Facilitating Transformative Experiences

Case Studies for School Design

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Abstract: Our rapidly changing world, current environmental crisis and calls for regenerative approaches to development evidences the need for change. To achieve sustainable change a transformation in the way we understand and conduct relationships in and with the world is required. The environment is not something at arm’s length, but rather a complex system, of which built, natural, and social systems, among others, are all part. As a profession architecture must have approaches that are reflexive, responsive, longitudinal and inclusive. This paper draws together two illustrative case studies to demonstrate such approaches. These case studies underscore the potential to facilitate continued transformation within approaches to the design of space and the discipline of architecture. The two workshops discussed in this paper enabled architects, teachers, policy-makers and others, to look at their own roles within the broader systems that shape the built environment of schools. Transformative learning is taken as a theoretical model through which to reflect on the two case studies. Transformative learning experiences are those that are most likely to prompt, support and sustain change in worldview and behaviour. They can be catalyst events that are uncommon, unusual or uncomfortable, and challenge assumptions and beliefs. This paper focuses on three aspects that modified the participants’ ability to engage more or less fully in the workshops as a transformative event. These aspects are discussed here as key factors which those seeking to develop events to help provoke change could use to guide workshop development and reflection. These three aspects are the role of unfamiliar context as provocation; agency as capacity and ability to change, and making connections to the everyday. These three aspects are discussed for their potential to contribute to transformation as part of the continuing development of the architecture profession.

Keywords: Workshop design; transformative learning; professional development.

1. Introduction

This paper draws together two illustrative case studies to underscore the potential to facilitate continued transformation within approaches to the design of space and the discipline of architecture. There is a pressing need for architects to engage more broadly in the world (Salama, 2012), and to recognise the place-making and design-by-use actions of the many others who shape our social, physical and cultural
environments. Architects develop the knowledge and skills necessary to design responsibly by learning about the nature of the environment, the needs of the client and the potential impact and contribution of design. In response to our ever-developing understandings of the world—and changing construction, occupation and use of the built environment—the need for evolution in the architectural profession continues (Brown and Holder, 2013). Calls for professional change, initially focused development on technological knowledge, are now focused on the skills necessary to develop environmental, social and cultural understanding. In the last 50 years, during a period of rapid advancement and environmental and societal change, the call for change in architectural education has been persistent (Llewelyn-Davies, 1960); (Dutton, 1987); (Buchanan, 2012). This paper adopts a life-long approach to learning that considers ongoing professional development part of architectural education.

Transformative learning experiences can occur when a collaborative process of design requires critical reflection and the sharing of different experiences through meaningful communication (Atkin, 1999). These experiences can help professionals understand how they view their world, and the world of others, and make sense of their own post-tertiary learning experiences. In this paper two facilitated cross-disciplinary professional workshops that problem-solve design elements of school environments are selected as a focus area. The design of schools presents a ripe ground for critical reflection on the role of the built environment in shaping and contributing to our social-ecological systems, in particular because the learning that happens in schools informs the fundamentals of our understanding of our place in the world which informs and influences behavior and actions (Miller, 2005).

2. The Case Studies: Workshops Designed to Prompt Transformation

In this paper we take as case studies two workshops designed to provoke transformative thinking about school design. The aim of Workshop 1 was to enable participants to explore the future of learning and learning environments. Workshop 2 invited participants to reconsider the design of school environments to support children’s physical activity. These two workshops have been selected because they were designed to challenge the participants—architects, teachers, policy-makers and others—and because they are well known to the authors as the facilitators. The case studies offer rich sources of information about the workshop intention, design, participant groups, interactions and outcomes. The workshops produced artefacts such as design objects, written participant reflections, and verbal presentations of participant design enquiry. Recordings of the events through video, photograph and the participant-generated artefacts form the material base of this reflection. The workshops were documented through photography and video by one person, who was both non-participant and non-facilitator.

This paper forms part of an ongoing critical reflection on the authors’ professional facilitation practice. The lens used to undertake reflection in this paper is a transformative learning model which has emerged from recent research by one of the authors into architectural education (Mackintosh, unpublished anticipated 2018). This model, originally focused on learning experiences in formal architectural education, has been modified to suit professional learning. The following descriptions of the workshops are structured to facilitate understanding the participants, the multiple contexts in which the learning occurred and nature of the inter-actions that took place.

