

Inter-Disciplinarity in Teaching: Probing Urban Studies

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Abstract

This article arises from a research project funded by the Subject Centre for Sociology, Anthropology and Politics and a literature review on 'interdisciplinarity' commissioned by the Subject Centre for Languages, Linguistics and Area Studies (Chettiparamb, 2007). It attempts to unpack how disciplinarity and interdisciplinarity are created through pedagogy in higher education at the module level while teaching an interdisciplinary subject such as 'urban studies'. In particular, comparisons are made between the teaching aims and methods in two disciplines: planning and sociology. Comparisons are also made between the approach of two types of universities – a pre-1992 university and a post-1992 university. The article argues that the differences between the universities are more profound than the differences between the disciplines. The research reveals two key findings. In the pre-1992 university case study, even though the 'contributing' subject domains of the disciplines are similar, the disciplinary identities are maintained and accomplished in subtle ways. In contrast, in the post-1992 university, disciplinary boundaries are not so purposefully maintained, resulting in the realisation of a different construction of interdisciplinarity.

Keywords: Disciplinarity, Interdisciplinarity, Pedagogy, Sociology, Planning, Urban Studies, Pre-1992 Universities, Post-1992 Universities

Introduction

In recent times, interdisciplinarity has become a widely discussed, debated and also acclaimed concept, in terms of research, teaching and practice. It is generally advocated on grounds of practical problem solving, on the one hand, and quests for a unified knowledge base, on the other. Both of these grounds incorporate moral overtones indicating why and how interdisciplinarity is not only inevitable but also essential. The normative discourse surrounding practical problem solving presents an interdisciplinary approach as occupying interstitial gaps that a disciplinary approach leaves vacant (Brewer, 1995; Rosamond, 2006). Quests for a unified knowledge base present interdisciplinarity as achieving transcendence to a higher level of knowledge that a disciplinary approach cannot achieve (Stember, 1991). There is also a more phenomenological view that argues that interdisciplinarity already exists in disciplines and that both interdisciplinarity and the disciplines are inexplicably intertwined, the one needing the other (Dogan and Pahre, 1990; Klein, 2000, 1996).

Even while interdisciplinarity is recognised as desirable and inevitable, there is scepticism about the combining of various disciplinary epistemologies, with concern about resulting superficiality (Witte and Robitscher, 1999; Klein, 1990). Kroker (1980 cited in Klein 1990) drew a distinction between what he called 'vacant interdisciplinarity' and 'critical interdisciplinarity'. The former, according to Kroker, does not seriously challenge disciplinary world views, rather it is overwhelmingly instrumental and 'mechanically normalizes existing modes of thought' (Kroker, 1980 in Klein, 1990, p.96). In contrast, the latter forces disciplines to rethink their modes of thought, thereby challenging accepted disciplinary world views, epistemologies and methods. Further, in knowledge claims within interdisciplinarity, Klein (1990) distinguishes between instrumental claims that foreground a relatively short-term goal of efficacy and utility from a more long-term reflection of values. She advocates argumentation, stressing the importance of an 'integrative process' to achieve 'critical interdisciplinarity' (Klein, 1990, p.194). An integrative process involves various types of pedagogical activities designed to expose students to a critical awareness of disciplinary biases (Klein, 1990; Payne, 1999; Haynes, 2002).

This research seeks to examine how exactly interdisciplinarity exists and is realised in pedagogical practices in the teaching of urban studies in the disciplines of planning and sociology in two universities in the UK. It examines whether the teaching of urban studies is more influenced by the discipline through which it is approached or the type of university in which it is taught. The research project was funded by the Subject Centre for Sociology, Anthropology and Politics (C-SAP), of the Higher Education Academy (HEA). Further, the Subject Centre for Languages, Linguistics and Area Studies (LLAS, also of the HEA) funded an extensive literature review into interdisciplinary teaching which helped the interpretation of the research data. This paper reports on findings from the former, drawing on work from the latter.

In the following section a brief contextualisation of the higher education sector in the UK is provided. This is followed by an overview of the theoretical contexts of the study. The methodological assumptions made and the methods used are then presented, followed by a

discussion of the data. The conclusions summarise the main findings and discuss their relevance for the teaching of urban studies, a constitutive topic of built environment studies.

Higher Education Sector in the UK

Academic orientations, are reported to be greatly influenced by national traditions, institutional cultures, and teaching philosophies. A study conducted by the Organisation for Economic Co-operation and Development (OECD) in 1972 revealed that in the UK, interdisciplinarity was found most in vocational subjects while in the US, it was found most in general education (education involving a wide range of topics rather than specialising in one). The same study indicated that in France and West Germany interdisciplinary teaching was more evident in the social sciences, while in Japan it was more prevalent in the sciences. In Canada, the distribution of interdisciplinary teaching was found as being fairly even (OECD, 1972). Education policy in the UK, by and large, has advocated the need for interdisciplinarity (eg. National Committee of Inquiry into Higher Education, 1997; Thew, 2007).

A study by Burton B. Clark (1983) on disciplines – what he terms ‘academic tribes’ – has been a very influential work for understanding similarities and differences across countries. Clark notes that ‘the discipline (or profession) is comprehensive in that it does not specialise by locality but rather pulls together a craft like community of interest that reaches across large territories’ (Clark, 1983, p.29). The disciplinary dimension is important since, according to Clark, ‘it is the discipline mode of organisation that has rendered higher education, over time and space, basically meta-national and international, much more than elementary or secondary education’ (1983, p.29). This is in tension with views that emphasise the importance of national, local, social and contextual factors in the organisation of higher education. The tension is resolved by his introduction of the concept of ‘enterprises’ (p.26) which are essentially the institutions/organisations within which disciplines are located and grouped together. The disciplines are then conceived as ‘product lines’ (p.31) while the enterprises are geographically centred entities. Representatives of the disciplines then criss-cross with the representatives of enterprises to produce particular knowledge practices. It is important then to understand the higher education institutional context within the UK.

