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Making sustainability 'real': using group-enquiry to promote education for sustainable development

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Sustainable development is now widely held as a transcendental ideal of town and country planning, yet the way in which it is taught in planning schools remains problematic. This arises from a range of factors, including the all-persuasive nature of sustainability and the lack of solid examples of success through implementation. The issue of how best to promote learning for sustainable development in planning has arguably intensified in the last two years in the case of the Royal Town Planning Institute-sponsored 'fast track' one-year Masters, which has reduced the opportunities for students to engage in wider (and perhaps even deeper) concepts, including that of sustainable development. This paper explores this through discussion of a specific project developed at Queen's University Belfast, facilitated by a grant from the UK Higher Education Academy. Working with a local community, this entailed a group of students working on their Masters thesis collectively addressing issues of sustainable regeneration in a small Irish market town. The design of the project draws heavily on the concepts of enquiry based learning, experiential learning and action competence, which are seen as being central to improving education for sustainable development (ESD). The paper explores the benefits of such an approach and discusses the ways in which this experience can help enhance student's experience of ESD.

Keywords: education for sustainable development; action competence; planning; sustainable regeneration

Introduction

Education for Sustainable Development (ESD) is a critical element in moving society towards a more sustainable future and highlighted as such in Chapter 36 of Agenda 21, agreed at the Rio Summit. There is a far-reaching debate on how ESD is best conceptualised and implemented in higher education and outstanding questions over the nature of its relationship to the goal of sustainable development itself (e.g. Bonnett 1999; Corcoran and Wals 2004). A key division in this debate is whether ESD requires a paradigm shift in society's approach to learning (e.g. Sterling 2001; Jucker 2002) or whether it can be less problematically integrated into existing models of education. Indeed, like the concept of sustainable development itself, ESD is strongly contested and while it is important to acknowledge the validity and necessity of such epistemological debate, this paper focuses on how higher education tutors can further promote learning for sustainability in the short term, within the confines of existing curricula and using modes of education that are compatible with current university contexts. For this purpose, the definition of ESD proposed by the UK government will be accepted,[1] with a specific emphasis on the immediate need to develop 'sustainability literacy'[2] (Parkin et al. 2004) as a means of adding

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value to current higher education. Although this concept is not without detractors (e.g. Butcher 2007), the Government has recognised that it should become a 'core competency' for professional graduates (HM Government 2005). Indeed, Parkin et al. (2004) suggest that everyone will require some degree of proficiency in sustainability literacy but that it needs to be tailored to specific disciplines. It is suggested that educational programmes for those graduates likely to assume positions as influential gatekeepers for the wider transition to sustainable development, such as teachers, engineers and those involved in various aspects of resource management (hydrology, forestry or land use) require a particular emphasis on sustainability literacy (e.g. Murray and Cotgrave 2007). Professional education in these fields does, however, face a number of competing priorities that include balancing academic achievement with more direct vocational 'training'; satisfying the needs of accrediting bodies with the wider expectation of education institutions and balancing a breadth of curricula content with opportunities for deeper learning and skills development. Although there is a broad recognition by professional institutes and the higher education sector of the importance of ESD (e.g. Department for Education and Skills 2003; Institute of Civil Engineering 2003; Wright 2004), it is suggested here that while concepts of sustainability are increasingly reflected in curricula *content*, the need to address such competing priorities has meant that many students on vocational courses are graduating with a relatively shallow and unengaged understanding of sustainability. This will have implications for both the quality and competence of the graduates concerned, as well as acting as a constraint in wider efforts to promote sustainability.

This paper explores this issue in the context of a Masters course in the field of Town and Country Planning[3] (hereon referred to as 'planning'). As a professional discipline, planning aims to regulate and spatially coordinate development activity in the public interest and has, for the last decade at least, rhetorically adopted sustainable development as its primary *raison d'etre* (Gunder 2006; Berke 2002). The paper will briefly discuss the role of planning in the wider sustainable development agenda and the place of ESD within the planning curriculum and highlight a number of constraints on engaging students on Masters planning courses in deeper and more holistic learning for sustainability. It will discuss and evaluate a particular approach developed on a Masters course in planning at Queen's University, Belfast (QUB) that has aimed at addressing some identified shortcomings and concludes by making some general observations on enhancing Students' experience of ESD.

Sustainable development and the planning curriculum

The built environment offers one of the key arenas for addressing the challenges of sustainable development. It is *the* major site of energy production and consumption, waste management and polarized social and environmental injustices. The management of the built environment involves a wide range of policy areas, amongst which is planning. Consequently, professional planners have an essential and valuable part to play in progressing the sustainability agenda. Sustainability was quickly assimilated into planning practice following the 1992 Rio Summit and was further strengthened by the requirements of the governing professional body in the UK, the Royal Town Planning Institute (RTPI) (RTPI 2001; Batey 2003). This embracing of sustainability as a central tenet of planning has also helped the profession re-establish its legitimacy following a two decades of challenge from neo-liberalism during the Thatcher years (Thornley 1991), so that now the rhetoric of sustainable development is central to state discourse on planning, regeneration, place-making and housing delivery, now referred to as the so-called 'Sustainable Communities Agenda' (Office of the Deputy Prime Minister 2005; Raco 2007).

