

Planning Practice & Research



ISSN: 0269-7459 (Print) 1360-0583 (Online) Journal homepage: http://www.tandfonline.com/loi/cppr20

Multiversity of the twenty-first century – examining opportunities for integrating community engagement in planning curricula

Andrea I. Frank & Louie Sieh

To cite this article: Andrea I. Frank & Louie Sieh (2016) Multiversity of the twenty-first century – examining opportunities for integrating community engagement in planning curricula, Planning Practice & Research, 31:5, 513-532, DOI: 10.1080/02697459.2016.1180573

To link to this article: http://dx.doi.org/10.1080/02697459.2016.1180573

9	© 2016 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
	Published online: 11 May 2016.
	Submit your article to this journal 🗗
hh	Article views: 248
α	View related articles 🗷
CrossMark	View Crossmark data 🗗

Full Terms & Conditions of access and use can be found at http://www.tandfonline.com/action/journalInformation?journalCode=cppr20





Multiversity of the twenty-first century – examining opportunities for integrating community engagement in planning curricula

Andrea I. Frank^a D and Louie Sieh D

^aSchool of Geography and Planning, Cardiff University, Cardiff, UK; ^bWelsh School of Architecture, Cardiff University, Cardiff, UK

ABSTRACT

This paper examines student-community engagement activity in planning. This is a subset of university-community engagement, and is a point of overlap between such engagement and planning education. Community engagement activity enables students to learn in situ practical skills within live projects, while community partners may benefit from technical knowhow, and labour input. Based on a UK-wide survey and three in-depth case studies, the paper explores the pedagogical designs underpinning community engagement activities involving students, as well as the various capacities in which the different participants – students, instructors and community members – act. The analysis reveals considerable diversity in approaches. An alignment of student engagement activities in the planning curriculum with emerging transformative co-learning models of university-community engagement could offer novel opportunities for the discipline of planning and their impact on communities as well as the fields standing in today's multiversities.

KEYWORDS

Student-community involvement; Universitycommunity engagement; impact; curriculum; design

1. Introduction

Modern universities are complex institutions, i.e. multiversities¹ which support society and communities by delivering amongst other things education, professional qualifications, research and innovation. Emerging university-community relationships may offer a range of opportunities for the field of planning. For example, university-community engagement can provide planning students with an opportunity to learn, *in situ*, practical skills while community partners may profit from technical knowhow. In fact, teaching through and with direct student engagement is already embedded in many planning curricula and its impact on student learning is well researched (e.g. Brand & Rincon, 2007; Millican, 2007). Conversely, the impact on community, while discussed in the literature on university-community relations, has only been insufficiently investigated to date and requires further research (Angotti *et al.*, 2011; Wood *et al.*, 2011).

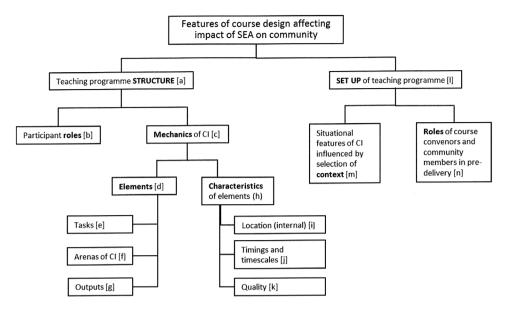


Figure 1. Hierarchy of features of teaching programme structure.

This paper, then, looks at the design of teaching activities within the university-community engagement context with a view to understanding the impacts on community participants. As impact is unavoidable, we ought to find out what these impacts are and how they happen, so that in designing teaching activities harmful consequences are avoided as far as possible (e.g. Schroeder et al., 2009; Wood et al., 2011). In particular, the paper reports results from stage one of a two-stage research project with the ultimate aim to examine impact of student engagement activity (SEA) on community participants in urban or spatial planning in the UK. In order to investigate impact in a rigorous manner, it became clear that as a precursor a fuller understanding of engagement activities was needed, including the roles and relationships between different actors. Thus, stage one of the project sought to systematically describe the nature of teaching through university-community engagement, and to identify those features of SEA with relevance to impact on communities. Findings will be described throughout this paper and are summarized in Figure 1. SEA features are cross-referenced with letters in brackets (e.g. [b]). Results from the impact assessment itself, which examines how SEA impacts on community, will be reported separately.

A few words on terminology: within this study, 'community' is to mean a group of people with direct and immediate interest in a particular place, and who have been identified with that place. It is also important to note that we initially described student learning activity within university-community engagement as student-led community involvement (CI). Yet, CI is recognized as an important aspect of decision-making processes in spatial planning, and is, strictly speaking, a process in which the views of community members are brought directly into the formal procedures of decision-making. Over the course of our study, we realized that not all student activities discussed in this paper fit this description, which has the connotation of being initiated by those with power to 'involve' those with less. Indeed, students were engaged in activities spanning the entirety of Arnstein's ladder of citizen participation (Arnstein, 1969). We found examples of students acting as agents

for local authorities conducting community involvement events on their behalf, students providing technical assistance directly to communities, and even becoming activist planners themselves. We therefore chose to describe student learning in university-community engagement contexts as SEA, although we will also retain 'community involvement' (CI) where appropriate. In UK, where this study is set, we refer to an entire programme of study as 'course', and to distinct learning units within such a programme as 'module.'

The paper first reviews the recent developments in university-community engagement with a focus on teaching's role in it. Then, we briefly explain our research approach and methodology followed by an analysis of empirical data from a survey of UK planning schools. Next, we develop an evaluation framework for identifying pedagogical features of student-community engagement activities that have clear community impacts. In conclusion, we review this evaluation framework in the context of a new emerging university mission of transforming society (Trencher et al., 2014).

2. University-community engagement

Universities have always contributed to the societies they are in. According to Trencher et al. (2014), this has happened through non-mutually exclusive missions that have built on each other over time: first teaching (from twelfth century onwards), then research (from mid-nineteenth century), third, the university as an entrepreneurial service provider (from late twentieth century), and from early twenty-first century the university as a community member and partner. The term university-community engagement typically refers to the latter two of these missions, and reflects universities' ambitions to increase links and develop synergies with non-academic activity.