Kogan and Hanney (2000) analyse policy changes in higher education in the UK by dividing the same into four broad periods. Thus until around 1963, the higher education sector was almost completely dominated by research-led universities otherwise known as elite-universities (Trow, 1970 in Henkel, 2000, p.30). These were organised mainly on disciplinary lines. By 1970, thirty new polytechnics, managed by local authorities targeting the local social context, were created for training, technical and vocational education. Henkel (2000) points out that polytechnics were mainly teaching institutions created under principles of public accountability with no funding for research. This arrangement created a binary system in higher education in the UK. Gradually, growth in the polytechnics led to an increasing power-base and a call by the polytechnics for an end to the binary system. This institutional reform came about in 1992, when the polytechnics were given university status and incorporated under a uniform statutory framework. The histories of universities are therefore generally

denoted as being pre-1992 (historically research-led university) and post-1992 (a former polytechnic). Academic orientations and pedagogical traditions are generally understood to be different between pre-1992 and post-1992 universities due to the above historic reasons. The rationale for this research was to compare the two types of institutional context for the teaching of urban studies. The following section looks at the theoretical frameworks used for this research.

Disciplinarity and Interdisciplinarity

Etymologically the term 'discipline' stems from the Latin term *disciplina* which means 'instruction given, teaching, learning, knowledge'. Aram (2004, p.380) argues that disciplines are 'thought domains – quasi-stable, partially integrated, semi-autonomous intellectual conveniences – consisting of problems, theories, and methods of investigation'. Disciplines are argued to be quasi-stable, because they are evolving; partially integrated, because they are fragmented and specialised internally; and semi-autonomous, because the boundaries resist clear delineation. Historically, the reasons for the emergence of disciplines are attributed to the natural tendencies of human beings to separate, classify and conceptualise the surroundings; the need for full economic participation in society and for regular organisation to enable perpetuation and continual enquiry (Boisot, 1972; Aram, 2004; Lattuca, 2001; Turner, 2000; Cobban, 1975; Clark, 1983). Parker (2002) compares the discipline to a subject, positing that the latter is skill and knowledge based, while the former is modelled more on the lines of wisdom, providing the value and rationale for the acquisition of the latter.

Roberta Frank (1988, cited in Klein, 1996, p.8) places the origin of the term 'interdisciplinarity' within the Social Science Research Council, when the term was used as a kind of 'bureaucratic shorthand' for research involving two or more professional societies. Interdisciplinarity has since been promoted by several movements. One of these is the Unity of Science movement which campaigned in the 1930s and 1940s in the West. The search for 'grand and simplifying concepts' such as the second law of thermodynamics, mass-energy equivalence, quantum mechanics and general systems theory thus promoted interdisciplinarity (Klein, 2000, p.5). The concept gained further momentum in the US with the student unrests in the late 1960s when one of the demands made was for disciplinary structures in universities to be removed and replaced by more holistic concepts that were closer to practical life. Later 'interdisciplinarity' came to denote reform, innovation and progress (Weingart and Stehr, 2000, p.xii). For instance, Brewer (1995) claims a variety of connotations for interdisciplinarity including integration synthesis, contextualisation, scale relevance, validation of disciplinary worldviews, theories and methods and concern for longer temporal horizons.

In pedagogical terms, however, the concept of interdisciplinarity remains intriguing for it embodies a paradox. On the one hand, it is through the act of teaching that disciplinary identities are primarily encouraged and forged in higher education. Yet, on the other hand, teaching practices are also infused by the expansionist trend of knowledge (through research) attempting to transcend disciplinary boundaries (Dogan and Pahre, 1990). This

then raises interesting questions for the ways in which disciplinarity and interdisciplinarity are realised in the inculcation of skills and knowledge through teaching and learning in higher education.

Interdisciplinarity in pedagogy has been analysed and understood in various ways. Heckhausen (1972) provided a useful classification by identifying six broad types:

- 'indiscriminate interdisciplinarity', where there is more of a 'curricular mix-up'. Here a number of disciplines are introduced in an 'encyclopaedic fashion'. This is seen to be provided more for vocational training below university level. There is no potential for substantial research in this process.
- 'Pseudo interdisciplinarity', where analytical tools such as models, or computer simulation provide the logic of bringing together disciplines. Activities such as pattern recognition, models of social behaviour etc are classified in this.
- 'Auxiliary interdisciplinarity', where disciplines use methods that are generated in another field, like pedagogy making use of psychological testing.
- 'Composite interdisciplinarity', where issues form the main propelling force for integration. Thus poverty, environmental degradation or war might form issues around which disciplines come together providing their own insights and expertise.
- 'Supplementary interdisciplinarity' where disciplines in the same material field develop a partial overlap. Here the overlap is at the same level of theoretical integration and generally these areas exist at the borderlands of the respective disciplines.
- 'Unifying interdisciplinarity', where there is an increased consistency between the subject matter of disciplines, which is then paralleled by theoretical integration and methods. The example of biophysics is cited.

The above conceptual framework indicates that disciplines can form different types of interdisciplinary relations with constituting disciplines, for different purposes and during different times. The requirement for knowledge and skills within each type of interdisciplinarity varies which could be hypothesised to demand differences in pedagogical modes and approaches. Therefore the pedagogy, and the absence or presence of disciplinary 'boundary work' should suggest the realisation of particular types of interdisciplinarity.