However, critical review suggests that sustainable development fails to be reflected adequately in day-to-day planning decisions and has only negligibly impacted on the dominance of the 'predict and provide' approach to development (Owens and Cowell 2002; Haughton and Counsell 2004). Indeed, the opening position in this paper is that just as there is a tension between aspiration and reality in planning practice, so there is in planning education, with a contrast between, for example, the RTPI's expectations for accredited courses (RTPI 2004) and in the benchmark statements for Town and Country Planning (Quality Assurance Agency for Higher Education 2002) on the one hand and the actual delivered experience of planning education on the other.

There is a need for some contextual explanation here. There are a number of routes in the UK to gaining professional (RTPI) accreditation in planning,[4] but the one that is increasingly becoming dominant is the intensive, one-year Masters course. These courses have been introduced at more than 20 UK universities, following the RTPI's revised vision for professional education (RTPI 2001), replacing previous two-year courses. While a formal evaluation of these courses is still being undertaken by the RTPI, it would appear that these changes have had a relatively positive impact in terms of uplifting the quality and quantity of students being attracted into the discipline and has stimulated planning schools to refocus and update their curricula to match the revised learning outcomes proposed by the RTPI (Thomas 2005a). This has also increased the competition between planning schools to attract the best students, while fee increases and the intensification of the learning experience have raised student expectations and challenged academic staff to deliver their programmes through more innovative means.

However, this shift from a two-year to a one-year programme has raised some concerns over the inevitable reductions in the scope of the curriculum (Thomas 2005a), even if they are delivered in a more organised and innovative form. The new more intensive programmes have typically led to larger class sizes and left less time for academic reflection and scholarly development on behalf of the students. It has also meant that planning schools have inevitably had to drop or reduce some planning topics that would have been included in previous two-year programmes.[5] In the face of increasing financial hardship, the need to take up paid work and other extra-mural activities, it also appears that students are taking an increasingly instrumental view that places more emphasis on securing a qualification rather than gaining a wider planning 'education'. The suggestion is therefore that, unless carefully handled, the shift from a one- to a two-year course may have further discouraged students from engaging in deeper forms of learning. This is where particular concerns over planning education begin to intersect specifically with ESD.

It is suggested here that the relative short training on a planning course is insufficient to hone the skills of ethical judgement and challenge dominant ideologies of modernisation and globalisation (Davoudi 2000) that is required to sufficiently promote sustainable development in the professional culture of planning. Furthermore, there appears to be an undue emphasis on the environmental dimension to the detriment of the equally important social and economic aspects of sustainability. There are, therefore, questions over whether graduating planners are sufficiently 'sustainability literate'.

There is very little published pedagogy on sustainability in the planning curricula. Some useful comment has been made in regard to the education for the built environment, largely focussed on architecture (Edwards 2004; Lewis, Sayce, and Ellison 2005). Indeed, the review by Lewis, Sayce and Ellison (2005) suggests that ESD remains 'marginal in the curriculum' (p. 7) of built environment education, in terms of both content and ethos. Where ESD is included in built environment programmes, it is due to the enthusiasm of individual academic staff, rather than a structured approach to the need

for genuine sustainable development, for professional standards or even for employer demands.

These remarks summarise some general concerns in relation to ESD and planning. As a response to this, an opportunity was identified in relation to the thesis in one-year Masters courses. Although some planning schools have questioned whether a thesis should be included in the revised curriculum (Thomas 2005a), it still remains the single largest element in most of the new planning programmes. It is suggested here that, with a little pedagogical reflection, the thesis offers a number of opportunities to redress some of the drawbacks identified above. In the previous two-year courses, the thesis typically emerged from a research proposal at the end of the first year and was produced over twelve months allowing students to focus on a topic emerging from their initial emersion in the subject. The thesis has proved to be one of the biggest tests for Masters students, testing their organisational ability, stamina, analytical skills, 'savvy' and interest in their chosen field. On a one-year course, the reduced time available means that students have to begin to think about their thesis as soon as they start the course and, given that students come from both cognate (e.g. geography, architecture, engineering) and non-cognate subjects (e.g. the humanities, natural sciences), this can lead to difficulty for some students. There are also inevitably some questions over the rigour of the research that now takes place – largely undertaken in a three-month period over the summer, compared to the twelve months under the previous programmes, while it also has a greater weighting within the programme (see Appendix 1). The thesis (or a similar project) is of key importance to a field that requires independent working and a general competency in research.

Therefore, given the context of the concerns over sustainability literacy of planning graduates on the one hand and the reduced opportunities for engaging with the thesis on the other, there is a threat of an overall weakening of planning education. However, the issues of enhancing ESD and consolidating the thesis were identified as being capable of being addressed in a highly complementary way and this response is detailed in the rest of the paper.

