'Well said': Integrating language, learning and assessment to enhance student performance in design presentations

Jennifer Anderson and Jane Shepherd
Royal Melbourne Institute of Technology
Australia

Abstract

In design education students are expected to coherently communicate their design propositions visually and orally. Design studio teaching places a high emphasis on the spatial development and visual representation of student work. Usually little attention is given to the concurrent development of verbal communication abilities essential for students to explain their project during presentations for assessment. This paper explores the development of two new communication electives that target this gap in design studio education. The findings from the evaluation and review process of the electives reveal that decoding the discourse can result in teaching and learning strategies that successfully address some of the difficulties students face. It also highlights that the key issues that precipitated the development of these electives cannot be adequately addressed in gap-filling add-on courses that are not embedded into core curriculum.

Introduction

This paper charts the implementation and review of two recently introduced communication electives for undergraduate design students at Royal Melbourne Institute of Technology (RMIT) School of Architecture and Design. The aim of these courses is to provide learning opportunities for students to improve oral presentations skills needed for their design studio assessment. Design students are formally taught visual communication skills for effective representation of their spatial propositions, but are rarely taught the verbal skills needed for effective communication of their work or in preparation for professional practice (Greusel, 2002; Morton & O'Brien, 2005). Generally speaking, students are expected to develop this capability simply through repeated exposure to the task. However, our experience, supported by the broader literature, reveals that many students find this is an inadequate method for acquiring these verbal skills. To assist students, *Verbal: Spoken Word*, and *English for Academic Purposes* (*EAP*) - *Architecture and Design* were developed as elective courses in the School. This paper explores the learning and teaching outcomes of these two electives within the context of design studio education.

Design Studio courses in the School of Architecture and Design account for up to 50% of total undergraduate credit points. Each semester, between 12 and 15 students follow a project brief that frames their engagement in design exercises to develop key concepts and skills, which they then apply to the development of their design projects. Although there is an emphasis on the evolution of design practices, students are usually assessed on what they have 'on the wall' at the end of semester. The panel of critics composed of studio teachers and industry practitioners assess student projects by looking at and listening to the presentation, asking exploratory questions and making evaluative comments. This multimodal assessment task is authentic (Newmann, 1997, cited in Maclellan, 2004;

Wiggins, 1989, 1993) in that students demonstrate their construction of knowledge using analytical, information and communication-based tools that are appropriate to their development as future practitioners in design professions.

In framing and explaining the visual representation of their own creative output, students expose their artistic and intellectual selves to the unpredictable responses from the panel of critics, often experiencing high levels of stress and feelings of vulnerability. Strong anecdotal evidence suggests there is a mismatch of focus in the final presentation between the panel of critics (including the studio teacher) and the students. Teachers remark on the omission of a conceptual framework that had appeared to be articulated by students in their design process throughout semester; the students, who have spent days and nights focused on their design drawings at the expense of rehearsing their presentations, tend to suggest they have been poorly understood. They do not consider that this might be the result of their inability to interpret their ideas in spoken language. While their behaviour may reflect a reasonable perception that high value is placed on the creation and representation of form, compounded by accepted custom of "punishing self-sacrifice" within design culture (Anthony, 1987; Crysler, 1995; Stevens, 1995), it also suggests a lack of clear understanding of the presentation's purpose. In this sense some students are outsiders to their community of practice, displaying a lack of Discourse knowledge that can lead to a gap in 'metacognitive awareness', simply defined by Graham as an ability to "plan, control and evaluate" the learning process (1997, p. 42).

In general, the complex interpersonal dynamics of the presentation are not usually decoded for students. The interweaving of ideas using spoken, visual and kinaesthetic modes, and the complex roles and responsibilities that make for a coherent performance are assumed to be learnt through frequent exposure; however, observations of performances reveal that for those without insider knowledge (Fairclough, 1989; Kress & van Leeuwen, 1996; Lankshear, 1997) of design disciplines, this is not the case. Even though students make 20-30 formal presentations across the length of their degrees, many appear to lose rather than gain confidence in their ability to present projects successfully. Because presentations are so important in this culture, it would seem practical and strategic to unpack the hidden curriculum and demystify the presentation.

