

**The Shock of the New: Experimenting with Innovative  
Methods to Teach Core Curriculum**

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## **ABSTRACT**

The Bachelor of Urban, Rural and Environmental Planning course at La Trobe University Bendigo commenced in 2007 to complement existing postgraduate programs. A strong feature of the program has been to use innovative methods to enable staff and students to relate to a diverse and complex agenda of items and to increase students job ready status. Additionally, teaching and resource directions within the institution have encouraged and at times required the use of new modes of teaching and learning including the use of ICT and varied student contact and timetabling arrangements. Moreover, the tradition of group project work in planning education offers opportunities for drawing in new approaches to meet these objectives. Two methods used by the authors in the last twelve months are presented, discussed and evaluated. The first is the use of online approaches to enable collaborative, cross-campus project work. The second relates to the adaptation of more traditional planning and design group projects to reflect the increasing propensity for planners to be strategic coordinators of information and to more closely replicate 'live' work situations and the realities of operating to tight deadlines.

## **Introduction**

The need to adapt teaching and learning models to new imperatives and possibilities is typically driven by a mixture of pedagogical concerns, institutional constraints, student preferences and resource opportunities. That these objectives often sit uncomfortably at best is noted in the literature in Australia and internationally, including in relation to planning education. However, the opportunities presented by new technologies, and even by changing student-campus relationships, cannot be overlooked, despite the sense that these often have the capacity to undermine existing and erstwhile highly effective approaches to teaching.

Within planning education in particular traditions of group project work are long-standing. This has created scope for the adoption of approaches that reflect approaches to shared research and design that reflect elements of professional practice – while often meeting broader institutional and learning objectives.

This paper seeks to explore the effectiveness, limitations and student responses from two approaches to group learning in planning education developed and utilized recently. The first involves the use of a wiki as a collaborative project tool for a cross-campus subject exploring international urban issues. The second also involved group work and involved the incorporation of a range of approaches to a more typical 'practicum' that draw on professional inputs, communicative approaches and student time pressures (often reflecting existing professional experience).

Firstly, the paper will consider issues relating to student-led group project work, both generally and in relation to planning education. It will then specifically review the two case studies reflecting on approaches, motivations, student feedback and consideration of learning outcomes. Finally it will consider lessons for planning education design from these examples.

## **Working in Groups and the Value of Planning Practice: Motives and Student Responses**

The value of group work, especially student-led project work is identified widely in literature, as are barriers to its successful use and student performance and perceptions. The advantages cited include; the capacity to allow deeper and broader understanding of issues (Lingstone & Lynch 2000), mimicry of 'real-work' situations (e. g. Kotval, 2003), and scope for active and collaborative peer-to-peer learning to supplement more typical pedagogical models (Burdett, 2007).

Notwithstanding these advantages, limitations in group work in terms of conception and operation are often identified in the literature, and also in these authors' experiences and by feedback from students. Concerns at equity in contribution and assessment, the dynamics of groups, the effort involved and the 'fit' with other learning are often cited as problems (Burdett, 2007). Pauli et al (2008) identify three issues limiting the success of group work (i) participant motivation, (ii) interactional issues and (iii) logistical difficulties. Roberts and McInerary (2007) identify a set of recurrent barriers to successful group work relating to student antipathy, lack of specific skills, unequal abilities and assessment and student withdrawal or 'free-riding'. These problems (and their perception) would be familiar to staff and students alike, despite a continued use of collaborative learning approaches

For planning education in particular, group work is often considered an important element of what may be considered more broadly as 'experiential learning'. Practical learning (or training) is considered critical for planners as professionals (Jones et al 2008), and the notion of working in groups (often multi-disciplinary groups) and developing not only technical competence, but also communicative and collaborative skills, supports this concept.