Pedagogical context

Prior to describing the project that addressed these issues, it is useful to highlight the key pedagogical influences that informed the approach of enhancing the thesis experience and sustainability literacy of planning students.

The first of these is the exposure of students to practice, or more appropriately within the curriculum, experiential learning. The benefits of experiential learning are well understood in higher education (Kolb 1984), in ESD (Jucker 2002; Dawe, Jucker, and Martin 2005) and, indeed, in planning education (Dewar 1998; Askew 2004; Harris 2004; Pearl 2004; Watson 2002). It is widely recognised that 'learning by doing' delivers a far richer educational experience than more passive lecture-based approaches and this takes on a specific dimension related to sustainability. This is effectively summed up by Norberg-Hodge (2000) who notes 'Experiential learning is based in messy reality, with all its paradox and untidiness, its ever changing pattern, its refusal to conform to our expectations' (p. 190, quoted in Jucker 2002, 291). This type of learning, therefore, encourages students to confront the obstacles to transforming the rhetoric of sustainability in planning policy to effective implementation at a range of geographic scales. Experiential learning has also been recognised as having value in developing tacit knowledge; creating cognitive links between practice and theory by enhancing the context of codified knowledge; and developing specific professional skills and employability (Askew 2004; Harris 2004).

There is a long tradition of experiential learning within planning education (Friedman 1996), often in the form of work placements, role plays and projects that involve external clients. While valuable, there are few examples of such approaches that have been focused on enhancing Students' skills for sustainable development – and at QUB the compression of the Masters course has excluded final year projects that gave students an opportunity to work with local communities to develop planning solutions to their environmental and socio-economic problems. This has had a number of consequences for both the student and staff experience and has motivated tutors to identify new ways of seeking experiential learning opportunities within the condensed curriculum.

A second theme for enhancing ESD draws on the model of enquiry-based (or problem-based) learning (EBL). This challenges the value of delivering information through passive modes of learning and requires students to gain knowledge through active learning that is self-directed by Students' own decisions about how an issue should be approached (Hutchings 2006). This can take place in both experiential and classroom settings and can encourage students to grapple with different ways of looking at problems, think creatively and facilitate deeper engagement with problems that are multi-faceted and complex (Hutchings 2006; Beringer 2007). This captures a diverse range of teaching approaches, but tends to focus on the tutor identifying a scenario or problem needing to be addressed by students. Enquiry-based learning tends to be particularly effective in the context of team work – where a group will combine their different skills, experience and mutual support to evaluate the various options open to them. This facilitates learning by working through practical examples, including – inevitably – making mistakes, which should then be seen as adding a valuable element to their learning. Kahn and O'Rourke (2005) note that EBL can help address a wide number of contemporary issues in higher education, including being able to pitch learning to the appropriate level of prior learning of students, encouraging co-operative rather than individualised learning strategies, integrating knowledge drawn from different aspects of previous learning experiences and focusing on the learning needs of individual students. In particular, it has been suggested that EBL is particularly well-suited to tackling inter-disciplinary and cross-disciplinary issues, which is the case in ESD (Hutchings 2006).

The final pedagogical influence is the concept of 'action competence', developed in a Nordic context of environmental and health education. This is defined as 'the ability to take into consideration the social factors and human conflicts of interests that lie behind environmental questions and sustainable development' (Lundegard and Wickman 2007, 1) or, alternatively, the '… capability – based on critical thinking and incomplete knowledge – to involve yourself as a person with other persons in responsible actions and counter-actions for a more humane world' (Schnack 1996, 15). This has evolved as an approach that encourages students to understand the *causes* of environmental problems rather than the symptoms (e.g. car dependency rather than traffic congestion) and transforming students from being passive receptors of knowledge to those who engage in such issues through independent thinking. This draws on the ideas of EBL and experiential learning to establish a specific model of learning that requires students to gain insights into social and structural problems and conflicts of interest that underlie environmental problems. It also recognises that there must be ownership and an act of will to bring about change and solve a problem before a person is prepared to take action (Lundegard and Wickman 2007). It also notes that one must actually take action to achieve change, so that the emphasis of much higher education to simply impart knowledge fails to grasp the major challenges facing society.

In the context of planning education, 'action competence' can therefore offer a way to think about how the most important facets of sustainable development can be introduced to

students – emphasising the tangible ways this can be expressed through the everyday practices of consumption and waste generation, rather than the more ephemeral aspects of the concept, such as good governance or inter-generational equity. A key objective of planning education should thus be not only to engender sustainability literacy, but to aim to equip students with 'action competence' in the field of sustainability. This appears to be an appropriate means of achieving the learning outcomes required by professional accrediting bodies.

The discussion above has suggested that sustainability is now central to the professional ideology of planning practice and is identified as an important facet of planning education. There are, however, concerns that in both education and practice, there has been a tendency to voice the values of sustainability, but not to effectively engage these through implementation. This is clearly a significant issue, not just for the planning profession, but more generally as this acts as an important gatekeeper for transforming the sustainability of the built environment. A number of themes have been identified that could help shape a more appropriate planning curriculum: experiential learning, EBL and action competence. These perspectives complement each other as ways of deepening Students' understanding of sustainability, while addressing some of the weaknesses now inherent in the intensive one-year Masters courses in planning.

