some of this directly. These observations were partially

taped and I made written notes, during the crits, of the process as I observed it -

i.e. the engagement of the group in the crit feedback, how much interaction

there was between the group and the presenting student and whether the

exchange between teacher and student was a shared and equal experience.

Using grounded theory, I wanted to try and capture as closely as possible, the

crit experience as experienced from the student perspective. I tried not to edit

the process in any way and taped as much of the dialogue as possible. I wrote

down a précis of the dialogue and also made notes on the behaviour and

mannerisms of the student group during the crit, such as whether the students

seemed bored, animated, restless, attentive etc. So as not to be seen as part of

the staff team, I observed the crits by positioning myself within the student body,

rather than being beside the teacher. This collected data formed an important

element in the study. The information gained through these observations

informed and, where appropriate, fed into the interview and focus group questions. These observations hopefully give the reader a clearer understanding and insight into the process and 'ritual' of the crit. I noted but did not analyse the social interaction between the student group, the presenting student and the teacher at these sessions, with an awareness of conversational analysis. I concentrated my focus more on the verbal dialogue which took place, together with the content of the feedback being given and received.

In project work, the crit remains a key point of contact for the students with the teachers, although, as design is a studio-based discipline, there still remains, in most institutions, some form of continual formative dialogue taking place between the peer group and tutors throughout the project. As the crit is a group-based activity, where often other tutors or industry guests from outside the institution, are invited to view the work, I hoped that from the students' and teachers' point of view my presence as an observer would not seem any different to many other crit scenarios and would be a comfortable situation to be in as a researcher. The crit is also a very familiar situation for me as a teacher / practitioner, and as a researcher, in my previous studies, I have carried out crit observations. Because of my familiarity with the crit scenario, and this being my interpretation of what is going on, I have tried to be aware of my own prejudices and prior knowledge and experience of the crit. I acknowledge and accept in this research, that this is not always possible to separate.

After being introduced to the group and the purpose of my presence being explained, once the briefing and crit had started I hoped from both a student and teacher's point of view, to become just a non-contributing member of the group. As I have not taught any of the students and in many cases did not know the teachers, I hoped that I would be viewed in the main as a non-participant

observer. My previous experience in this environment has shown me that after the first few minutes where teachers especially can be a little self-conscious, the group and teachers seemed to forget I am there and seem to act normally.

I observed and taped one crit session at each institution. Because of the variation in format and length of the crit (see crit accounts), I taped and observed the crit for a maximum of 2 hours. I collected much of the verbal information given by teachers and received by students in this period of time through taping; and also through notes written during the session. The dialogue between the teachers and the students at the crit formed the basis for some of my interview questions addressed to both students and teachers. During the observations, I also made notes on the exchange of all dialogue between student, teacher and the student peer group. As I discovered during my Institution Focused Study (Blair, 2003), the crit presentations generally take place in front of student's work which can be situated around a large studio room and taping the dialogue can be difficult, especially when teachers and the student group are moving from work to work and often the teacher and student being critiqued, are facing the work on the wall during their discussions and have their backs to the audience.

Interviews:

Interviews are the primary part of this case study research. The interview method I used was semi-structured. This allowed for the same questions to be asked of all participants so that answers could be compared; but also allowed the flexibility for comments made during the interview sessions to form the basis of further follow up questions and enquiry. An advantage of using the semi-structured interview is that it allowed the interviewed participants an opportunity

to explain, within the questions asked, their own personal understanding and interpretation of the information given and received at the crit.

The student interviews were to ascertain opinion, based on students' experiences and their perceptions of the crit as a learning experience. I conducted interviews with two students, selected from either level 1 or level 2, on each of the six chosen undergraduate courses. The student group was approached before the interviews were arranged and volunteers were asked for. Because I was being allowed into the teaching and learning environment of others, I ensured that my observation of crits and interviewing of students was kept as flexible and convenient as possible for all parties involved. When selecting which crit was available for me to observe, I asked the course teachers to decide which would be most convenient for them. I did not consider that the level made a significant difference to the data I was collecting, as long as the sample contained a fairly equal split of students from the disciplines selected and I observed crits at each level.

I also conducted three mixed level focus groups, made up of five to six students from the two courses selected at each institution, each including students who had attended the observed crit. I wanted to include focus groups to broaden the study and ensure a more representative cross section of the student cohort.

To obtain a further perspective and teacher opinion, I conducted interviews with five of the teachers who carried out the studio crits for the courses selected - two teachers from each of two of the institutions and one teacher from the third institution. This was to find out their understanding and perception of the function of the crit and of formative feedback. Also, what their expectations were of the students' learning experience. Gaining information from these three

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groups of interviewees would hopefully counter the '*interpretative baggage'* I might bring to the study through my own experience of crits as a teacher. All interviews took place at the host Institutions. They were taped and lasted approximately 30 minutes. All interviews were then transcribed. Taping and transcribing the interview data, allowed me the opportunity to thoroughly listen, many times, to the dialogue and to identify any similar patterns or differences.

Fontana and Frey (2000. p.655) point out that the establishment of a rapport between the interviewer and interviewee is very important. In order to establish what students and tutors perceive as the function of the crit and what learning takes place, the interviewees needed to feel relaxed and at ease with the questions. They also had to have confidence in me as a researcher. As the students had sometimes been selected by the teacher, I ensured that they knew they were under no obligation to take part in the study and that they did so on a voluntary basis. They all were very keen to take part in the research and give their opinions on the crit.

> To learn about people we must treat them as people, and they will
> work with us to help create accounts of their lives. (Ibid, p.668)

I tried to ensure that I viewed this research from a broader point of view than that of just a teacher practitioner but was mindful that

> All research is the product of someone's understanding of an issue
> and as such imposes some assumptions on the situation. Good
> research minimises the effect that these have on the outcome of the
> research (Bilbow, 1989. p.81)

Because of the nature of qualitative research, I was flexible in adjusting schedules and interview times, to convenience the participants and to monitor changes in the focus as the study evolved.

Ethical issues

Prior to any interviews taking place, I met with all the interviewees used in this study; to explain the purpose of the research and answer any questions they had regarding the interview procedure or the research. I adopted the BERA codes of research practice with regards to ethics and explained to all participants verbally before interviews -

- the aims and objectives of the research.

- my own professional background and research role.

- that participation was completely voluntary

- that there is complete confidentiality and all data will be rendered anonymous - both for the institutions and also the individuals

- that participants' observations on the data will be noted and drafts will be available for them to make comment.

- how their contribution and the final study may inform or make contribution in the future.

The one to one interviews and focus groups were held in a location within the Institution, which was as quiet as possible and where there was little chance of interruption. All students from each level were asked the same initial questions and all teachers were asked similar questions, dependent on information obtained from the crit observation.

Design of Interview Questions:

The first thing I undertook was to establish what questions would be asked of students and tutors in the one to one interviews. (See appendix for full interview questions) The questions were compiled through information received through the observations and previous studies (Blair, 2003), related to my enquiry

around student learning from the formative feedback received at the crit. As I have commented earlier, I am aware that as a researcher my influence on the data collection and analysis would not be completely 'eliminated' but I hoped this would be 'minimized' (Fontana & Frey 1994, p.368) by the selection of methodologies.

The research questions that the student interviewees on each course were asked were under the study headings of:

- What did they think was the function and definition of a crit?

- What was the perceived learning they gained through the crit experience?

- Did the formative feedback received at the crit result, in their perception, in a more informed understanding of their work?

- What are the perceived range of an experience students gain through a crit - strengths and weaknesses?

Level 3 students were also asked to reflect back on their experience of crits during their course.

Tutors were asked in their opinion:

- What are the functions of and their definition of a crit?

- What do they perceive as the learning which should take place through the crit

- What their own memories were of crits as students? Whether they thought this had influenced their orchestration of crits or their own behaviour or conduct during crits?

A disadvantage to this form of research approach was the time involved in the analysis of the data collected. Therefore to keep the study manageable within the time frame, the sample and the project was kept small, to allow enough time

for me, as the researcher to analyse the material fully. The data I collected consisted of:

Interviews with Teachers	5 coded in the text as (T1-T5) (3 female / 2 male)
Interviews with Students	15 coded in the text as (A-P) (7 female /8 male)
Focus groups	3 coded in the text as (F1-F3)
Crit observations	4 coded in the text as (O1-O4)

All direct quotes from the interviews and crit observations are shown in italics

Chapter 4

Crit Observations:

This chapter examines what teachers and students understand as the functions of the crit and the definitions and perceptions of the learning that takes place

Data Analysis

Observations of crits:

As described in the previous chapter, I arranged to sit in on and observed three studio crits, one at each institution, as part of my data collection. I also briefly observed a fourth session, at the invitation of the institution, trialling a new crit format. The course director of the selected undergraduate courses selected which crits I observed. I informed the course directors of the period allocated to collection of the research and my availability and they selected crits that were taking place within these times. When I arranged to observe these events, I was not aware of the format any of these crits would take, and whether the three observations would be with a similar number of students and staff, be in similar environments, or be more variable. As it turned out, all the observations were very different in style and format This indicates that currently, there is a broad range of pedagogic practice being used within what is referred to as a studio crit.

<u>Crit OI</u> was a level 1 crit with a group of 50 students and two members of staff. This was an interim crit on a group project on the second day of the project, where student groups of 5-6 students were asked to present their initial concept and ideas for the project and 'sell' the idea to the rest of the group who were asked to act as the client. Students were told beforehand that they would have 5 minutes to present and they were given time before the crit to discuss how they would do this. This was the first crit these Level 1 students had

experienced since joining their undergraduate course. The presentations were in a large open studio space. The presenters stood at one end and the students either stood or sat on the floor in front of them. I observed that students who were not at the front of the audience were having some difficulty seeing and hearing the presentations because of the number of students in the group. This did result in some students losing interest in and having individual conversations during the presentations and not being fully engaged with the group process. This went unobserved or was not commented on by the tutors, who were positioned at the front of the group.

The group presentations varied in performance. Some groups had obviously rehearsed who would say what during the presentation and these were presentations where the whole group participated. Some presentations seemed to be dominated by one or two spokespersons for the group, whilst others seemed to just make up the presentation as they went along without any perceived prior preparation or focus.