Early university-community engagement emerged when universities began with 'identifying, creating and commercialising [of] intellectual property ... as institutional objectives ... [and thereby entrepreneurially] improving regional or national economic performance as well as the university's financial vantage' (Etzkowitz et al., 2000, 313). External stakeholders were seen as customers or clients in activities also labelled as knowledge or technology transfer. An emerging fourth university mission (Trencher et al., 2014) both builds on and distances itself from the above third. Contrary to the third mission, which implies shortterm parachuted in expertise and thereafter, detachedness, of the entrepreneurial consultant or patent holder, the fourth mission emphasizes the role of the university as a long-term partner in co-creating sustainable outcomes in society (Trencher et al., 2014). Schlossberg et al. (in press) elaborate the potential and role of planning departments in such fourth mission university-community partnerships. They argue that planning is well-suited to lead 'place-based' initiatives drawing together expertise from across an institution to apply to the problems of a city, via research and teaching activities. Both, Schlossberg et al. (in press) and Trencher et al. (2014) characterize this fourth mission as 'action-oriented' and 'catalytic', or 'transformative', respectively, where the university is not 'detached', but a transformative actor in its immediate geographical community, or whichever community has invited it in.

While these latter two missions or modes of engagement (technology transfer and action-oriented partnering for societal transformation) have grown in recent years to take up a greater proportion of universities' activities, subtle changes in the conceptualization of university-community relationships in and through research and teaching are also notable. For example, over the past three decades, research especially in the social sciences, has

shifted in focus from a traditional researcher as independent outsider (Siemiatycki, 2012) to researcher as engaged participant (e.g. Massey & Barreras, 2013), and a range of approaches in between (Gold, 1958 in Siemiatycki, 2012). In parallel with the crisis in the social sciences (Saxe 1983 in Massey & Barreras, 2013), this shift may be seen as challenging of the positivist paradigm for social science research by more interpretivist approaches (Yanow & Schwartz-Shea, 2006; Flyvbjerg, 2002). University-community engagement through research has been directly affected by this change as researchers are no longer uninvolved observers, but enter into relationships with their subjects.

University-community engagement through teaching and the corresponding activity of learning involving students in a central capacity occurs across many disciplines (Millican, 2007). Student-community engagement through voluntary work for communities coexists with engagement as part of the formal curriculum. Although both are important, we will focus on formal curriculum-based activities specifically within planning and built environment programmes.

The literature in this area is reasonably extensive yet disparate in focus (e.g. Brand & Rincon, 2007; Angotti et al., 2011). As a condition of engagement, learning always involves some kind of experiential learning (Brand & Rincon, 2007; Kotval, 2003). Examples are diverse and range from work-based learning (Higgins & Simpson, 1997; Harris, 2004), problem-based learning (e.g. Shepard & Cosgrif, 1998; Abramson, 2005), live projects (Higgins & Simpson, 1997) to participatory action research (e.g. Udas, 1998).

Historically, two starting points for university-community engagement through teaching activity (Millican, 2007) can be distinguished. In Europe, there were 'science shops', which emerged within Dutch universities as academics' response to social issues. Science shops evolved into a brokering activity to put students - under supervision - in touch with problems but putting community needs first. The second starting point is the North American 'service learning' tradition that goes back to the early twentieth century, but proliferated post Second World War. In this tradition, learning is prioritized and students are expected to have significant control over what is expected to be learned (Titlebaum et al., 2004 in Millican, 2007) but notions of service user empowerment are also important. In practice, instances of service learning reflect activity on a spectrum from learning to service.

In all university-community engagement literature, the tension between the primary functions of the university (research and students' education) and community needs is a major issue (e.g. Hollander, 2011). Much reported is how the tensions associated with the divergent goals of universities and communities play out on a mechanical level in the learning arena and impact on the success of engagement or learning. Key issues include the mismatch in timing between community and university time tables, the level of student supervision and how well community needs fit in with assessment (Millican, 2007). While some authors refer to some classic bodies of literature - for example, Kolb (1984) and Schön's (1991) reflective practitioner – as the theory with which to frame their empirical data and to make sense of this phenomenon, many recognize that community engagement through learning arose from a practical community need rather than a theoretical one (Millican, 2007). This could explain why the literature on engagement through learning has focused on reporting empirical evidence of engagement, and much of it with regard to the impact on student learning, rather than theorization of this subset of university-community engagement or impact on community.

Recently, however, Angotti et al. (2011) have suggested that a more reflective scholarly approach and critique in respect to learning in and through engagement is needed which takes into account historic town-gown conflicts. Apart from mechanical or logistical problems, such conflicts are based on other, deeper issues such as beliefs and values, and tensions between local knowledge and professional expertise. Therefore, university-community engagement through teaching and learning activities involving students requires careful working across the boundary that separates the university from communities. Such educating at the boundaries (Angotti et al., 2011, 3), while involving risks, also provides opportunities to transform both learners and communities. The present paper contributes to this debate by expanding on insights that emerged from empirical work seeking to understand how such engagement activity happens through teaching.

3. Research approach and methodology

As starting point, we conducted an online survey in the summer of 2013 soliciting participation from course directors and heads of schools at UK and Irish universities offering Royal Town Planning Institute (RTPI) accredited planning degrees. The survey aimed to examine which programmes and schools provided teaching in community involvement and what kinds of pedagogies were used.

Schools were contacted once and reminders were issued twice with a request to pass on the survey to relevant module leaders. The questionnaire comprised closed and open-ended questions (Appendix A). The responses allowed us to first develop a picture of community involvement teaching in UK planning schools. Subsequently, three examples were selected providing contrasting scale and scope of engagement practices for further investigation. The aim was to explore the rationales behind particular pedagogical designs, and to begin seeking evidence of impact on communities of such activity. For the three case studies, semi-structured interviews with educators were conducted, which informed a mapping of the logistics, roles and relationships in collaborations between universities and communities (Appendix B).

Not too much is known from past studies about 'features of student engagement activity and course design' in general, with most studies looking at too limited a number of cases to propose a definitive list (Schlossberg et al., in press; Roakes & Norris-Tirrell, 2000; Brand & Rincon, 2007; Winkler, 2013). Therefore, our approach to the data was primarily inductive. As the ultimate research aim was to examine the impact of the engagement activity on communities, selection of features was guided towards those that potentially have purchase on the criteria that could measure impact on community. In particular, we have designated 'features of course design and execution of student-community engagement activity' to include:

- (1) Structure of the programme containing the SEA [a],
- set-up of the student engagement outside of the teaching programme, for example, features relating to relationships between the university or course leader and members of the community [1].

These two types provide the top tier of an upside-down tree diagram that systematizes a description of course design features that attenuate SEA impact on communities (Figure 1).