The Making Sustainability 'Real' project

This provides the background and inspiration for a project at the School of Planning, Architecture and Civil Engineering, QUB for students on the one-year MSc Environmental Planning. This new course, established in response to the RTPI's call for new approaches to planning education (RTPI 2003), was accredited by the Institute as providing an initial planning qualification for students that had taken other subjects at degree level (typically from cognate disciplines such as geography). There are typically 40–45 full-time students enrolled on the programme.

While the tutors at QUB had for some time debated how best to improve the sustainability literacy and action competence of planning students on this programme, the Making Sustainability 'Real' project received a key impetus from an approach from a regeneration partnership from a small Irish market town, Clones, desperate for new ideas for how to promote regeneration within a broader context of sustainable development and cognisant of the fact that 'expert' knowledge, external to the community can offer a different dynamic to local policy debates (e.g. Mulligan and Nadarajah 2008). Aware that a large number of students were at that time actively seeking topics for their Master's thesis, tutors put a call for interest in focusing on sustainable regeneration in Clones. Framed by the principles outlined above (EBL, experiential learning, action competence), the project then evolved into a mutually successful partnership of university, community and regeneration agency. Six students eventually signed up to the project and were initiated into the expected approach through tutor-led discussions of how the sustainable development paradigm could lead to creative solutions to the problems of the town and how they should balance the competing drivers and demands for this, particularly drawing on the work of the Rocky Mountain Institute[6] and the New Economics Foundation.[7] Preliminary meetings emphasised how the students should develop means of mutual support, including shared research on the economic, social and environmental aspects of Clones; group discussions of shared theoretical perspectives; and joint approaches to local stakeholders for information. It was also stressed that in preparing their recommendations they should bear in mind that they would have to present and defend their evidence to a potentially critical audience. The relationship between the various

local client groups and stakeholders was also set out – it was anticipated that students would provide the client with useful insights for alternative approaches to regeneration, while the client group would provide background information, support and a means to test the feasibility of the Students' work. It was also noted that the students had a potentially tricky balancing act to deliver – to produce a piece of work to fulfil the academic requirements for a Masters thesis and a report that would be of practical use to the client group.

Although this paper will concentrate on the learning benefits of the project, it is important to understand some brief details of Clones and its regeneration challenges. It is a small market town (population c. 4500) in Co. Monaghan in the Irish Republic, a few kilometres from the border with Northern Ireland. In many ways Clones faces problems similar to a lot of small market towns in the rest of Ireland and the UK – and indeed Europe – with slumping agricultural incomes and their critical function as local service and trading centres severely eroded in the face of globalised food markets (e.g. Hallsworth and Worthington 2000; Powe and Shaw 2004). These issues are compounded in the case of Clones, which has steadily declined since the partition of Ireland in 1922, leaving the town marginalised from much of its hinterland and in an area that became a focus of much political unrest during three decades of 'the Troubles' (Hutchings 2006; Beringer 2007; Douvlou). The result was a stubbornly high unemployment rate as the town struggled to attract new economic activity with its peripheral location hampering its share of the growth from the 'Celtic Tiger' – a phenomena that has done much to frustrate attempts at sustainable development of the entire state (McDonald and Nix 2005; Flynn 2007). The town bears many visible signs of socio-economic decline, with many derelict shops in the central business area and an unattractive and discouraging urban façade. The town has, however, retained a number of handsome heritage buildings, an attractive vernacular urban form and an active local community (in the form of Clones Regeneration Partnership [CRP] and Clones Social Forum [CSF]) focused on turning around the fortunes of the town.

Following a generic induction to the principles of the project, the students were then encouraged to engage with the context for their studies, identifying existing local policy documents and data sources, study visits and discussions with community interests. Field visits included guided walks around the town and meetings with stakeholders that described the strengths, opportunities and constraints facing the local community. This provided students with a reasonable insight into the key issues for sustainable regeneration, from which they were guided by the tutors to identify thematic proposals for their studies. Briefly, these were:

- *Towards zero waste*. This included assessing the main waste management issues in the town, particularly those arising from dominant sectors of agriculture, retail and catering, and relating these to opportunities for sustainable economic development. The research focused on generating alternative waste management strategies, drawing on international examples of good practice and leading to recommendations of specific projects that included an anaerobic digester to deal with abattoir waste and a facility for refining waste cooking oil into a local source of bio-fuel.
- *Clones – a 'book town'?* Building on the success of a number of British towns, particularly Hay-on-Wye, this project investigated the viability of developing Clones as a 'Book Town' as an alternative locally-driven economic development strategy. This is built on the town's literary associations (it is for example, home to the author Patrick McCabe) to uplift the tourist and related sectors. The research took to the form of a critical review of other places that have adopted a Book Town strategy (in particular Wigtown in Scotland) and assessed the opportunities this posed for Clones.