After the presentations, the student groups were called back one by one to the front of the group and asked to reflect and make comment on how they thought their own presentations had gone. Then the student body as a whole was invited to make comments, both positive and negative, on the strength of the concept and group delivery and presentation. Teachers reminded students that this crit was related to the professional practice they hoped to go into after completing their course and that it should be treated with the same seriousness as presenting in a professional environment.

> This isn't an adversarial forum. We have to get used to people
> telling us what they think. This will happen throughout your creative
> life, so it's not a kinda judgement'. (T2)

Although students had been invited to comment, the dialogue was mainly between the teachers and the individual student group. Students, maybe because this was the first crit, seemed nervous and unwilling to volunteer comment and just nodded more in agreement. Students who did occasionally make comment were asked to justify and explain their comments more fully, the tutor asking them more evaluative questions. This had the effect that, apart from one or two very confident students, most students seemed loath to 'raise their head above the parapet' and make any comment in case they had to justify their comments.

Teachers also used this feedback session to relate their own professional experiences that had contributed to their tacit knowledge of their profession. An example of this was gaining an understanding of the audience and the environment students may have to perform in and having the skills to be able to adapt their presentation accordingly. One tutor gave the following example to clarify this more clearly.

> *I used to teach on BTec so all the guys were baseball hats on and*
> *puffer jackets and you kinda know when you go into a bank*
> *manager like that and you seriously need a loan, you've lost it in the*
> *first few minutes. It may seem unfair, but you have to play the game*
> *a bit. (T2)*

From my experience and research into crits, (Blair, 2003) I have found that it is, for students, very much a learning by trial and error experience. Students at this crit, although this was their first experience of a crit on their course, were put into this situation without any briefing or training on how to do a presentation. (All students would have completed the equivalent of a foundation diploma in the art and design year prior to starting this course; so would have had some experience of crits. But because, as the study indicated, there does not seem to be one model for a crit, this could be variable). Students then reflected on what

they thought went right and wrong. At this stage, teachers took a central teaching role in giving the cohort, as a whole, references and examples that they could consider for use in future presentations. Students were also asked to write down some of the verbal information teachers gave them, for future reference.

Crit O2 was conducted with a group of ten level 2 students and one teacher. This was the final presentation, on a Friday, for a competition project to be handed into the teacher on the following Monday. The crit took place in a small classroom furnished with tables and chairs. The students and the teacher sat around in a semi circle at tables whilst each student, standing in the front of the room, presented to the group. Each student was given five minutes to present their work and sell their concept to the audience. The teacher timed these with a stopwatch. Students had no prior warning of what they would be asked to do until they arrived for the crit. After each presentation the teacher gave the student verbal feedback and also wrote the main comments on a feedback sheet. Students did not contribute to the verbal feedback, but were asked to write any comments they had on the work or the presentation, both positive and negative, on post-its. These together with the teacher's feedback sheet were handed to the student after the presentation. The feedback sheet had a section for teacher comments, a section for student post-its and two further sections, for the student's own reflections on the process and for areas needing improvement. The whole group session lasted ninety minutes.

The teacher's verbal feedback often started with a positive motivational comment - 'good pace and presentation', 'great ideas - lots has gone into project', 'very good presentation'. (T4)
The teacher then gave comment on what to change without specifying this in

any detail and used a 'crit 'terminology and language'.

'Look at other people's work - what sucks them in - (ibid)

the boards are over-designed. (ibid)

Need more pace and rhythm (ibid)

a good breathing space.' (ibid)

Finally, the teacher sometimes asked students to reflect on aspects of the work

in light of the comments that had been made. i.e. *'has this changed your ideas*

about the boards?' (ibid)

Students from this crit group were interviewed as part of a focus group after the

crit. They made the following comments about this crit.

> *I think it's good that we give each other feedback. You've kinda*
> *learn a lot about other projects and it makes what you've done a bit*
> *more in context...at the moment I have been concentrating so much*
> *on my idea that everything else has been lost, so it's quite a good*
> *thing that other people have been doing things and it keeps you*
> *motivated.'* (F2)

When asked about feeding back to other students anonymously they said

> *'It's kinda good because, although it's private - we don't put our*
> *name on it - so they don't really know who it is from so that allows us*
> *to be a bit more open about what we say.'* (F2)

Students in this group felt they would not be able to give such honest feedback

if it had been face to face. They also commented about there being a pressure

with the presentation *'you are under pressure to do it in one go - the*

presentation - yeah, in discussions you can ask questions'. (F2)

So students liked the opportunity of feeding back anonymously but felt pressure

to 'get it right' at the presentation. I also observed that students, once they had

received their feedback, quite understandably became absorbed in reading

these comments and were not really active in observing the next student

presentation. They had switched off.

Crit O3 This crit was with half the year cohort consisting of twenty Level 1 students. It took place during a morning session, over 2 ½ hours in the studio base room. The other half of the group had their crit in the afternoon session. Students had displayed their final project work on the walls and tables in the room before the crit commenced. The cohort consisted of level 1 students and this was the second crit they had experienced since commencing their course. The crit was run by three members of staff, the two teachers who had run the project and the course director - who had joined the crit as an outside observer. Students were individually asked to stand in front of and talk about their work, after which tutors made comments and gave feedback. Other students in the group were not invited to make comment. From my observations, comments from teachers seemed to be helpful and motivationally constructive (Pintrich & Schunk, 2002. p.319).

'Strong body of work. Boards strong, clear and concise.' (T5)

'Good design development in drawings. Everything ties in.' (ibid)

'Great research helps design, so need to be aware of how research will help ideas.' (ibid)

As teachers referenced in their comments, this was a continuation of previous dialogue, which had taken place in the practical studio time during the project.

'Compared to the other day, good.' (ibid)

'What do you think of dress? Better than I thought it would be.' (ibid)

Because the work was displayed throughout the room, and the student group moved around from section to section, standing in front of each work being discussed as happened in crit 1. Because of the size of the group it was sometimes difficult to get near enough to hear the comments made by the

teachers, so some students were just waiting, at the back of the group, for their turn to come. These students were not fully engaged or listening to the crit process. Also, because the work was displayed on the wall - when the teachers were looking at this work with the student, sometimes the comments were directed at the wall and not at the student group in the room. The benefit of displaying all the work together was that it allowed the students to see the range of work from the same project brief, but whether this was successful as group learning through verbal feedback experience was unclear.

As before, some of the students in the group made up the student focus group from this institution. They commented that *'the worse crits are the large ones, the only thing is that they allow you to see everyone's work'.* F3
They also commented, based on prior experience, on being lucky being the group that was seen in the morning.

> *So glad we were in the first group. I reckon as the afternoon goes on, it will get worse and they* [the tutors] *will get tired. I feel really sorry for them. At the end of a long day, they* [the students] *don't get value (F3)*

Crit O4:

This crit was an unscheduled observation that I was invited to sit in on whilst visiting one of the institutions to carry out some interviews. This was a newly trialled method of giving formative feedback at this institution. The session was an interim peer crit session of level two students' initial ideas to a given project brief. Students had been divided into groups of five. Each student had five minutes to present their ideas to the other four students in their group, in a fairly informal atmosphere, all students in the group sitting around a table. One at a time, students had to explain what was the concept /idea for the project, how it would be promoted and who the target audience would be. The other four students were directed by the teacher to question the student on their research

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into the current market, their budget proposed and what form/s of promotion they envisaged. The teacher walked around the separate groups, (there were four group sessions taking place consecutively in the studio), prompting and facilitating this dialogue where she thought this was necessary. Once the student had completed their presentation and questions had been asked by their group, they were sent to another part of the room while the group discussed their proposal and graded the student's ideas between A (excellent) and E (failure). This sheet was then given to the student.

I only observed one group and one presentation as this had not originally been in my schedule and was able to make the following observations.

The group I observed seemed unsure and unprepared as to what questions should be asked of the student. There did not seem to have been any prior briefing of the tasks they were asked to undertake. One student took the lead and the others agreed with her comments when it came to grading decisions. The teacher tried to guide their decisions by asking them to consider particular aspects.

The areas they had to grade were:

Presentation: Although the teacher asked if evidence had been presented and students agreed this had not been the case, they were unwilling to grade below a C.

Communication of idea was seen as good but again the group waited for one student to suggest the grade and then agreed.

This short observation raised questions about student understanding of the task in hand, their confidence in grading each other and how parity of experience was maintained across the groups. The questions below, which I think are

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relevant to the value of this as a student feedback session, I sent to the teacher after my visit but I have received no response.

- Were the criteria which students used the same as those used by tutors when summatively grading the work?

- Had students received any criteria for the grading, either verbally or in written form?

- Was the presenting student given any verbal or written clarification as to why that grade had been given? There was a lot of valuable conversation in the group about strengths and weaknesses. This was not communicated to the student at the session. All they received at the session was a list of grades.

- Did students ever give a grade lower than a C?

Key points emerging from the crit observations:

- There are a variety of formats to what is defined as a crit, from large whole group sessions led by and directed by tutors to small student led 'seminar' groups.

- The size of the crit session did affect the atmosphere of the crit. In the larger groups, students seemed unable to remain engaged with the feedback for a series of reasons, such as being unable to hear what was being said by the tutor or the student being critiqued; not being directly involved or brought in to the discussions; and the length of the crit and the time they were required to remain focused on this task.

- The format is fairly standard - even though the numbers of students and the environment may differ - with each student presenting their work and verbal feedback being given in the main, by just the teacher. What is not always standard is the time allotted to each student for feedback. This

again was more noticeably variable in the large crits, where the time

spent on each student decreased as the crit progressed resulting in the

students spoken to last getting less time.

- Student engagement with the crit was variable. Individual students often

did not enter into any dialogue with the teacher giving the feedback on

their work. There was also very little input into this feedback from the

rest of the student group in large crits. Factors which could affect the

students' engagement, are, as mentioned above whether they can hear

the dialogue going on, especially in large crits when the teacher and

student are discussing the work with their backs to the rest of the group.

I also observed that many students, once they had received comments

on their own work, seemed to lose interest in the crit. This will be

evidenced further through the interview data in the next chapter.

The information I collected through observing these sessions fed into the

interview questions with the individual and student focus groups and teacher

interviews, based on their individual experience of crits. (see Appendix 1)

Chapter 5

Analysis of Interviews

This chapter examines and analyses the responses received to the interview

questions under the categories identified on p. 53. The themes, which have

emerged from the interview data, are listed below. Where relevant I also make

reference to findings from the observations described in the last chapter.

