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# Design education through case study methodology

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## Abstract

*Within the practice of Graphic Design there are specific processes that make up the completion of a project. The aim of this pilot study is two fold, firstly; to develop a new teaching methodology making these processes clear to tertiary level graphic design students, and secondly; to serve as a source of reflection for design practitioners. To this end one process was investigated; client and graphic designer interaction.*

*In order to document and comment on significant designer/client interaction, the observation was carried out via video tape and the data analysed for verbal and non verbal behaviour; meeting sequencing and the comparison between how designers think they interact and how they actually interact. The video taped case studies, tried analysis and the results gained will be integrated into the design curriculum and serve as powerful learning tools, firstly at campus level and secondly into a Distance Education module. This is a multi levelled investigation revealing insights into client satisfaction and dissatisfaction; a learning tool for students and a source of reflection for practising designers.*

*This presentation will be supported by video clips and stills.*

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## Background

History reveals formal design education followed the same method of imparting knowledge as studio training, the method has been referred to as Master and Apprentice. In brief, an experienced designer takes on the responsibility of training an inexperienced student, in principle this is an effective mode of transferring knowledge from one person to another. Where this method is not successful is where there is one master and many apprentices, as found in design schools around the world. The question of how to effectively deliver design processes to large numbers of students has now become a high priority issue for design educators.

The School of Design in Curtin University of Technology has been experimenting with different methods of teaching in an attempt to discover effective modes of delivery. It became apparent that an appropriate method involved design practitioners speaking with and delivering briefs to the students. Their participation in the education process exposes the student to a variety of approaches and perspectives to the design process rather than modelling one approach given by the lecturer. The method involved design practitioners coming into the university and imparting case

studies to students. This revealed two inherent problems. Firstly, pinning down a busy professional to come in and speak and secondly, in this scenario the student is hearing an account of a past action, a thinking perspective of what occurred, which could be steeped in ideologies and perceptions rather than accuracy. These problems lead to the use of video recordings, which have proved to be an effective way of capturing and presenting design practitioners in action. Pinnington (1992) comments on the effectiveness of this method.

Video recording and video feedback (also called video analysis) have been used within education and training organisations for well over a decade. This can be a helpful way of developing learners, particularly those job activities that depend heavily on the learner's ability to communicate effectively, face-to-face. video recording and video feedback are often used to improve the learners' skills...<sup>1</sup>

Furthermore, this work follows on from investigations carried out in the School of Architecture in Curtin University, Western Australia by Peter Little and others, which used video techniques to study architects'

professional practices. These studies were informed by the research of Donald Schon, author of *Educating the Reflective Practitioner*. The following two quotes from Schon inform the studies position with regard to practitioner reflection and student learning respectively.

In different ways and to varying degrees, they observe, describe, and try to illuminate the things practitioners actually say and do, by exploring the understandings revealed by the patterns of spontaneous activity that make up their practice<sup>2</sup>.

The paradox of learning really new competence is this: that a student cannot at first understand what he needs to learn, can only learn it by educating himself through self discovery, and can only educate himself by beginning to do what he does not yet understand<sup>3</sup>.

### Introduction

As already noted, the aim of this experimental study has been to devise a new method of delivering design processes in order to minimise lecturer input, and cater for two types of student learning environments; large group tutorials and the student working alone. However, the research stretches beyond the overall tertiary education aim to encompass design practitioner action and reflection. Clearly, practitioner reflection is not a new area of research and has been thoroughly investigated by, for example, Donald A. Schon, but it is new to the Graphic Design profession and this research has revealed insights into client/designer interaction that are a significant contribution to the profession.

As a result this study is a multifaceted investigation providing; (a) a student centred learning tool, where a student can view a designer in action; (b) observing verbal and non verbal behaviour, building rapport, questioning skills and many more; (c) a source of reflection for the student and the design practitioner; (d) a micro analyses of what a design presenter intends to communicate and what is actually being communicated and finally; (e) an insight into the client/designer relationship.

Furthermore, it is time for Graphic Design to step out from assumption to factual based discussion and research. Hence, this study has been based on the theoretical approach of McLlveen and Higgins (1992), involving hypothesised experiments to effectuate quantifiable results.