Methodological assumptions and choices

Literature on pedagogical aspects of interdisciplinarity typically focus on course or programme level re-organisation (Bailis, 2002; Newell, 1992; Franks *et al.*, 2007). Programme level organisation allows higher level complex skills associated with interdisciplinarity to be forged over a significant period of time. Unsurprisingly, perhaps, these interdisciplinary courses are typically grounded in universities/institutions that are ideologically committed to interdisciplinarity. This research did not explicitly focus on

institutions that were strongly committed to interdisciplinarity. Instead the concern was with enquiring how a topic that is generally understood to be inherently interdisciplinary (in that many disciplines are involved in the study of the urban realm) is taught in universities/institutions that may not have an overriding commitment to interdisciplinarity in their teaching strategies. This concern also allowed an investigation of the ways in which disciplinary boundaries might be defined and perpetuated through teaching, if and where it happened, even when the subject taught is interdisciplinary in nature. The concern with disciplinary boundaries and its realisation in teaching strategies also guided the research emphasis to the module level. This focus narrowed down the scope of the research to match the resources available for the study, yet allowed analysis of specific teaching strategies, approaches and methods.

The undergraduate rather than the postgraduate level was investigated. It was assumed that, given the lack of overt emphasis on interdisciplinarity in teaching at university, the undergraduate level could be where the students were most encouraged to become a member of a particular discipline. Though it is acknowledged that there are instances where interdisciplinarity is encouraged at undergraduate level (especially in the US where numerous undergraduate courses aim at a general education in the first year of an undergraduate degree), these programmes normally occur in institutions that have an overriding commitment to interdisciplinarity (not the case in this study). Assumptions that anticipate undergraduate education to be primarily disciplinary, however, do align with particular assumptions of knowledge practices, especially views that argue for the need for developing 'thinking traditions' grounded in disciplines that are deemed necessary for making sense of new practices and horizons (see Chettiparamb, 2007 for a more detailed discussion on views for and against disciplinarity).

Dogan and Pahre (1990) emphasise that disciplines are permeable entities, not isolated units. Both planning and sociology in the UK are understood as disciplines within the social sciences. For example, research in the UK for both disciplines is organised under the remit of the Economic and Social Research Council. The social sciences in turn are generally understood to be internally fragmented, less stable and divergent than the natural sciences. In 1968, Pantin (cited in Klein, 1996, p.39) called these disciplines 'unrestricted' stipulating that, with the exception of economics, the social sciences in general would exhibit diffuse links both within and outside particular disciplines. Therefore the need for continuous boundary work for the disciplines to maintain a coherent identity within which academic communities (or 'tribes' as Becher, 1989 states) are built up is particularly interesting in the social sciences.

The familiarity of the disciplines of spatial planning and urban studies for the researcher and the requirement of one of the funders (the need for including sociology, anthropology or politics) initially suggested that the disciplines chosen would be planning and sociology with urban studies being the interdisciplinary realm. Urban studies as the interdisciplinary realm was confirmed through further readings on the nature of the disciplines. For example, Rich and Warren (1980, p.59 quoted in Klein, 1996, p.91) observed that 'urban affairs' tends to be more of an importer of theories and concepts rather than an exporter. Sociology is generally

understood as being more theoretical than applied, in comparison with spatial planning, a distinction that was thought to be significant for this research as it provides a way of distinguishing between disciplinary identities in the two disciplines. Also, it is generally asserted that problems and practical life are inherently interdisciplinary hypothetically making it more accessible for applied disciplines. This point may be illustrated by Popper's (1994) much quoted statement that it is problems that exist not subjects (Gozzer, 1982) and the OECD's claim that 'Communities Have Problems, Universities Have Departments' (a chapter heading in their publication *University and the Community*, Organisation for Economic Co-operation and Development, 1982; quoted in Klein, 1996, p.12). Thus it was hypothesised that a comparison of the teaching of urban studies between the disciplines of planning and sociology would enable a study of whether interdisciplinarity features differently and if so how.

Two different types of universities were chosen for the case studies. The first is a pre-1992 university with a highly regarded reputation in research and teaching and a member of the elite Russell Group of universities (a self-selected group of 19 universities from amongst the older – pre-1992 – more 'prestigious' universities, Chevalier and Conlon, 2003). Due to its association with a research active tradition, this university could be expected to practise teaching centred on the construction of particular 'thinking traditions' that are linked to a disciplinary identity. The second university is a post-1992 university which was formerly a polytechnic with a vocational focus, having acquired university status with the abolishment of the binary system in 1992. It was anticipated that this university could therefore be expected to encourage an interdisciplinary orientation. Both universities have Schools/Departments of Planning and Sociology and both are delivering urban studies (under various names) to undergraduates studying planning and undergraduates studying sociology. When the department/school is referred to the words Planning and Sociology start in capitals and when the disciplines are referred to, they start with small letters such as planning and sociology.

Research Methods

A comparison of the teaching strategies employed for the realisation of disciplinarity or interdisciplinarity in the specific modules studied required a systematic investigation of:

- i. the content of the module
- ii. the teaching methods employed in the delivery of the modules
- iii. the assessments used
- iv. the reasons for all of the above as stated by the module leader
- v. the reasons for change over time in the above components if any.

This required the employment of two main methods of research: (a) document research for gaining detailed contextual and module specific information; and (b) in-depth interviewing of staff teaching on the modules for gaining information on staff motivations and perspectives. Though findings employing the above methods could have been complemented by a study of the efficacy of the techniques for disciplinarity or interdisciplinarity from the student viewpoint,

this was not done primarily because it was outside the scope of this study as the research question was framed tightly to match the resources available.