Data analysis involved a mix of techniques, and both in-case and cross-case exploratory analyses of student engagement activities were conducted. First, a simple enumeration of relevant questionnaire answers was carried out. Second, the open-ended questions to module leaders (Appendix B) and module descriptions (if provided) were interrogated to understand what actually happens in these student-community engagement activities. This revealed something about the attitudes of the actors, since ways in which studentcommunity engagement is described shows how it is being thought about. Third, open coding and annotation was conducted on the open-ended survey questions as well as on the interview transcripts. This drew out themes already suggested by the limited literature, and is effectively a cross-case analysis, not for comparison so much as to provide a picture of the range of practices in the UK. Ultimately this led to a framework for interrogating module structures, which became the central research result (Figure 1).

4. Provision of community involvement teaching

Survey responses were received from 14 of the 29 departments and schools contacted. While all respondents stated that they either offered or were planning to offer some form of teaching about community involvement, no firm conclusion can be drawn about how many schools in the UK do/do not do university-community engagement alongside their teaching.

All respondents teach CI as part of modules within the official curriculum. However, of these, only 3 acknowledge having at least one dedicated module for CI, either optional or core. A fourth respondent reports that there are both undergraduate and postgraduate degree modules with titles that suggest that the content is largely dedicated to enabling students to engage with a range of planning stakeholders, (i.e. 'Stakeholder participation' and 'Strategies into Action') but these may not be entirely focused on community involvement, but may involve, for example, working with policy-makers or politicians. Ten respondents reported community involvement being taught across a range of modules, and it can be assumed that CI form part of the content of these modules. Overall, community involvement seems to be conceived largely as a skill or technique. Of the modules in which CI is taught, a majority focus on planning skills (7 mentions), while 4 focus on participation and/ or community. Two each are modules in which politics and theories of planning are in the title, and these relate to the leadership of a single instructor. Only one is a Design Studio.

Responses suggest that instructors value student's own experience in the learning process, as only one respondent reported that community involvement is solely delivered via lectures and workshops without live contact, simulation or project work. All others reported deployment of a mix of experiential learning pedagogies. On the question of live contact versus simulated role-play approaches to teaching CI, about half said students had the opportunity for live contact with community. Those who reported this element tended not to use simulation/role-play in their teaching; there were two exceptions where both approaches were used. We can tentatively conclude that live contact and role-play are seen as substituting for one another in the provision of experiential learning. However, project work was reported in 10 of 13 responses. Of those which did NOT use projects, 2 reported the use of role-play as a pedagogic means. Of those which did use projects, 6 reported some live contact with the community. Yet, because of the range of modules in which CI was taught, it is not clear if the live contact was within the projects, or outside them. Eight respondents of the survey reported live contact with community participants in taught planning or planning-related programmes.

5. Case studies

As discussed, three cases were selected to provide a more detailed picture of the practices in student-community engagement across the UK.

Case 1 'Informing Urban Design' was the most focused in scope and scale. Here, students were tasked with a clearly delimited early stage opinion-seeking exercise for a space on a housing estate, upon which they later on had to develop design proposals. Conceptually, students acted as consultants to the housing association who owned the estate, enabling dialogue about options for design.

Case 2 'Supporting Grassroots Participation' is lodged at the other end of the spectrum. Engagement activities form part of a Master's-level module on community participation in planning, with students engaging, each year, with a diffuse and diverse set of activities in a range of geographically focused clusters. Student activities included mapping, interpreting and summarizing policy implications, GIS work and so on. The defining feature of this case was the commitment to begin with community needs with students working directly for the grassroots community groups rather than being mediated by a local authority or developer.

Case 3 'Supporting Local Authority Plan-Making' required students – again in a pseudo consultancy role – to produce a single quasi-official community plan, based on survey and consultation tasks. Contrary to the singular focus on design in case 1, community plans address a range of issues in pursuit of integrated public service delivery and in comparison with the diffuse set of activities in case 2, this activity which was supported by the city council saw students produce a major document with a harmonized set of proposals.

6. Analysis and framework development

Our first concern when interviewing the module leaders (identified as Case 1, 2 or 3 interviewee) was to understand where the community involvement teaching and the SEA were situated within the curriculum. Three aspects of the SEA which were thought relevant to the analytical framework were interrogated. The first aspect was the roles [b] that the engagement allows the students to play. The clarity of participant roles, their interests, and their actions are important for a wide range of reasons, explored below. A second aspect was the mechanics [c] of the engagement itself, specifically student tasks and outputs and the setting up of the arena of interaction. The third aspect relates to how the engagement activity responds to institutional, planning and political *contexts* [m].

6.1. Roles: 'who is doing what, and for whom'? [b]

The overarching learning aims of SEA is to deepen learners' understanding of their future role(s) as planners through direct experience of a planning situation, which is characterized by the presence of multiple stakeholders, whose roles can change quickly. Curriculum design sets the scene for student-community interactions, and thus has direct if not always well-understood impacts on community participants. Students' role as learners is tacit within the study and underlies all other roles. Nevertheless, these other roles were not always clear either to the students, educators or community participants. While educators emphasized the mutual and shared benefit of the engagement activity the wide range of terms used by module leaders to describe student-community participant relations reflects a less-than-clear-cut relationship ranging from 'consultant-client', or 'student as agent of community participants, or of the local or housing authority', or 'student as researcher'. In relation to this last point, principles of participatory action research were frequently mentioned, in which knowledge was co-produced by researcher and subjects. The range of roles shows that not all SEA was 'community involvement'. Yet, the resemblance between classic community involvement and what we observed was happening, was more than sufficient for the overall thrust of our questions to be well-understood by interviewees, and indeed, challenged and expanded.

Related to the lack of clear roles are the tensions that can be observed in the empirical data, in particular, whether the student is perceived as a 'learner' or 'expert', a 'technician' or a 'facilitator' with greater agency. '(The students) were governed by their own time availability, skills and module requirements, rather than working to a strict brief for the "client". Educators indicated a desire to move beyond traditional relationship conceptions wanting to eschew 'the idea that students are "experts" seeking instead to involve them and local people in the co-production of solutions to issues identified within the community. This was reinforced by Case 2 interviewee: '... we try to avoid this discourse of helping people, we try to avoid an assumption that students and professors are experts and citizens are ignorant and our job is to help them. The philosophy is mutual aid, it helps students to learn about the city and they help citizens ... to achieve their objectives better. That's a very important principle ... to establish To stop people talking about "advocacy" ...' However, it is undeniable that students may have specialist technical knowledge. For example, students 'helped decode some planning documents' (Case 2). It is difficult for community participants to have the same level of technical knowledge as planning students. If we were to avoid the idea of 'planner as expert', then students can be seen as 'facilitators'. In fact, students as 'facilitators' or 'enabler' was the second most often mentioned role, in which students typically 'ran community consultation/participatory design sessions.'