The two communication electives, *Verbal* and *EAP-Architecture & Design*, were initiated to assist students to become confident communicators of their own design projects. Both electives were open to all students at all levels; however *Verbal* was developed on the assumption that students would be reasonably proficient in English language, while the *EAP* elective specifically targeted students who had self-identified language and/or learning needs. This anticipated difference in student cohort, along with the different Discourse backgrounds of the teachers and the different modes of delivery (individual or team-taught; semester-long or intensive) led to the adoption of a range of different teaching and learning strategies.

Verbal combined social constructivist learning theory (Schofield, n.d.), analytical techniques from design practice, and performance skills from acting practice. *EAP* approaches were guided by language and literacy theory, in particular critical Discourse theory (Gee, 1992; Lankshear, 1997), with activities focused on individual development of metacognitive skills (Rivers, 2001) that would lead to higher cognitive level processing (Schraw & Dennison, 1994).

Course outline: *Verbal—Spoken Word*

The learning objectives for *Verbal* focused on student identification and analysis of presentation performance skills; identification and resolution of individual concerns; decoding and understanding the dynamics of presentations; and developing techniques for a self-assured performance. Eight weekly four-hour workshops included activities taken in part from acting practice that included breathing and voice, tone and attitude, body language, and presence (Merritt, 2003). Students developed skills for the stages of preparation, rehearsal, performance and post-performance reflection. The teacher (Jane Shepherd) established trust and modelled learning behaviours by leading potentially

confronting activities such as face-contorting techniques to improve voice projection. To accelerate trust-building, a classroom was selected in a remote location where students would not be under observation. Refreshments were served, giving students time to get to know each other. Once trust was established students reflected on and analysed their personal presentation experiences. Each week the teacher (an experienced presenter) recounted often humorous examples of her own critical incidents as a means of modelling the approach: identification of individual vulnerabilities can trigger a determination to find strategies for change.

Part of the *Verbal* assessment was based on the depth and quality of analysis and evaluation of the presentation performances observed during external lectures, Victorian Civil & Administrative Tribunal hearings, professional design presentations, and their own and their peers' presentations in the studio programme run parallel to the elective. The major assessment task required students to create a design presentation training manual, with examples directly drawn from their experiential learning. In these manuals, students described, applied, synthesised and evaluated aspects of the presentation performance in order to offer cohesive advice in a format useful for other design students. Responses in 2005 ranged from highly personal reflections about psychological blockages to more distanced reflections. For example, a student who identified her performance obstacle as stemming from negative self-talk adopted strategies suggested by cognitive behavioural therapy. This significantly enhanced her performance and self-confidence. Another student reflected on how voice training exercises had corrected a tendency for monotonous self-deprecatory delivery. A third student provided straightforward and useful advice, illustrated with humorous images.

The workshop activities and assessment tasks were devised to enhance and support the development of:

> …the students' sense of themselves and their relationships with the world around them… They have the confidence to speak in public, even though – presumably – they are aware that those public offerings are very liable to be contested … yet, they have somehow acquired a confidence to have a go, to launch themselves forth in a world that will furnish responses that cannot be entirely anticipated (Barnett, 2004, p. 253).

In the written evaluation process students were able to articulate how the learning objectives had been met and discuss their personal gains. However the teaching evaluation and peer review processes revealed some fundamental issues that require addressing. These will be discussed later.