Researchers at Curtin University, School of Architecture, lead by Peter Little, spent many years devising and using a methodology of analysis within the activity of 'action research'. The methodology involves video recording of exemplar architects carrying out skills such as; idea generation, design development and client liaison, which are pertinent to architecture. At the completion of a session, Peter Little and the exemplar debriefed the recorded session which had just taken place. The debrief session was also recorded and is referred to as the video notebook. The video recordings were then analysed by Peter, and finally presented unedited, to architecture students in tutorials.

The above methodology was adopted to cater specifically for graphic design education. As well as carrying out the micro analyses of the designer/client interaction, an edited version was prepared for student tutorial use. A considerable amount of work has been carried out in the genre of video recorded analyses Pinnington (1991) comments,

Learning with video can be sub divided into three key areas reflecting the major uses of video for assisting the learning process.

- 1 Market-produced video recordings (external and internal markets)
- 2 Video recording and video feedback (sometimes referred to as video analysis)
- 3 Learner-produced video recordings...

The three key areas demonstrate a variety of methods and approaches in the use of video. In each case, the learner benefits where the video is used as a tool for learning and is not treated as an end in itself. Video has to be applied flexibly to the needs and demands of the learners...<sup>4</sup>

This study falls into and extends the second key area, *Video recording and video feedback*.

According to Pinnington, this key area involves recording and analysing exemplars in action, who then choose and receive feedback on aspects of their performance. This study takes the approach further, by then presenting the recording as a learning tool to large groups of students. Students can observe, analyse, reflect and if appropriate, apply aspects of the exemplars' performance in their own presentation behaviour. Furthermore, in comparison to the first key area, *Market-produced video recordings* which involves slick production methods, this study captures raw unedited recordings of on the spot interaction which offers a dual benefit. For the exemplar, it provides the opportunity to view, reflect on and if necessary modify interaction behaviour based on actual behaviour rather than on a rehearsed version. The student on the other hand, is presented with the opportunity to observe, in-depth, the exemplars approach to interaction rather than the exemplars perception of the interaction.

To test the efficacy of the theories and methodological approach to this study, three experiments were carried out, each experiment was attached to one or more of the following hypotheses. The hypotheses are 'one tailed'<sup>5</sup> since the expected direction of the effect is stated.

- 1 Students will gain insight into design practitioner behaviour by viewing unedited video recordings of '*designers in action*'.
- 2 For the Graphic Designer viewing themselves in action and discerning between their philosophical approach to communication and how they actually communicate, serves as a valuable source of reflection, opening the opportunity for behaviour modification.
- 3 Design Education through Case Study Methodology via video recording could serve as the basis of a Distance Education Module as the lecturer would not have to be present for the student to gain the appropriate leaning experience.
- 4 A single video recorded Case Study of a Graphic Designer in action forms the basis of a number of student centred tutorials.

As already noted, three experiments were carried out to effectuate results in alignment

with the stated hypotheses. In brief, the first experiment; Designer/client interaction including designer reflection, aligns with hypothesis two. The second experiment; A trial to gauge the effect of the 'Case Study Methodology Tutorial' on student learning, and the third experiment; Testing the efficacy of the 'Case Study Methodology Tutorial' on student learning, align with the remaining three hypotheses.

### **Summary- including results of the Experiments**

*Experiment one:* Designer/client interaction including designer reflection.

Two design practitioners with experience in client liaison, and three clients currently working with the designers served as exemplars for this experiment.

The experiment began with interviewing the design exemplars to reveal their perception of good practice with regard to client interaction. Next, the interview was transcribed, to establish terms of reference when viewing video recordings of the exemplars in action. Shortly thereafter, the design exemplars were video recorded interacting with a client. At the completion of the recording, the video note book was used to provide the opportunity for constructive feedback and reflection for the design exemplars.

Furthermore, the video tapes were analysed to establish whether the design exemplars' philosophical stance towards client interaction was in fact in alignment with their actions. Later, the tapes were analysed further, for verbal/non verbal behaviour and meeting sequencing with the intention of developing a new method of delivering design processes to students.

The new methodology involved creating a tutorial that would minimise lecturer input and maximise student learning. For this purpose a tutorial was designed using a video recording of a design practitioner in action in conjunction with a workbook. The workbook served as a tool to focus the students on issues such as verbal/non verbal behaviour and

meeting sequencing. Subsequently the development of the tutorial lead to experiment two.

