THE GRADUATE PLEDGE

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1 Analysing graduate capabilities – setting up a research agenda

1.1 Being an academic in changing landscapes of UK Higher Education – the RAE, research as currency and the devaluation of teaching

UK Higher Education has undergone fundamental changes that have radically altered what being an academic and a student is about. It is widely acknowledged that Higher Education in the UK has dramatically changed its shape within the last decades. This is generally circumscribed in such keywords as marketisation or commodification of HE and in a trend towards accountability and assessment (Shore and Wright, 2000). The massification of Higher Education throughout the last forty years, the scarcity of state funding and the implementation of assessment procedures resulted in the increase of fixed-term contracts and more academics competing for jobs (Hockey, 2004; Miller, 1996; Shore and Wright, 2000; Tight, 2000). The implementation of quality assurance such as the Research Assessment Exercise (RAE) in the early 1980s has substantially altered working conditions for academics, putting stronger emphasis on research and publications (Miller, 1996), with a rising teaching workload as a result of the massification of academia from the 1960s onwards (Martin, 1999). Universities were increasingly treated as 'cost centres' with academics as 'work units' (Shore and Wright, 2002: 67). Thus, universities became more dependent on private sponsorship, reflecting a global trend in Higher Education (Slaughter and Leslie, 1997).

The implementation of quality assurance such as the Research Assessment Exercise (RAE) has substantially altered working conditions for academics and has been subject to rigid criticism by academics and trade unions (Sparkes, 2007; Willmott, 2003). According to critics, as the emphasis is on research and publications that can be submitted to the prestigious RAE, teaching does not receive the recognition it deserves. Most universities now have teaching and learning strategies and implemented new funding schemes and better professional training in order to increase the quality of teaching. In spite of teaching being assessed through Teaching Quality Assessment, performing well in teaching does not have the same status as excelling in the spheres of research output and publications (Skelton, 2004; Young, 2006). In fact, leaving aside occasional prizes for excellent teaching practice, there are hardly any structural incentives for engaging in teaching (Skelton, 2004). Rather, the RAE has served to increase the hierarchy

between research and teaching and creates the risk of further increasing the divide between research and teaching universities (Lucas, 2006) Whereas research and publications often are requirements for promotion, this is far less so the case with teaching, in particular in research-intense universities (Parker, 2008). All these developments have substantially challenged academic identities (Henkel, 2000; Parker and Jary, 1995) and this necessarily impacts on students.

1.2 Being a student in changing landscapes of UK Higher Education – 'The student as consumer' versus 'the student as producer' narrative

Since the 1970s, UK universities have been experiencing a constant rise in student numbers. Finally, with New Labour coming into power in 1997, widening participation in Higher Education became one of the key targets of the Blair government. The official ambition as it was expressed in the White Paper of 2003 was that 50 per cent of the 18-20-year olds would go to university by the year 2010 (Neave, 2006). Whilst the UK student population is far more diverse in social class, race and ethnicity than thirty years ago, the ambition to increase the number of students from a wider background has most recently been contrasted by the implementation of tuition fees. Moreover, whilst the Labour government was keen on pushing a wider participation agenda, it also cut the number of student loans (Shattock, 2008).

Over the last few decades the student experience has undergone radical changes. While the requirements for a job are constantly rising, the effort students put into their employability is devalued by the mere number of highly skilled competitors (Breneman and Youn, 1988; Brown and Scase, 1994). This exemplifies more general trends of deskilling on the labour market and a general devaluation of skills over the last decades. Within this context, a university degree alone is not a guarantee for a decent job any longer. As a consequence graduates are increasingly under pressure to provide evidence of a rounded package of certificates, skills and experience – a development that Brown et al. label as the rise of 'the economy of experience' (Brown et al., 2003). The growing popularity of the gap year for young people before they enter university as an opportunity to gain soft skills that might help them to distinguish themselves from future competitors on the labour market also reflects this phenomenon of '[…] gaining distinction in a world where educational qualifications are no longer sufficient in themselves to guarantee success' (Heath, 2007: 92). Yet, in particular the implementation of tuition fees makes it more

difficult in particular for students from disadvantaged backgrounds to fund their study. A lot of students have to work alongside their studies in order to fund their degrees. This makes it more difficult for them to acquire extracurricular skills.

The narrative of students as consumers as a way of describing current student populations in their approach to Higher Education has enjoyed increasing popularity in Higher Education discourse in the UK in recent years (Key et al., Naidoo and Jamieson, 2005). It has been observed that the value for money paradigm impacts on students' approaches towards learning (Newson, 2004). Key states that 'consumerism implies that students will want to see obvious, tangible benefits from their studies, whether in terms of an inherently valuable qualification, or as a route to a particular form of employment' (Key et al., 2005: 3). With students paying fees there has been a rising demand for more compartmentalised teaching deliverables and short courses. The underlying assumption is that higher education services that are below standard will be rejected, thus forcing higher education providers to improve or lose out on 'customers' and revenue. According to Naidoo and Jamieson, '….the student-consumer thus emerges as the focus of competition and a modernizing force that will bring about increased efficiency, diversity and flexibility to the higher education sector. Consumerism can also be seen to be related to 'new managerialism' through the deployment of performance indicators and league tables which strengthen the hand of consumers by providing information to aid choice' (Naidoo and Jamieson, 2005: 4). This opens up the question of the market power of students and their forces in shaping the curriculum. Naidoo and Jamieson conclude that '…the pedagogic relationship is likely to be transformed into one that is dependent on the market transaction of the commodity. Education is likely to be reconceptualized as a commercial transaction, the lecturer as the 'commodity producer' and the student as the 'consumer'. […]..consumerist mechanisms may be seen as a device to reform academic values and pedagogic relationships to comply with market frameworks.' (Naidoo and Jamieson, 2005: 5).

Naidoo argues that the picture of students and consumerism is far more heterogeneous than commonly suggested and that more differentiation in HE literature on the phenomenon of consumerism would be needed (Naidoo and Jamieson, 2005). The narrative of the student as consumer also seems to be used to further justify existing and so called conformist ways of teaching and to justify stagnation in an empty vessel-consumer-oriented model because of students' demand and the power of market forces. Newson argues that academics are also guilty

of supporting students in their existing consumerist attitudes rather than challenging them or providing alternatives. According to her, strongly technology supported teaching, what she coins as 'technopedagogies' would rather reinforce consumerist approaches to education than challenge it. Based on qualitative research within her faculty and an examination of the techno-pedagogic discourse she concludes that this '[…] discourse tends to justify technology-based teaching and learning paradigms in terms of their cost-efficiency, accountability, and productivity – all of which are criteria of evaluation that belong to budget-based rationalization and marketability assessment rather than to pedagogic goals and values' (Newson, 2004: 229). In a similar spirit, Naidoo and Jamieson argue that '[…] attempts to restructure pedagogical cultures and identities to comply with consumerist frameworks may unintentionally deter innovation, promote passive and instrumental attitudes to learning, threaten academic standards and further entrench academic privilege' (Naidoo and Jamieson, 2005: 267). It can also be argued that the fear of the student as evaluator and eventually as a person who might sue academics, has an impact on academics and results in more defensive and compartmentalised pedagogical strategies (Troman, 2000).

Yet, as discussed before, the notion of the student as consumer does not capture the heterogeneous reality of contemporary student life and further perpetuates an understanding of the student as a passive entity, coming to university to collect a degree. Whereas it is important to recognise the reality of contemporary students' lives and in places consumerist approaches – tuition fees, often working alongside their studies whilst finishing their degrees and subsequently facing a harsh labour market – labelling students as consumers does disable us to acknowledge students in their role as producers of knowledge, as active members of the university.

The notion of the student as producer shall enable us to capture students' realities in more subtle ways, doing justice to students' conditions of work and study and viewing students as active and knowledgeable beings. Mike Neary et al. developed the concept of the student as producer and have thereby drawn on ideas from Critical Pedagogy on the one hand and Walter Benjamin's article 'the artist as producer' on the other hand (Neary et al.; 2008). It is this framework of understanding students' work that subsequently informs our study of graduate capabilities.

Critical pedagogy considers students as learners who can actively contribute to the world and to knowledge. For Paulo Freire knowledge needs to be connected with the world the student finds herself in (Freire, 1972). Hence, Education is not only a means to an end but should contribute to students' enhanced experience of themselves and the world around them. Paulo Freire's work is widely known and has found widespread application in educational contexts. Mike Neary has demonstrated how Benjamin's work can be beneficial for theorising the student as an active member in society (Neary, 2009). In his essay 'the author as producer', published in 1934, Walter Benjamin wrote about the necessity for the author (the novelist) to reflect on the relationship between the text, the social, political and economic conditions within which a text is produced and within which the author finds herself. Benjamin says that ultimately there is only one demand to the writer: '[…] the demand to think, to reflect on his position in the process of production. We may depend on it: this reflection leads, sooner or later, for the writers who matter (that is, for the best technicians in their field), to observations that provide the most factual foundation for solidarity with the proletariat' (Benjamin, 1934: 779). Benjamin distinguishes the operating writer from the informing writer and argues that 'his mission is not to report but to struggle: not to play the spectator but to intervene actively' (Benjamin, 1934: 770) Benjamin's text therefore is an invitation for authors to consider themselves not only as viewers but as actors.

Similarly as Benjamin asked what the writer is for the novel, we have to ask what the academic is within her research and subsequently what the student is within her studies. Thinking Higher Education through Benjamin would mean both for academics as well as for students to acknowledge that knowledge production and studying do not take place in a vacuum and that they themselves have a role to play in this process that goes beyond the role of the spectator. Benjamin talks about the writer's struggle to connect theory and practice and the challenge to put theoretical claims into practice. One way of accomplishing this link, according to Benjamin, is teaching. For Benjamin, a writer would not only be expected to set an example as best as he could in his teaching, he would also do this by teaching others how to produce: 'What matters, therefore, is the exemplary character of production, which is able, first, to induce other producers to produce, and, second, to put an improved apparatus at their disposal. And this apparatus is better, the more consumers it is able to turn into producers – that is, readers or spectators into collaborators' (Benjamin, 1934: 777). Thus for a teacher to transform a student from a consumer

to a producer it is necessary to 1.) provide the student with the space that allows her to produce or as Benjamin says – to induce others to produce – and 2.) to provide her with the best knowledge and tools that enable her to become a producer herself. Taking Benjamin further, one could thus say that it is by means of teaching that students can potentially turn from consumers into producers and therefore gain agency for themselves. Neary et al. have identified undergraduate research as a way of providing students with agency (Neary et al.; 2009). This is why research and other active ways of exploring the world and knowledge are so important for students. By producing research, students experience themselves in more meaningful ways beyond their time at the university.

1.3 'The student as producer' - Investigating students' capabilities in a research rich university environment

Rather than disguising the tensions that students find themselves in, the notion of the student as producer both recognises students' realities of being located in a consumerist world, paying tuition fees and facing the necessity to find a job whilst at the same time wishing to be recognised as active members of society who can contribute to knowledge. This research into students' skills and capabilities recognises the contradictions of being located in a marketised Higher Education landscape, practising the idea of the university by educating young people to become knowledgeable and critical citizens and preparing them for the world of work. Aiming to investigate students' skills and capabilities in a research-rich university, this piece of research is thus framed by the concept of the student as producer.

The current research focuses on the skills or capabilities that students should hold by the time they graduate. The wider remit of the King's-Warwick Project is to undertake a series of review and development activities over a one year period, commencing in May 2009, aimed at enhancing graduate capabilities. A key element of the project to facilitate this is to develop a more refined understanding of five curriculum characteristics and to consider ways in which they might be made available to students. Their characteristics are: **academic literacy**, a **research-rich environment**, **interdisciplinarity**, **global knowledge** and **community engagement**. These skills were identified by a working group of Warwick University and King's College.

The first part of the project aimed to refine an understanding of these five curricula characteristics by investigating how departments in a research-rich university claim to convey these skills to students as well as by examining how students are conceptualised as learners and researchers. Based on the insights gained from the discourse analysis of the first research phase, the second part of the research aimed to look at how the university's claims are put into practice on departmental level. IN an evaluative step, the research team thereby made a selection of departments for which it carried out in-depth case studies.

The research of both research phases was carried out at Warwick University at the Reinvention Centre for Undergraduate Research. Over a period of seventeen weeks an interdisciplinary team of four undergraduate researchers, one postgraduate researcher and one postdoctoral researcher jointly developed research questions and research methodology, carried out the research and wrote the current research report.

1.4 Research questions for research phase 1

Academic literacy

- What is the understanding that academic departments have of academic literacy?
- How are students conceptualised/envisioned within this understanding? (deficit model, capable producers etc.)
- In what formats is academic literacy claimed to be developed?
- What do departments define as their disciplinary skills?
- Do departments define these skills as generic?

Learning within a research-led environment

- How do departments define a research led environment?
- What provisions are made for students to engage in research?

Interdisciplinary Study

- How do different departments define interdisciplinary study?
- In what ways do departments claim to be interdisciplinary?

Global knowledge

- In what ways do departments claim to convey global knowledge? (e.g. exchange programmes, international students, international staff, curriculum)

Community engagement

- What opportunities are available for students to engage with the community? (departments, curricular, extracurricular), (community engagement: academic, non-academic, business, local, international)

2 Research Methodology

2.1 Content and discourse analysis of selected departmental webpages

This piece of research aimed to refine an understanding of five curricula characteristics – **academic literacy**, a **research-rich environment**, **interdisciplinarity**, **global knowledge** and **community engagement** by investigating how departments in a research-rich university claim to convey these skills to students as well as by examining how students are conceptualised as learners and researchers, this specific piece of research constitutes the first phase of the research. Due to restrictions of time and research staff, this particular research focused on one research-intensive university, the University of Warwick.

Developing a research methodology to study the university's claims of conveying these five skills to students, our reflections centered around the idea of studying university documents that portray the university's mission concerning undergraduate education. Student prospectuses thereby seemed to represent a compact version of the university's aims and promises with regard to the capabilities graduates would have achieved by the end of their degrees. In a similar way, university webpages can be seen as the expression of a university's mission statement. Norman Fairclough who has carried out discourse analysis of universities' webpages, stated that university webpages are the ideal and most accessible stage for universities to 'sell' what they would be about (Fairclough, 2008). In fact, Fairclough identified university webpages as ideal spaces for in-depth investigations into underlying educational agendas and conceptualisations of students and academics. Following Fairclough's example, our study thus focused on an analysis of how the university claims to convey these five graduate capabilities to students in selected departmental webpages and webpages of cross-university services.

We combined content analysis with discourse analysis. First of all, in order to gain an understanding of the contents of the specific webpages, we employed content analysis and summarised the key areas of the pages, following the five graduate capabilities. This also allowed us to get an overview of different concepts being used in order to express one idea. To take an example, the idea of students doing research was expressed in a variety of ways, from research-based learning to inquiry-based learning or essay-writing.

Yet, most importantly, one of the key aims of the study was to look behind the text presented on the departmental webpages and to investigate the university's and departments' underlying conceptualisations of students and graduate capabilities. By means of critical discourse analysis (Fairclough, 1995; Locke, 2004; MacLure, 2003) we unpacked the texts and looked at their different layers. One of the founders of critical discourse analysis (CDA), Norman Fairclough, has described it as aiming '…to systematically explore often opaque relationships of causality and determination between (a) discursive practices, events and texts, and (b) wider social and cultural structures, relations and processes; to investigate how such practices, events and texts arise out of and are ideologically shaped by relations of power and struggles over power' (Fairclough, 1995: 132). Taking this back to our topic of study, we investigated why – taking one of the graduate capabilities, global knowledge, as an example – the dimension of the global had reached such importance in Higher Education in recent years and how this was related to the knowledge production economy.