6.2. Mechanics: what is SEA made of? [c]

'Syllabus' was a key aspect identified by Roakes and Norris-Tirrell (2000) which included defining the substantive content of what students are asked to do. In the present study, we use the wider term 'mechanics' [c] to denote syllabus plus all the other elements that enable teaching. This includes consideration of where in a programme of study the engagement activity sits, the constraints that this places on when and how the engagement activity can be conducted, how learning objectives are delivered, and finally, whether it meets its objectives. They are discussed under the headings 'elements' [d] and 'characteristics of elements' [h]. Our empirical data suggested that this includes the tasks students are asked to do which will need to bridge divergent tension between the needs of learners and community but ideally should enable the achievement of both learning and community objectives (Table 1). 'Data gathering', 'analysis', 'making proposals' and 'providing information for community action' are clearly for the benefit of the community participants, irrespective of whether the results are ultimately welcomed or seen as useful (e.g. Winkler, 2013). The task specifications depend frequently on the stage of a project on the ground which means that either the right project needs to be found to optimize learning objectives or that objectives have to be adjusted to fit community needs.

Another aspect of mechanics is the arenas [f] in which interaction with community happen whether face-to-face or indirect. This interaction may itself be a task. The arena



Table 1. Tasks, arenas of interaction and outputs mentioned by respondents.

Tasks	 Initial data gathering and presentation, e.g. site surveys and mapping (Cases 2, 3) Context and data analysis which included seeking to understand challenges and issues in a place, conducting workshops to build an evidence base and identify priorities (Cases 2, 3) Making proposals by helping to develop visions, objective, policy or designs(Cases 1, 2, 3) Testing ideas and proposals with local stakeholders, e.g. by presenting and obtaining feedback on proposals, and engaging in discussion (Case 1) Providing critical information for action: in a few cases, the tasks led to action amongst the community (Case 2)
Arenas of interaction	 'Meetings': most common of arenas, student community engagement always involved meetings between students and community participants, sometimes facilitated by instructors 'Workshops,' interactive sessions' or 'site visits': aimed at 'finding out what the community participants wanted from the given engagement activity' 'Presentation by students' to community participants. Students played various roles in these, from observers to fact-finders (the most common roles), to facilitation or convening the activity itself
Outputs	Proposals for urban change or design in form of: masterplans strategies publications exhibitions official or quasi-official policy or strategy documents proposal documents posters reflective personal diaries

frequently came up in the description of structures of the programme. It is one major way in which module leaders approach designing community engagement activity (Table 1). The design of activity and instructor and student conduct within each of these arenas impacted on how the communication is received by either party, for instance, whether any information is deemed trustworthy and useful. Educators were sensitive to risks and level of control over outcomes and impact of different arena types, and all in-depth interviews demonstrated a range of steps that educators took to manage these arenas, for example, by personally convening meetings, both in setting up the projects and during the student involvement. Further research involving interviews with community participants could show precisely how the arena of interaction will influence impact.

The final aspect of community engagement mechanics are outputs [g] expected of the students. In both literature and practice, there are varying degrees of creativity in how outputs are used. In one case, students contributed directly to a neighbourhood forum being set up, in another, students were involved in actually delivering design proposals which were executed. In theory, outputs fulfil a dual purpose. On one hand outputs respond to the needs of community participants and on the other, outputs are used to assess student learning. In practice, while some survey responses suggest there was tacit acknowledgement of the need to 'feedback' to community participants via outputs, the data overall suggest that outputs addressed to the community were only moderately useful. This was often the case even in those instances when the community brief was the primary initiator of the engagement activity, and the activity was tailored to the needs of the ultimate users (e.g. Cases 2 and 3). One strategy to overcome differential expectations and needs are to separate outputs for assessment of student learning (e.g. reflective personal diaries), and for community and public consumption (Case 2).



6.3. Themes emerging around mechanics

The interviews and questionnaires produced several themes in respect to mechanics. These became 'characteristics of elements' [h] in our framework. The mismatch of timescales between real-world planning (long, often in years) and SEA within the constraints of a module and academic programme of study (approximately 6-15 weeks) is perhaps the biggest structural constraint as evidenced by literature and empirical data. 'Timing and timescales' [j] has major knock-on effects on impact on community. First, timing constrains the type and quality of outputs that can be produced and second it affects the level and nature of immersion students can have in the given context. Other themes highlighted by module leaders are 'location' [i], i.e. where the engagement exercise sits in a programme of study and 'output quality' [k] of student work.

A number of solutions to fit student-community engagement activities into programmes were observed. Some instructors recommend developing a single engagement project within a locality or with the same set of stakeholders over a number of years allowing different cohorts of students to work continuously on an ongoing community project (Brand & Rincon, 2007). Others reduce the scope and scale of the engagement activity to fit the short timescales of the module, including Cases 1 and 3. This, in turn, limits the type of SEA, with a tendency towards narrowly scoped and small-scaled technical tasks and tightly defined outputs: '... it is very difficult to do more than just a trivial amount' (Case 2 interviewee). There is also the question of whether the outcomes of the engagement activity are, not just learner or community focused, but also whether those outcomes are required for further student work, for example, as the basis of producing a policy document. In Case 3, a quasi-Community Plan is the main output. Sometimes, 'students carry on after their module is finished they may continue the work as part of another module or dissertation ...' (Case 2 interviewee).

The 'location' [i] of the engagement exercise within the programme of study is important to the indirect but indisputable impact it may have on community participants. This is because where it is located affects what is required in terms of learning objectives, assessment, timetable, student skills, and whether the engagement activity is mandatory or optional.

Our data suggest that there is great diversity in how SEA is delivered in an institution, from CI being a small part of a larger module to a dedicated module that taps into existing ongoing relationships with particular communities and whose assessable outputs include work that directly addresses specified community needs. Only three respondent schools ran a dedicated module for CI, although quite a few examples of these from around the world are discussed in literature (Roakes & Norris-Tirrell, 2000; Brand & Rincon, 2007; Torres, 2012; Winkler, 2013). Where there was a dedicated module in the survey, there were roughly equal mentions of whether these were mandatory or optional. Notably, one of these modules was run across university departments (Geography and Planning). The student assessment and its contribution to student results, as well as time allocated to the engagement elements, have likely implications for the behaviour and performance of students. Millican (2007) noted how the pressure of accelerating degree completion meant that exploratory work via science shops was no longer popular. Finally, although these were not the focus of the research, there were examples of opportunities for extracurricular voluntary participation of students in engagement activity. This can provide a way for students to experience engagement activity without assessment pressures.