(a) Document research

Contextual information was researched drawing upon:

- i. data from the policy environment in UK higher education including reports and information available from the websites of the Higher Education Academy, and the relevant Quality Assurance Agencies; and
- ii. data on the university backgrounds collected from university websites.
- iii. data on the organisation of teaching collected from the university websites.

Module level information was collected from:

- i. school/department website; and
- ii. hard copies of module descriptors/briefs collected from relevant schools.

To identify the modules that would be relevant for this study, the websites of schools/ departments were searched for the word 'urban' or 'city' in the title. Eight modules in total were identified out of which five were eventually included for this research primarily due to issues regarding availability of module leaders, the generality of the module content (for instance modules that were focused solely on urban design, a rather specialised subject were avoided) and the need for more or less equitable choice across the universities and the disciplines. In the pre-1992 university, it was found that teaching was organised separately in two schools. Two modules in Sociology were identified out of which one was included. One module in Planning was also included. In the post-1992 university, teaching was found to be organised across schools/departments in a faculty with both Planning and Sociology contributing modules to students from both schools/departments; three modules were identified. The total number of modules researched were thus five.

(b) In-depth Interviews

In-depth semi-structured interviews were conducted with faculty in charge of all five modules within a period of one month. Both the modules in the pre-1992 university had a co-module leader and therefore a total of seven in-depth interviews were conducted. Interviews centred on detailed fact finding, probing for motivations and reflections and staff perceptions. Interviews always started with the detailed fact finding stage. The module descriptors/briefs were used as aids to start the conversation and interviewees were asked to talk the researcher through the module and what happens within it. Opening with a fact finding question served as a good ice-breaker easing both the interviewee and the researcher into a conversation. It was anticipated that reflections and staff perceptions would in the first instance emerge from such descriptions. These reflections and perceptions were then picked up and probed further, at times immediately, but at other times after the description. A set of 23 questions was prepared on structure, content, skills and pedagogy. These were used mainly as a checklist to make sure that the interviews covered the issues that the questions addressed. Roughly around an hour to an hour and a half was spent with each interviewee.

A brief profile of the interviewees in terms of gender and discipline are provided below:

U1S1	Female	Sociology
U1S2	Male	Sociology
U1P1	Male	Planning
U1P2	Male	Planning
U2.1	Male	Planning
U2.2	Male	Planning
U2.3	Male	Planning

(pre-1992 university = U1; post-1992 university = U2)

The sections below present the analysis from the research findings. First commonalities and differences between the disciplines in the pre-1992 university are drawn out. In line with Becher's (1989) work on academic tribes, the discussion illustrates how boundary work is accomplished through pedagogy in the disciplines thus leading to the perpetuation of different disciplinary identities. In the post-1992 university initial documentary research showed that the disciplines are not clearly separated in terms of teaching. Therefore, a comparison between the disciplines in this case does not emerge from the data. Instead a difference between the organisation of teaching between the two universities emerges with implications for the realisation of interdisciplinarity. The second section then compares differences between both universities and uses the conceptual framework introduced earlier to understand the interdisciplinarity realised.

Comparisons between the Disciplines in a Pre-1992 University (U1)

In the pre-1992 university, one module in both Planning and Sociology was researched at undergraduate final year level. In line with university requirements, both these modules had a 20-credit weight (a 10 credit module normally requires 100 hours of student effort). At the time of research (late 2006), the module researched in the Planning department was offered as an option to the planning and geography students. In the Sociology department, the module researched was offered as an option to the undergraduate sociology students.

The data collected from the research were analysed for both similarities and differences in the teaching of urban issues. Pedagogical approaches (as detailed below) were found to be largely similar, though there were subtle differences. The data collected are described around three main themes: i) the disciplinary boundary work in the two disciplines, ii) research influence, and iii) the pedagogical modes employed in the two disciplines. While these themes emerged from the data in the first instance, they were also analytically significant for understanding the type of interdisciplinarity forged in the pre-1992 university (drawn out in the discussions later).

Disciplinary boundary work

Multiple aspects of the urban were emphasised in the curriculum content, in both Planning and Sociology, even though the specific aspects that were emphasised differed. In Sociology, the module drew from other disciplines, but predominantly from human geography, emphasising space and place. The interface between sociology and geography was perceived by the interviewees as blurred ever since geographers and sociologists 'began speaking to each other' (Interview U1S1) in the 1990s, resulting in a perceived reduction of the distinctions between the two.

"I really don't feel there being a big distinction between human geography and sociology. I really don't" (Interview U1S1).

Thus aspects of space and human lives were equally stressed in the module. The links between space and human life also needed to be drawn out for assessment. Still, when presented to students, the module was presented as a sociology module, not a multidisciplinary module.

"...the way we present the course to students is as a sociological course. We don't...say it is a multi disciplinary course. We present it to students as a module that is very much located within sociology" (Interview U1S1).

The study of urban affairs in the module in Sociology was approached from a cultural angle emphasising theories of consumption and consumer culture and its relation to place and space. Urban affairs were perceived as a medium for developing essential sociological skills and knowledge. The aims stated in the module description were:

To develop students' awareness and critical understanding of the city, both as an object of *sociological* attention and as the site for significant *sociological* explorations; and in this context, to develop students' awareness and critical understanding of consumer and postmodern culture(s) and urban lifestyles [added emphasis].

In Planning, in the pre-1992 university, the disciplinary focus was on human geography again, but was more on political geography, economic geography and socio-cultural geography, including issues of social justice, ethnicity and diversity. Thus though both human geography and sociology contributed to the studies of the urban in both cases, different aspects were emphasised. This difference in emphasis can be understood along two dimensions: the realm of knowledge that each discipline thought was necessary for their students to develop and the focus of attention in each discipline. In sociology, an understanding of relevant theories and concepts of society, the ways in which place and space could instantiate these theories and concepts, and the ways in which place and space influence human experience differently was the focus for delivery. Though urban space was the medium, the focus was unmistakably on human life and experiences.