There has been growing interest and support for planning practice as part of the planning curriculum. However that call is growing wider across universities in relation to many disciplines (Symes and McIntyre 2000; McLennan and Keating 2008). A comprehensive review of work placements in university planning courses across Australia (Jones et al 2008) undertaken on behalf of the Australian Learning and Teaching Council (formerly the Carrick Institute) in 2006-2008 found that structured work placement was highly valued by students, employers and academic staff. While there were some criticisms, the research strongly

confirmed that work-placement provides exposure to the real life complexities found in planning work placements and can assist students to 'bridge the divide' which is often claimed to exist between theory and practice. Many students and employers reported that the work placement had been important in students gaining employment in the planning profession.

In respect to planning students another phenomenon has arisen. Many undergraduate students enrolled in Australian university planning courses are employed in planning practice on a part time basis. Arguably projects that some students are undertaking as part of their University studies are being assisted by real life practice experience. Some exercises that would have been set as classroom work may well appear as fairly lame exercises for students who are undertaking similar or more complex tasks in a workplace environment.

The motivation for the continuing inclusion of 'innovative' approaches to teaching and learning in any curriculum emerges from wider institutional imperatives, the need to be and appear to be reflexive and adaptive in training for practice and from a student-centred focus, which recognises new student-campus relationships.

With specific reference to group project work, innovation in technology and modes of delivery, organisation and structure offer means of addressing concerns such as those identified above (see Burdett 2007 and Pauli et al, 2008). Typically, such innovation includes the use of information and communication technologies (ICT) to facilitate off-campus learning and access to information resources. These approaches are not without critics. Many authors cite the mixed and often conflicting institutional motivations (financial, resource use and pedagogical) of introducing these technologies as the central problem of adopting these approaches. Lawhon (2003), for example discusses concerns that planning education particularly relies on peer contact and verbal communication, which is often poorly delivered through on-line modes.

More generally however, the area of planning (as professional practice and education) appears to have an 'innovation' motive linked to 'good practice and training' on the ground - reflecting aspirations of an adaptive and changing model of professional practice in planning, especially as espoused from government (see for example Jones et al 2008). In this respect, innovation in teaching relates more generally to models that engender deeper meaning and engagement through problem-based learning and other experiential approaches. The planning education tradition of a group work practicum potentially suits this agenda well.

### **Wikispaces for Collaborative Project Learning**

The possibilities of interactive Internet applications (Web 2. 0) are increasingly evident in the professional and private realm. Collaborative online teaching approaches offer scope for cross-campus teaching, projects for part-time and off-campus students, as well as simply providing a new medium for sharing learning and designing projects.

Wikis have quickly become established as a tool for teaching and learning (Harrer et al 2008) offering scope for collective authoring and iterative project building. A range of settings and approaches have incorporated this technology including group essay writing, discursive preparation and as a visual and written presentation tool (Parker and Chao 2007). Additional benefits identified in the literature relate to the scope for collaborative *learning* (Harrer et al, 2008) and drawing on the increasing use of technologies in the private realm (particularly among young adults) to make this form of learning personally relevant (Matthew, 2008).

The use of this technology does however require reconsideration of teaching and learning approaches. Dirkx and Smith (2004) identify that a changed conception of learning (and learning possibilities) is required among students as well as in course design. Voigt (2008) recognises that self-guided learning experiences require flexibility to allow experiential and emergent outcomes, despite a consequent retreat in structure and certainty – and that successful online (physically absent) models necessitate this. This in itself raises questions as to the role of the teacher/leader/moderator (Voigt 2008, Lund and Smørdel 2007) where fluid models of collaborative learning and project building are often occurring in unstructured ways.

Similarly, the use of online technologies, such as a wiki, offers opportunities to address the concerns of students regarding group-work projects. While some literature suggests that the technology enables more fluid modes of contribution to emerge (potentially overcoming the

logistical and interactional issues identified by Pauli et al, 2008), Kukulsa-Hulme, (2004) discussed the need and likelihood of leadership roles emerging, much as in other collaborative project situations. Of course the use of this style of collaboration is also dependent on student use and satisfaction with online technologies more generally. Factors such as student age, gender, skills and motivation (Hoskins and van Hooff 2005) are critical factors.