In weekly research team sessions we discussed the progress we had made each week and subsequently presented preliminary results of our work to each other. This started with sharing summaries of web content analysis with each other and discussing each others' literature reviews and was taken forward when we reached the more interpretive grounds of discourse analysis. These meetings were very important as they enabled us to create links between the analysis that we had carried out across different disciplines and thematic fields and allowed us to strengthen our analysis and to act as critics of others' work.

2.2 Sample selection

Three departments from each faculty were selected for thorough content and discourse analysis.

Faculty of Social Sciences	Economics
	Politics
	Law
Faculty of Arts and Humanities	Theatre Studies
	History

	Classics and Ancient History
Faculty of Science[1]	Statistics
	Biological Sciences
	Chemistry

Table 1: Selection of departmental webpages

In addition to departments, five cross-university services and institutions were selected for the web- content and discourse analysis. All selected departments and cross-university services were analysed with regard to their claiming to convey the five selected graduate capabilities – academic literacy, research-rich environment, interdisciplinarity, global knowledge and community engagement – to students.

Library
Learning and Development Centre (URSS and Reinvention Centre)
Careers' Service: Warwick Skills
SSLC
Students' Union

Table 2: Selection of cross-university services

Academic Literacy
Research rich environment
Interdisciplinarity
Global knowledge
Community engagement

Table 3: Five graduate capabilities

In order to increase the quality of the research, all of the selected departments were investigated by two researchers. Each person was the primary researcher for one graduate capability as well as the primary researcher for two departments and cross-disciplinary institutions in the

[1] Against the background of medicine not being taught at undergraduate level at Warwick, the medical school was not included in this analysis.

university. Every theme and department had a second person being responsible for co-analysing the material. The key advantage of this procedure consisted in the creation of an interpretive and discursive space amongst the researchers that further enhanced the quality of the interpretation. In this manner, our different disciplinary affiliations and thus potential interpretative leanings towards a specific side were confronted with an alternative viewpoint.

With regard to the different themes this means that one person was doing all the research and reading on a particular theme and thus became an expert in it whilst providing the others in the team with notes from readings and finally a literature review in order to enable them to carry out their own departmental analysis. As a result of this, each researcher was heavily relying on the work and output of the others whilst maintaining a certain amount of ownership for her own specialism of work.

2.3 Departmental case studies

For the second research phase, a rationale for selecting departments was needed. We wanted to select departments that are on the one hand representative of their faculties as well as departments whose research and learning practices would challenge current conceptualisations of academic literacy and thus enrich the insights gained in this research. The following departments/modules were chosen for in depth-case studies:

	Key features
Chemistry department	Lab-work, global exchange programs, research internships
Theatre studies department	Practice as research, community engagement
FAUST module (taking its point of departure from the English department)	Interdisciplinarity, practice as research, challenging ways of assessment
VENICE study programme (History department)	Learning in new environments, global knowledge, community engagement

Table 4: Case studies

Methodology

As will be elaborated on in more detail in the respective case studies, each of them adopted a mixed methods approach. The key objective of each case study was to find ways of representing both the students' as well as the academics' voices. The chosen methods of inquiry involved qualitative interviews with students and academics, focus groups, ethnographic classroom observation, reflexive diaries, documentary research and analysis and secondary analysis of questionnaires. The variety of methods allowed us to look at our cases from multiple angles and to analyse different voices, such as students and academics, in their togetherness.

Care was taken in analysing all five graduate capability themes in each case study – academic literacy, research based learning, interdisciplinarity, global knowledge and community engagement. However, due to the diverse nature of the case studies, not all the graduate capability themes are equally present in all case studies.

The research was carried out following research ethics guidelines of the British Sociological Association [British Sociological Association, 2002] and The University of Warwick. Informed consent to interviews, classroom observations and focus groups was sought from the relevant participants. Students as well as academics were informed about the purpose of the research, its aims and objectives. All participants were assured that the research data will be anonymised. Especially in the case of students, it was emphasised that their responses will be treated with confidentiality and that recordings and primary data will not be passed on to module convenors or other third parties. However, in the cases of academics, complete anonymity could not be assured as their identity could be traced through their being module convenors of quite unique modules in the university.

2.4 The student as producer – reflexive accounts of the research team

Rather than academics doing research on students, in this study students are researchers of their own environments. This provides view points that may be different from the ones that are mostly conveyed in academic publications. As a research team of undergraduate students, a postgraduate student and a postdoc researcher, our learning processes developed in a dialogue with each other. Not only do we look back on different research experiences, but also have our respective

disciplinary backgrounds shaped our understanding of the environment that we are researching whilst we find ourselves within it at the same time: the university.

During the research we experienced ourselves how our different disciplinary affiliations have shaped our understandings of the project. One of the challenges of researching one's own environment is to investigate one's own department. Whilst there are advantages of studying one's own discipline, we also tried to even out the effect of potentially being too familiar with one's research subject by another person looking at the same theme. This division of labour allowed us to gain multiple perspectives. We put our reflexive experiences and journeys on paper. The following reflexive accounts were written at the end of the first research phase, before working on the departmental case studies.

Alex:

When I first looked to apply for the job of participating in research at The Reinvention Centre I had little idea of what to expect. Coming from the background of a Statistics student, and a first year Statistics student at that, I knew that I would have a lot to learn about the processes of documentary research and discourse analysis. Thankfully, the way in which the project was conducted was conducive to simultaneously learning and practicing effective research.

Core to the project was that it was team based. I was one of four undergraduates selected for the project; we worked independently, together and in conjunction with more senior staff at The Reinvention Centre, predominantly the research associates Danny Wilding and Elisabeth Simbuerger. To my mind, this was key to the success of the research, as it really was the case that working together we were greater than the sum of our parts.

I learned from the start that The Reinvention Centre had its own distinctive view to learning and working practices. I was happy to find that the working environment was both relaxed and friendly, while still maintaining standards in productivity and intellectual rigour. By being on first name terms with each other and by meeting regularly to share ideas, I found that my own learning and research experiences were greatly enriched.

Initially, we split the work up between us by each tackling the graduate capabilities for certain departments. In this way, we gained documentary research experience and built up an understanding of each of the different research strands. At the same time, we could gain insights from each other about research methodology and the meaning of each strand. Coming from my own specific disciplinary background, I was immediately drawn to a systematic type of approach to content analysis, but through the others, who were all from different disciplinary backgrounds, I became aware of more subtle ways of analysing the texts, taking into account things like the wider context and what is and what is not mentioned.

We honed our collective research methodology through shared readings on discourse analysis and various research techniques. I initially found the readings a little bit daunting, as a Statistics student entering my second year, unused to venturing far past textbooks, but quickly settled in to the process and started finding important information from the readings that better informed my understanding of the research.

As we moved from each analysing different departments to focusing on a specific strand of the research each, I had to adjust to the responsibility of being primarily responsible for the shared understanding of one of the strands, specifically Interdisciplinary Study. Discourse analysis is by nature reflexive, but in this case it seemed especially so, as I incorporated the different disciplinary perspectives of the other team members into my research.

In summary, researching in The Reinvention Centre was not only a very useful learning experience, but also enjoyable and rewarding. I found the team based aspect of the research worked especially well and the support from more experienced researchers invaluable. I would say that the project has further increased my desire to participate in research.

Kagwe:

What did I expect?

My initial expectation of this research project was not very clear. I had expectations of an exhaustive audit of prospectuses, websites, journals and other resources with an aim of creating a summary of our findings. I was unaware of the discourse and content analysis that would be involved. Looking back now, I am glad that the research incorporated the kind of discourse and

content analysis we have used, as it has been incredibly useful in understanding the discourses used across departments in various disciplines.

What have I valued?

Coming from a statistical background, I have enjoyed the opportunity of researching a more qualitative field and applying my own understanding to the departmental claims. The opportunity to analyze the style of presentation and the meaning behind certain messages has been a useful and enlightening experience. After having experienced discourse analysis, I feel confident in my ability to carry out a literature review and analyze various arguments presented in literature.

I have also valued working closely with a multidisciplinary team. With different perspectives and experiences we have many times presented a 'multi-directional' way of thinking and solving problems; which has been to the benefit of the research process. The opportunity to work with academics and students from sociology, history, politics and philosophy has been an eye-opener as to the experiences we all have in our learning environments. Working with the Reinvention Centre has also enhanced my research awareness and the techniques I use to seek new information. As I prepare for my final year dissertation next year, I feel confident that the research techniques and ideas I have been exposed to will prepare me well.

What insights have I gained?

One of the main new insights that I have gained in my role as a student researcher, is the concept of academic literacy. I have realized through our research that there are many ways to conceptualize a student, and these vary by institution, department and even lecturer.

I see myself more now as both a learner and contributor to the education process. The concept of academic literacy has made me realize that my education should equip me to engage not just with my lecturers but also with practitioners, employers, local and international communities. Consequently, I have gained an appreciation for the different components of higher education and the importance of constantly reviewing and even challenging the role of teachers, researchers and students in this environment.

Sarah:

Being a second year history student, I had little experience of research methodology or research-projects and at times it felt like a very intensive learning experience. Reading about discourse analysis and content analysis was completely different to the historical texts I am familiar with. However, as I used with the two types of research methods, I soon realised how the skills I've acquired from historical analysis could be easily applied to the discourse analysis undertaken in this project.

In the first stages of the project everyone selected departments to analyse and document findings on all five graduate capabilities. I chose to analyse PAIS and my own department. Primarily I wished to learn more about my department and the courses it provides. However, in analysing my own department, I was aware that I had to ensure my findings were not biased by my own personal experiences. Equally however, I thought that my knowledge of the web-space, at least for the History department, would enable me to make accurate findings. Working in a team, meant we could tackle both of these issues, as each set of findings were proof read.

I chose the graduate pledge I would specialise in: 'research-led environment'. I chose it because I found the initial departmental findings very interesting and having remembered choosing Russell Group Universities when I applied to university, I wanted to fully understand the apparent benefits from studying in a research intensive institution. Moreover, I found it fascinating how all of our research, related to wider issues in Higher Education Debate and that we were gaining first hand experience of these issues.

Working in an interdisciplinary team to complete this research project was very rewarding, productive and also appropriate since we were conducting research across faculties. Everyone had different skill sets and insights they could bring to each stage of the project and the team meetings were therefore very useful and interesting. Crucially, this research experience has not only taught me valuable research skills, it has opened my eyes to different styles of teaching. Being treated as an equal from 'day 1' was a novel experience and facilitated a learning and research environment in which people were stretched to their potential, were given the responsibility of making their own decisions and therefore produced insightful pieces of research, that one person could not have produced on their own.

Tiyi:

Before working on the Kings Project I had ideas about capabilities students should leave university with which was similar to the set of capabilities given in the brief. The most difficult graduate capability to grasp, I found, was the Academic Literacy capability. Paul's diagram and Danny's explanation of how it was the overarching graduate capability helped with this. When I started the Kings Project I had just finished my exchange year and was still trying to conceptualise the differences between US and UK Higher Education and wondering whether the different methods were an indication that the two systems had quite different aims. My personal experiences as a Warwick undergraduate definitely influenced my work on this project.

Although I am a Warwick undergraduate I learnt how little I knew about other departments at Warwick when I did this project. I enjoyed reading about other departments, especially as I had chosen Theatre Studies and Chemistry which are completely different from anything that I had studied at University (I am a Philosophy, Politics and Economics (PPE) student). I found it was easy to talk to our research team about what I had found, but slightly harder to write about those findings in a structured and clear way.

I found the Chemistry department very interesting, even though I had just picked it at random. I was most impressed by the provisions for intercalated years. The Theatre Studies department stood out for me because of the use of Community Theatre directly in a course which eventually assessed undergraduate student's Community Theatre work.

I was second-to-last to choose my area, but was quite happy to have this graduate capability. I found it interesting to research because I had taken part in an exchange myself and had been involved with an educational charity previously, so had a keen interest in finding out what the University was doing in terms of widening participation and engaging with communities abroad. I found it was easiest to conceptualise the capability in terms of activities which could be divided up within a grid. On one side the grid had the national/international distinction that the proposal presented us with and on the other side the social/economic distinction that my reading provided us with.

One of the most important questions that must be answered about community engagement is about whether the amount of web space dedicated to exchange opportunities reflects the amount of opportunities that there are. I suspect that there are far fewer opportunities than prospective students might assume there are simply by looking at the website. This is an insight I have a particular interest in as an undergraduate student who went on exchange.

The fact that we are undergraduate researchers had a real impact on this project. It was not only important that we were researching as undergraduates when we worked alone, but also that we were working in an interdisciplinary group with students from three different year groups and three different degree courses. This gave us opportunities to share information about our own subjects to help each other. We were also able to talk about the experiences of our undergraduate colleagues at Warwick which gave us a broader pool of knowledge to draw from.

Danny:

Reflecting back over the process of the last eight weeks I have come to realise that at almost all times I have been more interested with the process of the research, its desired collaborative nature and its intention as an experimentation in student engagement with curriculum review than with the research findings. That is until this last week of report writing!

This concern with the research process stems from my eagerness to see critical, collaborative, non-heirarchical educational values of the Reinvention Centre work in practice; from my desire be a part of a transformative educational practice. Over the past few years I have come to internalise the ethos of the centre and I share in its critical gaze of higher education and of wider society. My work with the Centre is so enjoyable not so much because of the challenges that it makes to the current system of higher education, but because of the manner in which it undertakes this challenge; through the promotion of undergraduate research; by recognising undergraduates as capable producers of knowledge. In the present education system this is an intrinsically politically subversive position.

Through my background as a sociologist I have come to understand the importance of the need for reflexive practice and a constant (sometimes painful) reassessment of self and surroundings as being the only way through which the ideals found in critical pedagogic works are made

possible. Without reflexivity there is always the danger that we as researchers of education and advocates of a change to the current system of educational practices may simply end up reproducing in a different form the aspects of the current system that we seek to change, such as those hierarchies of power we challenge. Having been a beneficiary of the Reinvention Centre's value of collaboration and of 'student as producer', I am keen that other students have the opportunity to be empowered in the same way.

During the research I was acutely aware of the position of power that I would hold in relation to my undergraduate research colleagues. This position of power not only stemmed from my being a postgraduate student, but also my power came from the significant role that I had played in helping to recruit the undergraduate students as my colleagues to the research project. This early formal involvement with the undergraduates I feared might serve to stifle their voices and ideas in our early research meetings. I feared that Elisabeth (a Post Doctoral researcher- an obvious position of power) and I would be looked to as students look to their seminar tutors; that the undergraduates may look to us for 'the right answers' rather than embracing the messiness of social research. Throughout the project I have tried (hopefully with some success) to live the discourse of collaboration between staff and student rather than let it remain as rhetoric. I remained conscious of the fine balance needing to be struck between giving guidance and advice that comes from experience of having already working as part of a research team and the falling into the didactic position of telling the undergraduates what it is they needed to do and in doing so negating their own thoughts, ideas and creativity that the values of the Reinvention Centre inform me are so crucial to the process of education, both for the undergraduates themselves and for myself. Reflecting back on the previous eight weeks, at the moment I can only hope that the relaxed yet rigorous team meetings in which much intellectual work was done were as empowering for the Undergraduates as they should be.