"We are talking all the time about human experiences in the city...We are not talking about space, in and for itself, ...we are talking about...how people use and experience these transforming spaces and how those transforming spaces themselves limit and shape what kind of ...the emphasis is always on the social, the

emphasis is always on people, so that's what we want them to end up with an idea of how social life, social life is quite powerfully affected by questions of space and place" (Interview U1S1).

The skills demanded of the students were in areas of understanding, connecting and critiquing so as to identify the presence of various socio-structural forces even when their experience of these socio-structural forces may be spatially different. In planning, however, whilst the theories and concepts were important, so too were issues of policy.

"It's trying to get them to think about the spatial dimensions of social processes. So in that sense, I suppose it is interdisciplinarity between geography and sociology, as much as anything else, but in addition try to get them to think about the implications of intervening in some of these processes" (Interview U1P1).

So, even when the social was dealt with in planning, the focus differed. 'Space' and the difference it makes were stressed here:

"The 'urban' not as a way of life, but as a space...What we are after is a notion of ...urban setting and the spatiality of that really...So it would be perhaps...things to do with the density of particular layouts...the way in which...something like the setting of housing estates which is like a kind of jungle...and so the setting of it and the way in which the built environment has been developed is actually integral..." (Interview U1P1).

Thus even while teaching an interdisciplinary domain drawing from a largely similar set of disciplines, the construction of disciplinary identities was taking place through the relative emphasis placed on particular aspects of the urban. In sociology, it was on the lives of people and how space modified and influenced structural social forces to produce specific experiences; while in planning, it was on the features of space, the ways in which space could be modified and the effects of these modifications or interventions on the social. The entities – social life and space – were the same in both disciplines, but the standpoint from which the entities were viewed and studied was different. When asked why intervention was not emphasised in the course in sociology, the response was:

"It is not a common thing to do...Concern of the course is with understanding and critiquing. No pressure to go beyond it. Not something I had thought about until you mentioned it" (Interview U1S1).

Research influence

In both Planning and Sociology, the content of the module and how it came about was primarily explained by staff research interests. Thus, in sociology, the incorporation of human geography came through the research interest of the concerned staff, even if the primary identification was with the discipline.

"...although I am not a geographer, I am a sociologist. But I...over the years because of the direction that my interests have taken I think I have become much more interested in space and place" (Interview U1S1)

Also, in planning, staff research was mentioned as a key driver. However, policy change was also a key additional factor perceived as a key driver for change.

“I think it might change in terms of what...what kind of happens in policy, but also in terms of kind of how the things that I am moving into” (Interview U1P2).

Significantly, in the course of the evolution of the module, though titles and course names had changed the staff in charge for these areas of study largely remained the same in both Planning and Sociology. The importance of staff research in the module content and evolution might have been more pronounced as these modules were essentially option modules in both the disciplines studied. It could also, however, have been an outcome of the university policy with its emphasis on ‘research-led teaching’, which encourages the incorporation, wherever feasible, of teaching that may take off from on-going research and is informed by the same. Research-led teaching, it is argued, has the potential to bring the latest advances in a subject area into the classroom, while reducing the teaching-research tension in staff time allocation. Option modules that align with research interests are a popular way of achieving this integration.

Pedagogical Modes

In both disciplines, there was considerable emphasis on theories and concepts related to urban space and urban life, with learning objectives that specified key skills such as ‘understanding’, ‘conceptualising’ and ‘theorising’. Staff interviewed also emphasised the conceptual part of the modules which formed the substance of classroom teaching. Lectures were the dominant pedagogical mode. Both disciplines, however, also had an empirical component in the form of a capstone project work. The project work was assessed for the student’s ability to apply the theoretical understandings introduced in the lectures. In Sociology, the students (in groups), had to select an area in the city that they were studying in, which would allow a grounding of the theories that were discussed in the lectures. These spaces and places were to be observed and studied; leading to analysis and presentation of how the theories they were introduced to could be empirically observed. The students were encouraged to use and record visual images, conduct interviews, interrogate the data produced and build it into their final report submission. Understanding theory, being able to apply it and develop a critique in application were thus essential objectives in the module.

“Applying the theory to practice and...The value of that is enormous. Because instead of just understanding the literature in abstract terms, in conceptual and theoretical terms of its own...they are having to think about those concepts in relation to a natural place. So it is forcing them to come to terms with those theories in quite a different way than they would have to if they just did the reading” (Interview U1S1).

Also, the project work was adopted to:

“...make sure that they [students] know the value of the theory because they have seen how they can actually use the insights of that theory to inform their own analysis...” (Interview U1S1).

In Planning, students were also required to do a project. They were asked to view a film or read a novel and then write a short review exploring the way in which an urban setting would make a difference to the film or story. In essence they had to address the question:

“...does the fact that it uses the city or has an urban setting, how does that make a difference basically? So in fact what they are doing is showing how a distinctively *spatial notion* of the urban is constructed and used within this film or novel” (Interview U1P1) [added emphasis].

This was because:

“they would have to think...about well, what is it that we mean, what is it that is distinctively geographical about a particular way of thinking of the city...When we think about the city as geographers or planners, but in spatial terms, what is it that makes that a different way of thinking about the city to the way in which a psychologist or a sociologist might think about it. So that, that is absolutely central really to this module and then they will...also use, show they have understood particular kinds of ideas, that urban geographers use and...they will develop, and we give them some advice...a capacity to think critically about another medium, a film or novel” (Interview U1P1).