2.1 Case Study 1: Learning Environments WA

Learning Environments WA, a professional body of school architects, facility managers and teachers, has developed a symposium-workshop model as a central part of their professional development activities.
These activities inform the education community and provide an avenue for members to extend their professional development. The symposium that preceded the workshop described here focused on the future of education, prompted by recent discussions held nationally about the future of work (Torii and O’Connell, 2017). At the preceding symposium it was suggested that an ‘ideas-boom’ will follow the mining-boom and implied the need for education to look beyond literacy and numeracy as critical thinking, creativity, and emotional intelligence become increasingly important qualities for our societies. The questions this workshop sought to explore were: What is the new educational focus post-boom?; How will the way we shape our learning environments need to adapt? The workshop was structured to provide a sequence of activities that foregrounded discussion about how learning occurs.

The three-hour workshop was held in small art gallery, temporarily fitted out with school furniture supplied by the event sponsors. Tables and chairs were set up in groups of 6-8, modeling the way many new classrooms are organised. At the front of the room a projection screen was used by the keynote speaker and the facilitator in the introductory session and by the groups for their concluding presentations. The participants, architects, designers, school principals, teachers, and high school students, were invited to choose their own seats as they were introduced to the topic of the workshop. After being guided through a series of questions that set the scene and encouraged participants to focus, participants were asked to reflect upon their personal approach to education and learning. The facilitator used participant responses to questions asked about what they felt the future of learning held to organize groups of around six people each. This resulted in groups of like-minded people whose thoughts on curriculum and learning were aligned, as opposed to groups of colleagues or those from similar backgrounds. The groups were guided through the process of designing a 20-week cross-curriculum learning experience for year 11 and 12 students, exploring alternatives to conventional learning and how the core skills are developed. The workshop concluded with another individual reflective exercise as participants shared how their practices might change as a result of this experience.

Figure 1. The initial map (left photo: Robertson 2016) was inspired paintings by remote Australian Aboriginal artists hung in the gallery, and a search for innovation (right photo: Miller 2016).

Over the course of the session, the groups were encouraged to post photos, websites and resources on Instagram. This served not only to document the processes and progress made during the workshop but also provided small milestones within the larger task, and prompted moments of reflection. These

postings were also to be used by the groups when presenting their work, providing insight as to how they had come to their final outcome, and the path they took. During the two-hour session, a break was provided, in which participants stepped outside and spoke to friends and colleagues who inevitably were in different groups. This served to provide yet another moment of reflection.

For one group, for whom progress was slow, explaining their experience to another group served to shift their thinking, and seemed to provide the catalyst needed, as this group made rapid progress when they returned to their task. The student in their group was also more carefully listened to, and his contributions led to an increased pace of progress. Another group, inspired by the surrounding artwork, focused their project on exploring a sense of place in the 21st century through an Aboriginal understanding of landscape and place. This group looked beyond the knowledge of those in their group, drawing from technological innovation and other cultures to resolve their final project (Figure 1). Many in this group chose not to have a break, and the student was actively engaged in the group discussions.

2.2 Case Study 2: CSRR Active Schools Workshop

The second case study was a design workshop led by the Centre for Sport and Recreation Research, for invited representatives from policy, teaching, industry, academia and design. Participants where guided through a facilitated session in response to the central question: How can the school built environment be re-imagined as a place that stimulates and supports physical activity? The structure of the workshop adapted several design-thinking exercises and built on the authors’ experience in design practice, design teaching and industry workshop facilitation. The 4-hour workshop pushed beyond idea generation and had interdisciplinary teams prototype and test some of their ideas.

The workshop was framed in four parts: Immersion, Synthesis, Ideation and Prototyping. The Immersion phase was structured to take participants into exploring their experiences and memories of traditional classroom settings. In the Synthesis phase the groups reflected on their individual and collective experiences and identified a topic of interest to focus on for the remainder of the session. In the Ideation phase the groups were set the aim of 100 ideas in 10 min with the intention that the ideas be ‘fast and loose’ and that they from the range of possibilities the groups would then pick one to explore more deeply through the Prototype phase. The outcomes of the workshop were anticipated to lead towards more refined ideas which could be collated and curated to inform school designers, decision makers, investors and users.

The location of the workshop was a large open room at the West Australian Department of Sport and Recreation. Two of the participants from this organization attended the workshop as professionals engaged with informing and enacting children’s sport and recreation policy. During the course of the afternoon, the layout of the room changed according to the activity. The workshop started with introductory information and the background being delivered in a traditional classroom format. In the immersion phase, the participants were invited to dismantle the traditional classroom set up, to reuse the furniture, the space and the content of a box of craft tools and materials to make a setting in which their group would like to pursue the rest of the challenges. The workshop concluded with participants coming together around these reconstructed spaces for the groups’ final presentations.