Course outline: *EAP—Architecture and Design*

This *EAP* course was team-taught by a LAS teacher (Jennifer Anderson) and an Architecture teacher (Anna Johnson) in November-December 2004. It was delivered as an intensive two-week course, followed by individual and group consultations and meetings on three occasions in Semester One, 2005. It accepted participants from the end of first year through to the end of fourth year, and from a range of design programmes. Because students had already experienced at least one year of their programme, the skills focus was placed on development of metacognition: to independently reflect on, build strategies for, and monitor and review learning processes (Rivers, 2001) useful to engagement in their studies. The presentation component, identified by all students as a key learning priority, was assessed on demonstration of linguistic and cognitive skills resulting in a well-structured and coherent presentation, based on the most recent presentation they had given. Final assessment, through entries in learning contracts and journals, and individual interviews, took into account student ability to identify key areas of language and learning need, strategies to address these needs, and evaluation or modification of these strategies as they engaged in the studio process in 2005.

Classroom and assessment tasks were identified in team-teacher discussions, based on a collaborative analysis of teacher-student interactions in design studios and project presentations. Individual, group and whole class tasks were then organised to clarify the purposes of design presentations and analyse

the roles of student and critics through exchange of critical incidents; analyse the presentation structure using flow-diagrams and modelling (the content teacher modelled a presentation); identify strategies to improve performance (based on prior experiences); apply new understandings to the revision and performance of design presentation; and then test out and reflect on strategies used in the design and presentation processes in the following semester.

This *EAP* curriculum framework (designed by the LAS teacher on the basis of the identified learning gap) privileges the view that individual knowledge is socially co-constructed within a shared community of learning or Discourse (Falk, 1997; Gee, 1992; Lankshear, 1997). Gee defines Discourse (with a capital 'D' as distinct from small 'd' discourse) as "a site of social practices within which meaning and memory, believing and knowing are embedded" (1992, p. 141), involving "assumed roles, behaviours and communicative acts", and "the spaces and material 'props' the group uses to carry out its social practices" (Gee 1992, p. 107). All of us (individual learners and teachers) belong to multiple and potentially conflicting Discourses (Gee, 2003), bringing to the classroom environment a complex set of knowings and assumptions about ourselves as beings. Because responses to the Architecture and Design Discourse-specific environment will reflect these differences, this course design aims to make them explicit in classroom interaction. A fundamental part of this interaction is the genuine knowledge exchange between the LAS teacher and the content-based teacher about content, or language, or the relationship between them. The content teacher has what Bourdieu would term embodied cultural capital (in Stevens, 1995). This is identified by "attitudes, tastes, preferences and behaviours" (Stevens, 1995, p.109) that mark her as belonging to the Architecture School. As an outsider, the LAS teacher can help make explicit the realities of cross-cultural dissonance so that the Discourse can be explored from multiple cultural perspectives, e.g. regional, national, ethnic, linguistic, socioeconomic, familial, gendered, and so on.

Classroom activities, learning contracts, the journals, and interviews with students revealed evidence of emerging engagement through metacognition to activation of metacognitive processes that meet the constraints of the Discourse. For example, one student, who learned that her high voice pitch was a cultural challenge for the critics, determined to strengthen eye contact in order to increase her control of her presentation performance whilst maintaining an important part of her identity. Other students identified the analysis and appropriation of critic questions as central to their development of a more critical engagement with their design process. Through collective engagement in learning tasks (Bruffee, 1999; Felder & Brent, 1996, 2001) students explored the diversity of learning styles and approaches, and the end of course evaluations highlighted the value they placed on group discussions as a means of resolving language, learning and design problems.

Research methods

This joint study was initiated in mid-2005 when a shared interest in design presentation education was recognised. The study began with a peer review process to compare the outcomes of teaching to similar objectives using different methods. This review was guided by three key research questions about the courses:
- What techniques were used to meet the learning objectives and how effective were these?
- What theories explicitly or implicitly informed these courses and did these theories assist with achieving positive outcomes?
- What shortcomings were discovered?

The courses were analysed in terms of learner objectives, classroom tasks, and assessment outcomes in order to explore the effectiveness of our approaches. Extensive data of *EAP* student experiences were available through the inbuilt assessment tasks of learning contracts, journals, and written records of student interviews with the teachers (both present). *Verbal* students' written evaluation and notes from an in-class evaluation discussion were augmented by a student focus group conducted after course completion.