Various arguments, concepts and theories were introduced to students encouraging them to form their own theoretical perspective. Thus:

“It is critical skills and the hope that they will develop...their own kind of perspective on these things. That they will find some of the arguments more persuasive than the others, and that they will be encouraged perhaps by being asked to do some work or perhaps simply an interest to pursue one or the other of these avenues and will develop a perspective and a stand point of their own” (Interview U1P1).

Both the disciplines were looking for essentially the same set of skills – conceptualising, connecting (application) and critiquing – in the study of the urban, even though it was accomplished through slightly different approaches and emphasis in terms of content. These skills can be then seen as generic and transdisciplinary for both planning and sociology, one explanation for this being that they are both rooted in a common social science genre. Further insights can be gained by comparing how urban studies is taught in the pre- and post-1992 universities.

Comparison between the Two Universities

Initial document research revealed that in the post-1992 university, the teaching within the disciplines was shared, rather than distinct and separate. Hence a comparison of teaching of urban studies in Planning and Sociology in the post-1992 university became irrelevant. This section therefore deals with the differences between the two universities in the teaching of urban studies and will show that overall there were more differences in teaching delivery and teaching organisation between the universities than differences between the disciplines within the first university. Between the pre- and post-1992 universities, the data revealed

differences in relation to i) the organisation of teaching and ii) the module contents and iii) the pedagogical approaches adopted in the delivery of the modules. As in the previous section, though these themes emerged from the data, they were significant for discussing the type of interdisciplinarity involved.

Organisation of Teaching

The document research in the early stages of the research project revealed that the organisation of teaching in the post-1992 university was different from that of the pre-1992 university. In the pre-1992 university, urban studies was seen to be taught and delivered in separate modules, in the two schools of Sociology and Planning. The institutional organisation of teaching was thus very much along disciplinary lines with modules identifying strongly with the schools. In contrast, the organisation of teaching in the post-1992 university was found to be not so divided. The Department of Planning was organised under the School of the Built Environment which also had other Departments under it, such as Architecture, Urban Design. The university had a separate School of Social Sciences and Law under which Sociology was one Department. Thus Planning and Sociology were not just different departments, but also belonged to different Schools. Nevertheless, in terms of teaching, a variety of modules in various years at undergraduate level were offered across both Schools. Unsurprisingly there was no evidence whatsoever of any boundary work in the teaching of the modules.

With regard to relative focus on urban affairs, in the pre-1992 university, a specific focus on urban studies (as discernable through the title and module description) was present in only three modules (one in Planning and two in Sociology), though it might be expected that perhaps other modules did overlap and cover aspects of urban studies in both disciplines. In the post-1992 university, the subject of urban studies as an explicit focus (again as discernable through the title and module description) was found to be present in four different modules, all of which were 'owned' by the School of the Built Environment. Each of these modules concentrated on different aspects of the urban. Of the three modules researched in the post-1992 university, two were accessible to students from both Schools (Built Environment and Sociology), though the staffing for these modules were largely from Planning. One of these two modules was also offered to students doing a foundation degree in the School of the Built Environment. The third module was accessible to many disciplines within the built environment faculty, but not to sociology students. The modules were prescribed as compulsory for some courses in the built environment and optional for others in both Planning and Sociology schools.

If it is accepted that forms of knowledge and their acquisition are influenced by social, organisational and historical factors (Kogan and Hanney, 2000), then the reasons for the differences in organisation of the delivery of the modules are to be found, in part, in higher education policy changes. Mary Henkel comments upon the traditional highly discipline based organisation in the older universities when higher education was '[a]ccessible only to an intellectual elite...mediated by strong internal control organised within a framework of disciplines...' (Henkel, 2000, p.16). In contrast, the polytechnics, which did not receive

research incomes, were organised more in line with notions of public accountability with 'a tradition of wide access and multiple modes of study' (Henkel, 2000, p.31 following Scott, 1995). The latter were committed to developing courses in which academic study was combined with vocational courses. Thus in the polytechnics, interdisciplinary and modular degree schemes came to be submitted for validation as early as the 1970s (Henkel, 2000). The thrust for interdisciplinarity via structural organisation in the post-1992 university can thus be viewed as a historic response to public pressures for social accountability and economic rationalisation, traditionally seen as exogenous (OECD, 1972) to the university. The organisation in pre-1992 institutions, however, is a result of organisation according to what Clark (1983, p.35) calls a 'first principle'. This is the knowledge speciality around which all other things in a university is organised. The disciplinary organisation has been also shown elsewhere to provide academics their primary source of identity (Henkel, 2000), upon which 'all else is constructed' (Clark, 1983, p.35). It can therefore be considered as endogenous to the university.

The relatively non-compartmentalised mode of organisation followed by the post-1992 university is a structural move away from an organisation based on the disciplines and one would expect that this arrangement would tend to weaken the inculcation of disciplinary identities. Interdisciplinarity, according to some scholars, needs a disciplinary grounding as a prerequisite (Haynes, 2002). Since the disciplinary grounding is not integral to pedagogy in the post-1992 university, it would then be interesting to investigate if there could then be a qualitative difference in terms of the type of interdisciplinarity that is promoted.