### **Practicum in Planning as a Collaborative 'Real-World' Exercise**

The use of project 'practicum' and other fieldwork exercises in planning education have been critical elements (along with work experience) for incorporating experiential learning and development professional knowledge and understanding (Silk & Bowlby 1981, Kotval 2003). The role and relative importance of this mode of learning within an overall context of planning education has changed in response to conceptions of the profession and demands of overall curriculum (Heumann & Whetmore, 1984). Additionally, it is a long-standing example of a collaborative learning model that seeks to foster group dynamics and project building while grounding the student experience and developing a reflective approach to professional practice (Schon, 1987).

Central to this model of teaching and learning is the scope to draw on a multi-disciplinary approach to addressing problems and solutions, which draws on learning from other areas of (academic) study. These require the use of various areas of planning expertise including design, communication, social awareness and the economic context of planning.

From a student perspective, this type of exercise offers scope for creativity and the capacity to draw together the range of learning involved in the overall programme. Additionally, the scope to operate in a professional context and within professional networks is apparent with constant (but varied) involvement of practitioners in this form of teaching and learning (Heumann & Whetmore, 1984).

A more contemporary issue, at least at an undergraduate level, is the impact of mixed student groups, whether part-time, mature-aged, off-campus or those with considerable and ongoing workplace experience even at early years of a course. The way that these factors alter student capacity and expectations, as well as the logistics of practice-based learning are also significant.

### **Project Examples Seeking Innovation in Group Work**

In the overall course design and in the detail of subject content we have sought to place a considerable emphasis on providing 'live' practical planning experience, consistent with 'work-ready' emphasis in much planning education. A series of initiatives, in addition to 90 days compulsory work placements within a structured learning framework, are seeking to provide a wide range of learning experiences. These learning experiences are designed to the extent possible, to replicate 'real life' - 'on the' job' type situations. While recognising the difficulty of delivering such experiences we believe it will provide students with not only an educational outcome but the process of placing them under time and production constraints in groups and as individuals will equip them well to face the demands of the work place. These endeavours have involved using some fairly unconventional teaching techniques and learning situations in the context of other areas of university studies.

To explore the issues of student responses to innovation in collaborative projects, two projects that have recently been conducted as components of the La Trobe University undergraduate planning program (Bachelor of Urban, Rural and Environmental Planning) offered at the Bendigo Campus. The first is the use of a wikispace as an element of a cross-campus course exploring urbanisation and urban change in the Asia-Pacific Region. The second is an attempt to construct, for the first time, a studio/practicum project that involves a range of outside professionals and engages with local government and community stakeholders. These examples offer perspectives on student group dynamics, student expectations and the success of learning models that challenge staff and student approaches to teaching and learning.

## Group International Urban Studies Wiki

As a multi-campus university, cross-campus teaching opportunities are generally encouraged. These opportunities provide for a greater range of subject options, although both staff and students at times perceive that resource motives compete with pedagogical outcomes in the selection and design of subjects offered at multiple locations.

With this in mind, it was decided to develop a course to be taught jointly at Bendigo and Melbourne which utilised teaching staff at both locations and offered opportunities for virtual and face-to-face student interaction. This aimed to overcome student concerns regarding electronic delivery of lectures, and to offer a range of academic perspectives (in this case sociology and planning) to the subject area.

The use of a wiki as a group project component was seen to have benefits including the scope to nominate cross-campus project groups and to assess and monitor comparative levels of individual student participation and contribution to the group – a central concern of students involved in group projects. Additionally, it was seen as a medium that offered connection to Internet research tools and scope for the use of multiple media (video, audio, text) for display within the project space. The iterative nature of a wiki was also considered (as suggested in the literature) to provide opportunities for collaborative authoring and refinement in ways that suited individual participants.

Student appraisal of the wiki element of the subject assessed through an online survey, focussed on three key areas: the value of an online collaborative environment, the project expectations and the operation of project groups. Student satisfaction was mixed, with a general acceptance of the value of the technology for creating a learning space, and lower levels of satisfaction regarding the clarity of project expectations and success of this approach for managing group dynamics.