Elisabeth:

I am a sociologist and have recently finished my PhD. Throughout my PhD I was working with the Reinvention Centre for Undergraduate Research on collaborative projects, together with undergraduate students and staff members. In this respect, collaborative projects with undergraduate students and staff had not been new to me. Yet, working on this project has been distinctive for a number of reasons. I have never before – neither as an individual nor within a

research team – carried out a project within such a short time span – seven weeks that was – from the formation of the research team up to the writing of a draft research report. What happened in between were six people from different disciplines – four undergraduate researchers, one postgraduate researcher and one postdoctoral researcher – forming a research team, framing and specifying research questions, deciding upon a research methodology, carrying out the research and putting together a first, preliminary research report. This was an immensely steep learning curve for everyone involved. The methods we worked with were borrowed from the social sciences, in particular sociology. I was most impressed by our working together as an interdisciplinary team and the abilities of the four undergraduate students – none of whom were sociologists – to make themselves familiar with research methods which were located way outside their home disciplines. I would say that this was the most overwhelming part of the research process. What this project really taught me is that as a sociologist we should share 'our' methods more readily with people from other disciplines. They are well able to use them too. This was something I had put always put into question before. Doing this research project also taught me that what matters most is that we believe in the people we work with. They turned from students into researchers because there was the expectation that they would excel and acquire research skills. It was also good to be able to be wrong and to revise perspectives together in the light of our research process. However, whilst we were working well as a research team, it cannot be denied that we also had different roles that stemmed from our different degrees of research experience. I also learned a lot in relation to mentoring students. This kind of mentoring over an intense period of two months does not really occur in traditional undergraduate teaching. The intensity of mentoring and guiding the students' research rather reminded me of the role that PhD supervisors take with their students. However, no comparison seems quite accurate for our little research marathon. After all, there has been a real team spirit and commitment of everyone involved to the project. Shortly before we reached the final line for what is now a preliminary report, we exchange smiles, the six of us. Yes, we have been a real team.

3 Discourses on graduate capabilities in departmental webpages

In the following, the results of the content and discourse analysis of departmental webpages alongside the five graduate capabilities – academic literacy, research rich environment, interdisciplinarity, global knowledge and community engagement – will be discussed.

3.1 Academic literacy

Introduction

This chapter seeks to undertake a preliminary analysis of the discursive rhetoric and practices surrounding the approach taken towards the development in students of literacy and key disciplinary skills by a number of different academic departments at the University of Warwick. This analysis is informed by the new field of Academic Literacies, which has emerged in part as a response to the growing public discourse of falling academic standards (Lillis and Scott, 2007) and also as a challenge to normative perceptions of literacy that mask the socio-cultural nature of literacy practices (and indeed the practice of other academic skills). While much Academic Literacies literature focuses quite specifically on written practices in higher education, there is an acknowledgement for the scope of the field to be broadened to account for student learning in higher education more generally (Lea and Street, 1998; Lea 2004) and there is certainly considerable overlap with critical pedagogical perspectives found in sociology of education literature. As such this chapter will take a broader interpretation of academic literacy to include learning practices other than those often found in Academic Literacies literature, whilst still utilizing the critical approach that the field of Academic Literacies has to offer.

Literature review

Lillis and Scott (2007: 6) state that 'the phrase 'academic literacy/cies' … is growing in use across research and applied settings.' However they argue that 'there is considerable fluidity- and at times confusion- in meanings attached to the use of the phrase' (Lillis and Scott, 2007: 6). This is largely due to confusion between the normative use of 'academic literacy/cies' to denote a level of competence in student written abilities and the acquiring of literacy skills on behalf of

students and its referential use to refer to reading and writing in academic contexts and the use of 'Academic Literacies' to index a 'critical field of inquiry with specific theoretical and ideological historical roots and interests' (Lillis and Scott, 2007: 7). The discourse analysis in this chapter draws quite heavily on authors of the Academic Literacies field of inquiry and so care will be taken throughout this report to only use the phrase 'Academic Literacies' when indexing this field. Any use of the term in a normative or referential sense will be made explicit throughout the chapter.

Academic Literacies: 'A Critical Field of Enquiry'

As a body of work, Academic Literacies has been developed over the last decade and began to make an appearance in the higher education context in the late 1990s (Haggis, 2009; Lea, 2004). Academic Literacies is 'closely linked' to the New Literacy Studies (Lea, 2004: 740), an approach that challenges the traditional view of literacy 'as an asocial cognitive skill with little or nothing to do with human relationships' (Gee, 2008: 67) and further challenges the assumption that once acquired literacy can be utilized unproblematically in any number of different contexts (Gee, 2008; Lea and Street, 1998; Street, 1984). Drawing on a number of academic fields most notably linguistics and anthropology, the New Literacy Studies 'views literacy in its full range of cognitive, social, interactional, cultural, political, institutional, economic, moral and historical contexts' (Gee, 2008: 2).

It is from this background that the field of Academic Literacies has emerged with a particular epistemological focus on literacy as a social practice; it 'treats reading and writing as vary[ing] with context, culture and genre' (Heath and Street, 2008: 105).

This epistemological focus is situated by Heath and Street (2008):

'All theories, in one way or another, are essentially about constraints and the processes and practices that construct, modify, and reproduce these. Human agency in everyday life meets these constraints, whether of structures (economic and social) or identities (based in gender, racial phenotype, linguistic or ethnic membership). For this reason, particularly since the 1970's, anthropologists have centered their studies in practices…' (Heath and Street, 2008: 101)

Lillis and Scott (2007) argue that the epistemological stance adopted by the field of Academic Literacies enables research into student literacy in higher education to overcome what Horner (1999, cited in Lillis and Scott, 2007: 10) terms the 'textual bias', 'that is the treatment of language/writing as solely or primarily a linguistic object' (Lillis and Scott, 2007: 10), and instead turns attention to the social nature of 'doing' literacy and how this practice is intricately tied to notions of power and identity. In their paper, in which they seek to map the territory of Academic literacies Lillis and Scott (2007) locate the emergence of the Academic Literacies field in part as a response to the deficit discourse of student learning in higher education. They argue that the expansion of U.K. higher education to include both the influx of 'non-traditional' home students as part of a government 'widening access' agenda and the growth in the number of international students as part of an agenda to globalize higher education (see the report chapter on globalised knowledge), has been accompanied by a 'public discourse on falling standards' in higher education and a deficit discourse that posits the student as lacking key skills as they enter higher education, with a primary focus on literacy skills. Poor literacy skills amongst students' is treated as characteristic of falling standards more generally because of the primary position of written assessment in higher education institutions. Lillis and Scott (2007; Lea and Street, 1999, 2006) contend that an Academic Literacies approach to literacy (and learning more broadly) can overcome the framing of students in a deficit discourse that identify the student as the source of any problems in the learning process and obscures the role played by the 'codes and practices of academia' (Lea and Street, 1999: 158), and indeed reinforces the normative function of such codes and practices.

The contrasting of two opposing models of literacy developed by Street (1984, 1988) offer a clear insight into the challenge made by the Academic Literacies perspective to the deficit discourse of student learning. These two models are the autonomous model and the ideological model. Street (1984, 1988) identifies the autonomous model of literacy as the dominant position on literacy. This model promotes a notion of literacy as 'a single and universal phenomenon with assumed cognitive as well as economic benefits' (Lillis and Scott, 2007: 11), that 'from the perspective of social theories of power… disguises the cultural and ideological assumptions and presents literacy's values as neutral and universal' (Heath and Street, 2008: 103). Street (1988: 3) states 'I have referred to [this model] as the autonomous model of literacy because they [the university; educational practitioners] assume that this particular version of literacy will

autonomously achieve all of the things that educators and elitists associate with progress.' The autonomous model then can be seen to be the status quo with regards to approaches to literacy and indeed towards teaching practices more generally. Literacy is treated as a technical and instrumental study skill, and students who are perceived to lack these are thought to be the source of any problems in teaching and learning practices in higher education. As such the discourses of deficit are intricately tied up with and supported by this model of literacy.

In contrast, Street's (1984) ideological model of literacy (that he advocates) acknowledges 'the socioculturally embedded nature of literacy practices and the associated power differentials in any literacy related activity' (Lillis and Street, 2007: 11). With specific reference to higher education Lea and Street (1999: 62) assert that '…academic knowledge is frequently represented as attending to transferable writing skills, whilst we would argue that it is always embedded in deeper epistemological frameworks that are frequently discipline specific.' Heath and Street (2008: 103) suggest:

'For these reasons, as well as the failure of traditional literacy programs, researchers have concluded that the autonomous model of literacy, on which many practices and programs are based, has neither been appropriate nor effective. Diverse language uses, social needs, and cultural realities around the world fit better within an ideological model' (Heath and Street, 2008: 103).

Lea and Street (1998: 158) suggest that a practices approach to literacy 'has important implications for an understanding of student learning'. This importance has its basis in the above outlined ideological perspective that an Academic Literacies approach takes towards literacy; an approach that can be described as an 'explicitly transformative rather than normative' stance towards literacy (Lillis and Scott, 2007: 11) as it seeks to challenge the normative approach to literacy that is supported by the prevalent autonomous model of literacy upon which much of higher education is founded. A normative approach is founded upon a number of educational myths, for example:

'The homogeneity of the student population, the stability of disciplines, and the unidirectionality of the teacher-student relation…an interest to 'identify and induct'…on identifying academic conventions- at one or more levels of grammar, discourse or rhetorical structure or genre- and on

(or with a view to) exploring how students might be taught to become proficient or 'expert' and developing materials on that basis…' (Lilis and Scott, 2007: 13)

By adopting the transformative position of an Academic Literacies approach, as characterized by Street's (1984) ideological model, these myths can be dispelled and critical pedagogies developed from this demystifying process. The models of literacy developed by Street (1984), the transformative ideology upon in which the Academic Literacies approach is rooted, has the potential to be applied to other teaching and learning practices that are not strictly literacy based (although literacy in the strictest sense is fundamental of almost all practices in higher education). It is in this manner that the field of Academic Literacies has the scope to broaden its concerns to more transformative pedagogical practices that do not conceptualize the student in terms of a discourse of deficit, but rather conceptualize them as active producers of knowledge with meaningful identities that impact upon their educational experiences. As a result of her attempt to utilize the Academic Literacies perspective as a pedagogy for course design on an online MA module at the Open University Lea (2004: 754), suggests that 'the principles of this approach mean that students themselves are drawn into this space as participants in the construction of knowledge—through their active engagement with texts—and that course design can aid this process and, therefore, ultimately, enhance learning for all concerned.' This suggests that the Academic Literacies approach has real potential to be able to transform educational practices in the higher education institutions.

Academic Literacy and Discourse analysis

Given the focus on language it is unsurprising that discourse analysis is a method used by researchers in the field of Academic Literacies (Gee, 2008). However discourse analysis has often been used as part of a larger ethnographic investigation into literacy practices and it is arguable that the best methods for investigating literacy as a social practice are those of an ethnographic nature (Heath and Street, 2008; Lillis and Scott, 2007; Lea, 2004). Nevertheless if academic writing should be viewed as a social practice and one that varies with culture and context, then those practices are likely to be reflected in the discursive language and ideas that are (un)consciously engaged in by each academic department at the University of Warwick. As such a discourse analysis of different departments' websites and online materials may allow us to at least make exploratory revelations about the types of practices found and encouraged within

the context and culture of each department. This can be achieved through an analysis of language, the construction of text, the arrangement of materials, the promotion of certain 'voices'(staff or student) over others and equally important, the systematic absence of particular types of information and ideas.

It is important to note that during the discourse analysis the term 'academic literacies' was found not to have been used on any of the departmental websites that were researched, neither in its transformative sense nor in its normative sense. This is unsurprising; the departmental websites are a marketing tool for the individual academic departments to attract both prospective students and the support and sponsorship of graduate employers and an analysis of the different websites (especially of their immediately public facing web pages) needs to be undertaken with this context in mind. A department's public image to prospective students (and increasingly also to their parents in the age of higher tuition fees) is made attractive by the calibre of individual it is able to attract to study at the department and by the final destination of those students with regards to graduate careers. Therefore it is instrumentally important for each department to frame their public facing web pages in terms of a discourse of skills development and not in terms of 'academic literacy/cies', a phrase that will be ambiguous to most and certainly not in terms of a transformative understanding of student learning.

Research Questions

Drawing upon the literature reviewed earlier in the chapter the following questions guided our discourse analysis of departmental portrayals of academic literacies (in the normative or transformative sense) on their websites:

- What is the understanding that different departments have of academic literacy?
- How are students conceptualized by each of the departments?
- In what formats is academic literacy claimed to be developed?
- What do departments define as their disciplinary skills?
- Do departments define any of these skills as generic?

A normative understanding of 'academic literacy'

Across all departments the understanding of 'academic literacy' can be said to be fairly homogenous; that is each department can largely be characterized as having an understanding in accord with what the literature refers to as the 'autonomous model' of literacy/learning.

There was an almost equal emphasis across each faculty on the development of key skills that are transferable and increase the employability of the student by the time they graduate. In some departments the employability focus is a little more specific than others, particularly in Chemistry[2] and Biology[3] where there is a comparatively greater focus on research and pharmaceutical careers (illustrated by their provision of an intercalated year in industry) and the skills needed to successfully pursue these than in the other departments that were analysed. Academic literacy as conveyed by the different departmental websites appears to be understood by each department as a journey of skill based (and intellectual) development in which the student starts with little or no relevant disciplinary skills and over the course of the three or four years of study becomes proficient in those skills. This notion of a normative academic literacy journey is replicated across all of the departments and is summarized neatly by the emphasis on a final year dissertation/project being the culmination of the skills (literacy and other) learned by the student thus far in their studies (see chapter on research-led learning environment for more details on this issue).

This discursive focus on the development of atomized skills, transferable and suitable for employability, suggests that the departments have a normative understanding of 'academic literacy', fostered by the dominant autonomous model of literacy/ learning in which they function. An image is created of departments working relentlessly to refine and remodel their students into a complete package for future employees. The notion of 'developing' the student can be viewed as in keeping with the deficit discourse of student learning that suggests students enter higher education lacking key skills that can only be given to them in the appropriate academic environment.

Although the discourse analysis found that the different departments on the whole did not share the 'explicitly transformative' ideological stance towards literacy as adopted by the field of

[2] http://www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/placements/
[3] http://www2.warwick.ac.uk/fac/sci/bio/ug/careers

Academic Literacies (Lillis and Scott, 2007: 12) there were some small exceptions. Notably, at odds with the Law School's overall understanding of academic literacy as developing key practical and intellectual skills in their students with the aim of enhancing student employability[4], it does also state on its public facing web pages that it does not see itself 'as educating students who simply see a law degree as a necessary stepping stone to professional practice'[5]. This statement is intended to convey the Law School as a site for intellectual pursuits in the academic field of law, not merely as a supplier of future lawyers to legal practices. As this report will later show, the Law School's conceptualization of the student is in closer keeping with the understanding of students that is formulated by the transformative ideological position of the Academic Literacies approach than those supported by the dominant autonomous model. This finding suggests that more than one discourse may be present in any particular department at any given time and also indicates that these discourses may even be competing with one another to be the dominant way of conceptualising students within a department. Further analysis beyond a web-based discourse analysis, most likely of an ethnographic nature, would be needed to uncover in greater detail the nature of the different complex and competing discourses that may be present within a department.. Until further research of this nature is undertaken there is a danger that a false image is created of a department that is an entirely coherent entity with all members of the department subscribing to the same discourse regarding the understanding of academic literacies and the conceptualization of students.

Students in 'deficit' vs. Students as capable producers

A key element of the Academic Literacies approach to learning is that students are not conceptualized as being in deficit; the emphasis is instead on recognizing the plurality of the student body and the importance of individual identities in teaching and learning. This approach also emphasizes acknowledging the role of academic conventions and traditions as structures that need to be negotiated in teaching and learning.

The analysis of the departmental websites revealed two conflicting discourses regarding the conceptualization of the students that enter or who are currently studying in each of the departments. While there were very few clearly explicit statements regarding the conceptualization of students there was a subtle but familiar pattern that emerged across each

[4] http://www2.warwick.ac.uk/fac/soc/law/ug/
[5] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/admissions/faq/#criteria

department; this was as students being perceived as being in 'deficit' and in need of development within their chosen discipline. This is seen clearly in the repeated emphasis across departments on students building up towards undertaking their own research in their final year, with the impression given that the first two or three years of study are to prepare students to undertake a dissertation or final year project. This structuring of the undergraduate courses suggests that students are conceptualized as entering higher education in deficit, in particular in the sense that they are unable to undertake research (this is part of a larger discourse related to the status of undergraduate research), that is until the department has developed them to a sufficient standard. The provision of first year core study skills, as found in the Politics department[6], and foundational knowledge modules supports this finding.