- *Towards carbon neutrality*. The starting point for this research was the global challenge of energy supply, in terms of increasing cost, security and climatic impact, logically leading to the conclusion that the more the town could have local control of energy sources and the lower its overall demand, the more resilient it would come in the face of the oncoming peak oil crisis. Drawing inspiration from the Kinsale Energy Descent Plan[8], this project worked with local businesses to identify opportunities for energy saving and renewable energy generation.

- *An academy to develop skills for heritage building restoration*. The derelict state of a number of fine historical buildings in Clones led to the idea of establishing an academy for traditional building skills, such a thatching, dry-stone walling, lime plastering etc. This was seen not only to lead to employment generation of the town, building on existing local architectural expertise, but the shortage of such skills also appears to be a key limiting factor in whether it is economical to restore or redevelop sites in the town, thus leading to more sustainable retention of historic infrastructure. The research involved identifying comparable case studies and working with local colleges and other stakeholders to assess the key skills deficits and economic feasibility of such an academy.

- *Culture and art as engines for regeneration*. In an attempt to identify alternative, sustainable economic development opportunities for the town, one student focused on strands of local cultural vibrancy, including a small local film festival and the town's literary associations (see above), from which to build a wider strategy for regenerating the town. Taking inspiration from international case studies of cultural regeneration and working with local arts groups, this assessed the potential benefits from such an approach and identified the priority actions for implementation.

- *The Slow Food Movement*. This project identified the opportunities arsing from the application of the principles of the international Slow Food Movement to Clones, specifically highlighting the benefits for developing local trading schemes between the farming, tourist and hospitality sectors to increase local economic multipliers and create a distinctive marketing strategy for the town to help overcome perceived issues of peripherality.

These were purposefully designed to focus on potential solutions that were not typical of the responses promoted by local planning authorities, which all too often just focus on property and land use initiatives. Through a series of collective group meetings and individual sessions with tutors and local stakeholders, the students then elaborated the proposals, defining key research objectives and methodological approach and ensuring these could provided added value to the local community by pursuing themes that were unlikely to be explored in the more traditional economic development strategies of the relevant local authorities. The finalised proposals were then formally presented to the CRP and CSF, where they were endorsed and gained further encouragement from local stakeholders. The students then proceeded with their research projects, facilitated by monthly group meetings and individual tutorials as necessary. There was an explicit approach at team teaching between the two tutors involved, meaning students had access to two supervisors, allowing effective coverage when one was away and a wider pool of experience and knowledge. During this time the students formed an effective learning community, exchanging insights and mutual encouragement, with regular data-gathering and consultation trips to Clones. Mid-way through the project, the students were required to make a further presentation to representatives of CRP and CSF, updating the local community of their progress. All the students were able to complete their thesis on time and all successfully passed the module,

with one gaining a Distinction. Immediately following submission of the formal (i.e. examined) documents, the students made a final presentation to key interests in the town and copies of their thesis lodged with CRP. Their proposals met with unbridled enthusiasm from members of CRP and have since been formally assimilated into the regeneration strategy for the town being developed by the local authority.

The project appeared to have met all expectations on the part of academic staff, students and regeneration interests in Clones. This apparent success further motivated staff to continue with this approach to ESD and in the following academic year, a similar partnership was established with Ballynahinch, a small town to the south of Belfast, which has produced similar results. This approach appeared to have provided a number of useful insights into how to deliver ESD within the context of planning education and the Clones experience was subject to a formal evaluation, as discussed below.

Evaluation

A number of sources of evidence have been used to evaluate the value of this approach: interviews were held with members of the Clones Regeneration Partnership and a focus group and interviews were held with the six students that took part in the project. These focused on assessing the practical (i.e. community) benefits of the student's engagement with Clones and how the pedagogical approach may have enhanced the development of sustainability literacy of participating students and their overall attainment in the thesis module To provide something of a control, a comparable group of seven students[9] from the same programme provided their experience of undertaking the Masters thesis through the more conventional route of the student defining the research problem guided by reactive supervision from a single tutor. A final source of evidence was the theses themselves, which highlight the level of understanding of sustainable development that has been acquired and tutors assessed the articulated cognitive awareness of sustainability in the theses of participating and non-participating students.