A literature review consolidated our understanding of the theoretical and pedagogical underpinnings that informed our courses, and the extent to which our imperatives are mirrored in the wider design education context.

Findings and discussion

The role of theories in explicitly or implicitly informing these courses

Our shared assumptions about learning and teaching are framed by a constructivist epistemology: teachers and students bring to the classroom a complex set of understandings, values and beliefs about themselves and others. It is through a process of identifying these 'knowings' that they proceed to learn through the co-construction of knowledge in complex social settings (Schofield, n.d.). This means that the classroom is a place in which diversity is the norm (Burke, Ahmed, & McKenzie, 2004), where classroom activities include a range of techniques to suit individual learning styles and skill-based needs. Quayle and Paterson (1989) suggest that design pedagogy should include instructor-centred, individualised, shared, interactive and experiential activities. The teacher therefore, on the basis of dynamic learner objectives, offers whatever will build on existing skills and knowledge to ensure that students discover what is required, how they might acquire the necessary skills or language to meet requirements, and how they might assess both process and outcome.

To support this process, we developed a scaffolding framework for both courses, working from the assumption that learning takes place through a process of knowledge-building and recycling, and by engaging with tasks that are challenging and within an individual's range of ability. For example, a *Verbal* student's confessions about nervous vomiting before presentations led to research about this symptom and subsequent implementation and evaluation of anxiety management strategies, shared with the class. In the *EAP* task that asked students to place designed forms on a continuum between binary opposites of "abstract" and "expressionist", students revealed both a reluctance to use the spaces between the polarities and an inability to use evaluative language (of degree or extent). It appeared that most were still employing an absolute approach to knowledge as opposed to a more contextualised approach, a characteristic of students in early tertiary transition (Perry, 1970, cited in Saljo, 1979). More simple tasks were then designed to focus attention on the language of critical evaluation, leading to development of a conceptual frame for their previous design presentations.

This process of construction (learning with and learning how) through engagement in task-enabling activity and language-mediated co-regulatory activity (Falk, 1997; Michell & Sharpe, 2005, p. 32) creates what Green (2005, p. 296) terms "spaces of influence [that] occur in negotiated contexts where learners and 'influential others' collaborate in their problem-solving to find effective ways of working, and gain fresh insights." In these spaces teachers and students can genuinely use what McWilliam calls "useful ignorance" (2005, p. 4), to explicitly explore ways to understand new concepts, new relationships between concepts and new applications for those concepts. As a consequence we may also un-learn ways of thinking and doing that are no longer appropriate for a given task (Bauman, 2004, cited in McWilliam, 2005; Pardoe, 2000).

Both the epistemological frame of constructivism and its related pedagogical frame of language-mediated co-regulated scaffolding merge well with our developing engagement with critical Discourse theory (Gee, 1992; Lankshear, 1997) and with Bourdieu's social theory of cultural capital (Crysler, 1995; Stevens, 1995). Apart from engaging in the teaching of design presentations from a desire for social equity and a voice for all, there is added pedagogical justification for decoding any discourse in an educational context because it enhances learning (Middendorf & Pace, 2004; Pace, 2004). More specifically, research from the University of Melbourne (Morton & O'Brien, 2005) suggests that design communication courses that use a genre-based linguistic approach to teaching the discourse of presentations as outlined by Swales et al. (2001, cited in Morton & O'Brien, 2005) are more effective than a public speaking approach. This has particular relevance when we reflect on the effectiveness of our own courses.

Effectiveness of techniques used to meet the learning objectives: EAP
In the *EAP* course, learner objectives were identified by the learners themselves. For example, one second-year student identified presentations in general as one of his highest priorities at the start of the course; by the end of the intensive phase, he had focused on relating his architectural form to a concept. In his final interview he said: "It was great. I structured my presentation. I cut out repetitive narrative. I focused on convincing the panel about my design instead of explaining the architecture" (Student G). His final learning contract identified essay writing as his next priority.

