Teaching Design in Adolescent Environments: Twinning Secondary and Tertiary Learning Experiences

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Increasingly our landscape architecture teaching and educational pedagogies are facing an internationalisation in approach and expectation. We are positioned within a tertiary learning layer in a tripartite educational system for which each layer assumes certain expectations and outcomes. But their vertical linkages are unclear, and we incorrectly assume continuity of knowledge and skill learning strategies. It is a horizontally stratified teaching setting that we have to work within and while we can think of internationalisation as occurring within our level we need to appreciate that internationalisation is also occurring at the secondary level.

This paper discusses the educational environment within which globalisation is occurring, and reviews a project model that builds bridges vertically between secondary and tertiary learning environments. The project displays possibilities in both secondary and tertiary educational sectors, but especially in enhancing and improving the design fluency of our annual incoming cohorts who often possess a naive understanding of built environmental design. Commencing in 1998 as an experimental project, it has been recognised at the South Australian state level as a forward-thinking initiative that has radically transformed secondary school Design teacher's perspectives as to educational possibilities, and substantially matured attitudes to landscape design by both suites of participants. As a consequence, it is an educational project that has experienced requests from numerous secondary schools around the State to participate.

THE EXPERIMENT AND OUTCOMES

ONE OF THE CHALLENGES in tertiary landscape architectural education is to instil confidence in students and to entrust in them mature and informed organisational and communication abilities. This objective quietly parallels our desire to engender design fluency and empathy, as well as critical analysis and synthesis skills.

In South Australia, as in most states and provinces in Australasia and North America, secondary school curricula is clearly defined and often has a detailed list of learning expectations and requirements that are predicated upon a certain knowledge and skill proficiencies when our students reach Year 12. A clear challenge in secondary school design education is to introduce students to built environment design and its possibilities. It is a challenge that seeks to provide students with the basic skills and principles in both theoretical and applied realms. 'Design', as a secondary school course, has been introduced in Australian secondary school curricula over the last ten years but, in many ways, it is insular and not progressive in its educational 'adventures' and outlook. This insularity has a corollary impact upon the perspectives and preconceived notions of many of our first-year tertiary landscape architecture students.

In 1988 an innovative course was first devised at the University of Adelaide with Design & Art staff at Seaton High School. A change in staffing forced the relocation of this course to Adelaide High School, and, in the last year, it has been expanded to include Design staff and students at Pulteney Grammar School in Adelaide because of student numerical growth and demand. In essence, Year 10 or 11 secondary school design students are placed into work teams with Level 3 landscape architecture students in a 1:1 ratio. Each team devises a conceptual design for a precinct at the host secondary school. Along the way, principles and possibilities about landscape design and art are introduced, discussed and analysed as contextual devices conjointly by university staff from the landscape architecture and visual art disciplines. The project forces tertiary students to project manage the team, to work tasks that have been strategically devised, and that incorporate ideas that do not compromise respective participants' ideas and designs. The students need to be able to discuss, tutor, guide, negotiate, lead, listen, reminisce and compromise their own values all at the same time, because suddenly time is an urgency, each participant is bound by individual and communal assessment criteria, yet they need to respect and understand other's desires and 'designs'. A significant amount of trust is involved in the competency standards and the ability of landscape architecture students to deal with this face-to-face client situation, whereas the secondary students view the experience as a unique opportunity to 'taste' design and to accelerate their knowledge within this realm.

Clear outcomes at secondary level have been rapid maturity with regard to design fluency, thereby resulting in higher grades in successive years than non-participating schools. At the tertiary level, evident learning outcomes include: increased appreciation of client communication and the need to harness client involvement, accelerated focused learning and understanding of landscape design, together with enhanced micro-design skills.

It also needs to be understood that the course is positioned both theoretically and strongly within the nature of the South Australian design culture. Within this culture, multidisciplinary projects, rich in place relationships and art are peculiar to, and have the hallmarks of, the style of design and planning tertiary education strategies employed in South Australia. These strategies are embedded in the unique socio-democratic consultation, planning and design traditions that explain the origins of the colony/state and the design ethos that pervades today. Within the State it is an institutional expectation that a multidisciplinary team is always assembled for a project irrespective of the size or monies involved.