Overall impressions

The overall assessment from this range of evidence was that the project had delivered a valuable learning experience that was enjoyed by both students and staff and produced useful advice for the Clones community. Students seemed to appreciate the applied nature of the research, which they felt had equipped them well to secure employment. They also valued the way in which they had been forced to deliver results earlier on in the process, compared to the signs of panic witnessed amongst the some other members of their class as the deadline approached. They also appeared to appreciate the availability and intellectual input of two well-informed academic advisers. Their overall views are reflected in the following comments made at the focus group:

> 'I was really glad I did it … doing something hands on, it felt like I was doing something … I was actually proud of it, while I know others were a bit embarrassed when people asked what they were doing.' (Participating male student 4)

> 'I would encourage other students to do it … I think it was a really good choice.' (Participating female student 2)

The approach also won endorsement from members of the CRP. In particular, the Chief Executive noted that although he initially had reservations about how the chosen topics

would be perceived by what he saw as a conservative and pessimistic Clones community, but by the end of the project he did think they had emerged as an innovative package capable of being integrated with the overall regeneration strategy being developed for the town. Indeed, while he did have some critical comments, overall he felt that:

> 'It was amazing how it all worked out … everyone of them made a valuable contribution.' (Chief Executive, CRP)

The conventional approach to a thesis

While the educational benefits of requiring Masters students to complete a thesis can be debated, it remains a strong feature of almost every Masters-level qualification in planning. In this context, one way of clarifying the benefits of the approach described here is to compare the experience of the students on the Clones project with students from the same cohort, but who completed their thesis on an individual level with a single supervisor. A sample of seven students was asked to reflect on their experience of undertaking their thesis in this way and this identified a number of strengths and weaknesses to which the group inquiry approach can be compared.

Generally, most students found the experience of completing their Masters thesis a rewarding challenge. The non-participating students noted that they felt they had gained competency in self-motivation, time management and research skills related to data gathering and analysis. While recognising that they had gained valuable research experience, the skills that they had developed and their sense of achievement appeared to be very *intrinsic* to the student, with no connection to the wider world or how their learning was related to action. For example:

> 'Although it was a huge challenge, I actually enjoyed my thesis … I'm not sure what the positive aspects were though.' (Non-participating female student 5)

Indeed, when asked if it would have made a difference to their research if it had been going to be read by external bodies and potentially implemented, a number of students suggested they would have taken it more seriously:

> '… I would have been a lot more conscientious of the content and probably conducted more in-depth surveys or analysis of data … I guess it probably would have been a better piece of work.' (Non-participating male student 4)

This appears to be related to a common difficulty faced by this group of students, in that most seemed to struggle in their attempts to interact with the policy community relevant to their studies:

> '… planners and developers were the most difficult to engage with … it was therefore difficult to gain both sides of the story, leaving gaps in the research.' (Non-participating male student 4)

Some students also seemed to have difficulty getting started, in particular in defining specific research objectives and in managing progress of the research across the length of the project:

> 'There was not any guidance at the start of the year … management deadlines or rough targets to meet would have been useful throughout the year …' (Non-participating female student 6)

The Students' satisfaction with how they handled the thesis was partly a reflection of how they approached the project and partly due to the guidance they received from their supervisors, which seemed to be highly variable. Some students praised the availability and support offered to them, while others complained of how difficult it was to get meetings. This is clearly a major issue – while most aspects of teaching in higher education are regulated by various quality assurance procedures, the effectiveness of supervision ultimately comes down to the individuals concerned and the relationship they develop, which can sometimes lead to a student being unfairly left with insufficient guidance.

In contrast to the importance of sustainable development in the rhetoric of planning education, both participating and non-participating students suggested it had a low prominence in the Masters programme, summed up by the following student:

> 'Although the concept of sustainable development was always highlighted as very important and should always be considered in planning, I feel that it was sometimes just left at that and the ways to achieve sustainability were not really elaborated on.' (Non-participating female student 8)

The comments made by the students in terms of sustainable development tend to confirm those observations made earlier in the paper that, within planning education at least, sustainability tends to be primarily a conceptual construct, with few opportunities for students to consider how it can be applied or, more effectively, applying it themselves. This suggests that without more focused opportunities to engage their learning of sustainability, graduating planners are unlikely to develop sufficient levels of sustainability literacy.

Although the focus groups uncovered some wider beneficial aspects of the project, a number of key themes are identified below related to the discussion in the earlier sections of the paper.

Understanding and applicability of sustainable development

It was noted above that sustainable development has become a central tenet to planning practice and theory, yet neglected in the pedagogy of the discipline. This was reconfirmed in the case of the students that took part in the focus groups (see above). A key objective of the project was to enrich the participating Students' understanding of sustainable development and there is some evidence that it was successful in this. First is the actual choice of topics, which, as noted above, portray a more holistic understanding of sustainability compared to those more commonly adopted by planning students, who tend to focus narrowly on land use and transport issues. Second, the analytical content of the theses themselves suggest an enhanced ability to apply some of the key principles of sustainability to the economic problems of Clones. For example, one student effectively engaged the concept of a 'circular metabolism' for the town (cf. Girardet 1993) by utilising waste products from local businesses (such as the abattoir) as a source of employment generation and energy, while another identified the potential benefits of a local trading scheme to the agricultural and tourist sectors. Some of the comments made during the focus group also underlined the value of the project to gaining a deeper understanding of sustainability:

> '… it was only when I was going through the thesis that I actually understood sustainability … it was like it all began to fall into place.' (Participating male student 1)

> 'Before I did the thesis, I was kinda baffled by sustainable development, but now I feel I can really talk about it … give real examples of how it is applied.' (Participating female student 1)