Key themes that emerged from student journal reflections and interviews included their recognition of the importance of conceptual thinking for design (as with Student G), and of monitoring the design process. Some students continued to analyse the presentation, participating in self-initiated critiques of their own and peer presentations, recording and analysing critic panel responses, and reflecting on the function or intention of tutor comments. Student G also noted that the presentation modelled by the content teacher helped him understand that the student's aim was to convince the panel of the integrity of the design. In contrast, his peer had not yet found a way to move to cognitive realisation:

> In my last crit, the guests said I was focused on form, not on main ideas. In the elective I learn that the most important part is the concept. But I couldn't spend enough time [on this]. I just draw draw draw and I'm not thinking. What can I do to improve the situation? (Student D, interview).

Some students became aware of the critical relationship between language and design ideas: they consolidated their thinking through writing or through discussion with critical friends inside and outside the design culture. After the *EAP* intensive, four international students initiated their own study group; within weeks the numbers had increased to 19, indicating the high value this cohort might place on collective learning. In consultations, journal entries and evaluations, the students amply demonstrated Green's claim that shared reflections on learning during and after engagement on specific tasks "can take learning to depths otherwise left unknown" (2005, p. 296). As one fourth-year Architecture student noted:

> After mid-semester crit ... I couldn't move on. So I decided not thinking by myself. I start talking to different people and explain my photos … they always ask me questions… Sometimes they will ask you something that you never think of it. The discussion might help you to move on or it might help you to step back. [And] when you are talking to someone you are listening on what you are saying at the same time (Student C, journal entry).

Effectiveness of techniques used to meet the learning objectives: Verbal
Through the written evaluation process *Verbal* students could clearly articulate the ways in which workshop techniques and assessment requirements assisted their learning. One student commented on the analytical assessment tasks:

> Critiquing other students' presentations was very useful. I learnt to observe others while they were presenting. I could then decide what techniques made presentations better, and what caused them to fail. It was like a 'living' example each week of what was written in the text[books] (Student L).

Students noted the positive impact the course had on their development; for example, one student stated: "I was really satisfied with the educational method used in the course because it helped me go through a positive change and improve my self-confidence" (Student Q). The same student placed a high value on learning from others: "listening to others helped me to relate to my own problems and try to find solutions" (Student Q). The emphasis on building social relationships was seen as increasing opportunities for learning. One student favoured "the very relaxed nature of the class and making friends at the same time" and employed water-based metaphors to describe the learning experience:

> Often I would feel intimidated in these situations but as we are all in the same boat we push each other along … and I am so glad I pushed myself to take the plunge - jumping in the deep end and learning to swim so to speak (Student M).

Techniques and exercises identified as effective for use in future presentations focused on eye contact, posture and voice. This same student appreciated that "the atmosphere of the classes included picking out what works for you, not 'this is how you should do it'…" (Student M). Practical suggestions for improvement included recommendations for a longer elective.

Shortcomings and tensions

While the course evaluations provided evidence that both courses had well aligned components of objectives, activities and assessment mutually reinforcing each other (Biggs, 1999), each course had its shortcomings - not necessarily always evident to the students.

Verbal: In this course there was an inadequate exploration of the relationship between the visual presentation (and its encoded narrative) and the spoken presentation. On reflection, these two forms of communication must be developed in tandem for students to achieve high quality presentations. However, in one of those unforeseen moments, a student developed a storyboarding framework for presentations, which he taught to other students, thereby helping to fill this teaching gap. Furthermore, while there was considerable discussion about the role of critics and critic attitudes and behaviour, very little accurate decoding of how to understand and respond to critic feedback occurred. Future iterations of this course will benefit from the decoding potential offered by Discourse theory (already actively used in the *EAP* course) to assist students to make sense of the culture they are operating in, and its specific requirements.