Workshop activities were completed individually, in pairs or in groups. The five groups were selectively composed to have a mix of teachers/school managers, government/policy, architects/designers, and academic researchers from various disciplines engaged in research into children’s mobility. At various stages, the participants were asked to complete tasks individually or in their groups. Group tasks varied from constructing the group’s work setting, collectively reframing and refocusing the groups specific
research question, brainstorming and finding 100 ideas in 10 minutes, and collaboratively building a prototype of one of their five best ideas.

Each of the five groups developed responses to separate research questions with distinct outcomes. One group developed a large-scale prototype the ‘Impossible Reading Room’ as a means of bringing physical education to the school library (figure 2). Assembled from furniture, masking tape markings on the floor, caution tape strung between chairs, sports gear and craft materials, the prototype was tested by other participants at the workshop to see whether the group’s prototype did suggest a more physically active encounter with a library setting. Another group asked the question: How can we allow kids to move through a school in a way that provides a diversity of experiences for social, active and educational benefits? By exploring how it would feel to move through various spaces including sensory and social experiences they came to the idea of a ‘landscape code’ to guide the design for primary school landscape. The group presented their ideas through a series of short video studies where some group members performed the part of landscape elements, and others played the part of children playing in and moving through these landscapes (figure 3).

![Figure 2: the Impossible Reading Room (Photo: Robertson 2015)](image)

![Figure 3: Film stills of Landscape Experience Test (Photo: Robertson 2015)](image)

3. Intense Experiences, Capacity to Change, Connection to Everyday

Transformative learning experiences are those that are most likely to prompt a change in worldview and behaviour. They can be catalyst events that are uncommon, unusual or uncomfortable, and prompt a challenging of assumptions and beliefs (Dewey, 1910). Many of the day-to-day activities of participants and facilitators (architecture, design, teaching, management, leadership) are associated with high levels of responsibility, and therefore risk. It is difficult in these high-risk professional environments to make the
space for transformative learning which requires more than the relatively low-risk activities of reviewing and building into currently-held beliefs. The opportunity presented by these workshops for participants to be able to explore new ideas, to try out different ways of doing things, and to give and receive feedback from each other was one not often possible within their high-risk professional lives.

3.1 The role of workshop design and facilitation in supporting transformative learning

While all participants in the two case study workshops had a common interest, their diverse backgrounds, practices and points of view meant that the activities were demanding and at times even uncomfortable for participants. For some groups, pushing through those uncomfortable moments and exploring different ways of thinking was difficult. Feedback received from some participants indicated that these workshops were a reminder of the uncertainty, and even fear, that many learners face: fear of failure, of doing or saying the wrong thing, and of the final outcome not meeting expectations. Yet providing a 'safe' environment in which these challenges could be met meant that risks were more likely to be taken. The familiarity of the facilitators and some of the other participants; the choice of venues as a shared community or institutional space; and a shared interest in school spaces, children's experiences and teaching and learning (Workshop 1) or physical activity (Workshop 2) contributed to this safe environment and the active engagement of participants.

Figure 4: The role of the facilitator in establishing the safe, intense, collaborative and reflective environment to support the opportunity for a transformative learning experience for participants.

This discussion will focus just three aspects of these learning experiences that modified the participants’ ability to engage more or less fully in the workshops as a transformative event (Figure 4). These aspects have emerged from ongoing research in which alternative methods of documenting and analysing existing architectural programs have identified key aspects of transformative learning experiences (Mackintosh, unpublished). Three of these aspects are discussed here: the intensity of the workshop experience for participants as they learnt to interact in unfamiliar context; the agency of participants to find the capacity and ability to change from their typical roles into new behaviours; and the opportunities taken by participants to make connections between the workshop activities and their own everyday professional or personal practices. For each of these aspects we first introduce the concepts
3.1.1 Unfamiliar Contexts as Provocation

The significance of unfamiliar contexts and the intensity of learning experiences, became evident during the mapping of contexts, documentation of interactions, and recording of participant narratives in prior research (Mackintosh, unpublished). Unfamiliarity and intensity can be considered across three contexts of learning experiences: social, physical and educational. The types of participants and their roles, size of the overall group, or number of groups within the system are all factors within the social context. The built context can be experienced as intense when activities take place in new, unfamiliar spaces different from the typical spaces that dominate school campuses or professional workplaces. The educational context—the curricula and content of learning—can be intense when it is narrowly focused and there is little opportunity to diversify content. The intensity of an experience varies between individuals, depending on their prior experiences, ability and worldview.