Content of modules and changes in the same

In the pre-1992 university we have seen that the module aims in both disciplines were mainly towards conceptualising, connecting and critiquing. In the post-1992 university, however, all of the modules researched were described as aiming to provide basic knowledge for the students. The emphasis was on understanding historic evolution of cities and some of the concepts involved in explaining city processes such as 'gentrification', 'industrialisation'. Though each module dealt with city processes, there was a clear focus for each. Thus one dealt with city processes and the built environment, the other with city processes and city life, while the third dealt with diversity in the city and its implications for various sectors. The content of the modules tended to cover concepts and ideas related to the city, not actually touching upon theories. Thus:

"we don't put a great deal of...theory into it. I mean we do refer...loosely I suppose to ...the zonal theories of cities and we refer to I think some of the kinds of...processes of ...social change in cities, concepts like gentrification and I think, maybe...it is more particularly concepts I would put it, rather than complete theories...in a sense, it is perhaps just particular ideas that we would make use [of]" (Interview U2.1).

"I don't go into any theory for theory's sake. In a way that was the rationale at the beginning. I just came to the conclusion that that was counter productive...I think there are limitations on the amount that I can do that. Maybe in one way I would like to do that more. But I am very conscious of the fact and this is, I'll tell you, one of the

problems of...the way, the way in which we teach - and we teach in different groups of students different subjects – is that it is like teaching a mixed ability class in a primary school or a secondary school and you know that in the audience, there are some students who can go only one or two steps on one word. But there are other students who can...go five or six steps, who can go a lot further and it is very difficult to get the balance in terms of...really trying to pull out what you might call the more theoretical implications of the kinds of issues we've been dealing with”
(Interview U2.2).

Though staff interviewed in the post-1992 university were themselves well established with long experience and permanent tenures, it was clear that there were considerable changes in the work loads and responsibilities in terms of teaching. Thus for one module, the staff at the time of research had been teaching the particular module for just one year and for another, it was for the last two years. This was in contrast to the model in the pre-1992 university where staff in charge of modules seemed to be fairly constant for the duration of the module. The pitching of the module at the level of basic knowledge might also account for why it was possible to have changes in staff handling the module more often.

In terms of changes in the module, very little was reported in terms of core content, though modifications and updating of teaching aids over the years were cited. Again, since teaching in the post-1992 university was aimed at basic concepts of cities, the relatively static nature of content is understandable. But the relatively little change introduced might also have been an outcome of the pedagogic tools employed. In the pre-1992 university these were easily changeable – lectures – while in the post-1992 university, as we shall see below, these were fairly resource intensive.

Pedagogic approaches in delivery

There was a significant difference in the pedagogic methods adopted in the two universities. In the post-1992 university, perhaps in view of the concerns surrounding ability, the learning process itself was less structured around lectures, making use of a variety of techniques, including videos, films, historical materials, maps, project work and role play. These methods were deployed for imparting learning and for both formative and summative assessment. The techniques were not only diverse but were also frequently used. Thus in one module as many as eight films were used, in addition to two project works: one involving group presentation with formative assessment, and the other involving individual work with summative assessment. The first project work comprised visiting two different areas that had developed in different times in two different ways (and had not undergone much redevelopment). This work was done in groups, and involved observing changes with the help of historic material collected by the staff. The students applied the concepts that they had gained from class-based discussions of visual material. This was part of a formative assessment. The second project was individually executed and it involved choosing and studying areas that were undergoing change and identifying the ways through which different actors managed and influenced change. The second project had to be compared and contrasted with the group project undertaken earlier. Here the non-disciplinary domain of

practice provided the neutral domain (Klein, 1996) from which students pulled out conceptual constructions. Knowledge is accomplished through 'parceling' (Klein, 1996, p.60), whereby partial representations that isolate and clarify concepts are encouraged. The concepts were identifiable as being from the same set of disciplines that contributed to understanding in the pre-1992 university. Development of particular skills such as map reading was also intended.

In another module (third year), films that depicted changes and tensions that followed over time in particular portions of a city were discussed. With reference to the story line and incidents in the film, theoretical concepts were introduced. The module aimed to encourage critical reflection on how the media depicted cities and how the concepts introduced could help the students to understand what was happening. Assessment was formative, involving the maintenance of a module diary in which students had to reflect broadly on the module, connecting their learning with concepts learned elsewhere in their course, their own experiences or the literature. This module was open to both disciplines (with sociology and social work students forming the majority). The concepts introduced, though shared with geography and planning, were more about social life and processes in cities, such as social diversity and exclusion. General academic skills were sought such as:

“how do you translate the ideas in your head and your response into a form of language that makes it comprehensible to other people?” (Interview U2.2).

In the third module (first year), students were introduced to urban models and diversity and the ways in which these models interplayed with various sectors in the city, such as housing, transportation. Assessment was through seminars based on sectoral topics, an essay and a simulation exercise where the students were given particular roles. Specific rules that generally influenced development in the city were assumed. Within the roles, and bound by rules, students were required to negotiate with each other, and make decisions regarding how a particular plot of land in the city would develop. A reflexive report on the simulation exercise had to be handed in at the end. This module was also open to students in both sociology and planning, though planning students formed the majority. Concepts used were from sociology, geography and planning, and the applied domain tended to be more within governance and public policy. Skills sought included: “the ability to cope with complexity and multiplicity in making decisions” (Interview U2.3). Having an explicit aim of retaining complexity, the module chose as the major pedagogical tool, a simulation exercise around a land development proposal with role plays to simulate particular actor strategies followed by analysis of these actions.

The modules in the post-1992 university were thus specifically and tightly focused on specific themes of the urban which were delivered with a non-traditional (non-lecture based) range of cognitive aids. Student numbers were high, as many as 80 or 100 as compared to a student strength of around 15-20 in the pre-1992 university. Staff in the post-1992 university were aware and repeatedly referred to the differences amongst the student population in terms of both disciplines and abilities. Given this situation, ensuring cognition of the subject matter was the prime concern rather than the forging of any disciplinary identity. Pedagogy tended to move from applied situations to concepts in a dialectic manner contributing to *processing of information* and *understanding* (lower order cognitive skills according to Bloom's (1956)

taxonomy) which were formatively assessed. This was different from the pre-1992 university where the applied domain was integrated through a capstone project work, more for demonstration of higher order skills (again according to Bloom's taxonomy) such as those of *application and analysis* contributing to summative assessment.