In general student participants accepted that the technology itself offered scope to work collaboratively and introduce a range of media to the project. Most students agreed (or strongly agreed) with the contention that the wiki technology was useful for collaborative group projects:

*"It was difficult getting group consensus but also worthwhile debating with other group members as sorting out these differences was a helpful learning exercise"*

However, there were also high levels of concern with the limitation of the technology and the required computer literacy (which was surprising for an undergraduate group). Some respondents considered that this technology was limited and limiting:

*"the wiki technology was slow and "clunky", with limited scope for creating an innovative page"*

While for others the technology was itself challenging.

*"a weakness can be determining who has done what work, computer literacy is an issue as it can be time consuming for some whilst very easy and quick for others"*

The capacity of this technology to allow student-set time management and reduce the interaction and logistical difficulties often identified with group projects was seen to be countered by the lack of meaningful interaction within groups that arose precisely because obligations to meet were removed:

*"...[set] mandatory working periods/discussion sessions to ensure progress"*

*"...we need some forced wiki usage time across both campuses at the same time..."*

These concerns are central to the assessment of the exercise, as they reflect both the opportunity created by the wiki to overcome difficulties in group logistics, and the way in which group motivation can be dampened when mutual obligation and surveillance is conducted remotely.

Of considerable concern was the sense of 'formlessness' apparent in a project space that offered the use of a wide range of media and did not require negotiation and discussion among student either face-to-face or even at the same time. This remains a dilemma for project design and collaborative learning, where a balance is sought between guidance and

authentic exploration and innovation. Generally students appeared to prefer greater levels of guidance:

*“Comprehensive explanations about the project and what is expected from students would have made the project much more enjoyable.”*

*“Clear instructions and support was absent...the distance between members of the group and a lack of understanding about the project led to conflict between group members.”*

Striking this balance is often difficult for supervisors in problem-based or experiential learning environments. In an online research environment scope exists for (time consuming) online discussion and mediation, however the tension between guidance and stifling collaborative learning remains a constant consideration.

### **A Group Economic Development and an Urban Design Project**

Two further initiatives have sort to extend this innovative approach. Set out below is a profile of such processes with a more detailed evaluation of the second initiative. While there was considerable preparation by students for these tasks there has been a deliberate approach of placing students into circumstances that require them to improvise and respond to pressure, this approach was one that goes to the heart of much of the realism found in planning practice.

The first exercise was focused on the production of an outline economic development strategy for a small township. This involved departing from the usual semester structure of lectures and tutorial with a field trip. The production of the strategy was structured on four full days work spread over 8 weeks. Students spent one day in the classroom on researching the town and establishing field work tasks, two days on those field work tasks which involved surveys, interviews and data gathering and the final day working in the class in a ‘charrette’ style compiling the strategy into a consolidated document with the lecturer playing a facilitating – leadership project management role. The exercise was based on the concept that the final product could only contain the information that was readily available and could be easily collected and assembled within the time and resource constraints. A not too infrequent situation encountered in the workplace. The learning from that project methodology highlighted two matters, firstly that creating a ‘pressure cooker’ situation to prepare a product can work with second year students if they are given sufficient support and direction but they are required to generate the material themselves. Secondly the capacity for students to undertake this process defied their own estimation. When the process and the product was first explained to students they had considerable self-doubt about their personal and class capacity to produce a product within the constraints.

A second much larger exercise involved second and third year students working in five groups, with each group preparing a detailed design, plan and report on the proposed residential development of a large urban site. In four aspects this project went well beyond a conventional exercise.