'It was really useful to see how sustainable development meant something to the problems of Clones … I didn't think sustainability could be useful for that.' (Participating female student 3)

Skills for sustainable development

Sustainability literacy is not, of course, just about enhancing Students' understanding of sustainability as a concept, but requires sufficient skills to decide and act in ways that favour sustainable development (Parkin et al 2004; Lewis, Sayce, and Ellison 2005). The appropriate mix and level of competency of these skills will vary according to discipline and professional role, yet a set of core or 'generic' skills have been identified by the Egan Review (Egan 2004).[10] Many of these skills can be most effectively developed through professional experience and on-the-job training (e.g. leadership, financial management and appraisal), but many others can be at least primed through vocational courses in higher education. Many of the skills identified by Egan are already embedded in planning education (e.g. team working) and others were identified as being developed by students also taking the thesis by the conventional route (e.g. communication, project management), yet appear to be enhanced through the Making Sustainability 'Real' project, particularly the requirement to find the right questions; identify real problems as distinct from symptoms; appreciate potential obstacles and ask whether and how they can be overcome; interpret evidence from a variety of sources and the ability to present both questions and findings in a professional manner. This was noted by the students in the focus group:

'You were dealing with real people, a real situation that will stand me in good stead for a job … I now feel a lot more confident in speaking to people … more confidence in myself, if you like.' (Participating female student 3)

'I now feel confident that I can handle a project in work, I just feel I can do it now.' (Participating male student 1)

'It was good in a practical way … you can kinda learn how it is applied … it is all very well knowing about the theory of sustainable development … if you can't tell the ordinary people in the street how it is applied in their lives, its not going to change anything … that's what it is supposed to be about.' (Participating female student 2)

This was also observed by the Chief Executive of CRP, who noted that:

'You could see a growth in the confidence [in the students] through the project … it was very powerful to see them stand up at the end and make such professional presentations.'

This appears to be a direct result of the experiential dimension to the project, grappling for real solutions to very tangible problems. While from an academic perspective this contributes to an enhanced skill set, the students also appreciate the more instrumental benefits that may be delivered:

'The thesis has really got me interested in getting a job in the regeneration of places and stuff.' (Participating female student 1)

'I like the fact it was a real situation … it helps you when you go for a job interview.' (Participating male student 2)

The lone scholar and collective enquiry

Although a key strength of a planning education is often a capacity to work well in teams, less emphasis is placed on the skills demanded for individuals to complete a major piece of independent research, such as the thesis, sometimes with poor supervisor support. While one can recognise the benefits derived from the motivation, organisation and analytical abilities that a thesis demands, there is usually little overt support given to such skills. Indeed, on the basis of personal experience, it seems that once taken out of a more structured learning environment, a proportion of students seem to lose their way and find it difficult to adjust to working alone on specialised topics. Clearly this experience, if successful, induces a skill set of value to planning practice, but it is also valid to consider the type of support some students may require during the task. The supportive atmosphere they were able to offer each other also provides a further – and somewhat unexpected – benefit that emerged from the project. For example, the students were able to share data sources and literature and as they were expected to meet the same commonly set deadlines, they would be grappling with the same research issues (e.g. formulating research questions, methodological approach etc) at the same time and therefore able to engage in meaningful discussion with each other on these issues. The ways in which this is helped the students is highlighted in these quotes:

'I talked a lot to the others about it … there were times when I didn't know where I was going with it and then chatting to the lads helped me get my head straight about it.' (Participating male student 4)

'… you do feel more confident doing this in a group … I was a bit scared in doing it and it helped to be able to speak to one another.' (Participating male student 1)

'Being able to spark ideas off other students was really good.' (Participating female student 1)

The engaged academy

The pressures on contemporary universities to compete against each other in research and teaching rankings have led to a range of pressures on academics to perform, with conse-quences for the type of research and learning they engage with and for the overall academic culture (Thomas 2005b). This has tended to prescribe a preference for externally funded research (rather than that necessarily just defined by public value) and high staff-student ratios that discourage attention to individual student's learning. Such trends can be contrary to the ethic of ESD, which points to the need for universities to engage with the critical social, economic and environmental challenges facing society, whether externally funded or not (Jucker 2002; Bawden 2004; Cullingford 2004). This presents difficult circumstances for individual academic staff who, convinced of the dire need for change, may be caught in the structural constraints of the sector. While it is sometimes possible to combine externally-funded research with sustainability aspirations, the key ways in which academics can make a difference at the local level is through campus activism (M'Gonigle and Starke 2006) or discrete projects such as the one described here, which make modest links with the commu-nity and allow the substantial resources of universities to contribute to wider society. While avoiding making exaggerated claims in the impact of this particular project, it is important to stress the need for individual tutors to seek out opportunities that effectively expose students to critical social challenges. This not only benefits students and community inter-ests, but may also help ease the frustrations many progressive academics face in university

life by helping to re-energise and refocus on the reasons that made them join the academy in the first place.