The Function of a Crit:

Feedback: All the students interviewed agreed that feedback was a primary

function of the crit. Under this heading, students talked of being able to discuss

their ideas and work with teachers who

> would give good and bad feedback on where it was going,
> developing. (F2)

It was also seen as an opportunity for clarification of queries and uncertainties.

Students also regarded it as an opportunity for

> interaction between group - find out what people think about your
> work? (D)

> It gives feedback that you are on the right track. (F3)

> You learn about why that works and why that doesn't work. What's
> your weakest point, you know, so you are able to learn from
> everybody and not just the lecturer. (J)

> If it's constructive, it's helping. If they give you a reason, then it's
> beneficial and it helps you, but if they say no - if they back it up -
> then it helps you think about it a bit more. (A)

Teachers saw crits as

> opening up students' eyes to things they didn't know existed, or they
> [the students] are encouraged to speak their mind and be frank
> about ideas and concepts. (T4)

> a major learning experience, as it covers everybody's work, so you
> have the opportunity of exchange of working practice and it enables
> a student to go away and be able to move forward with a piece of
> work at whatever stage that piece of work is presented. (T5)

> *Opportunity for students to share and learn from one another, and to develop their critical awareness. It also supports an environment in which to give feedback. (T1)*

Teachers emphasised the learning function of the crit. Students referencing the function of the crit saw it more as a means of clarification and finding out what tutors and their peers thought about their work.

Critical Analysis: This was stated, by teachers, as the primary function of the crit. The crit was an opportunity for students and teachers to 'critically reflect' on work and for students to develop their 'critical awareness' and learn how to critically analyse their own and their peers' work, whilst also receiving the teacher's critical opinion.

> *Giving people the questions they need to ask of their own work. (T5)*

> *It's a critical analysis of peers' work and also a critical analysis from a staff perspective as well. So it's from both perspectives and it's a learning experience on all parts. (T1)*

This was not identified as a particularly important category by the Level 1 student interviewees. They saw the crit not as an opportunity for clarification, but more as an opportunity to receive feedback on what was right or wrong. A level 1 student focus group stated

> *crits are not about asking questions but more about what they* [the teachers] *think. (F3)*

It would seem that students at this level still regarded their learning as teacher led; and feedback being a combination of the receptive-transmission model and constructivist model (Askew & Lodge, 2000). There was no indication that they thought that they should take responsibility for their own learning. In contrast to this, responses from students at level 3 indicated they had started to develop a more critical stance and that feedback was of the co-constructivist model. (ibid)

> *drawing parallels to my work - through points raised about other*

students' work (B)

They also acknowledged the benefits of feedback from their peers

it's good to have critical analysis from other peers, as well as the tutor (E)

Presentation Skills: Students identified this as an important function of the crit

presentation and how to present your work (H)

although one level 3 student commented that he did not see this as developing

learning.

by the time I get to the crit, I'm not sure it's a learning curve, it's a presentation (K)

This would indicate that what the student and what teachers categorise and

perceive as a 'learning experience' can be variable. This student saw the crit

more as the final part of the project after any learning or development had taken

place. It was seen as the summative assessment of the final product rather

than a formative part of the process - too late for any further learning experience

to take place.

The final definition of the function of a crit, again coming mainly from the

students but reinforced by some teachers, was the relationship of the crit to the

'Real world' or a professional scenario: Both teachers and students identified

this as an important element of the crit. Students thought it was an opportunity

to practice the skills they would need when presenting their ideas to a client in

the professional environment.

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. (Drew, 2004, p.119)

Good for the profession we are going into (F2)

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Good practice for presentations and in industry (N)

You get pressure in the job so it helps to learn to handle it, so you have to get used to it really (F1)

The learning benefits of small crits mirroring practice (B)

Students, without exception, voiced a general preference for the smaller group crits and with the exception of the opportunity to see other students' work, they were unsure of the validity of the large crit as a learning experience.

Learning gained through the crit experience

Taking a phenomenographic approach to this research (Trigwell. 2001; 2000), I have categorised the answers and the teacher and student interviewees' definitions of the learning experience of the crit under the 4 headings listed below. These are learning through

1) The development of a critical awareness.

2) Clarification and feedback

3) The sharing and reflection on the process

4) Presentation skills / Professional / real world scenario

As would be expected, both the perceived learning experience and the function of the crit categories indicate overlap and duplication.

Looking at the categories above, with the exception of (4) which is regarded more as an activity / skill development, the other 3 categories are very much interrelated and success in 1 is very much dependent on successful engagement with 2 and 3.

1) Learning through the development of a critical awareness.

All teachers interviewed emphasised the development of a critical awareness as

a primary learning function of a crit. They saw the development of critical awareness as a student-centered, reflective activity where students had to utilise their cognitive perception and be able to analyse their own learning.

It's specifically what it says, it's time to critically analyse and it's not time to work on producing something or doing something, it's time to sit back and analyse it and to think about your own work and other peoples' work and I think it's more that, it's a stepping out of and a standing back (T1)

How to be their own reviewer, because of the questions they need to ask of their work...Giving people the questions they need to ask of their own work (T5)

They [the students] *will start involving their own criteria, their own work and what they believe in because then, ultimately, they don't become strategic learners but they can work with what they believe in. It might not satisfy others' criteria but if they believe in it they'll be fine. (T2)*

Students also commented about the development of a critical awareness, but emphasised more the importance of being able to draw comparisons between their own work and that of their peers' work. They also agreed that verbal feedback from their peers is critical in enhancing their own learning activity.

Take ideas and assess yourself by looking at how well other people have done (E)

It's that input from somebody else, another opinion, because you can get bogged down with your own way of working and not see that you could be pushing it in a completely different direction which was not apparent to you beforehand. (A)

2. Learning through clarification and feedback

All students highlighted this category as an important and critical aspect of the crit. Surprisingly, in reference to the importance students allocated to the role played by other students, there seemed to be variation in how much feedback students gave to each other within the studio crit environment. Students talked of discussing their work with their peers and getting informal feedback through

other means; such as in the studio and in social spaces like the student bar, but there was very little evidence of a dialogue between students during crits as backed up by the observations at crits I attended. The observed crits varied from scenarios where there was:

- no peer feedback - where students were not encouraged to speak or make comment on other students work, but just take a non-contributory and passive role, just listening to the teacher and individual student dialogue, when this could be heard, to
- some interchange between the student group and the presenting student and teacher, to
- a small crit run totally by groups of students without teacher verbal contribution.

Many students still prioritised teacher feedback over feedback from their peers, as this gave them the reassurance that they were 'on the right track' with their project work. This would seem to have a strong collation with the summative assessment requirements and perceived main role of the teacher as the expert (Kent, 2005).

> *That's the problem with art and design, it's not like yeah, that's correct...it's like the mark they give you, it's for them (D)*

Students valued verbal formative feedback but found it useful only if it was perceived to be constructive and helpful.

> *A chance to talk about our work to teachers about how we are doing. They give feedback on where it is going, developing - good and bad. (F1).*

> *Helps me get it clear in my own mind and also seeing how other people deal with the same topic and aspects you've forgotten about. (C)*

> *I benefit from seeing other people's work and getting evaluation from the tutor. (L)*

> *If it's constructive, it's helping...if they give you a reason, then it's*

beneficial and it helps you but if they say no, if they back it up, then it helps you think about it a bit more. (A)

They [the teachers] *give you ideas - I just get more ideas and see where it can lead. (G)*

Students did comment on feedback sometimes being not just subjective but also non- constructive.

I look forward to unbiased, objective opinion. I lose trust in the person giving the opinion because they are not unbiased and not objective. (J)

Can be a very big vehicle for tutor's egos...becomes all about the tutor when it should be all about the students. (H)

Teachers also saw clarification as an important element in the crit. Interestingly, although the questions were centred around learning, teachers assumed that this was totally around the student's experience and their comments were related to this and were not around any clarification or learning that they, as teachers, might have about how students understood the project and whether their understanding of the project requirements matched teacher's aims and objectives. They saw this category as:

An opportunity for students to share and learn from one another, and to develop their critical awareness. It also supports an environment in which to give feedback (T1)

... a major learning experience as it covers everybody's work, so you have that opportunity of exchange of working practice... it enables a student to go away and be able to move forward with a piece of work at what ever stage the piece of work was presented. (T5)

Some big event where a student presents their work to the rest of the group and there are comments afterwards (T3)

Clarification of projects; working in groups (T2)

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3) Learning through sharing and reflection on the process

The literature (Schon, 1987; Broomfield, 1995; Brockbank & McGill, 1998) is agreed that engagement in reflective practice is critical for deep learning to take place. Teachers and students generally saw this activity as a collaborative and shared learning experience where students could benefit from each other 's feedback and develop individual critical evaluation.

Opportunity to underline subjects in depth or introduce students to new areas of thought or study. (T4)

It's a situation where your ideas grow with them at the time you're talking and it's a very good thinking space. (T1)

A shared experience and a chance for critical reflection … a critical analysis of peers work and also a critical analysis from a staff perspective...a learning experience on all parts...And sharing it with one another. (T1)

You gain a different perspective from peoples' work, because they explain their work and get feedback and by looking at it - you're an outsider - you might not have had that direction so it gives you a broader idea of what you can do within the project title; helps you in broadening your mind and your ideas. (F1)

It's me just talking about my own work, which helps me get it clear in my own mind and also seeing how other people deal with the same topic and aspects you have forgotten about. (C)

Seeing what everyone's done and pick up other things you have seen other people have done and think I might be able to use that. (A)

You can take ideas from them [other students] *and kinda like assess yourself by looking at how well other people have done. (E)*

Drawing parallels to my own work - through points raised about other students' work. (B)

To express yourself a bit more...It makes you very open minded. (G)

It helps you gain more confidence about your ideas or makes you question why you are doing it and makes you sure you are doing the right thing. (F)

4) Learning Presentation skills - Professional / real world scenario

Skills acquisition was focused, not surprisingly, around the presentation. This

was closely linked to what students saw as the 'real world scenario' or professional practice within the design profession. Other skills such as time management were mentioned, but were seen as a more generalist skill taught and learnt throughout differing aspects of the students' course and not exclusive during the crit experience.