Accompanying this perception that students enter higher education in deficit is the related perception conveyed by the departmental websites that it is the department (although who or what exactly constitutes 'the department' remains unclear), unlike their students, who are in a position of ability rather than inability and that only with the help of the department can the student fully develop into a proficient practitioner of their discipline.

All of the departmental websites conveyed a particular notion of 'helping' their students to develop key skills. This can be interpreted as suggesting a hierarchical relationship between staff and student in which the power resides in the hands of the department and appears to negate the possibility that students are capable producers of knowledge in their own right and seems to deny that students can work collaboratively with staff in the learning process (thus 'helping' staff as much as they themselves are being 'helped'). The image portrayed from analyzing the different departmental websites is that only with the power and expertises of a department can a student hope to become proficient in their discipline.

The second discourse elicited from the departmental websites was one in which students were conceived as capable producers in the higher education environment. Both the Law School and the Biological Sciences conceptualize their prospective students as being inquisitive and requiring 'intellectual curiosity'[78], but unlike the Biological Sciences department the Law School

[6] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/ip/
[7] http://www2.warwick.ac.uk/fac/sci/bio/ug/faqs/aftermycourse
[8] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/admissions/prosp.pdf

also conceptualizes its students as having individual identities and an ability to question the functioning of law in society. The Law School perceives its students as being potential collaborators in academia and creates an image of education as a shared, collective enterprise, which involves learning between students as well as between students and staff. This (albeit small) recognition of the importance of identity of students to their education the conceptualization of students as potential collaborators is more closely aligned with the ideological perspective of an Academic Literacies approach to learning and is at odds with the general trend across all departments of students being conceptualized as being in deficit. A similar finding was made in the Economics department where some modules encouraged an idea of students as being capable producers of knowledge against a wider departmental framing of students as being in deficit[9].

The centrality of written practices for developing 'academic literacy'

Written communication was found to be a central focus across all departments' teaching and learning practices. This finding is not surprising given the centrality of writing to higher education assessment. For the most part there was a lack of elaboration from each department website about the types of writing that were required by each department and also a lack of elaboration on the behalf of each department as to the epistemological underpinnings of the written practices required by each of the disciplines represented by the departments. One exception could be found in the Theatre Studies department which requires students to write performance pieces as part of their assessment and there is some indication on the Theatre Studies webpage about what is required in these written pieces and also in theatre students' other written assessments[10] [11]. However, any reference to the language, form or structure of written requirements was still rather generic and do not themselves betray the epistemological assumptions of the subject that are expected to be reflected in the written practices of the students. Much of the literature from the Academic Literacies perspective indicates this lack of epistemological clarity surrounding the requirements demanded of student writing practices to often be the case. While there may be a lack of explicit recognition of the epistemological assumptions of written practices of different disciplines/departments it is of course possible that

[9] http://www2.warwick.ac.uk/fac/soc/economics/ug/modules/3rd/ec331
[10] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_1/th108/
[11] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/dissertations/

this kind of disciplinary sub-structure is actually quite difficult to make explicit to students and tend s instead to be conveyed over time through pedagogy and other iterative cultural and intellectual processes. Such a possibility is unlikely to be uncovered in discourse analysis, but process to this effect may be discovered using more ethnographic methods of investigation it academic literacies.

In addition, it was found that writing was not the only format in which academic literacy was claimed to be developed in students of each department. Whilst in the Arts and Social Science Faculties there was a very strong emphasis on the practice of writing (see for example the History department[12]), in the Natural Science Faculty there was also an emphasis on other key skills that are required for a student to be perceived as academically literate (in a normative sense of the term). Both the Biological Science[13] and Chemistry[14] departments placed an emphasis on laboratory skills and from the Arts Faculty, the Theatre Studies department placed a particular emphasis on the need to be able to perform theatrically.[15]. There was also a need to be literate in specialist computer programs (Economics[16] and Statistics[17]). These additional practices, whilst still bound in some way to the practice of written literacy are important ways in which different departments portray themselves as developing key skills in their students. Perhaps the most important discursive theme to take from this analysis is the continued focus on the development of the student- and an absence of reflection on the practices and conventions of the discipline; again, the latter view being unlikely to be found on a website that is intended as a marketing tool for prospective students and sponsors.

It can be assumed to some extent that those skills which are described as 'transferable' are generic skills, although there may be some exception to this general rule. Importantly this generality towards certain skills hides the fact that there are a number of different academic literacies to be found between and within these departments and instead provides the perception of students developing academic literacy in the singular form.

[12] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/modules/hi153/aims/
[13] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/biology/c100/
[14] http://www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/medchem/
[15] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_1/th108/
[16] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/economics/
[17] http://www2.warwick.ac.uk/fac/sci/statistics/courses/handbooks/morse_08-09.pdf

Table 5, below, illustrates the skills that each Department identifies as being of specific importance to their discipline and also those that they identify as generic skills that are also required. The most noteworthy finding to take from Table 5 is that it demonstrates the prevalence of written communication (again largely due to assessments being predominantly based upon the written communication of knowledge) but also that written communication (and other forms of communication) are largely considered a generic skill, even in the Arts faculty and Social Science faculty where essay writing is central to almost all teaching and learning activity and is the entire focus of much assessment. As the Academic Literacies approach suggests this serves to deny that writing practices will vary in each department according to its specific culture, conventions and traditions.

A further finding that is illustrated in Table 5 is that oral and I.T presentation skills are identified consistently as important generic skills only in the Science faculty. This may have something to do with such skills forming part of the formal assessment within this faculty whereas it is largely absent from the much of the Arts faculty and Social Science faculty.

SUBJECT	**SPECIFIC SKILLS**	**GENERIC SKILLS**
History	Analysing historical sources; understanding historical theory	IT literacy; research skills; essay writing; communication skills
Ancient History and Classics	Learning ancient language; translation of original text; analysis of historical sources.	'Powers of argument and analysis, and communication skills'; logical thought process; interpreting and assessing sources; research and analytical skills; working independently and to deadlines; imaginative powers.
Theatre Studies	Range of performance skills; historical and contemporary research into theatre; writing for performance.	Research skills; essay writing.
Statistics	Statistical Analysis.	Write clearly and concisely; powers of explanation; presentation through IT literacy. Independent study skills.
Biological Sciences	Sophisticated laboratory skills.	Numeracy; literacy; research; team work; organisational skills; oral communication skills.

SUBJECT	SPECIFIC SKILLS	GENERIC SKILLS
Chemistry	Laboratory Skills/ Laboratory Research; Ability to engage with practitioners.	Presentation and writing skills.
Politics and International Studies	Political based knowledge; Modern foreign language skills	Communication skills; Essay writing.
Economics	Modern economic analysis; appropriate qualitative and quantitative techniques; statistical methods and computing.	Analytical and quantitative abilities; problem solving aptitude; computing skills
Law	'Ability to locate, understand and evaluate policy and theoretical literature'; analysis of legal judgments and statutes; understand legal doctrine and government policy.	Communication skills; analytical skills; ability to organize a heavy workload.

Table 5: Key and generic skills as identified by each department

Recommendations for further research

Following the discourse analysis of nine of the different departments at The University of Warwick, a number of recommendations can be made regarding future research into the area of academic literacies:

For a more complete picture of literacy practices at The University of Warwick qualitative research, with its focus on a 'thick description' of social milieu and process, is needed to expand upon the discourse analysis in this chapter. Qualitative research within the departments would hopefully allow for a more thorough examination of how the trends apparent in the discourse analysis play out in practice from both the staffs' and the students' perspectives. Although the dominant picture is one of departments understanding academic literacies and learning in a normative fashion and of students being conceptualized as being in deficit, through web-based discourse analysis we cannot know the complexities of this discourse and indeed if it even permeates everyday life in each of the departments. A qualitative research methodology would allow for a detailed exploration of the cultures and conventions of each department and how these impinge on student literacy/learning. This chapter has already highlighted some small findings relating to conflicting discourses operating within some of the departments and this is an

area of interest that would benefit from a more detailed ethnographic study. Departments of particular interest are: the Law School, given its apparently contradictory conceptualizations of its students and of its understanding of 'academic literacies'; the Chemistry and Biological Sciences departments due to their emphasis on developing laboratory skills, a skills set that is not strictly related to literacy practices in a narrow sense and so might help to develop the field of Academic Literacies. For much the same reason the Theatre Studies department would also be of great interest due to its focus performance as a disciplinary skill.

No data on 'academic literacy/cies' was recorded for joint degree courses and this would be an interesting avenue of exploration, especially because the work of Lea and Street (1998) suggests that a particular difficulty facing students is the need to be able to adapt their literacy practices to different contexts, be that for different tutors or different disciplines. Qualitative interviews with both staff and students on joint degree courses maybe offer an initial insight into this area.

In addition to the above recommendation, starting this academic year a module intended to be fully interdisciplinary will be running for the first time; 'The Faust Project'. This may prove a fascinating opportunity for research into 'academic literacies'.

Further research is also needed on the relationship between the formation of academic literacies and assessment; a relationship that is as yet unclear but one that is potentially very important to our understanding of academic literacies.

3.2 Research led environment

Learning within a research-led environment has been prioritised and valued as the optimum higher education experience by the UK's New Labour government and businesses, indicated by the CBI's support of a 'flourishing university base that can conduct world class research'.[18] Both the importance and role of research within universities has become the focus of discussion within debates about Higher Education (HE). Since 2003, the government prioritised the idea of 'learning within a research-led environment and acknowledged that post 1992 universities need to develop research informed teaching environments' (Neary and Winn, 2009: 129). In 1994 the

[18] http://highereducation.cbi.org.uk/policy/research-and-innovation/

Russell Group Universities formed, comprising of 20 major research-intensive universities, including Warwick.[19] Through analysing a selection of The University of Warwick's web-pages, this section of the report aims to analyse how Warwick presents learning at its research intensive institution and the claims made about it. It will analyse 9 departments' web-spaces that provide undergraduate degree programmes, across 3 faculties. Ultimately, this analysis will attempt to discern how learning within a 'research-led environment' affects the undergraduate student body. A discussion of relevant literature is first needed in order to establish an understanding of the current HE debate and how this analysis contributes to it. This analysis will then present five sections. The first addresses the discourses which portray 'research' as important. The second addresses the discourses that are presented on how the research activity of department's claims to impact undergraduates. Through these discourses, the third section will consider how undergraduates are perceived and how their research is valued. The fourth section will explore the extent to which departments support with undergraduate research opportunities outside of the curriculum, finally leading to a discussion of the importance of 'research cultures'.

Literature Review

The purpose and future of British HE, the relationship between universities and the economy and the growth in student numbers, on both a national and global scale have all been the subject of debate in academia, society and the political world. Significantly, the role of 'research' and the research activities of universities have arisen as one of the key focuses in such debate.

Valuing Research for the sake of the Economy

The relationship between HE and the economy, was further emphasised recently, after John Denham, the previous Minister for the Department of Business, Innovation and Skills, delivered a speech in February 2008. He announced proposals about the future of Higher Education over the next 10-15 years and stated, 'The world is evolving very quickly and we must be able to unlock British talent and support economic growth through innovation as never before' (Denham, 2008). Furthermore he portrayed universities as part of the economy's machinery that can 'unlock British talent' (Denham, 2008). Two reports commissioned by Denham discuss these issues. Firstly, Paul Ramsden's '*The Future of Higher Education: Teaching and the Student Experience'* advocates the need to create a workforce with a range of skills, by re-designing the

[19] http://www.russellgroup.ac.uk/

curriculum, so the 'student experience' becomes an ongoing dialogue between staff and students (Ramsden, 2009: 16). Ramsden argues that for this to be achieved the academic view of 'teaching' needs to change and be valued more highly (Ramsden, 2008: 9). Secondly, Nigel Thrift discusses the future of research careers, arguing that researchers form a fundamental element of the supply of skills needed for the UK to maintain its global position. Moreover, he makes clear that Undergraduates will become the important researchers of the future. He therefore suggests that the UK government, universities and research councils adopt sophisticate measures to understand the supply and demand of researchers in order to guarantee the UK research base (Thrift, 2008: 1).

In short, the government is considering arguments which present undergraduate research experiences as crucial to creating a skilled workforce that can secure Britain's place in the global economy. Hence, the government is clearly motivated by economic purposes, when considering the future of the HE curriculum. This economic agenda is widely recognised in academia. Presented below are several arguments which support the re-design of HE for other reasons than economic demand.

Valuing Research for the sake of maintaining the liberal, humanist origins of universities

Neary and Winn provide an overview of recent critical reactions to the commercialisation and corporatisation of HE. They consider that one of the problems within HE currently, is an 'imbalance' between research and teaching in universities. They provide historical explanation for how this 'imbalance' has emerged. The first 'modern' university was the 1810 Friedrich Wilhelm Humboldt University in Germany. It was organised on the basis of maintaining a close relationship between research and teaching. Students would be part of research communities and the 'speculative thinking of tutors' via seminar-only teaching. Crucially, Humboldt wished to enable academic freedom in both universities and the State, creating a 'Culture Nation'. This vision disappeared as the rise of industrial capitalism produced the 'commercial state'. The university became a part of this state, through government/private sector research grants. Knoll and Siebert (1967) advocate that in this process, research activity became detached from teaching; teaching was de-valued because it was less profitable (Knoll and Siebert, 1967 cited in Neary and Winn, 2009: 129).

Neary and Winn detail the responses to this process. In 1988 Rectors of European Universities signed the *Magna Charta Universitatum* which established fundamental principles that should be embedded in all Western higher education. Key to this was the issue of academic freedom for tutors and students and the relationship between teaching and research. Neary and Winn thus highlight that the 'reinvigoration' of higher education is motivated by more than teaching student research skills; at stake, is the recovery of universities as liberal, humanist institutions, based on the idea that the purpose of education is the 'public good' rather than (just) the 'knowledge economy'. Focusing on the US context, Neary and Winn also describe the impact of the Boyer Commission in 1999, which established the commitment for every university to provide *'opportunities to learn through enquiry rather than simple transmission of knowledge'* (Neary and Winn, 2009: 126-129).

Ernest Boyer in 1990 recognised the imbalance in the research and teaching activities of universities in America arguing for an end to the research versus teaching debate; proposing a more fluid view of scholarship that allows all university activities to be equally valued and mutually supportive. He identified four types of scholarship that must be recognised in universities to improve HE; scholarship of Discovery (research), scholarship of Integration (interdisciplinary connections), scholarship of Applications and Engagement (knowledge applied to wider communities) and finally scholarship of Teaching (Boyer, 1990: 15-25).

Boyer's study is also used in work which aims to connect teaching and research, and integrating undergraduates into the scholarship of universities. Examples include by Lambert, et al. and Hodge, et al. Lambert, et al. discus the ways in which UK HE has become 'commercialised and commodified'. They uses the phrase from Foster that describes education as the 'Tesco model', in which universities have become packaged and sold, to suit economic demands (Foster, 2002, cited in Lambert, et al, 2007: 526). Furthermore they show ways in which universities can question the government's demands for a 'knowledge-based economy' and an 'entrepreneurial spirit' within HE. For example, Lambert, et al use a case study of Warwick's Reinvention Centre – which will be discussed later on in this report – to advocate a reinvention of the curriculum, allowing students to engage with entrepreneurial initiatives and research whilst critiquing the commercialisation of universities simultaneously. The article argues that education should be for 'public good' (Lambert, et al. 2007: 525-537).

