Optimising Studio Outcomes: Guidelines for Curriculum Development from the Australian Studio Teaching Project

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ABSTRACT
The focus of the Studio Teaching Project has been the identification, description and investigation of the circumstances and characteristics of studio teaching models in the discipline areas of Art, Architecture and Design. A further aim was to uncover effective studio practice in each of these disciplines to inform curriculum development, future practice, and professional development for studio teachers, and to help shape university policy with regard to appropriate resourcing.

INTRODUCTION
The Studio Teaching Project (STP) began with the assumption that studio teaching is a central component of the curriculum in the areas of architecture, art and design. Teachers of studio know that it is a potent way of learning which uses a model of education in which students are immersed in a milieu of reflective creative practice, working alongside, as much as under, the guidance of a practitioner/educator (Schön, 1983). Yet, at a time when education at all levels is increasingly required to benchmark achievements, the question of how studio teaching contributes to student learning and what approaches specifically enhance the outcomes remain.

The Project took the views of academic staff involved in studio teaching – in the classroom and/or in program leadership roles – as fundamental to answering the question of what most contributes to successful, even ideal, studio classes, and what needs to be done to attain the best studio outcomes in the future.

In addition to an extensive review of literature on studio teaching, there were three main sources of primary data for the project: (i) workshops and papers associated with three National Forums on Studio Teaching (2007, 2008 and 2009; see Forsyth et al. 2007 and Zehner et al. 2008), each of which attracted in excess of 80 participants; (ii) an online survey of Australian academics (2008) that included 352 respondents1 who reported in detail on 301 specific studio projects/classes (see de la Harpe et al. 2009); and (iii) a 2008-2009 survey of heads of 28 schools or departments from 19 Australian universities with Art, Architecture or Design degree programs (see Frankham et al. 2009).

KEY INDICATORS OF EFFECTIVE STUDIO
As suggested by the multiple sources of data noted above, the project addressed the matter of identifying factors related to successful, effective studio experiences from several directions.

Results from the Survey of Academics, for example, are summarised in Table 1 below. It is appropriate to note that the Australian academics who reported on their studio teaching experiences were experienced teachers, with 62% having 10 or more years teaching in the studio.

The table reflects a categorisation of responses in line with the project’s three broad discipline areas, namely Art, Architecture and Design.

The range of design-related sub-disciplines that were part of the overall coverage of the Studio Teaching Project is evident in sub-disciplines that were incorporated in the broader Art, Architecture and Design categories.

1 For information on the survey sample, see Zehner et al. 2009, Appendix One. 352 cases represent a 35% response rate.
The three discipline areas incorporated the following sub-disciplines:

**Art:** Fine Art (including painting, sculpture, printmaking, drawing, and photography), Crafts (including ceramics, jewellery, textiles, glass, and furniture), Digital Media, and Media Studies

**Architecture:** Architecture, Interior Architecture, Interior Design, Landscape Architecture, and Urban Design/Urban Planning

**Design:** Industrial Design and Visual Communication/Graphic Design

(Note: A majority of the items in the STP Academic Survey asked respondents to describe and assess the studio class/project in which they “were most involved during 2007 (or the most recent year in which you were involved)…” Studios were classified by respondents according to their disciplinary “home”. Five per cent of the studios had ‘multidisciplinary’ homes, and are shown that way below. While the number of responses varied by item in the survey, the basic Ns for the discipline areas noted below are: Art (117), Architecture (119), Design (50) and Multidisciplinary (15).)

<table>
<thead>
<tr>
<th>Panel A: Major elements defining best studio experience as a teacher (percentage of respondents; multiple responses)</th>
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<tbody>
<tr>
<td>Quality of project</td>
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<tr>
<td>Reasonable class sizes/groups</td>
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<tr>
<td>Quality of students</td>
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<tr>
<td>Satisfying outcomes</td>
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<tr>
<td>Dedicated studio space / facilities</td>
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<td>Positive studio atmosphere</td>
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<tr>
<td>Quality of staff</td>
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Table 1: Indicators of what leads to effective studios

Source: STP Survey of Academics

<table>
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<tr>
<th>Panel B: Essential components of an ideal studio experience (percentage of respondents; multiple responses)</th>
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<tbody>
<tr>
<td>Positive studio atmosphere</td>
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<tr>
<td>Quality of project</td>
</tr>
<tr>
<td>Access to work space, equipment</td>
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<tr>
<td>Quality of staff/student interactions</td>
</tr>
</tbody>
</table>

Panel C: Major reasons for success in selected studios (percentage of studios; multiple responses, but not all respondents answered)

| Quality of teaching                                          | 29 |
| Quality of students                                          | 29 |
| Positive studio atmosphere                                   | 29 |
| Good staff/student interactions                              | 29 |
| Reasonable class sizes/groups                                 | 29 |