> *presentation to your peer group...positive, although no one likes them (L)*

> *presentation practice, presenting to a client, because we are all going to have to do that. (F3)*

> *It's good for the profession we are going into. They* [the tutors] *are probably being really nice compared to what it would be like if we went into a proper fashion house. (F2)*

> *Mock professional environment. Presentation and how to present your work in the real world. (H)*

> *If you have design meetings in the office or client meetings or you are representing the company, you are going to have to take criticism and present your work in a certain manner and the only way to practice is the crit. (J)*

> *It is to work on our presentation and skills, because obviously we are going to need this when we leave here in a big way. (F2)*

The professional environment is an area that studio-based courses try to replicate as much as possible. Students see it, as shown above, as a 'mock' practice for working outside. One teacher questioned the relevance of the large crit to the professional experience. He thought that crits in this format did not mirror professional practice.

> *In practice as a designer I don't know when you talk to a large group - occasionally, but I've never done this in practice. All my presentations were to 2, 3 or 4 people, max. 6 people. I have never been involved as a designer where you talk at large groups. it's always been a dialogue. (T3)*

This relationship to professional practice is also questioned by Brown (2004) when discussing the crit as a parallel to architectural professional practice. He

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cites Ahrentzen and Anthony (1993), who state

> Surviving this ordeal (the crit) is seen as a rite of passage,
> something to aspire to, even though no systematic evidence
> demonstrates that this atmosphere is necessary for the training of
> professionals (p.220)

Davies & Reid (2000) question the teacher's ability to act as an effective client in

the real world / profession scenario played out through the crit.

> the teachers are acting as pseudo client but with a teacher's intent
> and design knowledge, so their criticisms of student work purport to
> be 'as a client' would provide a critique, but they really appear to
> critique from their own experience. (p.183)

Summary
The interview data identified four clear functions of the crit:

1. Feedback

2. Critical Analysis

3. The acquisition of Presentation Skills

4. A 'mock' Real world / Professional scenario

together with four categories through which learning could result:

- Development of a critical awareness

- Clarification and feedback

- A sharing and reflection in the process

- Presentation skills and professional / 'real world' scenario

Teachers saw functions 1 and 2 as being closely interlinked and talked of

an 'opening up to new ideas', 'moving forward' with ideas and 'giving the

questions' students need to be asking. Although feedback is student

directed by teachers, they saw the critical analysis as something that both

students and teachers could engage in together. Students saw 1 as being

concerned with getting feedback from others, especially the teachers, but

also being able to learn what works and doesn't work. This indicated that

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to a greater or lesser degree some reflection on the process was taking place. One student talked of 'being on the right track', indicating that their learning in this category was more surface than deep. Students also stated that they wanted clear, non-bias constructive feedback. Interestingly, with the second function, again the student responses centred mainly around critical analysis of their work by others, especially teachers, and not critically analysing themselves. Students saw function 3 often to be closely related to function 4, this being a skill needed when they had finished their course. No student interviewed enjoyed making the presentation, but saw it as something which had to be gone through. They did not associate it with either functions 1 or 2. Function 4 was seen by all student interviewees as an important function of the crit, as they equated this to what they would be expected to do in their professional life after their courses. This validity has been queried by both the literature on studio crits and also by one of the teachers interviewed. How closely this mirrors the outside professional environment is questionable. Students thought that learning in this category was all around skills acquisition.

Chapter 6

The Perception of Self

As well as the confirmation of the four categories where learning could take place in a crit, as discussed in the last chapter, the study reviewed how effectively students learn in these categories. Moreover, the analysis uncovered that the desired benefits and understanding gained from the verbal feedback received could also be affected by factors such as the power position of teacher / student (Devas, 2004, Sara & Parnell, 2004) or the stress factor (Pope, 2005) impacting on student performance. This can be factored into what Kluger and De Nisi (1996) - as discussed in chapter 2, call the self or meta factor. Does the student's persona of themselves, prior experience or understanding - in this case of the crit - affect the cognitive resources applied to the crit activities? The learning which takes place is not always as might be expected, just dependent on the nature and quality of the current feedback given. The students' perception of their role in the crit and of self can distract the student from the task in hand and also block any learning experience.

> Anxious participants whose self-related goals were activated are more likely to experience cognitive interference, that is, shifts of attention away from the tasks and towards the unmet goals of self. (Kluger & DeNisi. p.266)

Students were asked whether they looked forward to crits. Their answers seemed to be coloured by their previous experiences at crits and if this was perceived as a positive experience where the feedback, even if this had been critical, had been delivered in a supportive environment.

> *I think I probably will* [look forward to crits] *after this one. Obviously you don't want to hear bad things. You never know what is going to come but at the same time it's nice to hear stuff… I think it depends on who does them as well. (F3)*

This student highlighted the uncertainty of the experience and a lack of confidence in what they were developing, which can cause students

unnecessary stress. The approach and attitude of the teacher giving the feedback can also play a major role in how student's confidence is developed.

> *It's always nice to hear one good thing. It gives you the reason to carry on, but if everything is bad then it just drags you down, you think well what's the point. (F1)*

Students all said they wanted straightforward, honest, constructive feedback given in a clear objective way. The manner in which the feedback is given is also critically important. As Eisner (2002) states

> the way in which something is spoken shapes its meaning. (p. 197).

The importance of receiving both positive and negative feedback was also seen by students as important in enabling them to be able to move forward.

Students also found crits 'scary' experiences, not just the standing in front of the group and giving a presentation but also being expected to stand there and to take criticism from the teacher in front of everyone.

> *They're really scary. I don't know, it's really nerve racking, not just giving the presentation but if someone criticises your work, to be able to take it as well. (E)*

Research tells us that creativity, a critical aspect in all learning but especially in design, thrives

> in an environment where the individual feels psychologically and physically comfortable, in an atmosphere of trust, security and openness (Danvers, 2003, p.45).

Teachers were asked about their own memories of crits when they were students, to see whether this had affected or informed their own pedagogy (Black & Wiliam. 1998. p20). Without exception, tutors all stated that, as students, they too had found crits to be difficult and emotive experiences.

> *I remember it being maybe not as critically supportive as it could have been and it being more of an unpicking and not necessarily putting back together again. (T1)*

As a student, it was like going to the dentist. I just refused to open my mouth. Here's the work and if you don't understand the work don't expect me to tell you about it. I was terrified of talking. (T3)

I thought crits were quite scary, which is all right having an element of that...............it was very much the tutor stating the rights and wrongs and that led to a lot of non-objective comment. (T2)

When asked how they thought students perceived the crits that they ran,

teachers commented

It depends on the students, some students relish them, they just like standing up and talking to people, but they are few and far between. There are an awful lot of people who are terrified by them and find them terribly difficult and terribly nerve racking. ... I think most people find them unpleasant, especially if they turn into confrontational situations where I think they can really damage people. (T3)

I would think they regard them with a mixture of fear, to be honest. (T2)

One teacher commented that

I would like to think that they see it as a supportive environment. (T1)

Teacher 3 questioned the name of the activity.

It just strikes me immediately that it is a really bad name for what we do. It sets up all the wrong messages. I remember doing some work in Japan and talking about doing some critical studies with the students and they couldn't deal with this in any shape or form. It transpired that there is no word for critical in Japan and the only way it was translated was something to do with 'telling your friend nasty things studies'. Criticism is a sort of negative thing so immediately, you have this complete regime before you even start, that is criticism...it reeks of crime and punishment, that you've done something wrong. You've got to defend yourself. (T3)

As shown in the Purdee and Hattie's (1996) study into cultural differences this,

especially for non - English students, can also be yet another hurdle to get over

before any learning can take place.

Students also talked of a language or vocabulary which once learnt, could assist

the student in making a successful presentation.

I think there is a certain vocabulary that you need to use as long as you've got that and don't really say 'I don't really know why I did this'......... I was always told that if you like it, then you have to explain and be strong in your reasoning why you did it. It may not necessarily be the right reason but if you are confident, then it gives off to everyone else - what this person has put up is 'crap' but they're speaking as if they are an authority on it and they understand and they can explain the reasons they've done certain things. (H)

It would seem from this student's comments that the student perception can be that it is not always the quality of the reflection and critical analysis of the learning which is important, but the quality of 'the performance of the crit.' (Percy, 2004). This 'performance' relies more on implicit rather than explicit learning. This can have detrimental consequences for students unable to take part in this activity.

> Students who successfully engage with the performance of the crit become a member of the fraternity, but those who cannot find a way of participating become isolated and alienated from the discourse. (ibid. p.151)

Taking into account the teacher interview comments above and the comments in the literature on crits, it could be expected that current students' experience of crits would be very different experience to that of their teachers' experience of crits, as students. Even though teachers talked of having adapted the crit scenario and of now providing a more supportive environment, students still voiced exactly the same fears and anxieties about crits that their teachers had voiced as having experienced as students. These anxieties can impact on the quality of the student learning.

> Students can become anxious, fearing that their approach is not valid or that it diverges too far from the requirements of the brief and the ever-looming assessment. (Dineen & Collins, 2005, p. 47)

Categories which can impact on the student learning experience.

Through analysis of the student interview comments, I have identified 4 main categories, which can have an impact on the student learning experience in the studio crit:

- Evaluation - Peer/Self

- Clarification

- Trust/Tacit Knowledge

- Confidence

Under these four categories, I separated the student comments into positive and negative comments. (See Table 1). The Table does not equate with the number of students interviewed. In their interviews, some students made no comments at all in some of these categories, whilst other students made a number of comments.

	Evaluation peer/self	Clarification	Trust / tacit knowledge	Confidence
Positive Comments	29	17	7	5
Negative Comments	18	3	4	15

Table 1

As Table 1 indicates, from the interview comments students generally believe that crits can be seen as positive experiences and encourage learning. The students overall found that the **evaluation** of their work and evaluating other students' work to be the most positive element of the crit. However, it did seem from my findings that most of this evaluation came from the teachers. The development of students' critical analysis through evaluation of their own or their peers' work was limited, even at level 3. Pope (2005) suggests this is because

> The requirement for students to assess themselves and their peers, who will also assess them, can create a stress in the student. That stress will derive from inexperience, possibly the fear of hurting others, or being hurt by others (p.54.)