Outputs and the conduct within arenas need to be of a *quality* [k] that is acceptable for learning and for community requirements (Forsyth et al., 2000). The empirical data and literature were clear about the need to ensure that the engagement activity did not either overwhelm or underwhelm community participants through setting out unrealistic expectations. Miscommunication about expectations can lead to a total breakdown in relations in the worst case (e.g. Winkler, 2013). Educators therefore nervously limit 'engagement on planning issues fairly broad brush ... [and make sure] not to promise to do too much. However, some accounts discuss very ambitious projects in timescale and openness of scope (e.g. Brand & Rincon, 2007; Winkler, 2013).

In order to achieve an acceptable quality in student-community engagement, both data and literature yield suggestions. Where group work was involved, the size of student groups was mentioned by a number of authors as contributing to the potential success/failure of a SEA (e.g. Roakes & Norris-Tirrell, 2000; Brown et al., 2014). Related to this is the level of student autonomy and decision-making vis-a-vis tutor guidance. 'It varies. Sometimes it's a complete washout. We haven't had any total disasters I don't think, but we've had a few disappointments, particularly where a student has gone on their own or a couple of students are floundering around ... we do a lot of handholding to help them' (Case 2 interviewee). This is related to an instructor's anticipation of the capability of students to produce output of appropriate quality (e.g. Winkler, 2013). The impact of this on quality may also depend on the abilities of students, although this may be seen as situational and is generally outside the immediate control of the module leader.

The question of whether an activity was staff-led or student-led (Kent et al., 1997 in Brand & Rincon, 2007), or indeed, community-led may also affect the quality of student output and the community's experience. The role of the tutor or instructor [n] was generally that of broker for meetings and interactions between students and community. This may involve being present in all meetings between students and community participants, although preparing the setting is an important function of the module leader: 'Introductory meetings: one of us to be there ... to facilitate exchanges in the first few meetings to make sure everything's on track and the students do what they say they are going to do' (Case 2 interviewee). 'I would actually go in before the semester started, maybe ... telling them more about each model, what is community planning? What is land use planning? Here ... is what you're getting, so that the community is more primed with all that information before the module begins' (Case 3 interviewee). The sufficiency of instructor resource was flagged by Tippett and Connelly (2011) as being essential to giving feedback and assistance to students, although this was not in relation to live involvement.

6.4. Context and situational features: location of SEA in the real world [m]

It is obvious that the wider context of community involvement activities affects its impact. This is because it influences the design of the engagement activities themselves. For instance, one of the three cases is set in Northern Ireland, whose particular social and political history shaped the engagement activity and its efficacy a great deal. '... there's a political geography at play, so a lot of issues around territoriality and access to services, which wasn't broached in any great depth, but it's always there in a Northern Ireland context, particularly, when we're talking with the land use territory, the service provision and then people's identity ...' (Case 3 interviewee). Indeed, these types of questions are present in many planning contexts and influence how the design is approached, but the Northern Irish context serves to allow articulation of it.

Another important feature of community engagement activity is the very actions to set up the programme. This conditions the relationships with community participants and influences the impact of the eventual engagement activities. Indeed, this is as important as the design and conduct of the community engagement. The roles and actions of the module leader and the community representatives or members are key. Two of the three in-depth interviewees noted this, especially the importance of preparing the participating community members for the activity. '... in the future, I would go and brief the communities much more in advance, than doing it within the beginning of the module with the students ... actually go in before the semester started, maybe do some capacity building workshops with them ... so that the community is more primed with all that information before the module begins' (Case 3 interviewee).

7. Implications for impact on community

7.1. Implications of roles [b]

Any involvement of students in real-world situations necessarily begins with an understanding of their roles as planners, and these can be multiple. As Siemiatycki (2012) suggests, roles are overlapping and changeable. Every individual actually has multiple, fluid and sometimes simultaneous roles (e.g. a learner can also be researcher, an instructor a facilitator). The insight from the responses is that these reflect the roles which the respondents are privileging in the conduct and design of the engagement activity, and also what they imagine that the participants, both students and community members, are privileging. How roles are defined sets the scene and impacts very much on the dynamics of what can happen.

A key question for curriculum designers seeking to optimize learning and community objectives, then, would be how to set up the roles of each stakeholder in the engagement activities. First, learners need to become aware of what student-supported community engagement is and the multiple roles they may play in its context. Students therefore need to be enabled to take on board who they are working for - the local authority, the developer, themselves as students, perhaps themselves as planner activists (Siemiatycki, 2012) - and related to that, whose and what objectives they prioritize. The question of whether learning objectives or community objectives take precedence is, thus, made visible by this allocation of roles, and the question of whose priority is very likely to have an effect on impact on community participants. Controlling this student-community engagement feature of 'roles' and being clear about them as part of the pedagogic design will help define both learning and community objectives, and being clear about these two types of objectives is important for matters of impact. Indeed, some argue that the formalization of roles via a Memorandum of Understanding is essential (Roakes & Norris-Tirrell, 2000).

7.2. Implications of mechanics [c]

The designer of student-community engagement activity needs to consider how tasks, arenas of interaction and outputs affect community participants. The designer also needs to consider the location, the timescales and timings, and the quality control for these elements, and what they may mean for community participants.

For location [i] within the programme meaning, for instance, whether the SEA is mandatory or optional extra/intra curricular (etc.), the designer needs to consider the compatibility of task, arena and output for that location and the potential of task, arena and output features in satisfying both learning and community objectives. For timescale [j], the designer needs to consider what the duration, frequency and timetabling of tasks, outputs and arena imply for community participants. 'Timescale' is relevant to task; 'duration' and 'frequency' of tasks for community participants should be taken into account. 'Timescale' is relevant to 'output', and 'timetabling' of output publication for all participants need to be considered. Finally, timescale is relevant to 'arena', and its 'frequency' and 'duration' must be considered. For quality [k] and 'quality control', the compatibility of task, output and arena for size of student groups, level of student autonomy and the role of the instructor in pursuit of sufficient quality for both learning and community objectives, is important.

Impact is likely different if for example the community involvement is only one element of a module with many different learning outcomes than if the learning outcomes and outputs are produced over a longer period of time with more interaction. So some sort of optimal balance juggling all of these is required.

7.3. Implications of context and situational features [m]

The impact of student engagement can only partly be attributed to pedagogic design. Student-community engagement activity happens in an open system and even the best laid plans can go awry, as Winkler (2013) demonstrated. To manage this, Roakes and Norris-Tirrell (2000) proposed that the selection of the community for SEA be based on three criteria: (1) the needs of the neighbourhood, (2) willingness of community members' to participate fully, and (3) the proximity to the university campus.