Panel D: How successful was this selected studio? Respondent’s perspective (percentage of studios; may not add to 100 due to rounding)

| Not very successful                                          | 1  |
| Mixed results                                                | 3  |
| Successful                                                   | 32 |
| Very successful                                              | 32 |
| Excellent; one of the best ever                              | 15 |

Table 1 provides multiple perspectives on what leads to the most effective studio experiences. Panel A focuses on the key elements that contributed to the respondents’ best studio experiences as a teacher; Panel B focuses on what respondents felt would be the main components of an ‘ideal studio’; and Panel C provides an insight into what factors respondents felt were most associated with success in the selected studio in which they “were most involved during 2007 (or the most recent year in which you were involved)…”

What is evident in Table 1 is the extent to which the ‘quality of the studio project’ is at or near the top of the list no matter which perspective is being reviewed. What is also evident is that there are differences in the rankings of factors linked to both the way the topic was raised, and by the disciplinary ‘home’ of the selected studios.
In the case of the respondents’ best experiences as a teacher (Panel A), in aggregate the theme that most often appeared as the leading indicator was the quality of the studio project, followed by reasonable class sizes and the quality of the students. In response to the question about an ‘ideal’ studio experience (Panel B), the leading mention was having a positive studio atmosphere, followed in this case by the quality of the project and access to suitable work spaces and facilities. Panel C, where the focus was on what most influenced the outcome of the selected studio, suggests that in aggregate the quality of the project was again the main factor (though notably less so in the Art discipline area), closely followed by the quality of teaching and a positive studio atmosphere. Finally, Panel D provides a snapshot view of how successful respondents felt their selected studios had been. Roughly half of these studios were reported as ‘Very successful’ or ‘Excellent; one of the best ever’. (The higher ratings of the Multidisciplinary studios are worth noting, but also worth noting is that the percentage reflects a limited number of multidisciplinary studios being considered by the respondents.)

A close review of open-ended responses in the Survey of Academics showed, not surprisingly, that there was no single definition of what goes into a “high quality project”, but there were clear indications of what worked well: studios which were challenging; inspiring; multidisciplinary; real world; multilayered; interesting; and relevant.

The notion of “real world” projects, especially those that relate to the workplace or industry, was seen as significant both by the teaching academics, and by heads of school and department in responses to the STP Head of School Survey. One reason put forward was that they are often seen as more engaging by students, and thus more likely to stimulate their interest – itself a key factor in a successful studio. Such projects are also seen as enhancing the development of critical skills in students through the in-built dialogue that comes from the introduction of real world elements, such as a genuine client in architectural, design or public art studios (see Clay, E. H. 1974).

“Real world” projects also tend to be more complex, and less able to be restricted and delineated. There are a number of consequences of this complexity. One tends to be the introduction of interdisciplinary or cross-disciplinary aspects into the studio (Corkery et al. 2007; Selva and Carulli 2007). Complex “real world” problem solving in a project is also seen as introducing a density and challenge to the studio that requires experimentation, collaboration, playful and imaginative responses, and a genuine integration of theory and practice, all focussed by the student perception of relevance. A sculpture studio which addresses public art in an actual context (and possibly with an actual client) requires fine art students to address urban planning and regulation, architecture, engineering and materials in addition to sculptural and fine art concerns.

In the context of the other qualities of successful projects however (stimulating, challenging, student centred learning), we can see that addressing real world issues is not an alternative to these qualities, but a common means to achieve them. Projects that challenge a students’ previous approaches, that require collaboration and the integration of approaches and understandings, and which ‘stretch’ students while also engaging them, are clearly critical to successful studios across all disciplines, whether or not they are anchored in “real” scenarios or not.

Though there were clearly overlapping concerns across the Academic Survey and the Head of School Survey, the latter led to slightly different descriptors of the most crucial qualities of successful studio teaching. In terms of ‘the people factor’, heads of schools/departments affirmed the importance of having a skilful academic teaching staff (see also Musgrave et al 2007), excellent technical staff, and enthusiastic and motivated students. Necessary ‘facilities and resources’ included flexible studio spaces, appropriately equipped workshops, and industry standard ICT software and hardware. Next, and in line with the Survey of Academics, the heads of school nominated high quality projects – challenging and inspiring studios, with a focus on student centred learning, and relevant to contemporary industry workplace problems.

**Dedicated studio space**

The extent to which dedicated studio space is available for students is a concern voiced by respondents in both the Academic and Heads of School Surveys. Drawing on the Academic Survey results, and focusing again on the selected studio, respondents were asked to indicate the extent to which dedicated space -- individual work spaces and/or group work spaces -- had been available.