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In contrast, in a supportive crit scenario a level 3 student stated that -

The whole idea is to learn from each other's design. You learn from other people's design because the atmosphere is created in such a way that you don't feel intimidated. You don't feel spoken down to even if there is 30% good and 70% bad, you are still told but they [tutors] will tell you to go in a certain direction and why. It's an atmosphere where you learn. (O)

Even within this category students voiced many negative comments that they had received - and continuing examples of subjective negative feedback from teachers, which could block and interfere with any learning experience.

It takes me a whole weekend to sift through the abuse to get back to the positive and negative things which related to my work. The personal issues, the humiliation in front of everyone else and it takes you a while to get over it as an individual. (J)

It all kinda merges, what you've said. You're standing up there and you've been listening to other peoples' work and suddenly it's your turn and you kinda say it and you've said all there is to say and then you try and listen and absorb all they have to say. You are pinning your heart on the wall almost. Anything which is not praise you know, kinda hits home harder. (G)

As stated earlier in this study, the crit is a fiercely defended form of studio learning and teaching; but although a large part of the process is an evaluation of the student work there does not seem to have been very much evaluation of the process of the crit. Within architecture, there is currently a debate and questioning of the validity of the process (Sara & Parnell 2004). Brown (2004,) and Cuff (1991) discussing architectural studio crits compare the crit activity to that of an 'initiation rite.' Ochsner (2000) talks of preparing students for the 'real world', and that survival of the crit 'ordeal' being seen as a 'rite of passage.'

Obtaining **Clarification** of the project brief and what students were required to do was an area that also scored positively with the students. How teachers gave verbal feedback, both in manner and articulation, was regarded by

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students as an important factor in how they responded and acted upon this feedback.

> *When you've got two contradictions between people saying different things, you lose their confidence in a way as well. (D)*

> *They want to belittle you. It's harsh but depends on what you've done yourself at the end of the day, so some people do take it badly and I can see how some people come out destroyed from crits. (B)*

Even though feedback could be negative and students did comment, as shown above, on how this could have a negative impact on confidence (see also confidence category below) students all wanted to be given honest, clear clarification. Some felt that the feedback they received was not as clear as it could be.

> *I think I could learn more and I could get more views through greater straightforward feedback...then I would know what to do. Not like 'do they mean this' or just having thoughts about what do they mean - but on the other hand, it's really hurting as well if someone tells you it's bad. (K)*

Also students wanted honest comment and did not want praise, which might shroud accurate feedback. One European student was critical of the 'Englishness' of the feedback given at crits to students.

> *They said 'oh it's great work and I thought no, that work is really rubbish and it is not good at all ...the British are really polite so instead of saying it's rubbish they try and say it in a really nice way. To me it is straightforward - if it's bad it's bad.' (K)*

The comment above echoes Cameron & Pearce's (1994) study into formative assessment; which concluded that verbal praise and supportive feedback without substance has little effect on performance.

Students at all levels, but particularly at level 1, seemed to still be heavily reliant on a trust in their tutors' tacit knowledge above any self-evaluation or peer feedback. However there was also an element of negativity and a lack of

understanding voiced about the **trust or tacit knowledge** of teachers.

> *It's sort of a losing battle really to argue with your tutor, who knows better than you. (E)*

This last student's comment indicates a 'blind' acceptance of what the teacher has said without question or clarification. Oak (1998 p.417) sees this as posing ' *an interactional dilemma for the students'.* Do they, as this student implies say nothing and is this because they disagree with the comments but lack the confidence to say so, or is it because they whole-heartedly agree with the feedback? In this case it would seem to be the former.

> *You are never really sure of the opinion that they* [the tutors] *come up with. (N)*

The above comment (N) was from a level 3 student, so even after at least 3 and often 4 years first hand experience of the crit structure; this indicates that the process can still remain unclear and unpredictable for the student. Is this because as learners, students have not yet developed the ability to cognitively analyse their work (Broomfield, 1995, p. 241)? Or is it because of a lack of consistency in or an understanding of the process and practice of the crit and a non development of *an appropriate body of tacit knowledge to be able to interpret formal statements* (Sadler. 1989, p.135)?

Confidence in their own abilities or in the process was the category where the most negative comments were voiced.

> Creative individuals tend to be self-confident, independent, uninhibited and curious, willing to speculate and take risks. (Dineen & Collins. 2005, p.49)

If this is the case, then the relationship between self-confidence and the quality of the student's creative performance is critical to the quality of the learning experience of the individual student. Dineen and Collins go on to argue that an under-confident individual is more likely to seek out more predictable, non-

challenging and unimaginative solutions, through their anxieties about the task. The students I interviewed all wanted to be trusted and to develop the confidence to be able to take their learning further. This is more likely to take place through encouragement and with the supportive feedback of their teachers and peers. As Friere (1970) states

> When students feel trusted, they become more willing to take risks and pursue new directions in their learning (p.58.)

Students often view the crit scenario as stressful and also with some fear and dread.

> I think it's quite stressed unless you've got perfect time management and everything and you're really confident about your work, but there is always that little doubt that you've done it wrong. I think it's just the confidence in what you've done and that you've got it right. (D)

This student, although finding the experience stressful, thought that this would carry you through if you had confidence in yourself and your work. Other students, although not liking negative feedback, also saw the benefit and how this could be turned into a positive, with the appropriate support of teachers.

> It's all horrible, if you receive negative feedback but it's not just 'it's rubbish'- they guide you through why it's rubbish and whatever, they're (crits) useful (G)

Every student interviewed, without exception commented on how difficult they found the experience of standing up in front of a large group and presenting their work. This could be related to the stress factor (Pope, 2005) involved in self and peer evaluation.

> It's that feeling that you might not be able to express yourself at the right time and yeah, having the courage as well. Some people who are more shy can't take it, standing in front of so many people and expressing it. (M)

Students said that for the major part of their presentation they are literally overcome with fear. They do not hear or remember what they have said or what has been said about their work, or even the comments made about other

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students' work.

The analysis found that students became very inward looking just before, during and straight after their presentation and become oblivious to what else is happening and being discussed around them

> *There is a pre-presentation period where you are so worried about your own presentation you are not even thinking about anybody else's work or about things which might be raised there. (B)*

> *It's one of those stupid things that once they say 'that's it' I thought 'oh, that's better and suddenly my head came back again. I can actually talk. I can't remember what I said at my presentation at all; it's all a blur. (F)*

> *Everyone is staring at you going bright red!*
> *And then you find it hard to talk*
> *and then you get 'that nasty comment'*
> *and there you are*
> *and everyone watches you! (P)*

Because for the major part of their presentation many of the interviewed students are in a heightened state of anxiety, their learning must be impaired. They do not hear or remember what they have said or what has been said to them about their work, or even the comments made about other students' work.

Confidence in their abilities and in presenting at crits does not always get better as students go through the course. A level 3 student, when asked if the experience of the crit got easier and whether their confidence was greater, replied

> *I think they've got harder, because you've got so much more vested in what you present and what you actually do and you hope that you are getting better, but any comments can sometimes knock you and you think 'oh, what am I doing here?' (H)*

Why does the crit scenario have such extreme emotive responses from students? There does not seem to be any other scenario in studio-based education where this takes place. As Ramsden reminds us

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> Good teaching ....is nothing to do with frightening students. It's
> everything to do with benevolence and humility. (1992. p.98)

The research found that one teacher thought that fear could be an effective tool

to use in teaching. They talked about using fear as an effective mechanism to

make students listen.

> *Everyone will listen because of the fear that someone may ask him*
> *or her a question and they will have to say 'sorry, what did you say?'*
> *It is a bit naughty and it is about fear, but it's just trying to make them*
> *listen. (T5)*

Although this study does not investigate any gender aspects related to learning

feedback, I did look at the split between the number of male and female

students' responses related to the more emotive aspects of the crit such as the

use of the words: fear, humiliation, confidence and clarification, to see if there

was any initial gender pattern to the answers - (Table 2).

	Fear	Humiliation	Confidence	Clarification
Female Level 1	8	0	2	2
Female Level 2	5	8	1	7
Female Level 3	1	0	1	0
Male Level 1	0	0	2	0
Male level 2	5	3	3	3
Male level 3	0	0	2	1

Table 2

Female students voiced more negative comments under the emotional aspects

such as fear and humiliation. This is as would be expected as *'females were*

more likely to report higher perceived stress levels overall than males' (Pope,

2005. p.59). Students at level 1 made the most comments regarding fear, but

interestingly, by level two, the emphasis has changed more towards the

humiliation factor and became more about how they were seen within the group

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than fear of doing the presentation. This would seem to suggest that at level 1, students could be fearful because of the 'unknown' of the situation - a new course, new teachers, new peer group, unknown expectations. Once this became familiar at level 2, it was more about their standing in the group and their own self-esteem. Female students made more comments under the clarification category, wanting to be clear about exactly where they were strong and what needed improving. Male students at levels 1 and 3 made little comment about fear or humiliation, the only comments coming from level two students. Is this related to confidence at level 1 and not wanting to expose themselves as maybe still not knowing at level 3; or is this because, as Pope's research also states, that females tend to be more self critical of their own work (ibid.p.60)

If this is the case, then this result is not so surprising; but this is something, which, I think, warrants a future study. The confidence category was the only category where male students voiced more comments than female students about their anxieties. It is difficult without further exploration and involving a larger sample to explain the significance, if any, of this finding. If females were more self-critical then it would be expected that they would not seem to have confidence.

Conclusions:

Based on the analysis of the study's data, I have illustrated my interpretation of the requirements of both deep and surface learning through the studio critique formative feedback / assessment - See Table 3 below. This study has considered the main functions, as defined by the interviewees and the literature of the studio crit, together with the self / meta categories which can affect how students perceive and act on feedback, dependant on the cognitive resources

applied by the student. This can have an impact on whether the learning experience is deep or surface.

The analysis of the data tells us that the crit has a series of functions that should take place:

a critical analysis of the work by teacher and peers

a presentation of the work and the idea by the student

a simulation of the professional / real world environment of the discipline

an opportunity to both explain ideas and work and to receive feedback from teachers and peers.

an opportunity to reflect on their work and that of their peers.

The study has also shown that the learning, which takes place, is variable. It cannot automatically be assumed that by engaging with the activities, as listed above, learning necessarily always follows. The study indicates that the quality of student learning in the studio crit environment is dependent on the impact of the 4 self / meta categories:

- Evaluation by self and peers.