Workshop 1 worked to produce a new situation for both architects and teachers. For the architects the workshop structure was challenging because rather than starting with a physical brief, the workshop started with the high school curriculum. Participants were first asked to work out what was being taught, how it was being taught and how it was learnt. Only towards the end of the workshop were participants asked to explore what physical space might be needed to home the learning program proposed for that curricula. For many of the architects looking at curriculum and the pedagogic language was new, and this produced a challenging experience. For the teachers in the group, familiarity with the high school curriculum and learning was high, but the idea that a learning experience could be designed to span 20 weeks was unfamiliar. Planning a longitudinal learning experience for students was challenging for those used to working within the bite-size structure of the high school learning environment. Conversely, for the architects, thinking about a learning experience as longitudinal and iterative was familiar from their university experiences, and from the long duration of design projects.

For many non-designers at Workshop 2 the structure (educational context) of the workshop was new. The fast-paced, playful and creative-thinking approach which worked through phases of empathy, problem identification, ideation and prototyping to produce a designed artefact by the end of the session resulted in an intense experience for the non-designers. But, even for many of the designers the workshop was successful in establishing an unfamiliar context, as designers were asked to communicate design ideas in different ways than they would typically. For example they were encouraged not to produce architectural drawings, but to instead seek ways of exploring and communicating ideas that were more inclusive of all members of their group. One group that produced experiential videos only pursued this path when the facilitator overheard a group member propose to communicate their ideas about diversity of school landscapes through architectural drawings. The facilitator pointed out that that mode of communication would exclude all but two members of the group, and suggested that they might find another means to work through their ideas.

Observations made at these workshops indicate that the role of the facilitator is critical in supporting participant engagement and transformation. Facilitators respond to situations as they occur, and adapt the guidance offered to participants accordingly as they navigate through these unfamiliar and intense contexts. In Workshop 1 it was important for the facilitators to remain distant at times, and to allow groups to navigate their own way through the new experiences. This resulted in some participants recognising why the task was challenging, and ways in which they could change their own teaching
practices. In Workshop 2 the facilitators provided reminders that each group included people with different visual communication abilities, different areas of expertise related to the workshop focus, and that there were no pre-existing good answers to the central questions of the workshop. These reminders prompted communication and exploration that were new to all participants in the group.

3.1.2 Agency: Capacity and Ability to Change

Kolb discusses learning as a process of adaptation, and distinguishes this from non-learning, the failure to modify ideas and habits as a result of an experience (Kolb, 1984). Typically models of transformative learning focus on the abilities and skills required to respond and adapt to change, and to transform through communication, collaboration and critical thinking (Taylor, 1997). However transformative learning requires not only the ability to change but the capacity to adapt and change. Earlier research has indicated that the capacity to change, or agency, is influenced by the level of decision making and autonomy of participants: when the role of the participants is well established and interactions are tightly controlled, there may be little opportunity for participants to respond to changes in experience (Mackintosh, unpublished). In some cases, the capacity for change is controlled by certain participants, or limited by the boundaries of contexts. In both workshops some groups and individuals were able to find capacity and ability to change, while others were not.

A key limiting factor in the workshop was how closely individuals held on to their usual roles, or conversely, how easy they found it to let go. For example in Workshop 1, one of the principals was at first unable to let go of his normal role as a director of a group. This stalled the group’s progress as the only ideas getting any breathing space came from just one individual. When this participant was later able to step back and make room for other’s contributions the work of the group accelerated, and he was able to gain personally from the process as a participant within a group, rather than within his usual leadership role. What comes into focus in this example is what is meant by collaboration skills. Collaboration skills are not the same as the ability to direct a group to enact an idea. Feedback from the participants identified that for this workshop context, “the important thing here was listening.” We questioned if participants who were not typically in decision-making roles—such as recently graduated teachers and architects, and high school students—found the process empowering.

In Workshop 2, the ability for some group members to contribute was restricted by the actions of others who held tightly on to a self-selected role within the group as someone who held the answers to the questions, or the ability to communicate them through construction of visual artefacts. For example, some architects, that were used to leading design projects and client briefings, struggled to adopt a facilitation or visual scribe role even when those groups contained other participants with very senior roles who had significant insight to offer on the subject. While in other groups, where more collaborative and co-exploratory approaches were taken, more unexpected outcomes emerged and took form in visual languages inclusive of all the group participants. In these groups, participants reported thinking about the situation in new ways.