Situational factors dictate the level of impact on community participants that is achievable, and context selection by educators should take this into account, noting that contextual conditions make it possible when the brief for the student work matches well the situational needs on the ground. If the state of play is nowhere near actionable, then there is no way a community aim of the engagement activity can realistically be 'to catalyse change'. This makes sense another way: selecting student-community engagement situations only to fulfil learning objectives is unlikely (except by chance) to lead to the sort of outcomes the place and community require. Therefore, consideration should be given to how the needs of the learning objectives and the ideal mechanisms of delivery (e.g. short sharp technical tasks, or longer early stage visioning tasks) match with the needs of the locality and the community. A less than optimal match may result in the selection of a different site, or reshaping the learning objectives. One strategy to achieve this is seen in Case 2 where educators select from a large pool of possible projects and allow students to work on whatever the issues are. Learning objectives are general enough to allow this while outputs for assessment and community are separated.



8. Concluding remarks

A number of insights and recommendations about the design of student-community engagement can be developed. Beforehand, however, we should note that this research was conducted with limited resources, and its results should be taken as an indicative rather than representative picture of student-community engagement activity in universitycommunity engagement. It nevertheless contributes to an area of knowledge about which not much is widely shared, even amongst those academics who have been involved for years in such activities.

The present research has been useful in first mapping the lie of the land and providing recommendations for the design of student-community involvement; second, it derived a theoretical framework for the evaluation of impact on community participants within a student-community involvement process and third it provides suggestions for universities' future role in respect to university-community engagement. Further research is needed including interviews with community participants in relevant projects to explore the impacts these activities have had and how community members perceive universities' engagement involving students.

8.1. Practice insights and recommendations

One objective of the research was to systematically describe the design of SEA in the UK. This involved the synthesis of our empirical data (and relevant literature) into a whole here, a hierarchy - that makes sense and is helpful - also in respect of future assessments of impact of SEA on community actors. A set of features of student-community engagement teaching were inductively extracted (Figure 1). They may be categorized at the top level into 'teaching programme structure', the 'setting up' of that structure, which describes the link between teaching needs and real-world community needs that can only be influenced but not controlled by educators. At the next level, there are two categories within 'teaching programme structure, which are the 'roles of participants' and 'the mechanics of community engagement'. Under 'mechanics' are two further subcategories: the elements of mechanics, which can best be described as 'Tasks', 'Arenas' and 'Outputs' (Table 1). Moreover, there are at least three characteristics of tasks, outputs and arenas (location, timescales and timings, and quality) that need to be matched to minimize conflict and enable the meeting of the student-community engagement objectives. These dimensions and their relationships with each other and with impact on community participants begin to explain how and why student-community engagement activity has community impact.

While making one activity serve the dual purposes of teaching and of community development is to exploit potential synergies, the diversity of stakeholders, even crudely divided into 'students' and 'the community', mean that operational success entails negotiation across several aspects. It was evident in all three case studies, and in many of the survey responses, that the instructors (and in Case 2, together with the students), spent considerable time with community leaders, agents or representatives, agreeing objectives to move forward. Our analyses illustrate that there is value in highlighting the different categories of objectives of the multiple stakeholders. In the case studies, the parties do agree clearly specified deliverables which meet as many of the needs of as many of the parties involved, as possible, but in an ad hoc and deliverable-driven manner. So, one recommendation is that Learning Objectives

	3 3	, 33	, ,
	Tasks [e]	Arenas [f]	Outputs [g]
'Location' [i]	Does the location of tasks meet both LO and CO?	Does location of arenas meet both LO and CO?	Does the location of outputs meet both LO and CO?
Timescales and timing [j]	Does the timescale and timing of tasks meet both LO and CO?	Does the timescale and timing of arenas meet both LO and CO?	Does the timescale and timing of outputs meet both LO and CO?
Quality standards [k]	Do the quality standards of tasks meet both LO and CO?	Do the quality standards of arenas meet both LO and CO?	Do the quality standards of outputs meet both LO and CO?

Table 2. Questions to be asked while designing student community engagement activity for teaching.

(LO) and Community Objectives (CO) must be clear, explicit and discrete, and ideally given the same weight. These then become the basis around which to shape everything else: Tasks, Outputs, Arenas, and the Timescales and Timing, Quality Standards, and Location of the Tasks, Outputs and Arenas. If a proposed and relevant Task, Output and Arena is not suitable for either LO or CO, then rethinking is required. Put another way, 'timescale', 'quality' and 'location' are the three parallel dimensions in which the requirements of LO and CO need to be matched up. A mismatch simply points to the need for clarity of choosing and defining learning and community objectives and being explicit about what is acceptable, and what is not acceptable (Table 2).

The second recommendation is to position everyone as co-learners when considering roles. The approach taken in Case 3 was that of students and community participants working and learning together, with the module leader ensuring that students become 'co-learners' with the community participants rather than 'consultants', which suggests too much of an expert top–down approach. This means moving away from a service learning ethos, which suggests 'doing to' or 'doing for' rather than 'doing with', which co-learning connotes. 'Co-learning' equalizes power relationships and honours all kinds of knowledge. Co-learning is learning with and in communities; it is respectful of the other's place; it involves knowledge making as much (or more) than knowledge consumption; it is done in informal settings; and it 'reminds us of our equality and provides a frame for developing mutual, non-appropriating learning from and with one another' (Rutherford *et al.*, 2011, 482). Co-learning informs the approach to teaching in the university's fourth mission proposed by Trencher *et al.* (2014) which sees universities co-creating lasting transformations *with* communities.

8.2. Contributions to theoretical discourse

Operationalization of pedagogic design for engagement aside, let us zoom out and explore the place of teaching and learning in university-community partnerships. Millican (2007) when looking at teaching within and through university-community engagement set out two threads of such teaching: science shops, prioritizing community needs, and service learning, which explicitly prioritizes 'learning needs'. While both promised the meeting of community needs, in fact there is always a tendency towards prioritizing one or the other. In the empirical evidence we see educators struggling to strike the balance between these priorities, and we accept that this will be inevitable. While we have made recommendations about how to improve the operational design of such activity to help strike

a community-student learning balance, the second recommendation to position oneself as co-learner, moves beyond the mere mechanics, and suggests a new approach. Such an approach can define what teaching is within the wider university-community engagement in the twenty-first century. Indeed, the definition and spirit of co-learning as articulated by Curry and Cunningham (2000) and Rutherford et al. (2011), is resonant with Trencher et al.'s (2014) description of the fourth mission as transformative co-creation. The idea of 'learning with' also fits with Schlossberg et al.'s (in press) call for universities to move beyond information giving to action-taking. Rutherford et al.'s (2011) work on a universitycommunity partnership dealing with homelessness dissects the idea of transformation:

Social justice ... is the why; it functions as the impetus for transformation within our partnership. Co-learning is the what. It describes the nature of the learning that happens purposefully through these processes. Action research strategies provide the how, directing the ways to move through the ... stages of transformation. These three concepts are interlinked to support the learning and development of relationships between university students and faculty and (the community actors) as we find ways to work together to reduce the level and burden of homelessness and poverty. (481)

The transformative motifs of 'act-not-inform' and the related one of 'doing with' not 'doing to' or 'doing for', and the once-again fashionable idea of working in partnership, but in particular, the 'co' doing of anything (co-creation, co-production) are however nothing new. It parallels the breakdown of the researcher-research subject dichotomy. In fact, the basic psychology of transformative co-action mechanics go back as far as 1924, when Follett argued that, 'The activity of the individual is only in a certain sense caused by the stimulus of the situation because that activity is itself helping to produce the situation which causes the activity of the individual. In other words, behaviour is a relating not of "subject" and "object" as such, but of two activities' (Follett, 1924 in Weick, 1995, 32). In talking of the behaviour process we have to give up the expression act 'on' (subject acts on object, object acts on subject); rather the central fact is the meeting and interpenetrating of activities. Weick (1995, 32) calls this 'ongoing codetermination' meaning that there is strictly no such thing as the result of process, only a moment in process (Follett, 1924).

The literature is fairly quiet on theorizations of the phenomenon of student-community engagement and learning. However, since we hold the belief that we are not detached academics but active contributors to knowledge and thus action, we take the rather predictable step of calling for the timely recognition and designation of emerging and ongoing activities as a new transformative co-learning approach for the teaching element within university community engagement. This approach gives equal weight to learning and community objectives and must be co-designed to focus on and encourage the 'co' aspects of learning and engagement. It should be geared towards action, and not just enable students and community members simply to act side by side, but recognize that stakeholders act on each other as well. Fallis (2007), in describing the modern research university as a 'multiversity' recognizes the multiple and sometimes conflicting roles of these institutions, which may be attributed to the competition for resources and support between the interests of its various missions. As discussed, Trencher et al. (2014) identified four of these as teaching, research, knowledge entrepreneurship, and direct societal transformation.

While 'teaching' was the university's first mission (Trencher et al., 2014), it has been overlooked in university-community partnerships which tended to focus on 'research' and 'commercial entrepreneurship'; after all, teaching does not obviously generate income directly as 'research' or 'commercialisation' does. Teaching is paid for mainly by the number of students, and that is how it appears in the accounts of decision-makers. However, in the second decade of the twenty-first century, should teaching once again take centre stage in the era of the 'fourth mission'? The empirical evidence – both that found in recent literature and our own investigations - shows that it can certainly play a central role. Rutherford et al's (2011) work suggests that 'learning' in co-mode (which may or may not be within a student or curriculum context), together with 'research', and the 'mission' itself, form the pillars upon which university-community partnership projects should be founded making the university an institution at the heart of society. Moreover, Hoy and Johnson (2013) go a step further by asking institutions to challenge students to be more engaged and selfdirected across all aspects of their learning as part of preparing them to lead meaningful lives, economically, personally and socially. Practically, this will require a commitment from university leadership towards this fourth mission moving beyond mere aspirational rhetoric and signing manifestos such as the Wingspread Declaration (1999) or the Manifesto for Public Engagement (2010), respectively. It will require a change in guidelines, reallocation of funding and resources and acknowledgement of such teaching and collaborative universitycommunity engagement in faculty's promotions criteria to allow a broader shift in current practices and the requisite support for those seeking to service both students learning and community needs. While the juggling act for educators will not disappear, longer term engagement will build capacity amongst community as to how to collaborate; it may also facilitate the development of new formats and approaches that allow establishing matches between timescales, assessment and learning with community needs.

Note

1. The term 'multiversity' was coined by Kerr (1982) in the 1960s, and is most often used to designate what are otherwise known as 'research universities' in the English-speaking world (Fallis, 2007). Here, we use the term to characterize modern universities more generally as fulfilling multiple functions of teaching, research and engaging in knowledge transfer.

Acknowledgements

We would like to thank the educators for making time for in-depth interviews on teaching design.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This study benefited from a Cardiff University Undergraduate Research Opportunity Placement grant financing research assistance for 2 months.

ORCID

Andrea I. Frank http://orcid.org/0000-0002-0507-0310 Louie Sieh http://orcid.org/0000-0002-3977-6311



References

Abramson, D. (2005) The 'Studio Abroad' as a mode of trans-cultural engagement in urban planning education – A reflection on ten years of Sino-Canadian collaboration, *Journal of Planning Education and Research*, 25(1), pp. 89–102.

Angotti, T., Doble, C. & Horrigan, P. (Eds) (2011) Service Learning in Design and Planning (Oakland, CA: New Village Press).

Arnstein, S. R. (1969) A ladder of citizen participation, JAIP, 35(4), pp. 216-224.

Brand, R. & Rincon, H. (2007) Tackling six common dilemmas in 'Live' planning projects, *Journal for Education in the Built Environment*, 2(2), pp. 36–60.

Brown, R., Edwards, M., & Lee, R. (2014) Just space: Towards a just, sustainable London, in: Rob Imrie & Loretta Lees. (Eds) *Sustainable London?: The future of a global city*, pp. 43–66 (Bristol: Policy Press).

Curry, R. M. & Cunningham, P. (2000) Co-learning in the community, *New Directions for Adult and Continuing Education*, 87(2), pp. 73–82.

Etzkowitz, H., Webster, A., Gebhardt, C. & Cantisano Terra, B. R. (2000) The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm, *Research Policy*, 29, pp. 313–330.

Fallis, G. (2007) Multiversities, Ideas and Democracy (Toronto: University of Toronto Press).

Flyvbjerg, B. (2002) Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again (Cambridge: Cambridge University Press).

Follett, M. P. (1924) Creative Experience (New York, NY: Longmans, Green &).

Forsyth, A., Lu, H. & McGill, P. (2000) Service learning in an urban context: Implications for planning and design education, *Journal of Architectural and Planning Research*, 17(3), pp. 236–259.

Gold, R. L. (1958) Roles in sociological field observations, *Social Forces*, 36(3), pp. 217–223.

Harris, G. (2004) Lessons for service learning in rural areas, *Journal of Planning Education and Research*, 24(1), pp. 41–50.