- Clarification.

- Trust and tacit knowledge.

- Confidence.

If the students' cognitive resources are interfered with in one or more of the crit activities, through either a negative experience or a misunderstanding of the formative feedback, or by being so apprehensive that they cannot listen to or absorb the feedback comments on either their own work or the work of others, then this can impair the student's performance and learning experience. This can result in the level of learning being affected. If students are learning in a supportive and what they perceive as a non-threatening environment, then

motivational beliefs (Pintrich & Schunk, 2002) are likely to be higher and they are more likely to 'make sense of the tasks in hand' (Marton & Saljo 1976) and learning is more likely to take place.
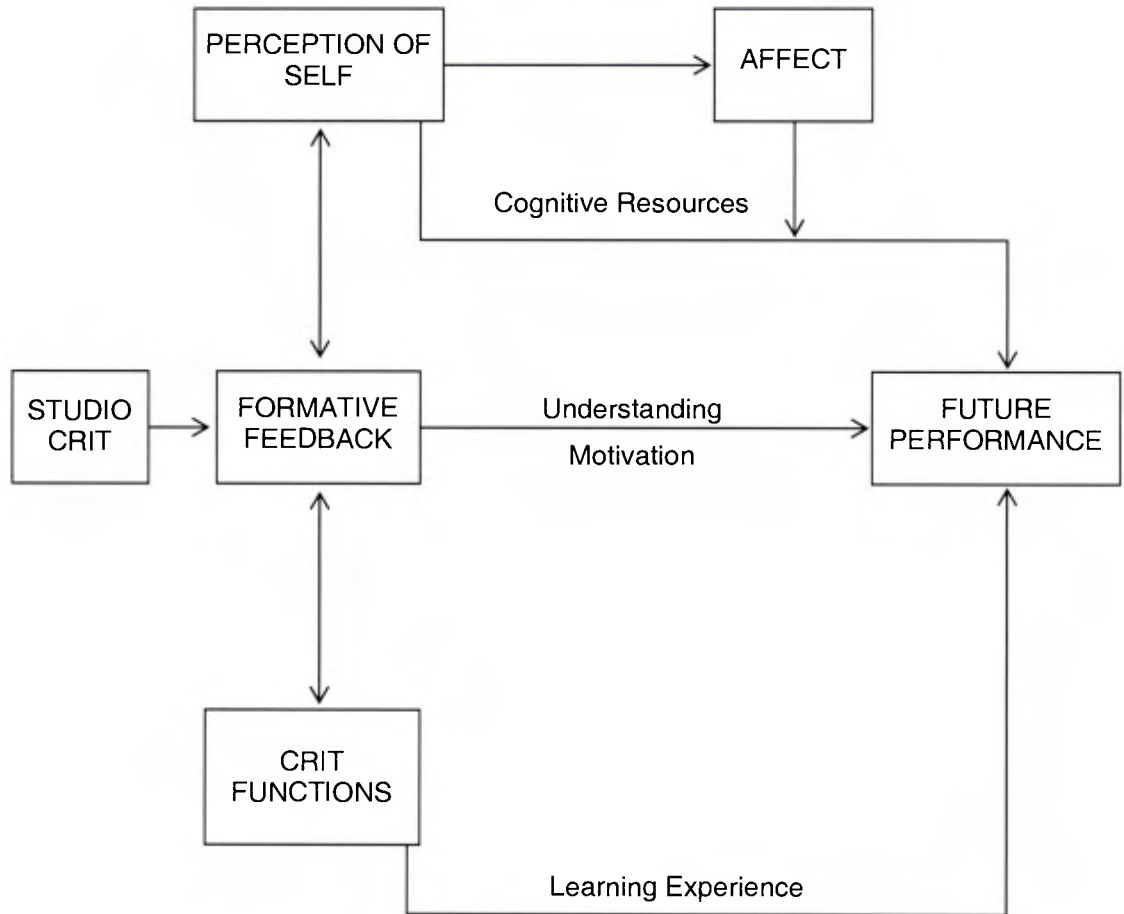
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        │     SELF     │                      │          │
        └──────────────┘                      └──────────┘
              ▲ │                                    │
              │ │        Cognitive Resources         │
              │ │                                    │
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┌────────┐ ┌──────────────┐  Understanding   ┌──────────────┐
│ STUDIO │▶│  FORMATIVE   │─────────────────▶│    FUTURE    │
│  CRIT  │ │   FEEDBACK   │    Motivation    │  PERFORMANCE │
└────────┘ └──────────────┘                  └──────────────┘
              ▲ │                                    ▲
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        ┌──────────────┐                             │
        │     CRIT     │                             │
        │  FUNCTIONS   │                             │
        └──────────────┘─────────────────────────────┘
                          Learning Experience
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Table 3 (based on Kluger and DeNisi. 1996)

Student Profiles:

To test out my theory and findings I tracked some individual students' responses from the interview data under the four crit functions - critical analysis; presentation; feedback and reflection; together with the four perceptions of self - peer / self evaluation; clarification / understanding; trust and confidence. My

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expectations before carrying out these profiles was that the majority of students would fit the deep learning categories, as the students seemed highly motivated and they had put themselves forward voluntarily to take part in the interviews and research. It would therefore be expected that these students were likely to be the more confident members of the cohort. This did not prove to be the case.

Student B: level 2: male student

Confidence / Presentation

> *Making you talk in the front of the class can be intimidating to say the least. You nervously stand up there but it gets the better of you and you try and express yourself and nothing comes out or you say the wrong thing, you've got these ideas waiting to be communicated but you can't grasp them and that's because it's purely one against everybody. It's a lot easier to express yourself in a smaller group of people.*

This student voiced difficulty in articulating his ideas and being understood by the teacher and the group. He talked about *'not being able to express yourself at the right time and, yeah, having the courage as well.'* This student appeared comfortable expressing his opinions, one to one, in the interview, but his cognitive resources could be affected by his anxiety and nervousness in the crit. This would very likely have an impact on and impair his current learning experience and what he takes forward to future learning.

Student B also talked of the inward looking self-focus that students experience during the crit. He talked of a

> *Pre-presentation period where you are so worried about your own presentation you are not even thinking about anyone else's work or about things which might be raised there.*

When asked to reflect on what he learnt from the crit he did not think that what he defined as learning took place in this scenario, stating that it was in the general studio time that most of the learning took place.

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Maybe self-analysis - especially reflecting on your own illustration and having to tell people in a real environment, like if you were pitching to potential clients - it seems like it's practice towards the real world.

Clarification / Critical Analysis:

Within critical analysis and presentation skills student B did acknowledge that learning was taking place. He was also supportive of the group crit, as he thought that it *'pushes you'*. He compared his experience of crits between two different courses he had experienced, (this student changed courses after level one) stating that in his previous course

If I turned up to a crit, it wouldn't really matter if I wasn't 100% happy with the work. If I wasn't feeling the work then it probably didn't matter because I'd probably just be sitting there with everyone else. The tutor would explain…there was no kind of goal in sight where you say you're here and you've really got to push to here or you have to try and be more out spoken or you have to try and push your work in that direction.

The student implied, from the information above, that the evaluation and the way he analysed and reflected on the development of his work was a deeper learning experience in his current course than that of his previous course. It would seem from his comments that on this prior course a much more surface learning experience had taken place, as the learning was all teacher led (Askew & Lodge, 2000). This student, whilst understanding there were benefits in presenting and reflecting on his work through the crit, thought that the anxiety aspect interfered with the quality of the learning experience.

It's one of those love / hate relationships. I do enjoy doing it afterwards when the crit is out of the way and I'm one step forward towards the end of my project but the two days before and the two days after, I feel completely different emotions on the scale. Relief and then it starts building up again. You've gone from the green to the red and then back. It's always like that.

Student H: Level 3 female student.

Feedback/clarification:

This student too found the presentation aspect a difficult scenario to go through.

> *You're standing up there and you've been listening to other peoples'
> work and then suddenly it's your turn and public speaking isn't
> necessarily my thing and you kinda say it and you think you've said
> all there is to say, but looking at it or listening to it objectively, trying
> not to hold onto the negative.*

Student H's comment indicates that there is again a self-perception that she is not 'up to the task'. She seems to indicate that there is a tendency to concentrate on the negative issues and that she tries to keep these objectively in context. The only benefit that student H, as all the students interviewed, saw to the large crit was the opportunity to view everyone's' work. She echoed the opinion of all interviewees that smaller groups were where the learning was more likely to take place. These more intimate sessions gave the opportunity for students to be part of the dialogue and learn from other student as well as teacher evaluation.

> *You're focused on your own work and what you're doing.
> Sometimes you can't see anything else other than that and
> somebody else might say 'oh that looks like that' and you think yeah,
> actually it does and then another idea comes in or you look at it from
> a different angle and you kinda get a different viewpoint...it then
> starts you on another train of thought and you suddenly widen your
> horizons a bit more rather than focusing - it's the wood for the trees,
> isn't it after a while.*

Student D. Level 2: female student.

Feedback / Clarification

This student saw the crit as an opportunity to get feedback and clarification on her work, although she stated that no student looked forward to the crit.

Her rationale for this was that

> *You are always doubting how good your work is and you're always
> worried how good the feedback was.*

Again, this student queried the quality of the feedback. Is this because of a questioning of the teacher's knowledge or the appropriateness of feedback in relation to the student learning requirements at this time? The student indicated

that feedback could be variable between teachers, which she found not confusing, but interesting and informative. She thought it was a valuable experience to show her work to the rest of the group. As student D had gone through the course, she had been able to gauge what was right and what was wrong about her work and thought that what was said at the crit was not always of much importance. She too did not consider what took place at the crit as a learning experience. This indicates either that for many students the crit learning is done subconsciously and students are not aware of the learning, or that learning takes place in scenarios other than the crit.

Student J. level 3: male student.

Confidence/ Trust/ Tacit Knowledge - Clarification

This student's interview is a good example of how different crit structures can affect confidence and how a change in the student's 'self perception' affects learning. The student had gone from large full group crit at level 2 to smaller crit groups of five to six students and a teacher at level 3. In the large crit experience when he was at level 2, he stated the following got in the way of the learning.