In addition to this spiritual therapy, there are also tangible benefits and enjoyment to be derived from team teaching and indeed, sometimes even time savings from the synergy of holding joint supervision meetings with six students at a time. This therefore seems to be a way of increasing learning and engagement without increasing staff time, something any Vice-Chancellor would be proud of.

Conclusion

It does appear that this project achieved much of what was intended and that the experience described here – together with an outline of the supporting structures that were created – make a small contribution to the ESD challenge. In particular, the value of modest pedagogical reflection in helping identify opportunities of enhancing ESD with existing curricula should be highlighted. Attention also needs to be drawn to the lack of debate (in printed form at least) of how we can use the principles of ESD to further enrich planning education.

This was a learning experience for the teaching staff involved and a few matters can be highlighted that need further thought, discussion and action. In hindsight, the value can be identified of having, from the outset, more preliminary data on the community (demographic profiles, relevant policy documents etc). There is also a need to tune the balance between time allocated to principles and time spent discussing how those principles support the proposals to the community. On the academic side, students should be further encouraged to really critically evaluate evidence – whether from external sources (broadly speaking 'good practice' from elsewhere) or from within the community (broadly, to test the feasibility of regeneration proposals). There may also be scope for thinking about the format of the written thesis; the academic style most commonly adopted may not be suitable for the putative client's needs and, indeed, may not be consistent with the style required in professional practice.

To end on a positive note – the Students' ideas have clearly been useful for Clones and are now being put into practice in the town. This is clearly an additional source of motivation for the students, satisfaction for staff and suggests that the competence of students can lead to action on sustainability.

Acknowledgements

Notes

1. 'Education for sustainable development is about the learning needed to maintain and improve our quality of life and the quality of life for generations to come. It is about equipping individuals, communities, groups, businesses and government to live and act sustainably; as well as giving them an understanding of the environmental, social and economic issues involved. It is about preparing for the world in which we will live in the next century, and making sure that we are not found wanting.' (Department of the Environment, Food and Rural Affairs Sustainable Development Education Panel 1998, section 6).
2. Parkin et al. (2004) define a sustainability literate person as being someone that would be expected to: (1) understand the need for change to a sustainable way of doing things, individually and collectively; (2) have sufficient knowledge and skills to decide and act in a way that favours

sustainable development; and (3) be able to recognise and reward other people's decisions and actions that favour sustainable development. This has been further elaborated by the Higher Education Academy (2006, 6).

3. This is the traditional term for this professional activity, which for the purposes of this paper is indistinguishable from land use-, environmental-, urban- and spatial-planning.

4. There are full-time, part-time and distance learning routes and courses are available at Masters and undergraduate (4-year) levels, see www.rtpi.org.uk.

5. In the case of our institution, Queen's University, Belfast, this has included a reduction in 'specialist' elements of the course such as urban design and transport, while some 'core' topics, like sustainable development, are now embedded within different parts of the programme rather then having a dedicated module. For a comparison of the two courses at this institution, see Appendix 1.

6. http://www.rmi.org/

7. http://www.neweconomics.org/gen/

8. See http://transitionculture.org/2005/11/24/kinsale-energy-descent-action-plan/

9. Quotes are provided from students in the text – those involved in the project are identified as being a 'participating student', those that took their thesis by the conventional route are noted as being a 'non-participating student'.

10. Sir John Egan was asked by the UK Government to review the skills capacity and training needs of professionals and other stakeholders involved in development of the built environment, as a way of identifying potential obstacles to its programme of delivering sustainable communities. This agenda is now being carried on to implementation by the Academy of Sustainable Communities (see www.ascskills.org.uk)

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Appendix 1. Two and one year course structures for Masters in Planning, Queen's University, Belfast.

M.Sc Town and Country Planning (two year, until 2005)

		MODULE TITLE	Weighting (CATS)
Year 1	Semester 1	Planning Methodology	20
		Economics & Development	10
		Comparative Planning Systems	10
		Site Planning	10
		Planning Theory	10
	Semester 2	Political & Administrative Studies	10
		Planning Research & Practice	10
		Transportation	10
		Development Plan	20
		Planning Practice Field Study	10
Year 2	Semester 1	Housing Studies	10
		Local Env. Management	10
		Specialised Studies (i)	20
		Legislative Context	20
	Semester 2	Specialised Study (i)	20
		Rural Planning & Management	20
		Urban Planning & Management	20
	Semester 3 (June– Oct)	Thesis	40

Msc Environmental Planning (one year, post 2005)

	MODULE TITLE	**Weighting (CATS)**
Semester 1	*Introduction to Planning Theory and Practice*	*10*
	Environmental and Planning Governance	*20*
	Planning Skills and Ethics	*10*
	Mediating Space: Planning in an Irish context	*20*
Semester 2	*Design in the Built Environment*	*10*
	International Spatial Planning	*10*
	Creating Places: Development and Renewal	*20*
	Community Planning in a Multicultural Society	*20*
Semester 3 (June- Oct)	*Thesis*	*60*