Higgins, M. & Simpson, F. (1997) *Work-based Learning within Planning Education: A Good Practice Guide* (London: University of Westminster Press for the Discipline Network in Town Planning).

Hollander, J. B. (2011) Keeping control: The paradox of scholarly community-based research in community development, *Community Development Journal*, 46(2), pp. 265–272.

Hoy, A. & Johnson, M. (Eds) (2013) *Deepening Community Engagement in Higher Education – Forging new Pathways* (New York, NY: Palgrave Macmillan).

Kerr, C. (1982) The Use of the University, 3rd ed. (Cambridge, MA: Harvard University Press).

Kolb, D. (1984) *Experiential Learning: Experience as the Source of Learning and Development* (London: Prentice Hall).

Kotval, Z. (2003) Teaching experiential learning in the urban planning curriculum, *Journal of Geography in Higher Education*, 27(3), pp. 297–308.

Massey, S. & Barreras, R. E. (2013) Introducing 'Impact Validity', *Journal of Social Issues*, 69 (4), pp. 615—632.

Millican, J. (2007) Student community engagement – A model for the 21st century? Paper – for workshop on Models of Student Community Engagement for the Global Citizens Conference at Bournemouth University, Poole, UK.

National co-ordinating centre for public engagement (NCCP) (2010) *The Engaged University: Manifesto for Public Engagement*. Available at http://www.publicengagement.ac.uk/sites/default/files/publication/manifesto_for_public_engagement_final_january_2010.pdf (accessed May 2015).

Roakes, S. L. & Norris-Tirrell, D. (2000) Community service learning in planning education: A framework for course development, *Journal of Planning Education and Research*, 20(1), pp. 100–110.

Rutherford, G. E., Walsh, C. A. & Rook, J. (2011) Teaching and learning processes for social transformation: Engaging a kaleidoscope of learners, *Journal of Teaching in Social Work*, 31(5), pp. 479–492.

Schlossberg, M., Larco, N., Slotterback, C. S. & Connerly, C. (in press) Catalytic learning through collaborative engagement, in: Frank & Silver (Eds) *Educating the world of planning* (University of Pennsylvania Press).



Schön, D. (1991) *The Reflective Practitioner: How Professionals Think in Action* (Aldershot: Ashgate). Schroeder, K., Wood, C. A., Galiardi, S. & Koehn, J. (2009) First, do no harm: Ideas for mitigating negative community impacts of short-term study abroad, *Journal of Geography*, 108(3), pp. 141–147.

Shepard, A. & Cosgrif, B. (1998) Problem-based learning: A bridge between planning education and planning practice, *Journal of Planning Education and Research*, 17(4), pp. 348–357.

Siemiatycki, M. (2012) The role of the planning scholar: Research, conflict, and social change, *Journal of Planning Education and Research*, 32(2), pp. 147–159.

Tippett, J. & Connelly, A. (2011) You want me to do what? Teach a studio class to seventy students? *Journal for Education in the Built Environment*, 6(2), pp. 26–53.

Torres, J. (2012) Participation as a pedagogy of complexity: Lessons from two design projects with children, *Urban Design International*, 17(1), pp. 62–75.

Trencher, G., Yarime, M., McCormick, M. B., Doll, C. N. H. & Kraines, S. B. (2014) Beyond the third mission. Exploring the emerging university function of co-creation for sustainability, *Science and Public Policy*, 41(2), pp. 151–179.

Udas, K. (1998) Participatory action research as critical pedagogy, *Systemic Practice and Action Research*, 11(6), pp. 599–628.

Weick, K. E. (1995) Sensemaking in Organizations: Foundations for Organizational Science (Thousand Oaks, CA: Sage).

Wingspread Declaration. (1999) Wingspread Declaration on the Civic Responsibilities of Research Universities by H. Boyte and E. Hollander on behalf of participants in a Wingspread conference on civic education December 1998. Available at http://compact.org/wp-content/uploads/2009/04/wingspread_declaration.pdf (accessed May 2015).

Winkler, T. (2013) At the coalface: Community-university engagements and planning education, *Journal of Planning Education and Research*, 33(2), pp. 215–227.

Wood, C. A., Banks, S., Galiardi, S., Koehn, J. & Schroeder, K. (2011) Community impacts of international service-learning and study abroad: An analysis of focus groups with program leaders, *Journal of Service-Learning & Civic Engagement*, 2(1), pp. 1–23.

Yanow, D. & Schwartz-Shea, P. (Eds) (2006) *Interpretation and Method: Empirical Research Methods and the Interpretive Turn* (Armonk: M.E. Sharpe).

Appendix A. Survey questions for module leaders

SECTION A: Student-community involvement in your institution

Question 1: Do you offer teaching via student-community involvement as defined above, or have you any plans to? Question 2: Please list the RTPI accredited degrees (by name) currently offered in your department/school/university Question 3: Where and how are knowledge/skills on community/public participation taught/covered within the institution's pedagogical offer?

SECTION B: The nature of student-community involvement Question 4: Roles in the student-community involvement

4a. What role(s) do the students play?

4b. What roles do the community stakeholders play?

Question 5: Structure of student-community involvement Please describe the nature of contact between students and communities

Question 6: Benefits and costs to the community

6a. What is explicitly offered back to the community? How?

6b. What are the benefits to the community of this SLCI work?

6c. What are possible threats and / or costs to the community?

 $6d. \ What \ adjustments \ have \ you \ / \ will \ you \ make \ to \ SLCI \ in \ your \ programme(s) \ as \ a \ result \ of \ this?$



Appendix B. In-depth interviews: questions for academics (relevant questions

- Introduction
- What do you do/your position. What are you responsible for?
- 2 Tell us about your role in relation to the project
- R We are studying how the students' community involvement work affected this place and the [name of project]
- Can you tell us a bit about the project, as you recall it? Can you tell us about what the effects were, if any?

Did the CI exercise:

- Affect people's understanding and knowledge of the technical issues?
- Affect people's understanding of other stakeholders' positions?
- Directly give people impetus to act?
- Enable people to achieve something they otherwise may not have been able to?
- Do you feel that the process was fair or precipitated a fair outcome?
- C We'd like to know more about how you felt about the CI exercise itself. Did the CI exercise:
- Convince you of the logic of decisions in the project, and the rationale behind the decisions?
- Affect the credibility of the wider project process? How? Are the results of the CI process:
- Relevant to a broad range of stakeholders? 4c
- Going to be relevant and valid over time? 4d
- D Lastly:
- What do you think about the how the community involvement was conducted and managed? 5a
- Was it useful overall?
- Did your perception of community involvement change overall?