> *I think that sometimes the lecturer's insecurities and approach could be detrimental you know, and could affect your whole person and your ability to design, or what you feel about yourself, what you feel about your design and how your tutors feel and how they deal with it and it wasn't just me personally, it was probably 50/50, where people came away crying, where people were sworn at, personal things were said that weren't objective.*

This scenario could also happen in a smaller crit environment, but it might not having as much of an impact, as there would be a greater likelihood of a shared dialogue rather than the mono-dialogue which is often the case in the large crit. After a large crit student J stated he had to

> *Sift through the personal issues; the humiliation in front of everybody else and it takes you a while to get over it as an individual.*

This affected his cognitive resources and both his motivation and learning experience. Currently, he described how a different teacher to the one mentioned above was carrying out his studio crits.

> *It's very objective and you also learn from other peoples' designs because the atmosphere is created in such a way that you don't feel intimidated, you don't feel spoken down to even if there's 30% good and 70% bad, you're still told but they will tell you to go in a certain direction and why. It's an atmosphere where you learn. It doesn't matter whether you are put down or your design isn't really good, you learn the reasons for it and you just move on and learn.*

Interestingly after his experience of crits, when asked if there were any elements he thought could only be learnt through the crit experience, he answered that it built character and allowed *'you (the student) to voice your opinion and believe that your opinion is valid and listened to'*. He thought that it also helped prepare him to receive criticism and for doing presentations in the real world. He also thought that teachers had a large responsibility - *holding students' futures in their hands*.

Conclusions:

I would argue that the analysis in this study shows that the relationship and interpretation by the student of the self / meta categories - confidence, trust / tacit knowledge, clarification and evaluation - together with the crit activities - critical analysis, presentation, professional / real world scenario, feedback and reflection can and does impact on the quality of learning and the validity of the formative assessment.

A shared understanding of what the crit is for and what the crit encompasses seems to be an issue, and can impact on the learning experience. All students, even though they agreed that the crit or something similar should be part of the curriculum, used the crit event for two main functions:

- To see each others work and ideas

- To get feedback about their own work mainly from the teacher and occasionally their peers - although most students stated that they received more peer feedback through informal discussions, either in the studio environment or in more social environments such as discussions about work in the student bar.

The large crit inhibits the majority of students from giving feedback to their peers.

> *Normally, it's the same faces [students] that feed back on everyone's' work, but you know the majority of the class don't say anything. When we have group tutorials, you do get a lot of feedback from the quieter people in the group. (E)*

Another important finding indicated in this research is that just before and after students have received verbal feedback on their own work many 'switch off' and no longer hear or listen to what is being said about other student's work.

> *I switch off to a certain extent. ...there is a pre-presentation period where you are so worried about your own presentation, you are not even thinking about anyone else's work or about things, which might be raised. (B)*

It was also evident from the analysis that there is very little engagement with the debate around their peers work, taking place prior to or immediately after the student's own presentation.

> *The crits before me... I would be rehearsing in my head what I'm going to be saying and then afterwards, really you switch off for a few minutes (E)*

Because of the build-up and mental preparation for the 'presentation' in the minds of the students, together with the tiredness of preparation of work for a presentation to a deadline, students' concentration at the crit is often at a low and difficult for them to maintain for any period of time.

You are tired, it's the end of a project and you want to just get it over with, you just want to go home.(F2)

I don't like the length that they go on, because I do find that, even unintentionally, you switch off people's work and you might learn something if you hadn't...I think the length of the crit is an issue with everyone because no one likes to sit in a room not doing anything for a day, just listening. You just can't concentrate for that length of time. (F)

Students also think that it is not just them but also teachers who get tired at the end of a long crit. This can have an affect on the quality of the feedback students receive.

At the end of a long day, they [the students] *don't get the value. At the end of a huge crit in the summer, it was crap - I'd worked really hard but all she said was 'fine' and I was gutted. (F3)*

A boy, I think he was from Japan, there was a language problem and he couldn't get his point over fast enough, and she (the tutor) flipped out a bit, which I think was a bit unfair. Fair enough, it was near the end of the day but there was no need to do it. (F2)

There was a lot of reference to small group tutorials in the student interviews. Students thought that because these were a more intimate, non- threatening environment they were places where more learning could take place and where especially shy or quiet students felt they could voice their opinion to the group or explain their work in a supportive and non-threatening environment. The crit was seen, by all students I interviewed, as an opportunity to view their peers' work and somewhere to practice presentation skills in front of a large group. Interestingly, it was not perceived by any student as a particularly important 'learning environment'.

Chapter 7

Reflection on this study:

So what does this study tell us?

I discussed in my rationale the long tradition of the studio crit in design pedagogy - and this study has confirmed that the crit is still regarded by design teachers as an important component of a continuous, on-going, creative dialogue and interaction between students, their peers and their teachers. Creating opportunities for multiple forms of discourse within a safe environment (Kent, 2005) is an integral element in design education. The studio crit, in theory, allows such a dialogue to take place. What this study contributes to the empirical debate around formative feedback and learning in the context of not only the studio crit, is that there are factors which come into play which can threaten and prevent a learning experience happening in an effective manner. I would argue that this has relevance to any pedagogic scenario where a public critical evaluation and analysis takes place.

Attitudes in Teaching

Design, because of its popularity as a subject discipline, has always been a highly competitive field for students. Because of this, a large proportion of the students are highly self-motivated and regarded as potential deep learners. Davies (2002) believes that because of this any short fall in teaching or learning activity may not be clearly evident to the teacher.

> Students, who take a deep approach, often take a 'limited curriculum' in their stride. They are able to see possibilities beyond the prescriptions of the teacher and the curriculum. Yet these teachers, because of the success of the able students, continue to believe that the curriculum is appropriate and it's the fault of the student if they 'don't get it'. (p.172)

This finding is also relevant to groups of students in other fields. With the increase in student numbers nationally in higher and further educations, the

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'exclusiveness' of subject areas is being eroded and it is not enough for teachers to expect students to 'sink or swim'. All the students I met were highly motivated and committed to becoming successful designers. Yet many, as evidenced through the interviews, felt they were not obtaining a deep or satisfactory learning experience through the studio crit.

Feedback needs to be given in as positive and constructive form and environment as possible, and comments and feedback should always be constructively critical (Black & Wiliam, 1998; Crooks, 2001; 2002; Davies, 2000; Drew & Williams, 2002; Elshout-Mohr, 1994; Ramsden, 1992). If carried out in a positive manner, this will impact on how the student absorbs the feedback (Slade & Brunsden, 2000), and hopefully will help to give them the confidence to first hear and understand, and then act on the feedback given. If feedback is not given in a positive way then

Negative affect leads to
Loss of control, which leads to
Fear of failure, which leads to
Poor performance   (ibid. p.353)

Negative feedback de-motivates (Askew & Lodge. 2000; Kent. 2005). A student receiving constructive feedback and being told that something is incorrect or has been misinterpreted is likely to have a completely different learning experience and achievement behaviour (Pintrich & Schunk, 2002. p.62) to that of a student being given negative feedback in a non-constructive way. Kent (2005) in her research into studio conversations states

> Negative criticism hurts and often contains little useful information...
> Thoughtful, positive feedback can encourage the student and affirm
> processes that may be most inventive and potentially valued.
> (p.162)

This was particularly illustrated through comments in one of the focus groups, where the quality of the feedback received from the teacher and the constructive

nature in which their last crit had been conducted was in complete contrast to that of their previous crit experience, with a different teacher. This had changed the perception of the crit experience for the students in this group.

> *If you'd asked me yesterday how I thought about crits, I would have said really bad, really awful, but after today, it's good.* [nods of agreement from the rest of the group] (F2)

What is perceived as negative feedback can be more to do with the manner of delivery, how something is said and its relevance to the student's learning at that particular time, rather than what is said.

> The quality of feedback intervention, and in particular, how it relates to the task in hand, is crucial. (Black & Wiliam, 1998. p.51)

As the study has shown,

- students do not just want to hear the good aspects of what they have done, they also want to know where they can improve and what they need to improve in order to answer the project brief and achieve a better final outcome.

- feedback needs to always be relevant to the students' needs (Crooks, 2001).

- where appropriate feedback is given in a constructive way, students are receptive and are more able to take these comments on board and can take their learning forward.

- students want verbal feedback not just from teachers, but from their peers, which they state is critical in enhancing their own learning activity.

Attitudes of Self

The other factor, illustrated through the data collection and which the study explores, is the student anxiety before and during the presentation.

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The key factor which my study contributes to the empirical study of student learning is how the perception of self, even for students who are being given good constructive feedback from peers and teachers, can still get in the way of the students' ability to receive and absorb this information. This can result in the quality of the learning experience being impaired.

This study has not investigated the cultural factors which might affect how students learn through formative feedback, but there is evidence through both student and teacher comment that this is an area which needs consideration and warrants further study.

Although the teachers interviewed have, as students, all experienced first-hand, non-constructive feedback in crits, and though teachers state they have reviewed the crit in the light of their own knowledge and experience and believed that the crits they managed were a more supportive learning environment - the study indicates that students are experiencing a repetition of the same negative aspects in the crit as those experienced by their tutors when students. If this is the case, why is the crit so fiercely defended and the practice continued in the same way? Till (2004) lists and comments (in brackets) on some of the 'traditional' arguments voiced by academics in defence of the crit: -

> "It prepares for the real world" (come on, a tutor hardly shares the same priorities as a client). "I did it and survived." (Yes, and people fought in the Iraq war and survived; that doesn't make the war right). "It is part of our history, right from the nineteenth century". (p.15)

Till argues that it is from the crit that some of the not so 'desired attitudes' of the architectural profession are found.

> adversity, macho arrogance, self-protection, the inability to communicate beyond one's peer group. (ibid. p.15)

Are these the attitudes and qualities we should be encouraging in our graduates or are there other practices which are preferable and which we should be

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developing? The learning benefits of a good crit should allow students to:

- reflect on their own learning in relation to their peers

- learn from their peers

- clarify ideas

- practice presentation skills

- develop their critical awareness

- receive feedback from their tutors and peers

- test ideas in a supportive environment without the pressures of the 'real world'

The 'big' crit and the 'big' presentation is viewed by students as an experience which 'has to be gone through', but without many positive benefits being cited by the students. The one exception being the opportunity of viewing the whole group's work in one place, at the same time.