EAP: Team-teaching and cross-Discourse collaboration produces tensions that are both stimulating and frustrating. The tensions identified by both teachers included: content versus language/study skills as the focus of learning; uniformity versus diversity within the Discourse or culture (Ahrentzen & Anthony, 1993; Crysler 1995); the value of individual over group endeavours (Anthony, 1987; Frederickson, 1990; Stevens, 1995); and instructional versus task-based teaching approaches. Both teachers acknowledge that they do not expect to resolve these tensions that are associated with divergent Discourses, individual values, and teaching and learning experiences. Instead they are looking to continue an open engagement with these issues in and out of the classroom.

In the two-week intensive phase of the *EAP* course, it was noted that some tasks presented too high a challenge for low language proficiency students, without providing the requisite high level of support that might characterise optimum conditions for scaffolded learning (Mariani, 1995, cited in Hammond & Gibbons, 2005). However, the situation improved once students worked on their own skills development in the following semester. *EAP* course delivery conducted in 2005 confirmed that a focus on metacognition did not appear to support students with low levels of language proficiency and/or cultural understanding, and this brings into question the value of such a short intensive course for these students. In addition, the initial euphoria about the synergy between the *EAP* course and the initiation of study groups has proved to be dependent on the drive of certain student leaders or mentors within a given programme. Despite the evidence of successful collaboration, it could be argued that students can become trapped in the individual creative moment as valued by the Discourse.

Our current elective courses have a very limited effect in that they can only be taught to a small number of students at any one time. However they have provided opportunities to develop experimental methods that could over time be transferred into studio education. Whether this is likely in the short term depends on the extent to which the culture of the Discourse allows for this shift in practice. Stevens (1995, p. 112) and Crysler (1995, p. 211) would argue that Architecture Schools work on the principle that you either have embodied cultural capital (in the Bourdivin sense), or you do not belong. Therefore the Discourse may be antithetical to *teaching* students to 'talk the talk'.

Our recent investigations of critic responses to presentations has revealed that many students were not able to process the complex question forms, nor were they able to interpret the intentions behind questions. Anthony's (1987) study of architecture students revealed that only a handful were able to hear criticism. She interpreted this as the result of exhaustion and anxiety. Two other possible reasons are that the questions take on a complex linguistic form that, if understood, require a deep level of processing in a very limited timeframe and that the deep processing of knowledge required to answer these questions is perhaps beyond the cognitive range of some students. Further, the intentions of questions put forward by a given critic depend on the role that critic has assumed: assessor, reflective practitioner, or performer. While some of the questions may appear to be seeking co-regulatory dialogue with the student, they are most often interpreted by the student as requiring a defense or validation response (Coyne, Snodgrass, & Martin, 1994, p. 110). The LAS teacher's observation of recent RMIT Architecture presentations noted that one student consistently mistook rhetorical questions as questions requiring justification of her design choices, until interrupted by her teacher, and told to listen and learn.

A more detailed discourse analysis of student performance, critic response, and critic-student interaction in project presentations is likely to support the argument for the integration of presentation skills within the core curriculum and assist with a more open engagement on these issues within the School. This work has already begun.

Conclusions

Broadly, our literature search revealed we are not alone in identifying project presentation skills as an area of significant need for design students. While this need is widely recognised, it is rarely addressed (Ahrentzen & Anthony, 1993; Anthony, 1987; Crysler, 1995; Frederickson, 1990, 1993; Stevens, 1995). Our findings from both courses indicate that a clear understanding of the project presentation is central to student ability to display the skills and understandings they have acquired during the design process. Our ongoing Discourse analysis of communicative interactions during assessment performance is assisting us to help students understand communicative practices within design studio culture and education. Even when and if presentation skill acquisition is taught as part of design studio teaching practices there will be a continuing need for projects that focus on finding ways to reveal the hidden curriculum to students so that they can more successfully participate in their design education.

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