As a result, the video recorded evidence not only supports the relating hypothesis stated above but also revealed further insight into client/designer relationship, which will be discussed later.

*Experiment two:* A trial to gauge the effect of the 'Case Study Methodology Tutorial' on student learning.

To begin with three volunteers were asked from a group of 30, third year Design Major students.

Video techniques were used for the purpose of discerning quantifiably the efficacy of the case study tutorial on student learning. The students were video recorded presenting concepts to a mock client twice, once before the case study methodology tutorial and then again after. The two video recordings served as the apparatus for analysis to effectuate results of student learning by comparing the two performances. Next, the students participated in the tutorial. As already discussed, the tutorial involves the students viewing a video tape capturing the design practitioner interacting with a client. In conjunction with viewing the video the students progressed through a workbook which focused on verbal/non verbal behaviour.

As mentioned in experiment one the tutorial involved minimal lecturer input. In brief, the lecturer introduced the tutorial format including the aims and objectives, then went through the workbook clarifying terms and how to use the workbook. Once all students were clear the video tape was played and the students observed the verbal/non verbal behaviour while working through the workbook. However, the tutorial did not end there, the students were also required to undertake self observation through homework activities. To this end students not only observed the design practitioners presentation/interaction behaviour but also their own.

In conclusion the trial revealed positive outcomes which influenced the study to take the concept further by presenting a modified version of the tutorial to a larger group of Graphic Design Major students.

*Experiment three:* Testing the efficacy of the 'Case Study Methodology Tutorial' on student learning.

A group of 20, third year Design Major students participated in the tutorial experiment.

A questionnaire served as the analytical apparatus for this experiment. The students answered the same questionnaire twice, once before participating in the tutorial and then again after. The answers were compared to discern any increase in knowledge between prior to, and after participating in the tutorial.

The tutorial procedure is inherently the same as previously described in experiment one, with the exception of modifications such as: (a) The workbook format was changed to ensure functionality, including changing it from one to three focus sections; meeting sequencing, verbal/non verbal behaviour and homework. (b) The overall tutorial time was altered from one two hour session to; three, fifteen minute viewing sessions including the first fifteen minute session just for viewing, and the following two fifteen minute sessions for workbook time. Also additional ten minute blocks were added to include the introductions to the three workbook sections; a coffee break and extra time to complete the workbook.

Finally, the students were given one week to complete the homework and to hand in the workbook and second questionnaire. Consequently, seventeen of the twenty workbooks and questionnaires were handed back, ten revealed excellent in-depth responses and a substantial level of knowledge gained from the tutorial; four revealed sound responses, including a good level of knowledge gained and three revealed a weaker participation level and minimal knowledge difference.

The results are significant enough to conclude that the 'Case Study Methodology Tutorial' not only supports student learning but minimises lecturer input.

### Discussion

Research can reveal unexpected insights beyond the boundaries of the investigation at hand. These insights are worth discussing as they can form the basis for future studies. This discussion will disclose one distinction brought to light .

In brief, during the video notebook feedback session in experiment one, an insight into client/designer relationship was revealed by the client. The client divulged an awkwardness towards offering visual criticism to the designer. The client was clearly not a visual person and had employed the services of a designer based on that distinction. The dilemma for the client was how to deal with giving a visual opinion in light of not having any design knowledge or, in the words of the client ,”no artistic ability”. The clients issues drew a series of paralleled responses from the designer, for example; to what extent does a designer allow the client to input into the design visually?; where does the designer draw the line between client input and client interference?; and if a designer does have to draw the line, how could it be handled to ensure client satisfaction?

In response to the issues brought forward the design exemplar, client and researchers engaged in a conversation to desensitise the issue for both the designer and client. However, the issue requires further investigation to reveal tangible approaches for the designer towards enhancing client/designer relationship and ultimately client satisfaction.

### Conclusion

This study was conceptually inspired by the studies of Donald A.Shon (1991), Peter Little (unpublished) and Ashly Pinnington (1992). In conclusion, the results may be taken as further support for practitioner reflective practise and the value of using video as a teaching tool to reinforce learning.

Furthermore, this study also verifies the efficacy of using video recordings of design practitioners performing processes pertaining to Graphic Design, in conjunction with workbooks as student learning tools, to (a) minimise lecturer input, and (b) cater for two types of student learning environments; large group tutorials and the student working alone.

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