1. The piece of land is a managed public golf course where the members have resisted Council and developer interest to have the site examined for its potential residential development. The land is in poor physical condition, membership of the club is low and the site has severe constraints in terms of maintenance. Students met with the golf club members and assisted in the process of brokering ideas for the site.
2. The local Council was extensively involved in assisting at various stages in the process. The Council saw that a student project was able to explore options in an unofficial way that the golf club members had resisted. The final project ideas were formally presented to Councillors and planning staff as part of the process of finalising the project.
3. Two professionals (an engineer from a land development company and a landscape architect) were paid professional consulting fees to firstly walk the students through a whole range of material and then to work with each group on a one to one basis with appointments and visits outside of class. Students then tested ideas against a realistic costing of their development proposals. Overall designs were required to demonstrate that they were not only physically but also financially feasible and would turn a profit.

A consultant planner was also employed to demonstrate the marketing feasibility of projects, the market response to the selected housing mix and the balance between lot yield and price by utilising proprietary software.

4. Other practitioners were introduced, including a Council Community Development Officer specialising in disability access, supplemented by a presentation by a student from one of the groups who uses a wheelchair.

Deliberately students were given tight deadlines to meet. Aspects of the project changed as new information came to light. While the students were given a framework and directions within which to operate and the specific product requirements were spelt out and various models were provided, the deliberate emphasis was on innovation and generating and testing ideas. Students who tend to operate in an idealistic mode but are sometimes divorced from the reality of the market quickly found themselves confronted by the realism of the exercise. For the students with part-time or periodic work experience the need to work within a 'real-life' framework addressing the multitude of issues in such a development in a comprehensive way was assisted by their existing high levels of knowledge and practical experience.

Qualitative feedback from the participating students produced two overall themes; the realism of the exercise was enormously challenging and daunting but there was strong support as a learning exercise. Secondly while the opportunity to be innovative and explore ideas was strongly supported and appreciated there was concern by many that they needed more structure and direction, especially where this influenced group dynamics. The responses are summed up in the following evaluative comment.

*"I think the open endedness in terms of conceptual development was a strength of the subject but the open endedness in terms of work or output volume were perhaps what blew things out a bit."*

The project methodology, similar to general findings on group work, heightened competition and competitive issues. Previous comments from individual students on group work generally seems to indicate that most students enjoy group work and understand its potential to reflect workplace situations, but that understandably students resent group work if it is used by some students to rely on others. Some students welcome the competition of group works others were not so supportive.

*"Group dynamics are unpredictable, and where people are involved, there will always be drama! However, maybe if everyone's roles were more defined within a framework, they may be more secure in what is required of them. Perhaps this may cause less tension"*

*"I realise the aim of the project was to be creative, but even creativity is often more successful within a framework."*

Group work carried out under pressure also quickly revealed shortcomings that students are not able to take into the workplace.

*[The process used] revealed the students who*

- *Left too many tasks to the last minute;*
- *Did not fully utilise the access to the professional services on offer;*
- *Did not maintain email contact (communication);*
- *Were often late (or did not turn up at all) to arranged meetings;*
- *Did not read/study the material/follow up the links that were supplied early on in the process"*

As an overall learning experience there were many positive comments with students particularly supportive of the 'real life experiences'

- *"A very valuable experience and much more beneficial than alternative theoretical work"*
- *"I would like to reiterate that this was a great project, I have never seen my fellow students take such ownership of a project."*
- *"Exposing students to the 'real world' of consultancy was a great thing. "*

- *“I think that the project was a great learning experience which seemed to stimulate the majority of students and sparked some creativity that a traditional group project would not have.”*

As well as these positive comments some students were concerned that insufficient support and direction had been given and that too much was left to chance. For some students the balance between clear concise direction and an open-ended agenda that sought to encourage creativity was more than they could handle.