LESSONS FOR INTERNATIONALISATION OF EDUCATION

While we concentrate our discussion on the increasing internationalisation of landscape architecture education as it grapples with the information technology culture it is now positioned within, and the increasing globalisation of programme internal university and professional accreditation structures and learning outcome expectations, it is important to place this discussion in context. The tertiary level is dependent upon the students that we receive that have already been

conditioned by their secondary learning experiences and the assessment structures that underpin this level. Increasingly, we are witnessing an internationalisation of secondary school offerings and expectations, and the rapid growth and acceptance of the international baccalaureate is indicative of this trend. But why are we not building vertical bridges in this globalisation process? Why are we not involving ourselves in, and taking up the challenge of, seeking to direct the nature of this secondary school experience so that it is conducive and responsive to our tertiary learning structures while at the same time fostering a wider and younger appreciation of the merits of landscape design? This question is especially pertinent when we reflect upon the nature of secondary education that is often heavily structured, dependent upon rote learning methods, and denies little opportunity to explore or evaluate critical learning, design process exploration, project-based learning, and critical reflection that are the hallmarks of most landscape architecture programmes.

This paper proposes a highly successful teaching model that is predicated upon vertical rather than horizontal globalisation education strategies, and points to an approach that can benefit both secondary and tertiary levels to the advantage of our discipline.

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APPENDIX

South Australian Certificate of Education (SACE)

The SACE curriculum includes a course entitled Design that seeks to address learning strategies characteristic to those employed in design processes "(eg. processes such as creative problem-solving, decision-making, and evaluation in response to clearly articulated problems; and the ability to apply these processes as life-long consumers and critics of design)". The SACE description for this course proposes the following:

Creating

Students should be able to:

1. recognise, negotiate, refine, and state a 'design brief', and determine relevant areas of research using a variety of methods;
2. use a variety of methods to generate novel, creative, diverse ideas, and document the development and evaluation of these in relation to the design brief;
3. establish priorities, explore and evaluate solutions, redesign if necessary, and document all decisions made in determining a final solution;
4. present the design(s) using appropriate methods, media, and skills.

Perceiving

Students should be able to:

5. use the appropriate oral and written language of the subject;
6. show an awareness of, and ideally experience, the direct relationship of design to the world of industry, production, commerce, and marketing;
7. consider and appreciate the cultural significance of works of design;
8. realise the value of good design practices in meeting environmental, economic, and human needs.

The structure and organisation of this subject seeks to address three aspects of learning:

- Creating works of design,
- A study of contemporary practice of design,
- Design and culture

Assessment principles for this subject seek to:

- encourage a sense of self-worth, individuality, shared responsibility, and discernment;
- encourage and assist learning which is inclusive of gender, geographical location, culture, socio-economic group, impairment;
- encourage students to strive for excellence in a variety of arts activities;
- encourage students to present a variety of activities for assessment;
- acknowledge the appropriateness of a variety of learning styles;
- acknowledge the importance and different purposes of process and product in the arts;
- be viewed as a continuing process that enables achievement to be continually re-evaluated;
- encourage students to acknowledge standards of achievement in the arts;
- recognise, reward, and respond to perceived student achievement.

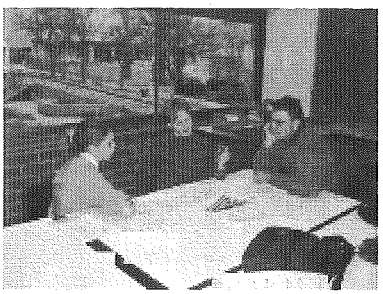

Figure 1: Co-Instructor and Visual Artist Martin Corbin (right) discussing a design proposal with Paige Jury (Pulteney Grammar School student) and Michael McDonald (University of Adelaide student).