Drawing from reflections on these two workshops highlights the challenge of establishing a setting where participants are able to permit themselves and each other to step out of their typical work roles to address an unfamiliar problem. There are challenges for the facilitator in inviting and pairing participants, and in designing activities that work to unsettle assumptions about who is expert and who is learner. An additional challenge is building adjacency between workshop activities and participant’s everyday activities to provide participants the opportunities to build links between these.
3.1.3 Making Connections to the Everyday

There is a temporal component of interaction that is important when examining transformative learning experiences. Often, learning experiences around problems and projects rely on a snapshot of a context—an instant in time—which limits the opportunity for learning to cross over into everyday life. This can be seen in the minimal positive change in ecological crisis despite ongoing development in environmental education over recent decades (Department of Education and Skills, 2006). However, to be able to know and understand complex systems and the interactions that take place may take time and focus. To that end, the ‘density’ of interactions, the scale of the groups of participants, and the ongoing or repetitive nature of the experience should be considered as part of workshop design and reflection. This relates in part to the theories of fast and slow thinking (Kahneman, 2011) and the differences between cognitive processes, the process of knowing through reasoning, awareness and perception, and meta-cognitive processes, which require an awareness or analysis of one’s own thinking processes. Allowing time for both slow and fast thinking within workshops, and developing mechanisms to capture the thinking that occurs after the event, can support transformation.

Similarly, stories and shared experiences, even when contextualised, are snapshots or moments. In order for a snapshot of experience to provoke transformation connections need to be built by the participant between the experience and their everyday activities. Temporal proximity may facilitate the construction of these connections. In the case of architectural designers participating in the workshops—we might ask, what are the projects that they are currently working on: is there a school project in the office currently? Are they currently working through some related design challenges? Beyond selecting the date and time of the workshop, there is little the workshop facilitator can do to connect temporally to participant’s everyday. However, building space within the workshop event for participants to place snapshots of experience back into their own context can be done.

In Workshop 1, at the conclusion of the event participants were encouraged to consider what they had learnt, to write this on a post-it-note and place this on the wall. A follow up survey was also distributed, inviting participants to say how their experiences at the workshop might inform their continuing professional activities. The final wrap up reflection activity of Workshop 2, after all groups had presented their artefacts, asked participants: ‘thinking about movement and stillness at school, school children in the future will…’ The activity was an opportunity for participants to reflect on potential for change, to think with aspiration about the future and what their role might be in producing those futures from their various roles within schools, design and policy environments.

In both cases, informal discussion after the event, over a snack and drink also enabled a chance to debrief and for participant’s to bring their own reflection into conversation. Simultaneously, an opportunity to find out how others had experienced and understood the workshop offered opportunity to access further insight into their own experiences, and to begin to build connections between this experience and other experiences through comparison.

4. Conclusion

Transformative learning models are useful for examining professional development in architectural design practice as they recognise the complex systems in which learning takes place, and the role of the different participants within these systems. Providing catalyst events can prompt change in participants and facilitators, as worldviews and behavior are challenged. Three aspects of these learning experiences are discussed in relation to participants’ ability to engage more or less fully in the workshops as a
transformative event. We offer these points of discussion for others who seek to guide the pedagogical development needed to transform the architecture profession.

Three key aspects to consider in supporting transformative learning are: unfamiliar contexts as provocation; agency as capacity and ability to change, and; making connections to the everyday. We invite consideration not only of where the learning takes place, and with whom. We note that the newness of the context and participants—and their sameness or diversity—can increase the intensity of the experience. Developing participant’s agency as an ability to change supports their capacity for ongoing learning. Providing the opportunity for participants to connect their learning experiences with their everyday activities strengthens the potential for change. The discussion in this paper is aligned with ongoing research in which case-study analysis of transformative experiences in university-based architectural learning, and alternative methods of documenting existing architectural programs, have identified these characteristics of the transformative learning experiences (Mackintosh, unpublished). This paper explores the continued relevance of transformative learning approaches to professional development within the discipline of architecture. This paper has reflected on two cross-disciplinary professional workshops. The discussions that were held and the process of thinking about school experiences meant that the final outcomes were not only ideas about learning spaces, but the provoking thoughts that may become the catalyst for new and exciting learning environments.

Acknowledgements

The authors acknowledge the support of the Centre for Sport and Recreation Research, Curtin University and Learning Environments WA.

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