Hodge et al. (2008) describe the Boyer report as 'powerful vision of undergraduate education', however their article critiques it for overlooking the 'student developmental theory' proposed by Kegan (1994) and therefore aims to unite the idea of research-based learning with his developmental theory. Kegan argues that students develop through five levels of consciousness over their lifetime. Whilst at university, students readily move from the second to third level; from viewing the world to how it serves their needs to valuing other people's perspectives. However, the leap to the fourth level of consciousness, so students can rely on their own internal authority, needs to be bridged by universities (Kegan, 1994 cited in Hodge et al. 2008: 11). Kegan therefore highlights how students need to engage in research in stages. Hodge, et al. also emphasises that students need to believe they are capable of conducting research (Hodge, et al. 2008: 6-15).

An article by Garde and Calvert (2007) addresses the issues in undergraduate research cultures. A case study is used to show how collective problem based learning, undertaken by staff and students, can be achieved by universities without costing too much in time, goodwill and resources. The article argues that to successfully create an undergraduate curriculum 'collaboration' between academics and students is necessary and there needs to be a break down in the power relations. Crucialy, Garde and Calvert call for a 're-engineering of the teacher-research nexus' allowing circumstances for teaching and research to meet (Garde and Calvert, 2007: 108)

The above literature has shown that there are many studies regarding the research activity of universities. All arguments emphasise that universities have become economically driven which has consequences in terms of the quality and direction of research and teaching, and the relationship between them. Moreover, it has been repeatedly suggested that that research should be integrated in some form into the undergraduate curriculum. Some articles have also highlighted the non- harmonious relationship between teaching and research that apparently exists in HE today. Significantly, all articles agree that engaging students in the research activity of departments is beneficial: whether for students' learning experiences or for the British economy.

The following discourse analysis will seek to examine the research environment at University, by exploring the claims made by selected Departments' web-based resources. In order to discuss undergraduate research provisions it will use a framework provided by Griffiths (2004). As Mick Healey's and Alan Jenkins' 2009 report, '*Developing Undergraduate Research and Enquiry'* showed, there is a variety of language that can be used to discuss UG research opportunities (Healy and Jenkins, 2009: 7), unfortunately a comprehensive discussion of them all cannot be provided. However Griffiths' model, as acknowledge by Jenkins in '*Linking Teaching and Research in disciplines and departments'* (2007), proved most appropriate to provisions at Warwick. This analysis will therefore explore firstly, discourses on the importance of research, secondly the discourses of research influencing the undergraduate curriculum; from this it will examine how departments present undergraduate students, with particular attention being paid to undergraduate research. The fourth section will briefly explore undergraduate research opportunities outside of the curriculum. Considering all evidence, this analysis will finally consider the factors which influence undergraduate research-based learning: most notably the research culture of departments.

Learning within a Research-led Environment.

The Importance of Research

As the literature has shown, critical debate within HE has placed the spotlight on the research activity of universities, especially its role within the global economy. This section examines how and why research is presented by departments as important to the student's learning experience. All the departments in this study highlight the research activity of departments on their web-pages. With Warwick belonging to the 20 Russell group universities in the United Kingdom this is hardly surprising.[20] Crucially, it needs to be explained is why studying research-intensive institution is portrayed as significant and a *more valuable* higher education experience.

The majority of the Departments studied refer to the RAE assessment and/ or the Department's place in research rankings of UK HE institutions. This not only infers that the department has a good reputation but also implies the departments attract funding and investment. In some departments, this is evidenced, in others it is not. Nonetheless, even if the department, such as

[20] http://www.russellgroup.ac.uk/

Theatre Studies does not mention RAE, funding or reputation, the language that is used when discussing the department's research activity is very positive in all departments. Research is presented as 'innovative' and 'progressive', 'new' or 'current'. Research-intensive environments are thus portrayed as exciting and intellectually stimulating; a good place for students to learn.

The RAE: Research Assessment Exercise

All departments except for the Theatre Studies and Law departments refer to the RAE assessment results.[21] However, the Law department does claim to be 'in the four leading research institutions'.[22] Advertising or claiming to have good RAE results is important because it implies firstly, that the department is in a good position to attract funding from the higher education funding bodies[23] and secondly, it contributes to an image of the departments being prestigious. Hence, how research relates to economic gain and reputation will also be explored. Furthermore, despite Theatre Studies not referring to their research ranking or RAE results, the language used to discuss research by the department is indicative of how all the departments discuss research activity. This language will also be analysed.

Research and Economic Gain

As explained a good RAE quality profile can help attract funding for a department.[24] Although departments do no explicitly suggest a direct link between their RAE assessment and the funding they receive, some departments do display how much funding or research grants they have received. The RAE is the mechanism for distributing HEFCE and centralized funding. A high RAE profile clearly also helps to attract external funds from other sources. The relationship implied here is that the RAE rating directly leads to these external grants.

Notably, some departments display how much funding or research grants they have received. For example, the Chemistry department announces on its web-pages a £24 million in research funding for a building and £2.1 million upgrade for Chemistry teaching laboratories.[25] The

[21] http://www2.warwick.ac.uk/fac/soc/law?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Flaw and http://www2.warwick.ac.uk/fac/arts/theatre_s
[22] http://www2.warwick.ac.uk/fac/soc/law?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Flaw
[23] http://www.rae.ac.uk/
[24] http://www.rae.ac.uk/
[25] http://www2.warwick.ac.uk/fac/sci/chemistry

Biological Science department states it has £29 million in research grants,[26] and the History Department £1.3 million in research grants.[27]

Funding for teaching is not discussed, apart from Chemistry's upgrade for the teaching laboratories,[28] although even here what the funding for is not explained – where did it come from? Overall therefore the impression is that it is research excellence, opposed to teaching excellence, which enables universities to gain economically (Neary and Winn, 2009, p.129). Whilst in some departments it is easy to see how research investment is beneficial to its students, it is not so easily shown in other departments. Both the Chemistry and Biological Sciences claim to enable students, including undergraduates, to use 'state of the art equipment'. The Chemistry department is using the money to fund a research building and laboratories.[29] The benefits of studying in a research-intensive institution in these departments are therefore very tangible for undergraduates. Conversely, despite the history department highlighting the £1.3 million in research grants available, only postgraduates will receive these grants.[30] Yet by placing this information on the home-page, it is implied that this information is relevant and therefore beneficial to all. Consequently, the idea that research excellence attracts economic funding is firmly established; however, it is not evident how the money benefits undergraduates or how teaching is funded. Nevertheless, prospective students may assume it does, because the way in which research funding is presented on department's websites.

Research and Reputation

Some departments do not make such explicit claims about the research activity of departments and economic funding. Therefore, there must be other reasons why all of the departments highlight their research activity on their web-pages. Emphasising the RAE score or research ranking implies that the department are proud of their achievements and are conveying themselves to be a more important, valuable or reputable institution. The PAIS department provide a student profile, in which a student explains how she was attracted to the department

[26] http://www2.warwick.ac.uk/fac/sci/bio/about/
[27] http://www2.warwick.ac.uk/fac/arts/history
[28] http://www2.warwick.ac.uk/fac/sci/chemistry
[29] http://www2.warwick.ac.uk/fac/sci/chemistry
[30] http://www2.warwick.ac.uk/fac/arts/history/

because of the department's research excellence and reputation internationally.[31] Although one cannot infer that such opinion is reflective of the entire student body, this quote may show at least, what the department wishes to portray about themselves because they selected the quote for the website. Moreover, departments also appear to value their international reputation, which some departments claim to have, and crucially also link to the researchers, academics and research centres of the department.

Below is a table showing the language used by departments when talking about their research environments and reputation.

Department	**Language Used**
Chemistry	All 32 academics internationally recognised. [32]
Biological Sciences	'World class researchers'[33]
Statistics	'Internationally renowned'[34]
Classics and Ancient History	'Lecturers are world leaders in their fields'[35]
History	Does not claim to have an international reputation, but claiming to come equal in grade point average for RAE does suggest they have some form of reputation.[36]
Theatre Studies	The only department which does not mention reputation when discussing research within the environment.
Economics	'Leading centres in Europe'[37]
Law	'One of the leading Law Schools in the UK'. Also claims 'quality' research.[38]
PAIS	'World leading' and 'internationally leading'.[39]

Table 6: The language used by departments when talking about their research environments and reputation

[31] 'When choosing where to study, the academic excellence, research expertise and international reputation of Warwick influenced me to apply':
http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/student_profiles/melisaatay
[32] http://www2.warwick.ac.uk/fac/sci/chemistry/ugstudy/ugwarwickchem
[33] http://www2.warwick.ac.uk/fac/sci/bio/ug/faqs/teaching
[34] http://www2.warwick.ac.uk/fac/sci/statistics
[35] http://www2.warwick.ac.uk/fac/arts/classics
[36] http://www2.warwick.ac.uk/fac/arts/history
[37] http://www2.warwick.ac.uk/fac/soc/economics/research/
[38] http://www2.warwick.ac.uk/fac/soc/law?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Flaw
[39] http://www2.warwick.ac.uk/fac/soc/pais/

Only 2 out of the 9 departments do not refer explicitly to reputation when talking about the research environments of their departments. The rest either express they are the best or renowned in the UK, Europe, the world or internationally. The key phrase is 'leading' along with a geographical location, for example, 'world leading' or 'leading in Europe'. Crucially therefore being the 'leading' in the world or internationally is the desired reputation departments therefore seem to seek, especially considering these web-pages are viewed worldwide. Moreover, these claims are made alongside RAE results, implying that research excellence equals a good reputation. Moreover, where possible departments will readily claim not to be just reputable, but internationally reputable; this confirms the idea that 'excellence' is judged on a global scale, an image which arguably supports the government's aim of maintaining Britain's position in the global economy. Furthermore, it is the lecturers, the researchers and Research Centres, as shown in the table, which help forge Warwick's global connections and recognition. 'Research' is thus portrayed as the route to international achievement. Such concept supports the government's proposal that a workforce of graduates taught in research-informed teaching environments, will possess the necessary skills to uphold Britain's economic primacy in the world markets.

Images of research environments as dynamic and innovative

The significance of research environments is supported by an image that they are exciting places for students to learn in. The language used by departments when describing 'research cultures' or research environments is positive and implies that research encourages dynamic environments to learn and ensures that university education is new and innovative. The Chemistry department describes itself as 'innovative'[40], Biological science describes the research as 'cutting edge', novel' and uses the phrase, 'research-active'[41]; whilst the Statistics department uses the words, 'innovative', 'vibrant' and 'stimulating'.[42] It is worth noting that in the science faculty these exemplified words are more prominent. This may be explained through the language usually associated with science, and culture of scientific disciplines. Because science is about enquiry and discovery; what is 'new' and 'innovative' is very important. Words are thus chosen, which are positive but also appropriate to the discipline. Classics for example, could not describe their studies as 'new' for example, so instead they use the word 'lively' to describe their postgraduate

[40] www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad
[41] http://www2.warwick.ac.uk/fac/sci/bio/ug/faqs/teaching
[42] http://www2.warwick.ac.uk/fac/sci/statistics

community.[43] 'Lively' is also used by the economics department.[44] Theatre Studies may use the words 'new' and 'current' because they describe the technologies used in research.[45] Moreover, PAIS describes the research environment as 'thriving and dynamic'[46] because the subject matter of Politics involves the study of current affairs and thus the idea of 'change' in PAIS student's studies is expected. Notably, the History department uses more factual statements to describe the research work of the department, listing areas of study or the research centres available in contrast to the colourful language used by other departments. However, when reading the opening paragraph to the website, the department does build up a rich image of the research work and people involved in the department which gives the research areas of the history department an exciting image.[47] Moreover, this research paragraph is accompanied by a slideshow of pictures, providing colourful, moving imagery that are related to the research conducted by the department.[48] Therefore, even though the departments may not use the terms, 'innovative', 'new' or 'lively' for example, they are still portraying the idea that study in research environments is stimulating and interesting and are therefore a more valuable higher education experience.

'Research'- the language of a Sales team

The references to 'dynamic' and 'innovative' environments are very significant; it indicates that departments are aware that their web-pages are sales pitches and advertisements to prospective students, funders and collaborators. The claims provided about research grants, research excellence enhancing the reputation of departments and being economically fruitful, form the concrete supports of the advertisement. It is however, these final descriptive words that are arguably hyperbolic or at least decorate the web-pages to ensure the departments appear attractive and appealing to prospective students. Importantly, the rise in students and government targets to enable half of young people into HE, has meant that students choose their university, as much as universities choose the students. Combined with the introduction of tuition fees,

[43] http://www2.warwick.ac.uk/fac/arts/classics
[44] http://www2.warwick.ac.uk/fac/soc/economics/research/
[45] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/aims/
[46] http://www2.warwick.ac.uk/fac/soc/pais/research/
[47] 'The Department has 38 permanent academic staff, who research the histories of Africa, the Americas, Britain, China, Continental Europe and South Asia. Over 600 undergraduate students are enrolled in our programmes. Warwick History's MA students choose from several distinctive one-year degree programmes, and each year approximately 90 PhD students conduct research under the supervision of History staff. The Department received £1.3m of new research grants and contracts in 2007/08, and was ranked equal second in overall grade point average in the 2008 Research Assessment Exercise (RAE).' http://www2.warwick.ac.uk/fac/arts/history/
[48] http://www2.warwick.ac.uk/fac/arts/history

universities have become packaged and students, consumers who shop around (Lambert, et al. 2007, p.526). Consequently, the role of research in universities is not only part of scholarly activity, it has also been utilised by the marketing teams of departments.

Discourses on Research influencing the Undergraduate Curriculum

As discussed, Warwick's research-intensive environments are presented as the ideal higher education experience by the university's web-pages; claims have been made about funding, reputation and innovation. Yet more importantly, if research is deemed to be an important part of universities and beneficial to the student body, the discourses of how research activity is claimed to affect undergraduate study needs to be analysed. Griffiths (2004) claimed that this link can be achieved in three ways:

1. Research-led: students learn about research findings, the curriculum content is dominated by staff or current disciplinary interests and some or much of the teaching may influence information transmission.
2. Research-orientated: in which students learn about research processes, the curriculum emphasises as much the process in which knowledge has been produced as the knowledge which is achieved. Staff attempting to engender a research ethos in their teaching.
3. Research-based: students largely learn through research, enquiry based activities and the divisions between the roles of teacher and student is minimised. (Griffiths, 2004 cited in Jenkins, et al. 2007: 28)

All three styles of research-teaching relationships can be found in the departmental study conducted by this analysis. However, departments use a combination of all or some methods. Moreover, departments may not necessarily use Griffith's terms. Below is a table which shows how departments link their research and teaching activity, impacting on undergraduate study, using Griffith's model.

Department	Research-led	Research-Orientated	Research-Based.
Chemistry	Yes[49]	No evidence found	Yes[50]
Biological Sciences	Yes[51]	No evidence found	Yes[52]
Statistics	Yes[53]	No evidence found	Yes[54]
History	Yes[55]	No evidence found	Yes[56]
Classics and Ancient History	Yes[57]	No evidence found	Yes[58]
Theatre Studies	Yes[59]	No evidence found	Yes[60]
Law	Yes [61]	No evidence found	Yes[62]
PAIS	No evidence found	Yes[63]	Yes[64]
Economics	No evidence found	Yes[65]	Yes[66]

Table 7: How departments link their research and teaching activity, impacting on undergraduate study, using Griffith's model

Analysis of Table[67]

Research-Led: Importantly, research-led teaching is the only term from the above table used by departments: 2 out of the 9 departments use it; and a further 5 departments strongly imply that research-led teaching occurs. It is therefore a popular method of ensuring the research-activity of departments affects the undergraduate curriculum. As evidenced in appendix 1, the majority of students do not engage in research-based learning until later years; therefore 'research-led teaching' is the only experience of research which students gain in earlier years of study.