Conclusions

This section draws together the evidence and arguments presented and discusses the implications of this study for understanding the disciplinarity and interdisciplinarity involved in the teaching of Urban Studies in planning and sociology in the two types of universities researched. Earlier the data from the pre-1992 university was compared thematically under the sub-headings of i) disciplinary boundary work in the two disciplines, ii) research influence and iii) the pedagogical modes employed. The data from the post-1992 university was then compared to the data from the pre-1992 university under the sub-headings of i) the organisation of teaching, ii) the module contents and iii) the pedagogical approaches adopted in the delivery of modules. The significance of these comparisons for understanding the particular type of interdisciplinarity forged is discussed in this section.

In the pre-1992 university, the teaching of Urban Studies in both disciplines – planning and sociology – drew upon concepts of place, space and society with the differences mostly being in relative emphasis. The approach to the study of urban space and social life was almost mirrored in the two disciplines with the differences being subtle due mainly to a difference in emphasis. Thus, while planning primarily focused on understanding space and the impacts of intervention on space in social life, sociology focused more on understanding the capacity of space to modify and reinforce wider socio-structural forces. Though the teaching of urban studies in the two disciplines reflected these differences, there was much that was shared. Even though the sharing of disciplines were acknowledged in the interviews, disciplinary boundary work was performed in the presentation of the subject to students. In both disciplines, urban studies as a topic was seen primarily as an option module for which the main impetus was the research interests of staff. Dogan and Pahre (1990) show how the process of specialisation in research fragments a discipline, eventually leading to hybridisation wherein combinations occur with similar inquiries in other disciplines focusing on the same subject. Heckhausen (1972) terms this type of interdisciplinarity as 'supplementary interdisciplinarity' wherein there is a partial overlap of disciplines with broadly similar inquiries as about the urban realm in this case.

The pedagogical mode followed in the pre-1992 university was predominantly 'lecture led', a mode of pedagogy in which the teacher dominates. The transfer of knowledge was thus more top down, starting with concepts and moving to application and empirical situations in the capstone assessment. The emphasis in the module was on theories and concepts even when examples and illustrations from the real world were used. The assessments in both disciplines were for higher order cognitive skills which were the stated and intended (by staff) aims of the modules. The similarity in the assessment aims shared by the two disciplines in this university perhaps suggests, a common or shared institutional understanding as a research-led university with expectations that follow from this. On the other hand, it could

also follow from a common or shared disciplinary understanding emanating from a common heritage, both being streams within the social sciences, thus enhancing the 'supplementary interdisciplinarity' referred to earlier.

In the post-1992 university, in contrast, there was a lack of disciplinary focus resulting mainly from the different way in which teaching was organised. Modules were shared across a range of departments and schools with no attempt to forge any disciplinary identities. The differences in pedagogy between the two universities were thus much more pronounced than differences between the disciplines (observable only in the pre-1992 university). The pedagogical approach tended to be based upon the desire to 'get a hold' on the objects of study that were out in the 'real world'. Representations of real life situations were brought into the classroom through films, maps, role plays and the like and students were equally encouraged to venture out on field visits. Unlike the pre-1992 university, the practical empirical 'real world' was the starting point of learning. Concepts that were relevant for achieving an understanding of the object of study – the situations under discussion – were then drawn out. Learning was achieved through observation of practice and analysis of the same using the concepts to achieve a generalised 'understanding' of urban processes. There was no aim to move beyond the realm of 'concepts' and learn particular theories of urban social life and there was no explicit attempt in the case observed to forge a disciplinary identity or a characteristic disciplinary 'way of looking' at the city. Using Heckhausen's (1972) typology, this suggests 'indiscriminate interdisciplinarity' with the development of higher order skills relevant to research not intended.

Yorke and Knight (2006) stress the importance of programme level intervention to promote complex learning, with fine tuning at module level essentially limited to fit to programme level goals. In interdisciplinary modules there is a potential to promote complex learning at the module level as the skills required and demanded might draw from more than one discipline. In the case studied for instance, both disciplines drew on concepts of space from human geography and social structure from sociology. The presence or absence of interdisciplinary modules can thus be an indicator for the level of complexity promoted in a particular programme. However, just the presence or absence of interdisciplinary modules alone may not provide sufficient information about the degree of complexity involved. As we have seen the complexity and the requirement for higher order skills may vary significantly between interdisciplinary modules, a message of caution amidst the enthusiasm for interdisciplinarity promoted by higher education policy in the UK. Theoretical concepts from the literature on interdisciplinarity can, as we have seen here, help in understanding the level of complexity aimed at in a module. For instance, within the subject area of urban studies, modules may be designed with a level of 'indiscriminate interdisciplinarity' (as observed in the post-1992 university) or a more sophisticated level of 'supplementary interdisciplinarity' (as observed in the pre-1992 university) signalling different levels of skills. Such skills may also have corresponding implications for employability, an area that would merit further research. Thus asserting interdisciplinarity *per se* may not be enough, crucially it is the *type* of interdisciplinarity which may matter. The differences in interdisciplinarity achieved may, however, be a direct outcome of the ways in which the delivery of modules are organised in terms of (distinct or shared) disciplines in a university. The organisation of the delivery of

modules then can be an externally visible quick gauge useful for prospective students and employers alike.

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