Assignment Arrangements – Adelaide High School/Pulteney Grammar School – Year 10

Task #	Task	Assessment Criteria	Mark / Grade (%)
1	'A Special Place to Sit' • an individual three-dimensional representational exercise in presenting an individual interpretation of which a seat or 'a special place to sit' symbolises to that student;	• three-dimensional representation of a 'special place to sit'; • oral communication of the ideas behind and contained in the representation; • social and cultural richness of information provided.	20
2	'Site Analysis' • individual exercises that involve: – diagrammatically 'mapping' the way the area is used at different times of the day; – consulting various community/user groups to produce a written report assessing their perceptions of the sit.	• oral communication of the ideas behind and contained in the representation; • social and cultural richness of information provided; • graphic creativity in communicating the information. • clarity and succinctness of the text; • clear organisation and communication of ideas.	20
3	'Design Concept' • team preparation and oral/visual presentation of 2 design concepts for the project site, having regard to their design brief;	• clarity and the level of development of the conceptual ideas; • level of richness and creativity resident in the concepts; • oral communication of the concepts.	20
4	'Final Design' • team preparation of one final design (comprising a minimum of a master plan/design, a set of images, and a model) proposal for the subject site, having regard to the design brief;	• clarity and the level of development of the conceptual ideas; • level of difficulty contained in the nature of the design and the quality of communication forms (posters, models, and so on) developed; • level of richness and creativity resident in the concepts.	20
5	'Final Design Presentation' • team presentation; the visual and oral communication of the final design proposal;	• quality and clarity of the oral communication; • cohesiveness and structure of the oral communication and visual support material; • participation by all team members in the oral presentation.	10
6	'Team Contribution' • evaluation of the role, competency, and collaborative skills of the student working in the team environment.	• active participation and reliability; • ability to work cooperatively in a team environment; • contribution to the creative process; • organisation and time management.	10
			100

Assignment Arrangements – The University of Adelaide – Landscape Design Studio III/IV Students

Task #	Task	Assessment Criteria	Mark / Grade (%)
1	'Surveying the Site' • group survey theory applications and practice and mapping of a survey of part of the project site;	• successful fulfilment of surveying theory exercises; • completion and compilation of a feasible base map; • team management to complete the tasks.	10
2	'A Special Place to Sit' • an individual exercise that involves graphically 'mapping' two different social spaces on a school campus;	• oral communication of the ideas behind and contained in the representation; • social and cultural richness of information provided; • graphic creativity in communicating the information.	10
3	'A Response to the Design Brief' • a team development exercise that identifies the client, the clients needs, issues that need to be addressed in the design, and ideas to provoke and be creative;	• clarity and succinctness of the text; • clear organisation and communication of ideas; • recognition of the stakeholders involved in the project directly and indirectly; • addresses client identification, needs and issues involved in the project execution; • is it framed in a sense of reality.	10
4	'Materials and Process' • an individual exercise that explores and profiles the qualities and creative possibilities of a selected construction material or process, presented in a graphic format;	• richness and creativity of the visual essay in exposing the potential of the selected material; • depth of research and exploration exhibited; • clarity and cohesiveness of both graphic and oral communication.	15
5	'Design Concept' • team preparation and oral/visual presentation of 2 design concepts for the project site, having regard to their design brief;	• clarity and the level of development of the conceptual ideas; • level of creativity resident in the concepts; • theoretical richness of each concept; • oral communication of the concepts.	15
6	'Final Design' • team preparation of one final design (comprising a minimum of a master design/plan, a set of images, and a model) proposal for the subject site, having regard to the design brief;	• clarity and the level of development of the conceptual ideas; • intellectual rigour displayed; • level of difficulty contained in the nature of the design and of communication forms (posters, models, and so on) developed; • level of creativity resident in the concepts; • theoretical richness of each concept.	20

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7	**'Final Design Presentation'** • team presentation; the visual and oral communication of the final design proposal;	• quality and clarity of the oral communication; • cohesiveness and structure of the oral communication; • equal participation by team members in the oral presentation.	10
8	**'Team Management'** • evaluation of the role, competency, and skill of the student in fulfilling the role as team leader.	• team leadership and project management demonstrated; • organisational and time management competency demonstrated; • communication and negotiation skills demonstrated.	10
			100%

Note: This project is worth 50 percent of the total assessable grade for Landscape Design Studio III/IV; the 'Courtyard' project in weeks 7–12 is worth 50 percent of the total assessable grade for Landscape Design Studio III/IV.