[49] http://www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/
[50] http://www2.warwick.ac.uk/fac/sci/chemistry/current/undergrad/laboratory
[51] http://www2.warwick.ac.uk/fac/sci/bio/ug/faqs/teaching
[52] http://www2.warwick.ac.uk/fac/sci/bio/ug/faqs/teaching
[53] http://www2.warwick.ac.uk/fac/sci/statistics
[54] http://www2.warwick.ac.uk/fac/sci/statistics/courses/handbooks/morse_08-09.pdf
[55] http://www2.warwick.ac.uk/fac/arts/history/chm/students/
[56] See Handbook at: http://www2.warwick.ac.uk/fac/arts/history/undergraduate/year_3_index
[57] http://www2.warwick.ac.uk/fac/arts/classics/admissions/views/
[58] http://www2.warwick.ac.uk/fac/arts/classics/modules/dissertation/
[59] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/
[60] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/dissertations
[61] http://www2.warwick.ac.uk/fac/soc/law/ug/
[62] http://www2.warwick.ac.uk/fac/soc/law/ug/
[63] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/irm
[64] http://www2.warwick.ac.uk/fac/soc/pais/staff/hughes/teaching/dissertations
[65] http://www2.warwick.ac.uk/fac/soc/economics/ug/modules/3rd/ec331
[66] http://www2.warwick.ac.uk/fac/soc/economics/ug/modules/3rd/ec331
[67] Please see Appendix 1 for detailed analysis of the research provisions provided by each department for undergraduate students.

Importantly research-led teaching could be a *passive* learning experience. The fact that departments readily emphasise a passive learning experience to their students, may indicate that departments have a discouraging attitude towards active undergraduate engagement in research. To determine the extent of this, an examination of the provisions made by the departments in research-based learning is demanded.

Research-orientated: Refers to subjects which provide teaching on research processes: the PAIS and Economic departments. PAIS students complete this in their first year, economics in their final year. These two departments thus recognise that teaching students the relevant research methods is necessary to enable students to conduct research. Students in other departments may also have opportunities to develop research skills and thus learn about methodology, but these departments do not do this explicitly or it is not evidenced from the web-based resources. Because PAIS and Economics do provide research-orientated modules and do not mention passive research-led teaching, it may be concluded that these two departments have a more positive attitude towards undergraduate research or research methods are central to the disciplines. To determine the extent of this, an examination of the provisions made by the departments in research-based learning is demanded.

Research-based: All departments examined in this analysis provide the option for students to do a dissertation, extended essay or research project in the final year of study. Some departments have also engaged in the Warwick's Undergraduate Research Scholarship Scheme (URSS). However, there is great disparity between departments. It is more obvious in Chemistry and Biological Science degree programmes that research based learning is occurring, because students complete 'research projects' and the disciplines have explicit curricula directed towards active research-based learning. Likewise, Law's web-pages show undergraduates integrated into research activity of their research centres, unlike other departments. There are also great differences in the number of URSS projects department's support, when students can start engaging in research and how research skills/or research projects are referred to by departments. Notably, PAIS and Economics, despite offering research-orientated modules offer no more research-based opportunities than subjects who provide research-led teaching. Therefore a more comprehensive analysis of when undergraduate research occurs, how it is discussed and URSS projects will be discussed in this report.

Healey and Jenkins (2009) argue that all ways of linking the research activity of departments are 'valid and valuable' and undergraduate curricula should contain elements of them all. They hold the opinion however; that there are fewer opportunities for research-based learning (Healey and Jenkins, 2009: 7). A discussion of how research- based learning is incorporated into the curriculum at Warwick is provided below.

Research-based learning as a learning outcome[68]

All departments facilitate research-based learning at the end of their degree programmes, so it would thus appear that research opportunities are presented to students as the learning outcome. In all departments, prior to the final year, there is opportunity to develop the relevant skills and knowledge needed to complete the final piece of research, and thus developing research skills is part of the learning process.

In some departments there is opportunity for research-based learning to be part of the learning process. For example, the four year MChem degree (Chemistry) has laboratory modules leading into research modules taken in the third and fourth years.[69] In Biological Sciences, there is a final year research project.[70] In both of these disciplines research-based learning can occur prior to the final year of study; in Chemistry it depends which degree programme students select, in Biological Sciences, students may do optional vacation research projects. Both disciplines engage strongly with the URSS programme and thus, some students can also access research-based learning before their final years.[71] Similar conclusions may be drawn for the Law department. Law degrees claim to develop skills in 'legal research' and there is the opportunity of doing a dissertation in the final year.[72] From the web-based resources there is evidence of opportunities to complete projects in the department's research centres or with the URSS.[73] In these three disciplines therefore students develop research skills as part of the learning process, through undergraduate study and sometimes research based learning. The learning outcome is research-based learning.

[68] Please see Appendix 1 for further details.
[69] http://www2.warwick.ac.uk/fac/sci/chemistry/current/undergrad/laboratory
[70] http://www2.warwick.ac.uk/fac/sci/bio/ug/research/
[71] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[72] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/
[73] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
The Law department is also linked to the Reinvention Centre, through academic fellowships; consequently the undergraduate research may be encouraged by some members of the Law department.

In the other disciplines surveyed, the evidence indicates students do not complete research projects before the final year of study. This suggests research-based learning is not presented as part of students' learning processes. However, analysis of these department's degree programmes, does show that research skills or methodology is integrated into the curriculum. Yet once again there is disparity between departments. The PAIS first year module, 'Research Methods in Politics Science'[74] explicitly presents itself to students as a research-orientated module. Furthermore, in other PAIS modules, students are explicitly told they are developing 'research skills'[75]. For those that opt to do a dissertation, completing a research project is the learning outcome. Notably, three students completed a URSS project in academic year 08/09 and therefore the department does support research based learning as part of the learning process. It however may have difficulty in facilitating them. The Statistics department do offer the option of doing a first year research project,[76] although little information is given on the web-pages. If students do not select this option, the third year research project is the only research-based learning opportunity available; it is therefore a learning outcome. The History, Theatre Studies, Classics and Ancient History, and Economics departments present research-based learning as learning outcomes and enable students to develop research skills through the curriculum. However, the term 'developing research skills' is not used by any of these disciplines until the final year; these departments therefore camouflage the research aspects of students' learning processes. This point will be explored in the following section.

Departments' perceptions of Students and UG Research

Considering the above evidence, questions arise of how undergraduate students are perceived by departments and how their research is valued.

How students are perceived is dependent upon the discipline. The Student Deficit Model

Arguably, students are subordinate to academics in their first years, but as finalists, after development, they are more mutually respected within the academic community; allowed to participate in research. This view of students was discussed earlier in the discourse analysis for Academic literacy. It was certainly this process that Kegan argued could occur if each level of

[74] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/irm
[75] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/pusa
[76] http://www2.warwick.ac.uk/fac/sci/statistics/courses/handbooks/morse_08-09.pdf

development in consciousness is bridged (Kegan, 1994 cited in Hodge, et al. 2008: 11). Upon first analysis, this appears to occur within departments; the majority of research opportunities for undergraduate students are at the end of degree programmes, students are therefore perceived as capable of research until the end of the undergraduate learning process. Yet, because there are subtle differences in department's undergraduate research provisions, it is more accurate to conclude that there are variations in the perception of students between departments.

Some subjects indicate that they are more willing to recognise students as equal scholars or researchers earlier on in undergraduate programmes. The Biological Science department discusses vacation research opportunities in which undergraduate work 'alongside' postdoctoral staff and technicians;[77] implying a more equal relationship. Furthermore, Biological Sciences and Chemistry allow their students to use state of the art facilities, and thus students appear equal to the academics in this respect.[78] However, an equal comparison cannot be made with other social studies or art faculty subjects and thus scientific research activity may more easily appear to be more inclusive to undergraduates merely because of the type of research conducted by these departments, i.e. in larger groups, in which staff rely on students for support. However, the Law department, by providing undergraduate research opportunities via their Research Centres[79] suggests that the department does not divide the undergraduates from the research activity of academics. The Law department may have such practices, because they appear to value both the research and teaching activity of the department,[80] this allows the two areas to become involved in one another.

Conversely, the History department appears to segregate the Research Centres from undergraduate study, unless they are involved in passive, 'research-led' style teaching. Ramsden's argument that the teaching activity of departments needs to be valued in order to change the student learning experience therefore appears to prove resonate with these findings. Moreover, History does not use the words 'research skills' in module outlines. Students may not be aware they are acquiring research skills until the final year. To explore this area further,

[77] http://www2.warwick.ac.uk/fac/sci/bio/ug/research/
[78] http://www2.warwick.ac.uk/fac/sci/bio/ug/research/ and http://www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/medchem
[79] http://www2.warwick.ac.uk/fac/soc/law/research/cjc/research/
[80] http://www2.warwick.ac.uk/fac/soc/law?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Flaw

students' opinions on how they are perceived could be collected and analysed. Conclusively however, the departments convey different messages about how they perceive their students.

Status of student research: Is Undergraduate Research, 'Research'?

In some departments undergraduate research and research skills are camouflaged and not explicitly referred to as such. The History department, in its curriculum, along the Theatre Studies, Classics and Economics departments do not explicitly use the term 'research skills' prior to the final year of study. Despite describing skills developed in the first/second years which could be classified as 'research skills'. For example, The Economics department, in a second year module, referred to students finding relevant literature, approaching information critically and addressing key questions: all of which could be described as 'research skills'.[81] Likewise, a Theatre Studies module encourages students to use a range of sources to compile evidence for detailed analysis; yet the term 'research' is not used.[82] In History even formal assessment in the final year is called essays, although students do have 'research skills' attributed to them by this? point.[83] In Classics, essays and fieldwork are presented as the process in which students learn research skills. These findings perhaps indicate these Departments' attitudes towards undergraduate research. Only in the final year is a dissertation presented as 'research'.[84] Interestingly, these departments supported none or few URSS projects in 2008/09.[85]

Students need to have confidence in their ability to conduct Research

> *'Ultimately, the capacity to undertake original research rests not only on the skills achieved, but also, and most emphatically on the extent to which the student understands his or her own capacity to author original material'* (Hodge, et al. 2008, p.10).

Crucially, how departments think of undergraduate students, their capabilities and present undergraduate research or even research skills (or do not present them) sends a message to undergraduate students. Hodge, et al. argues that students also need to realise their own research capabilities (Hodge, et al. 2008: 10). It is therefore crucial that students recognise that they are developing skills and are engaging in research-based learning in their final year. Moreover,

[81] http://www2.warwick.ac.uk/fac/soc/economics/ug/modules/2nd/ec224/
[82] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/staging_shakespeare/
[83] See Handbook at: http://www2.warwick.ac.uk/fac/arts/history/undergraduate/year_3_index
[84] http://www2.warwick.ac.uk/fac/arts/classics/modules/dissertation/
[85] http://www2.warwick.ac.uk/study/csde/urss/projects200809/

although the curriculum may not always provide opportunities for research-based learning, Warwick University does provide a centralised system for students to engage in extra-curricular research: the URSS and Reinvention Centre.[86] However, if students have little confidence in their own research capabilities, engagement with the URSS may be low.

Research opportunities outside of the curriculum: The URSS

This section will explore student engagement with the URSS in 2008/09. It will be found that there is a great difference in the number of projects departments support. the URSS (Undergraduate Research Scholarship Scheme) provides extra-curricular opportunities for students to engage in research. It provides up to £1000 grants for undergraduate research projects[87] and there are 15 Engineering and Science based subject grants of £2,200 available.[88] Below is a table providing information on the departments this report has analysed and how they have supported URRS projects. The table attempts to find a link, between those departments which advertise the URSS and the number of projects the department has supported.[89]

Department	**Web-link to URSS**	**Explanation of URSS on departmental webpage**	**Advertisement of previous URSS projects**	**Number of projects in 08/09 out of 114 in the department.**
History	Yes	No	No	4
Statistics	No	No	No	0
Classics	No	No	No	0
Theatre Studies	No[90]	No	No	0
Economics	No	No	No	0
Law	No	No	No	7
PaIS	Yes	Yes	No	3
Biological sciences	No[91]	Yes	Yes	10 +1 collaboration with Maths department.

[86] The Reinvention Centre will be discussed in section 4.
[87] http://www2.warwick.ac.uk/study/csde/urss/students/
[88] http://www2.warwick.ac.uk/study/csde/urss/epsrc/
[89] An area for further research would be to examine the statistics of applications and granted proposals, to provide a more accurate analysis of departments' engagement with the URSS. This information was not available on the web-pages.
[90] There is a link to the Reinvention Centre.

Chemistry	No	No	No	17

Table 8: An attempt to find a link between those departments which advertise the URSS and the number of projects the department has supported[92]

Analysis of Table

The Biological Science and Chemistry departments have the largest success rate with the URSS, totalling 28 projects between them. The Law department supported 7 projects, the highest recording department from the social sciences and art faculties. Surprisingly there is no correlation between departments that advertise the URSS on their website and those departments that have a high engagement with the URSS. Therefore, other factors that may be influencing URSS projects need to be considered. The URSS website explains that projects can either be suggested by departments or proposed by students once academic support has been found.[93] Since the table shows that there is no correlation between those departments which advertise the URSS to students and those who engage with it; it would appear that the majority of projects are instead instigated by departments, rather than students. The department's attitude towards research and the nature of the discipline will thus greatly impact on how many URSS projects departments are involved in. Consequently, the 'Research Culture' of departments needs to be considered.

The Importance of Research Cultures

The Research Culture is arguably dependent on varying factors; the approach to 'research' taken by the entire university, the student body, the nature of the discipline and academic staff. As previously discussed, Warwick University is a Russell Group institution and therefore provides an institutional framework supportive of research. To establish whether students are attempting to contribute to the research culture and have knowledge of the various research opportunities available interviews would need to be conducted. However, from the discourses presented in this analysis, conclusions can be made about the nature of the subject and academics' attitudes towards undergraduate research.

[91] There is an article in 2008, about the students who had done URSS projects the year before. A link could be put on the UG research page.
[92] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[93] http://www2.warwick.ac.uk/study/csde/urss/scheme/ and http://www2.warwick.ac.uk/study/csde/urss/students/

Research cultures: In between support and lack of support of undergraduate research

Biological Science, Chemistry and Law have the strongest engagement with URSS and also provide the most opportunities for students to become engaged in the research activity of departments and experience research-based learning. For Biological Science and Chemistry it may be the nature of scientific study which facilitates this. In both of these subjects, research careers are obvious choices, if not goals for some students.[94] Moreover, scientific research may demand more laboratory support, enabling students to work collaboratively with academics on research projects. This is much more difficult in arts and social science research. Sears and Wood recognise that research and teaching in such science subjects is so inexorably linked that many do not question this linkage and simply know it to be part of the 'discipline of the culture'(Sears and Wood, 2005 cited in Griffiths, 2004:35). The anomaly therefore is Law. Notably it does not provide as many explicit undergraduate research opportunities as the sciences; however, there is evidence that undergraduates have contributed to research in the department's research centres. Law has thus created a research culture which encourages undergraduate research. Significantly it is the only discipline which states clearly it values both research and teaching. As discussed earlier, Ramsden argued that it was in valuing teaching in HE, improvements to the undergraduate curriculum could be achieved (Ramsden, 2008: 9). Law has clearly taken this view of teaching and the results are evident. There is no advertising on the Law website for the URSS, yet the department supported 7 projects indicating that the impetus for projects is coming from academics. Conversely, PAIS provides information for students about URSS on their website, along with a first year research methodology module, yet PAIS only support three URSS projects. Notably, PAIS may support undergraduate research in other ways, although they are not advertised online. Consequently, through an analysis of web-resources research-based learning is appears to be dependent on the research culture of departments. Although, some disciplines may more easily facilitate undergraduate research projects and academic/student collaborations, changes to the research culture can be made, indicated by Law. At the heart of this, is the need for teaching activity to be valued as much as research.