Crits remain an experience which students are usually 'dropped into' without any prior training or briefing in how to give peer assessment or how to use the feedback they receive. Students are expected to learn as they go along, through this experience. It still remains, as evidenced through this study, very much a sink or swim scenario.

> *The thing about putting you on the spot and making you talk in front of the whole class can be intimidating to say the least. Sometimes, a lot of people nervously stand up there but it gets the better of them and you try and express yourself and nothing comes out or you say the wrong thing...it's purely one against everybody. It's a lot easier to express yourself in a smaller group of people. (K)*

Ownership:

There is also the question of ownership of large crits. The teachers I interviewed still generally run and control these crits and students were, to varying degrees, encouraged to 'actively' participate. This is evidenced through

my crit observations, all of which were completely different scenarios, which as shown, varied from a large whole group crit to student led crit sessions with 4-5 students. I observed crits where there was minimal dialogue between the teachers and the student whose work was being critiqued; and crits where teachers actively encouraged presenting students and their peer group to voice a viewpoint. The observed crits and the crits which were referenced in interviews were, in the main, teacher led. Peer feedback, when given, was usually through:

- teachers asking students if they had any comments, usually after they had given their opinions, rather than asking students directly what they thought about a particular aspect of the work, or

- by students giving written rather than verbal feedback after the presentation

One student stated that in crits with a teacher who was not interviewed, they were never allowed to talk, except during their own presentation, but had to sit and listen to just the teacher's comments on each presentation.

> In many cases the teachers hold conceptions of themselves as a resource of knowledge and /or skills to be drawn on. They perceive their role, as being the experts who have the knowledge and the skill, which at some appropriate point needs to be transferred to the student.
> (Davies, 2000. p.113)

There was evidence in the study that many teachers continue to teach in the tradition and ways that they were themselves taught (Reid, 2000), without any questioning of validity.

There also seemed to be reluctance by students to enter into a dialogue with their teachers during the large crit. Sara and Parnell (2004. p.59) in their research into the crit in architectural education, illustrate what a daunting

experience the crit can be

> The relationship between presenter and listener is made more problematic due to the unequal relationship of power between the two. This is due to the unequal spatial arrangements, the number of listeners in relation to presenters and, also of course, the positions of authority that tutors and visiting critics have in relation to the students (not least because they tend to hold the power of assessment). This asymmetrical power relationship inhibits dialogue, *(Willenbrock, 1991)*, meaning that limited numbers of students (both presenting and listening) truly contribute, 'and if there's no dialogue, there's no learning' *(Dutton, 1991, p94).*

Because of this emotional roller coaster and the dual role that students perceive tutors play, not just in formative but also in the summative assessment, students can sometimes have difficulty in associating the experience of the crit with a supportive learning environment where they can show any weakness or doubts or feel comfortable in voicing their opinions. (Black & Wiliam, 1998)

This study has shown that the crit can, in many aspects, inhibit the quality of the learning experience which takes place. Till (2004) indicates that the ingredients which make up the architectural crit are definitely not conducive to learning taking place.

> The crit places into a pressure cooker a combination of potentially explosive ingredients; students catatonic with tiredness and fear, tutors (mainly male) charged on power, and an adversarial arena in which actions are as much about showing off as they are about education. (p.15)

Many students who also see large crits as confrontational experiences where they have to 'defend' their actions rather than discuss or reflect on the process of learning, echo this sentiment. For the student, the value of formative feedback and dialogue is currently not being received and heard as effectively as it could be. As an academic community we need to re-evaluate the process and role of the crit and ensure that effective learning is taking place and that students feel involved in their learning.

> Teaching styles most conductive to the fulfilment of creative
> potential are those, which encourage student responsibility through
> ownership, trust and low levels of authoritarianism, providing
> individual attention and opportunities for independent learning.
> (Dineen & Collins, 2005, p.46)

The scenario favoured by the students interviewed as the most effective in
assisting in learning and lessen anxiety was the smaller seminar group. This
scenario may still contain some of adversarial elements of the big crit, but
because the seminar group is regarded as a more friendly, less threatening and
a more professionally relevant situation for students and teachers to discuss
and reflect on the learning process, any negative elements are more likely to be
diffused. Davies and Reid (2000), echoed by Till (2003) and Teacher 3 (T3),
question the relevance of the large studio crit event to the professional
environment.

> The public critique, often characterised by the teacher addressing
> each student's work in front of the group, seems in this context a
> dubious method of developing a student's conception of both
> learning and design. Notwithstanding the possibility of the limited
> conceptions of both learning and the design entity possessed by the
> teacher, the construction of the scenario clearly centres the teacher.
> Is this a method mirrored in the design profession? How does this
> crucial aspect of a student's learning experience map onto their
> understanding of the professional world? What construction of the
> design entity is being promoted in this context? (p. 183)

The teachers interviewed also agree that the smaller group seminar is a
preferred environment for learning. There were examples, at the crits I
observed where groups had been cut down because of their size, but even then
they still remained at fifteen or more students and students continued to indicate
anxiety about the crit. Increase in student numbers means that teachers often
still maintain a preference for the large crit to the smaller seminar / crit groups.

To allow students the opportunity to view other students' work as well as to feel
comfortable when presenting and talking about their own work, I would propose
that we need to further develop, review and share practice. Examples of areas

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that could be developed are that:

- crits become more student directed, encouraging students to become independent and autonomous learners from the beginning of their courses, with the teacher acting as well as initially a mentor, much more as a facilitator and as a member of a student / teacher team. This would allow students more control of their own learning and also give them more opportunity to practice feedback skills. Currently there exist a number of different models that could be developed further, such as team formative assessment of other students' work, as well as individual feedback from teachers.

- teachers prepare students for presentations by teaching them the skills required to carry out a successful presentation rather than, as is often currently the case, letting them get there by 'trial and error'. This would help alleviate any anxiety that the student may have about how to deliver the presentation.

- teachers need to reflect on their own practice and design pedagogy and reflect on what is the real function and purpose of the studio crit, rather than carrying on in the 'tradition' of the crit because that is how they were taught and this is the way it has always been done.

- teachers need to have more awareness and understanding of the impact that their feedback comments may have on student's perception of self.

> In higher education, one of the main problems is that many staff still rely on a very limited discourse about teaching and learning. When they are asked about their teaching, lecturers typically reply in terms of their teaching procedures, and find it difficult to provide either explanations or justifications for their actions. (Davies, 2000. p.113)

This study contributes to the empirical research around formative feedback to students. Feedback can only be valid if further learning takes place (Stobart,

2006). It is questionable as to whether the learning, which does take place at the crit is always beneficial to the student. The theoretical contribution that this study makes is in how 'self' and the individual student's 'perception of self' impacts on and can amplify or inhibit the learning experience. To enable student learning to achieve a deep rather than surface experience it is important that feedback is 'task' rather than 'self' focused.

This study has highlighted the need to continually review the design curriculum's modes of assessment and hopefully this research will link and extend the limited debate within the design disciplines with the current debates on the studio crit being developed in architectural education.

This study has allowed me an opportunity to look at a small aspect of design teaching and learning; the presentation and preparation, fear of the unknown, concentration on 'one chance' to get it right and factors such as tiredness or limited time to reflect.

The crit is a deeply rooted activity in design education. In light of the study findings, how can this research contribute to the pedagogic debate? Can teachers be persuaded to look at this research and reflect on the function and learning value for students of the crit, whilst retaining the creative qualities of the design disciplines?

> There is a tendency to view teaching and learning as essentially technical, skills-based processes rather than as cognitive, ontological and performative processes. (Dineen & Collins, 2005, p.48)

Design education is about verbal interaction. We need to ensure that the dialogue is, as Issacs (1999) describes

> *a conversation with a center, not sides (p.19).*

I intend, in my professional role, to take every opportunity to share and debate the findings of this study and to continue my research into this topic in further detail.

The outcomes of this research enable us (the academic community) to raise questions about the function and relevance of the studio crit to design student learning and the impact and effect that perception of self can have on student learning in general, but any change, review or shift in practice can only come from the wider academic community.

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Appendix 1

Interview Questionnaire
Questions on the studio crit to tutors and students

Could you tell me why you think you have crits?
Check for coverage of
- definition of crit
- purpose / value of crit

Do they always take place at the end of projects or do they happen any other time?
Check for coverage of
- timing /timetabling of crit

Have you encountered anything like the crit before coming on this course?
Check for coverage of
- prior experience of crits

What do you think is the learning purpose of the studio critique? Why is it there?
Check for coverage of
- tutor's perceptions of learning that takes place at the crit
- students' perception of learning that takes place at the crit

What is the learning value for you (teachers) /students of the critique?
Check for coverage of
- teaching and learning value for teachers and students
- analysis learning levels
- learn from peers
- learning from crits - teacher's intent

How do you know that learning is taking place?
Check for coverage of
- skills learnt in crits
- evaluation criteria used by teachers

Is there a learning value for tutors? (question for teachers only)
Check for coverage of
- teacher self-analysis of learning experience
- learning from peers
- definitions of learning from crits
- skills learnt in crits

Are there other ways that you can achieve this learning/these learning outcomes if the crit was abandoned?
Check for coverage of
- alternative learning and teaching practice

What are the beneficial aspects about crits?
Check for coverage of
- how formative feedback informs learning
- what is liked about crits - students /teachers

- looking forward to crits

What are the negative aspects of crits?
Check for coverage of
- crit dislikes
- barriers to learning

Do you have any fears/anxieties of the crit? What are they?
Check for coverage of
- self perception of crits
- analysis levels - related to emotions
- gender levels - related to emotions
- gender levels - related to learning

Are there any anxieties that you have observed in others during a crit?
Check for coverage of
- analysis levels - related to emotions
- gender levels - related to emotions
- gender levels - related to learning

Do you think the learning experience from crits could be improved? If so how?
Check for observations/opinion on
- improvement
- change
- depth of learning experience at the crit
-

Who takes the prime role in the crit? Students or tutor or is it equally shared?
Check for coverage of
- teacher's role
- student's role
- peer group role

What do you think is the relationship between the student/s and tutor/s in the crit?
Check for coverage of
- teacher's / student relationship
- student /peer group relationship
- teacher / teacher relationship

Does this relationship change as you get further into the course?
Check for coverage of
- familiarity of the crit process
- change in the crit process

What is the most difficult aspect of the crit to grasp?

Anything further you want to say about crits?