Undoubtedly the most striking figures in Table 2 below are in the top row. Overall, in 43% of the selected studios no dedicated space (individual or group) was available. The discipline area most likely to have some sort of dedicated space available was Art, and in fact half of the Art studios reported on included dedicated individual spaces.
The next table focuses on the relationship, in aggregate, between having dedicated space and the reported level of success of the selected studios.

Table 3. Rating of studio success by availability of dedicated studio space (percentages of studios)  
Source: STP Survey of Academics

<table>
<thead>
<tr>
<th>Rating</th>
<th>None</th>
<th>Individual</th>
<th>Group &amp; shared</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed or less favourable</td>
<td>15</td>
<td>18</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Successful</td>
<td>32</td>
<td>36</td>
<td>28</td>
<td>34</td>
</tr>
<tr>
<td>Very successful</td>
<td>46</td>
<td>37</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>Excellent; one of the best ever</td>
<td>10</td>
<td>7</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>41</td>
<td>41</td>
<td>42</td>
</tr>
</tbody>
</table>

Two aspects of Table 3 are of particular note. First, it is evident that studios where dedicated individual work space was available, and ideally, where both individual and group dedicated spaces were available, were more likely to be associated with ‘Excellent; one of the best ever’ ratings of the selected studios. On the other hand, and equally important is that finding that with no dedicated spaces of any type available, over half (56%) of these studio were rated ‘Very successful’ or ‘Excellent; one of the best ever’. Also of note (see top row of table) is that whatever the extent of available dedicated space, roughly one-sixth of the selected studios was rated a mixed success (or even less favourably).

**Dimensions of studio assessment**

A central component of the studio experience is assessment. To better understand the emphases of assessment practices across Art, Architecture and Design, a broad-based review of literature related to studio teaching was undertaken which identified three major dimensions for studio assessment. (See de la Harpe and Peterson et al. 2009, and Zehner et al. 2009, Part Five.) These dimensions categorised assessment practices as focusing on the Product (e.g., content knowledge), the Process (e.g., reflective skills and professional awareness), and People (e.g., personal development). Assessment criteria in the Art, Architecture and Design discipline areas were seen to follow different emphases: Art (Process, followed by Person, then Product); Architecture (Product, followed by Process, then People), and Design (Process, followed by Product, then People).

An elaboration of relevant criteria (“indicators”) for assessment identified a series of more detailed dimensions that could be applied to studio assessment situations, including, for example, Concept resolution, Presentation, Interdisciplinarity, Engagement, Self-awareness, and Self-management. However, it was also recognised that these indicators, by themselves, struggled to capture the “magic” that can emerge in studio -- that intangible/intuitive essence that is often as easy to recognise in studio, as it is difficult to describe – clearly an area for further research.

Five principles for the application of these indicators are suggested:

1. The indicators are flexible in that every indicator does not need to be assessed every time.
2. The indicators can be used at both the individual subject and degree level as a touchstone to facilitate reflection on, and re-alignment of, assessment in studio.
3. The dimensions and associated indicators can be used to support developmental assessment as students progress through their degree program.
4. The indicators can be used at the individual subject or degree level to inform the design of studio assessment tasks and the development of assessment rubrics.
5. The indicators can be openly discussed with students and in this way facilitate the development of a shared understanding of what is being assessed and why.

**CONCLUSIONS**

A synthesis of findings from across the Studio Teaching Project (literature review, National Forums, Academic Survey, Heads of School Survey) led to a series of interdependent benchmark statements about effective practice in studio that can be used by studio teachers to reflect on their practice, and by those involved in curriculum design, development and review.

These benchmarks are:
- quality projects;
- quality staff;
- positive studio community;
• student engagement and commitment;
• high level of interaction;
• effective collaboration amongst students;
• reasonable class and group sizes;
• connection with industry and the profession;
• a variety of studio outcomes; and
• provision of appropriate studio spaces and facilities.

Benchmarks “in practice” are likely to be even more useful to those developing studio-based curricula, and to that end the Studio Teaching Project compiled an extensive range of examples of how Australian academics have approached and implemented a variety of effective studios. (See Wilson and Watson 2009.)

One of the overall conclusions of the Studio Teaching Project has been that high quality studio experiences are never simply determined by any one of the key variables or benchmarks. The spirit of studio teaching is the creation of an open-ended space of exploration in which students and staff work collaboratively. The importance of the ‘project’ in a quality studio points us to what is really significant in all studios: challenge, inspiration, multidisciplinarity, relevance, the taking of risks, and the unpredictability of the speculative. In these may lie the ‘magic’.

REFERENCES


Support for the Studio Teaching Project was provided by the Australian Learning and Teaching Council Ltd, an initiative of the Australian Government Department of Education, Employment and Workplace Relations. Project Reports may be downloaded from www.studioteaching.org