[94] www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/chemistry

Research provisions for undergraduates by department[95]

Chemistry: Students in the third year complete a small research project; those on the four year degree also complete more extensive projects. Early years of study include laboratory modules designed to teach students the necessary skills for research.[96] The MChem degree (four year) aims to, '*produce graduates able to function as independent self-motivated researchers.'* Being capable to enter a research career is thus portrayed as the principle function of this degree programme. However, this emphasis on active undergraduate research is less prominent in the third year degree, and it is thus questionable the extent to which the department is committed to the idea of research-based learning for the sake of improving the student learning experience. Nevertheless, 17 students have completed URSS projects with the department; despite the URSS not being advertised on the department's web-space.[97] .

Biological Sciences: The department explains why learning in their research-intensive environment is so beneficial to students, *'This research excellence has major benefits for students who are able to acquire first hand experience in research skills, using state-of –the art equipment with expert guidance.'*[98] Notably, it is not just research knowledge that lecturers are conveying to their students but research skills. The Biological science department, has dedicated an area on the website to undergraduate research. This section explains vacation research opportunities and final year research projects. Final year student research may contribute to literature published by the department. In this scenario therefore, research-led teaching involves integrating undergraduates into the research activity of the department. Moreover, 11 URSS projects were supported by the department,[99] who also have an article uploaded online, celebrating undergraduate research work.[100]

Statistics: First year students may take a research or essay or project although the lack of information about this on the website may deter students. Otherwise, a research project is available for third year students and a dissertation option for final year students on 3 or 4 year

[95] All URSS projects referred to were completed in the academic year 2008/09. As already stated, further research needs to be done into the number of applications made by departments, for URSS funding. Some departments may have been refused funding for projects.
[96] http://www2.warwick.ac.uk/fac/sci/chemistry/ugstudy/coursefinder/
[97] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[98] http://www2.warwick.ac.uk/fac/sci/bio/ug/research
[99] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[100] http://www2.warwick.ac.uk/fac/sci/bio/ug/news/eight_students_awarded/

degrees.[101] Technical problems, not knowing complex statistics for research, may prevent students engaging in research early on. The URSS is not advertised on the site and the department did not support any projects.[102]

History: Final year modules claim that students develop abilities 'in research' and 'develop capabilities' needed for 'independent research projects'[103], although officially the final year assessments are still called essays.[104] Officially, therefore the term 'undergraduate research' is not used within the department's curriculum. Moreover 'research skills' are not attributed to students until their final year, despite students completing essays[105], developing skills needed for their final year extended essays (research). An unexplained link to the URSS website is posted on the department's website. 4 projects were supported by the department.[106]

Classics and Ancient History: Students complete a final year dissertation[107], thus implying research is a learning outcome. However students complete essays from the first year[108], and are thus building research skills which become part of the learning process. However, the term 'research' is not used. Classics do not advertise the URSS and supported no projects.[109]

Theatre Studies: The final year research and practical modules have elements of research.[110] For this reason, the department appears to be emphasising research as the final outcome of the student's intellectual development. However, prior to this, research methods are employed within the undergraduate curriculum in some modules,[111] although the term research is not used. Theatre Studies do not advertise the URSS, and did not support any projects.[112] However, they do have a link to the Reinvention centre, suggesting they do support the idea of undergraduate research.[113]

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[101] http://www2.warwick.ac.uk/fac/sci/statistics/courses/handbooks/morse_08-09.pdf
[102] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[103] http://www2.warwick.ac.uk/fac/arts/cas/undergraduate/modules/american_revolution/course_details/
[104] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/modules/modern_society/essays/
[105] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/modules/hi153/aims/
[106] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[107] http://www2.warwick.ac.uk/fac/arts/classics/modules/dissertation/
[108] http://www2.warwick.ac.uk/fac/arts/classics/modules/gcs/assessment/
[109] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[110] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/dissertations and http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/practical_option/
[111] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/staging_shakespeare
[112] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[113] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/

Law: Although there are no specific examples of undergraduate research-based learning via the curriculum, all degree programmes claim to develop skills in legal research.[114] Students in the final year may choose to complete a dissertation[115]. Students are also involved in research projects in the department's research centres[116] Interestingly, the department does make a broad commitment to excellence in research and teaching, stating, *'...study delivered by researchers in various fields of law who are committed to excellent teaching'*.[117] The department supported 7 URSS projects, despite having no advertisement for the scheme on the website; suggesting they most likely encouraged the projects face to face.[118]

PAIS: Students study 'research methods in Political Science' in their first year,[119] showing that research is clearly a priority to the study of politics. First and second year modules state in the learning outcomes: students will develop research skills relating to the library and internet.[120] Final year students have the option of completing a dissertation;[121] this independent research is thus presented as the learning outcome from a learning process which has involved learning relevant research skills and methods. Students describe the coursework elements of the course as a 'taste of academic research'. PAIS appear keen on the website for students to engage in URSS, providing informed information about the scheme, yet they only supported 3 projects.[122]

Economics: Students are introduced to research projects via a final year module 'Research in Applied Economics'. The module claims to 'consolidate previous knowledge', [123] there is thus the suggestion that students have been building relevant knowledge for this project over the previous years. Prior undergraduate modules made statements in the learning objectives such as, 'They will also have learned to search for relevant literature to approach this information

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Although not shown online, Theatre studies has several academic fellowships with the Reinvention centre, suggesting that undergraduate research may be part of the culture of the department, or at least a priority for some members of staff.

[114] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/degrees/
[115] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/modules/diss
[116] http://www2.warwick.ac.uk/fac/soc/law/chrp/projects/dpinternship/
[117] http://www2.warwick.ac.uk/fac/soc/law/ug/
[118] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[119] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/irm
[120] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/pusa and http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/abstracts/wp
[121] http://www2.warwick.ac.uk/fac/soc/pais/staff/hughes/teaching/dissertations
[122] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[123] http://www2.warwick.ac.uk/fac/soc/economics/ug/modules/3rd/ec331

critically and to address key questions…'[124] Thus, although the term 'research skills' is not used in this example, this term would certainly be applicable to it. The final year module claims to be unique, 'involving student-centred learning' and thus the final stage of students' learning process or the actual learning outcome; however, students develop research skills as part of that learning process too. The department neither advertises the URSS nor supported any projects.[125]

Conclusion

The findings from this discourse analysis have echoed many of the issues the literature at the beginning of this analysis discussed. Evidence has been presented that suggests 'research' is considered both a tool in improving the student learning experience and a tool that enables departments to be rewarded economically. Interestingly, the literature surveyed, did not refer to the importance of research, regarding a university's reputation, notably internationally. With this at stake, it is unlikely departments will make changes to their research activity if affects their world standing. Currently, there are several ways in which research activity can affect the Warwick undergraduate curriculum; the potentially passive 'research-led' approach is emphasised in earlier years and research-based learning opportunities occurring in final years. Research-based learning opportunities can vary greatly. In the science faculty research projects form core modules, yet in the arts/social science modules research-based learning may be optional and is not so clearly labelled. Moreover, the nature of arts/social science disciplines do not facilitate collaborative research in the same way as in science disciplines; it is therefore imperative that arts/social science departments actively create research cultures that support undergraduate research so students have the confidence to engage in research-based learning and are given opportunities to do so.[126]

Summary

- A research-led environment is presented as the optimum learning experience, it is implied that research excellence is economically fruitful and boosts international reputation. The language departments use to describe a research-led environment is positive and persuasive, similar to a sales pitch.

[124] http://www2.warwick.ac.uk/fac/soc/economics/ug/modules/2nd/ec205
[125] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[126] Further research needs to be done to examine the research culture of the arts/social sciences. It needs to be determined how research is carried out in practice, opposed to what is presented on the web-pages. More collaborative opportunities may be available for example.

- Three ways in which research can impact on undergraduates have been identified: research-led, research-orientated and research-based. There is great disparity between the types of research-based opportunities available between departments; this is partly due to the inherent nature of disciplines.
- Departments discuss undergraduate research differently. Importantly, when undergraduate research skills are not being named as such, students may not realise their own capabilities to complete research. Students need to be asked, further research is needed.
- There is no relationship between the levels of URSS advertising and department's engagement with projects. Therefore, department's research-cultures may be more influential in dictating undergraduate research opportunities.

3.3 Interdisciplinary Study

This chapter will look at interdisciplinarity as a discourse in The University of Warwick, focusing primarily on the undergraduate level. It will begin by attempting to define interdisciplinary study in context and explain its significance, using literary sources and my own insights. It will then go on to apply this definition in an analysis of claims made by selected University departments about how different types of courses incorporate interdisciplinary study. It will finish with a more broad analysis of interdisciplinarity as a discourse in the University as a whole.

Concepts of Interdisciplinarity: A Literature Review

Before it is possible to make a comprehensive analysis of interdisciplinary study in any context, it is essential first to define what exactly we mean by 'interdisciplinary'. Coming from the perspective of discourse analysis, examining the wider discourse of interdisciplinary study outside of the University is important, so that these definitions can be taken into account while we look at the way departments define interdisciplinary study themselves and thence we find ourselves better informed and better able to form our own definitions and perspectives.

Unfortunately, it is impossible to draw out a definition of interdisciplinarity without first forming a definition of disciplinarity and an academic discipline as a social construct is far from easy to

define. For the purposes of this study, I will define a discipline as the school of learning contained in a certain University department. While other authors may have different definitions, for example the definition of a discipline as a social group or 'tribe', this definition is sufficiently close to any other as to make little difference in context.

One can hardly find a better example of the difficulty of defining interdisciplinary study than that of a specialist school in interdisciplinary studies having no definition, as Newell describes in Lessons from the School of Interdisciplinary Studies at Miami University: 'There is no formal consensus within the school about the definition of interdisciplinary studies; indeed there has been little philosophical discussion about it' (Newell, 1992: 212).

Indeed we find that it is difficult not only to define, but also to indentify interdisciplinarity: 'There seems widespread acknowledgement that what makes interdisciplinary work difficult is knowing how to recognise that it has happened, and beyond that knowing to what extent it has been productive – in short, how to pinpoint the value of the interaction' (Strathern, 2004: 82).

Aram makes a good attempt to draw together definitions of interdisciplinarity. He notes that '...changing, internally fragmented, and overlapping disciplines weaken the ability to identify and define what is interdisciplinary' (Aram, 2004: 4). He then goes on to describe the multitude of categories for interdisciplinarity put forward by authors including: 'instrumental interdisciplinarity'; 'conceptual interdisciplinarity'; 'epistemological interdisciplinarity'; 'transdisciplinarity'; 'intradisciplinarity'; 'cross-disciplinarity'; 'informed disciplinarity' and 'synthetic interdisciplinarity'.

The categorisation that I found most insightful was Lattuca (2001) as cited by Aram, who split interdisciplinarity into four categories: 'Informed disciplinarity', using information from other disciplines to inform one's own; 'synthetic interdisciplinarity', linking disciplines through courses or research questions; 'transdisciplinarity', courses and research questions that cross disciplines and 'conceptual interdisciplinarity', interdisciplinarity that forms a new intellectual space outside of conventional disciplines.

Squires draws up a complicated model for categorising disciplines and degree courses, broadly categorising them as some combination of 'professional', 'academic' and 'general'. He also suggests that the prominence of interdisciplinarity as a discourse has fallen since the 1970s, a trend which seems to have continued to the present day. He notes: 'The very notion of interdisciplinarity is, I have argued, multi-dimensional, and its location and perception in the system relative.' (Squires, 1992: 205) If one thing is clear, it is that interdisciplinarity is hard to define exactly.

Newell has some useful insights about the nature of interdisciplinary study and the different ways in which it can take place. Firstly, about the methods used in forming interdisciplinary courses, he notes, 'Some courses draw basic concepts from disciplines (e.g. discourse communities from literature...), while others draw theories (e.g. dependency theory from political science...), facts..., or methods' and secondly, he points out how interdisciplinarity can occur without an in depth understanding of every discipline involved, 'It takes many years to learn a discipline; it takes only a few readings to begin to develop a feel for how that discipline characteristically looks at the world...'(Newell, 1992: 213). This sentiment is reflected in the Faust module at Warwick, which forms a case study later in this report.

Strathern also offers us a useful insight into how interdisciplinarity can differ between disciplines, which I will return to later:
'When different sciences contribute expertise to one another the accepted model is that they commonly do so through focus on a problem... But when it is a case of interactions involving social scientists or people from the humanities... The question is phrased in terms of one having an "impact" on the other.' (2004: 83)

The discourse surrounding interdisciplinarity is somewhat fragmented, but in summary, interdisciplinary study can be seen to be when more than one discipline combine their knowledge in some form, whether that be on a shared project, course or even in the experience and thoughts of a student. However, many more insights can be gained through looking at the specific definitions in context, assigned by departments, which will be described in section 1.3, The Varying Definition of Interdisciplinarity in Departments. Another thing to take from this section

is the fragmented nature of disciplines themselves, some of which perhaps lend themselves more to interdisciplinarity than others.

The Importance of Interdisciplinarity

Why is interdisciplinarity so important? Before the analysis of departments can begin in earnest, it seems important to look at the reasoning behind why interdisciplinary study has been identified as part of the 'graduate pledge' in the first place.

Creating a better understanding of the strengths, weaknesses and general nature of interdisciplinary study will help by providing an important reference point to use when it comes to the analysis of interdisciplinarity in the University. There will not be space to handle the subject in great detail, but instead, some of the main points in favour of interdisciplinary study will be outlined.

A key argument for interdisciplinary study is the wide range of perspectives that students can gain in comparison to a more narrowly focused disciplinary education. It is certainly not correct to assume that a standard disciplinary education is without its flaws. 'Specialisation brings rewards, but at a cost: sharpness of vision can only be gained by narrowing the focus' (Frank et al., 1992: 223). Orr (2004) laments that most students are 'taught to think in boxes' and hence it is harder for them to later get to grips with complex issues that span disciplines, such as the environment.

There is also the argument that 'interdisciplinary courses are more than the pieces of disciplines from which they are constructed' (Newell, 1992: 220). In other words, when it comes to interdisciplinary study, the sum of the parts is greater than the whole.

On a less theoretical level, in the UK graduate job market there are very many jobs that do not specify a specific type of degree. When post degree training, such as studying for professional qualifications, or further education is common, what seems to sometimes matter more than becoming specialised in a certain discipline is the development of certain skills and capabilities. Interdisciplinary study would seem to lend itself to the development of flexible and transferable skills, as commonly demanded by employers. Some would raise concerns relating to the

'dilution' of skills, or a lack of academic rigour in interdisciplinary courses, but this is contested by the majority of academics writing in the discourse.

The Varying Definition of Interdisciplinarity in Departments

As interdisciplinarity was analysed in various departments, differing definitions of interdisciplinary study in the discourse were found. Rather than forming a definition of interdisciplinarity and applying it in context, it was necessary to recognise that the definition is in this case inextricably linked to the context. Informed by the literature review, the way particular departments defined interdisciplinarity in their own specific context was analysed.

Assessing the extent to which departments include and promote interdisciplinary study is made difficult by the varying definitions and awareness of interdisciplinary study in departments. Some departments use the term 'interdisciplinary' frequently in reference to their courses and modules, while others do not at all.

All departments analysed demonstrated interdisciplinarity in some form. Some departments do not explicitly use the term 'interdisciplinary,' in which case it is necessary to find similar contexts to those in which other departments use the term, or identify key words which have a similar meaning. This has been identified by others studying the subject as well: '(Interdisciplinary courses) may be discussed in terms not of interdisciplinarity but of "integration" or "co-ordination," or the role of "service courses," ' (Squires, 1992: 206). Other words that were found to be used in the context of interdisciplinary study included 'collaboration,' 'diverse,' 'interdepartmental,' 'flexible' and 'broad context'. The context behind the words was taken into account, rather than only considering interdisciplinarity explicitly labelled as such.