- *“There was some confusion regarding what was required ... [need for] “a lesson on basic project management skills”*
- *“I realise the aim of the project was to be creative, but even creativity is often more successful within a framework”*
- *“It was a huge exercise, maybe too big.”*

Despite those shortcomings many students appeared to thrive on the opportunities that the exercise provided and the open ended nature of the project

- *“despite the extra work, the subject was one of the more interesting and challenging subjects I've completed so far.”*
- *“It was exciting to have an opportunity to push the envelope a bit.... . the envelope was not just pushed through some kind of unrestricted competition but that a number of students enjoyed the challenge of coming up with something they could be proud to put their name to.”*
- *“Despite the challenges, which after all, are the fuel for learning, it was overall a positive experience. I was very proud of what I and the group accomplished.”*

## **Findings and Lessons for Project Design in Planning Education**

Planning education similar to many other disciplines is under pressure to embrace new technologies and identify more effective methods of transmitting knowledge and skills. However the particular characteristic of planning has meant that in comparison with many other university programs experimentation with practice in different forms has been one of the major strengths of most planning programs. Group work while a stalwart of education generally often takes on a very meaningful role in planning because the nature of much of the work place in planning involves constructed groups of planners or frequently multi discipline teams comprising many professions.

At times it is difficult to foresee how and where new technologies will take professional practice. The development of the wiki already demonstrates that this is form of learning and information dissemination that may well have considerable capacity in the workplace and in the growing need to communicate ideas and information. This paper has reported on an innovative program that used a wiki as the core element for student engagement and presentation. While it met some resistance from some students the results indicate that with further refinement it can provide an innovative and effective tool particularly where teaching is being undertaken in a multiple campus setting. The second example of new approaches to teaching sought to increase the level of realism in project work by directly exposing students to the reality of paid professionals who critiqued the projects and design during their preparation and provided data and interpretation that assessed whether their design was financially feasible and would have ‘real’ market appeal. At the same time students were continually encouraged to prepare designs and concepts that pushed the envelope. Again the results were mixed but overall the feedback was positive suggesting that the level of realism while bringing out competition also produced more satisfying projects and experiences.

Students in planning courses, similar to students in many university courses, are increasingly likely to call for greater realism in content and practice. In 2007 Universities Australia released a Discussion Paper on Internships that identified that 85% of university students are already in the workforce. This Paper suggests that it may be a logical step to further increase the

integration of study and work-readiness in a more systematic way. With the impending changes to university admissions that will increasingly result in students voting with their feet on courses. It is likely that courses that demonstrate a closer link with the workforce may well be those that will have more appeal.

“Minnery (2000) suggests that teaching students how to do as practitioners do is only one of many models of teaching planning practice. For Minnery, the key question is the most appropriate ways to incorporate planning practice into planning education, especially given the debate and concern about the relationship between planning education and planning practice. He argues the answer lies in linking planning practice and education by expanding the concept of practice to serve a wide variety of purposes. These should improve both student learning and academic staff development while also serving the main purpose of practice which is to produce planners who can fulfill the expectations of employers, the community and the profession.” (Jones et al 2008:29)

Arguments are being mounted that linking workplace and education has social equity outcomes. Universities Australia (2008:6) identified that “improving student work-readiness through internships also has significant potential benefits in relation to social equity and opportunity. It seems evident that those least able to access study-related work opportunities, and indeed good job opportunities more generally, are those lacking well-established family and social networks that may provide income support during job search, as well as referrals and references for the preferred jobs.” The trend is for students to increase the hours they are working in order to support themselves. Bradley (2008:49) found that paid work for full-time undergraduate students now comprises 66 per cent of their total income compared with 51 per cent in 2000.

The clear direction of government policy is to make access to higher education more inclusive, to facilitate greater competition between universities to attract students and to require the tertiary sector to demonstrate that what they are teaching is relevant to the workplace and the needs of the economy. “The most effective way to ensure that students enjoy a stimulating and rewarding educational experience is to encourage Australia’s higher education sector to be responsive to student demand. Students should be given the opportunity to select the most appropriate institution for themselves and higher education providers should have the flexibility to respond to that demand and to be rewarded for the quality of their teaching and research”(Bradley 2008:60).

While this fairly utilitarian approach does not sit well with many who teach within universities, these forces will prevail to the extent that funding for universities is tied to them. For the foreseeable future at least these forces are in the ascendancy.

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