In the broadest terms possible, there were two main approaches that I saw in terms of interdisciplinary study, while some departments were somewhere between the two approaches. These two approaches were the self contained and the externalised approaches.

The self contained approach is one best demonstrated by departments such as Theatre Studies and Classics and Ancient History. This approach is one of asserting the innate interdisciplinary

approach taken in learning the discipline and claiming the use of interdisciplinary perspectives and methods. In this definition, interdisciplinary study is achieved through modules inside the department, some of which may even be core modules for all students. These departments seem to argue that interdisciplinarity can be achieved inside a department without needing to rely on service courses by other departments or interdepartmental modules. For example, on the Classics department admissions webpage it states: 'The classics department encourages its students to explore Greek and Roman civilization in a wide cultural context. The basic approach is wide ranging and interdisciplinary...' [127]

The externalised approach is one best seen in departments such as Statistics and Biological Sciences. These departments claim to achieve interdisciplinarity primarily through the provision of optional modules in other departments and through the creation of degrees which rely heavily on collaboration with other departments. Hence interdisciplinarity is achieved through external means, although we must be clear here to distinguish between interdisciplinarity and multidisciplinarity, which I will discuss in more detail later.

These approaches are not mutually exclusive though, and, for example, the Law School and the Economics department seem to combine aspects of both the self contained and the externalised approaches to interdisciplinarity, as explored in more detail below.

Interestingly, faculty differences start to emerge at this point, with the Arts faculty departments seeming to take a mainly self contained approach, the Science faculty departments taking a mainly externalised approach and the Social Sciences departments being somewhere between the two.

Arts disciplines seem to view other disciplines as having an 'impact' on their own, implying that perspectives from other disciplines are absorbed into the main discipline, rather than the externalised approach, in which in the context of solving a problem or in a broader context, students cross discipline boundaries, taking modules run by different departments and taught by subject experts, hence facilitating interdisciplinary perspectives, skills and knowledge. These

[127] http://www2.warwick.ac.uk/fac/arts/classics/admissions/

differing approaches between faculties could be seen as a direct realisation of what Strathern touches on above.

If we are to apply Lattuca's definitions, then the self contained approach is closest to 'informed disciplinarity' and the externalised approach is a combination of 'synthetic interdisciplinarity' and 'transdisciplinarity'.

Different Facets of Interdisciplinarity

Another discourse found alongside interdisciplinarity is multidisciplinarity. The key distinction between the two is that interdisciplinarity must involve the disciplines in question coming together in some form, while multidisciplinarity may not involve or require this. However we are faced with a problem at this point, how can we distinguish between the two? It is certainly not a trivial difference: 'Two-subject joint honours or combined honours degrees and multi-subject "general" degrees, have existed in the United Kingdom's system for a long time. Such degrees are certainly multi-disciplinary, but not usually interdisciplinary in the integrated sense of the term...' (Squires, 1992: 205)

As the analysis proceeds, I will need to look carefully for contextual evidence that suggests either integration or just parallel study. This is a subtle distinction to make, as Squires himself notes in the same text:

'But then, interdisciplinarity may occur not only at the "boundaries" between subjects but in a more diffuse and subtle way, through the flows of intellectual influence and technique across subjects. The links and connections may be of various kinds, and what matters in the end is the phenomenology of the student's experience rather than the formal intentions of the lecturers.' (Squires, 1992: 208)

Hence the student may come away with an experience that is 'interdisciplinary' even if the course studied is only multidisciplinary in its organisation.

Another point to note is how interdisciplinarity is often described in the context of careers and general skills. This can be seen either as departments trying to encourage students with the

prospect of career success as a 'reward', or as a reference to the usefulness of interdisciplinary study in developing transferable skills mentioned in section 1.2. It is interesting to note this link to the themes of Careers and of Academic Literacy.

Both Arts and Science Departments can claim the benefits of interdisciplinarity towards career development. For an example in Arts, on the Classics and Ancient History department webpage it states: 'Classical studies have always been interdisciplinary and the courses at Warwick are designed to reflect the full range of Greek and Roman culture, from religion and myth to philosophy and history, from art and architecture to poetry and drama. A degree course in a Classical subject thus provides a rich and versatile training. This enables students to develop powers of expression and analysis, preparing them for a wide range of professions, including law, business and the media.'[128]

Science departments can make more specific claims, especially with degree courses aimed to fulfil a certain skills set, like Chemistry with Medicinal Chemistry, BSc/MChem. First we have the suggestion of interdisciplinarity: 'These degrees emphasise the uses and applications of chemical techniques in medicinal and biological systems' and then we have the suggestion of employability: 'Both the BSc and MChem degree courses provide a good introduction for those interested in careers in medicinal and pharmaceutical chemistry.'[129]

In both cases there is a clear link being drawn between interdisciplinarity and developing skills needed for career success.

Another key notion, especially in the self contained approach to interdisciplinarity described above, is the idea of interdisciplinarity through 'context'. In examining the broad context of a discipline, interdisciplinary perspectives are inevitably forthcoming. Take the example of the Law School, which makes explicit its policy of context based learning.

'The contextual approach has been developed at Warwick for over twenty-five years. Our aim is to avoid treating law as if it can be separated from other aspects of society. So as well as studying legal judgments and statutes, students also examine the impact of economic, cultural

[128] http://www2.warwick.ac.uk/fac/arts/classics
[129] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/chemistry/f121/#intro

and political change on law and consider how law affects life beyond the court-room and the lawyer's office.'[130]

Here, perspectives from Economics, Sociology and Politics are claimed as being incorporated into the basic study of law. These are seen to have an 'impact' on how law is studied. As mentioned by Newell above, students need not necessarily study a discipline in depth in order to understand disciplinary perspectives.

Summary

- Interdisciplinary study is difficult to identify and to define. Four types of interdisciplinarity are set forward: 'informed disciplinarity', 'synthetic interdisciplinarity', 'transdisciplinarity' and 'conceptual interdisciplinarity' The concepts of the 'self contained' and the 'externalised' approaches to interdisciplinarity are developed from empirical analysis of the online material and are explained.
- Interdisciplinarity is often seen in the discourse inside and outside the University as a way of developing important transferable skills and hence is linked to employment prospects by departments.
- The distinction between multidisciplinarity and interdisciplinarity is made. Multidisciplinarity should not be discounted as it may indirectly enable the development of interdisciplinary perspectives.

Identifying Interdisciplinarity in Departments and Degree Courses

Single Honours, Joint Honours and Combined Courses and how they Claim to include Interdisciplinarity

Clearly there are not only distinctions between how interdisciplinarity is handled on a faculty level or a departmental level, but there are marked differences on a degree course level. For the purposes of this analysis, I will consider degrees of three main types: single honours, joint honours and combined courses. With respect to combined courses, nominally single honours courses which combine the study of more than one discipline are considered combined courses; hence courses which combine the study of two disciplines with unequal weighting are considered combined courses, as are those that combine the study of more than two disciplines.

[130] http://www2.warwick.ac.uk/fac/soc/law/about/

There is a huge variety of different courses, even across the nine departments we studied, but nevertheless it is possible to pick out some characteristic traits of each type of degree. Single honours degree courses usually claim to be interdisciplinary through being innately interdisciplinary in approach or by analysing the wider context of the discipline (self contained) or by allowing students a wide choice of optional modules in related disciplines (externalised). The modular system of the University helps a great deal in this respect, as most departments that take the externalised approach allow a great deal of optional modules in related or close disciplines. For example, first year Statistics students are given thirty modules to choose from in their first year, (some of which are core) from six different departments and the Warwick Business School. By contrast, Classics and Ancient History students and Law students seem to be encouraged mainly to take options inside the department.

The picture becomes a bit less clear when it comes to examining joint honours and combined degrees. It would be easy to assume that these courses must be more interdisciplinary than straight single honours courses, but due to the restrictive nature of fulfilling the core requirements for every discipline involved, students often do not have much room for outside options. There is also the question of whether such degree courses are truly integrated, or whether they fall short of being interdisciplinary and can only claim to be multidisciplinary (see section 1.4 above).

As an extremely brief case study, take the Chemistry department. The Chemical Biology MChem degree claims a high degree of interdisciplinarity, as it clearly combines the disciplines of Chemistry and Biology, as applied mainly to medicine, including a compulsory fourth year interdisciplinary project worth half of their final year mark.[131] These disciplines are closely related and so the joint degree course fits together well and appears genuinely interdisciplinary. There are also other similar integrated degrees between Chemistry and Biology.

Within the same department, students can take the combined honours degree Chemistry with Management BSc. It is difficult to see how the subject of Chemistry relates to Management and the description of the degree focuses mainly on the career benefits of the degree rather than the

[131] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/chemistry/fc11

integration of the two subjects.[132] Hence this would seem to be a clear example of a multidisciplinary rather than interdisciplinary degree.

Most joint honours degree courses are of closely related subjects and hence tend to hint towards interdisciplinarity in the description of the degree, with some going as far as to have 'team taught' modules between the two departments involved in the degree and to have final year projects or dissertations that claim to bridge the two disciplines.

Combined courses are often a bit more loosely connected in terms of the disciplines involved, but as they mainly focus on a single discipline, with the other disciplines involved taking a lesser role, the problem of balancing the subjects studied is somewhat diminished. A lot of combined courses represent a certain form of a standard single honours courses, in other words they can be replicated by the choosing of certain options while studying a more 'standard' course in the same department.

Hence the difference between a combined course and a standard course can be as superficial as only having a different degree title. Rather than taking this as evidence of the superficiality of combined courses, I would suggest that this represents the great depth of interdisciplinarity afforded in a research led University like The University of Warwick and how this can be implicit in the options available in courses, even when not stated as such in the course description.

In some cases combined courses make explicit to students some of the potential for combining different disciplines in their studies, which they may not have otherwise realised was there. However, there can be timetabling issues and the provision of officially combined courses makes sure that these do not interfere. There are also combined courses worth mentioning such as PPE (Politics, Philosophy and Economics)[133] and MORSE (Mathematics, Operational Research, Statistics and Economics)[134], which go far in interdepartmental co-operation and claim interdisciplinarity. These are beyond standard combined courses in that they do not focus specifically on any one discipline above others, instead allowing students to choose their own

[132] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/chemistry/f1n2
[133] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/philosophy/lv00
[134] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/morse

path as their degree progresses, allowing them to specialise in one or more of the areas described in the title. They also each span more than two disciplines and more than one faculty.

The Breadth of Options outside Disciplines

Part of the externalised approach to interdisciplinarity is the provision of a wide range of options, including those from different departments. The departments that are able to do best in this respect are those that offer heavily modularised degree courses and hence tend to be those in the faculties of Science and Social Sciences.

The picture of how interrelated departments share optional modules is quite complicated, but tends to stem mainly from disciplines which are quite similar in nature or share common ground. In this way, departments such as Biology and Chemistry can share modules easily, as can Philosophy and Classics for example. Many departments choose the more self contained approach instead though and prefer to use modules inside the department even to teach material that could be seen as originating from another discipline. In this case, departments seem to prefer using combined and joint courses to cover any multidisciplinary 'study combinations' that a student could want, rather than offering a single broad based flexible degree programme with many different options from departments.

All of the departments studied offered a good range of combined or joint degree programmes and most seemed to have provision for students to choose outside options with the permission of the departmental director of undergraduate studies (although the Law School was an exception to this). Some departments appeared to be more encouraging towards taking 'unusual options' than others, specifically in the language used to describe the provision for unusual options. In the section in the Statistics MORSE course handbook for example, there are encouragements such as 'Don't be put off by this – it's quite straightforward.' and 'In most cases there are no problems', this in addition to the 'enormous range' of thirty modules listed for first years as core and options in section eight of the handbook.[135]

[135] http://www2.warwick.ac.uk/fac/sci/statistics/courses/handbooks/morse_08-09.pdf Sections 2.12, 8

'Academic' versus 'Professional' Degrees

Squires (1992) mentions a distinction between 'academic' and 'professional' degrees. 'Academic', he describes as the emphasis of learning for learning's sake, often leading to further study and 'professional', he describes as learning towards skills needed in a certain profession, often leading directly into employment. He also suggests that there are 'general' degrees that are neither 'academic' nor 'professional' and that there are degrees that are some combination of two or three of the categories.

Taking these loose definitions, it seems that degrees that I would potentially categorise as 'professional,' for example Statistics, Economics and Chemistry, also have a strong approach to externalised interdisciplinarity. This is perhaps interdisciplinarity between departments that is encouraged by working towards producing graduates that have a certain knowledge and skill set, including knowledge that may lie in several different disciplines. It seems that externalised interdisciplinarity could often be a result of departments working together due to an outside incentive, namely working towards creating highly employable graduates that are tailored towards work in a certain profession.

In addition, the highly 'academic' departments such as Classics and Ancient History and History, I have also noted as having a strong internalised approach to interdisciplinarity. This approach is not so difficult to explain, being a natural part of expanding the knowledge horizon of the student and of informing them of the breadth and context of the discipline(s) in which they are studying. Could it be said that this approach better prepares them for further study? While it is true that 'informed disciplinarity' is seen as providing students with important skills, further investigation would be needed before any conclusions on this could be made.

Summary

- Single honours courses vary between the 'self contained' and 'externalised' approaches to interdisciplinarity, depending largely on department and faculty.
- Joint honours courses tend to make a stronger claim for interdisciplinarity than combined courses.
- Combined courses seem to vary between bare multidisciplinarity and closely integrated interdisciplinarity.

- The modular system adopted by some departments, as well as the wide range of joint degrees and combined courses offered by all departments allows a wide range of 'study combinations' and hence opportunities for interdisciplinarity.
- Some departments are more encouraging than others with regards to the selection of outside options.
- Departments that offer more 'professional', in the sense of preparing directly for employment, degrees seem to take the more 'externalised' approach to interdisciplinarity.
- On the other hand, departments that offer more 'academic', in the sense of preparing students for further study, degrees seem to take the more 'self contained' approach.

Interdisciplinarity in Context: Interdisciplinarity in the University as a wider Discourse

Interdisciplinarity on an Undergraduate and on a Postgraduate Level

It is important not just to look at the narrow context of interdisciplinary study on an undergraduate level in the University, but also to look at the wider context of interdisciplinarity as a discourse. A key, perhaps even driving, part of this discourse is postgraduate research.

Some academics take the standpoint that interdisciplinary study is best left for the postgraduate stage, if even then, as explained here: "The current argument in favour of this view is that thorough mastery of discipline is a necessary pre-requisite for interdisciplinary work." (Frank et al. 1992: 223) Whether this perception is pervasive or not in Warwick University, there are several ambitious postgraduate research organisations at the University, which are explicitly stated to be interdisciplinary.

A good example of this is the Complexity Complex, a research centre in Complexity Science, which is undeniably interdisciplinary and involves co-operation across faculties. 'The University of Warwick (UW) leads the UK with a ground-breaking "Complexity Complex" to connect and develop interdisciplinary research in complexity science at all levels...'[136]

There are also other examples of interdisciplinary research institutions like this one, such as MIRaW (Mathematical Interdisciplinary Research at Warwick)[137] and the Humanities Research

[136] http://www2.warwick.ac.uk/fac/cross_fac/comcom
[137] http://www2.warwick.ac.uk/fac/sci/maths/research/miraw/

Centre.[138] Hence the discourse surrounding interdisciplinarity, especially when it comes to explicit use of the word 'interdisciplinary,' seems to centre mainly on the postgraduate and postdoctoral rather than the undergraduate level.

It is in these research centres that Lattuca's fourth category of interdisciplinarity 'conceptual interdisciplinarity' springs foremost to mind, specifically, the creation of new areas of study via interdisciplinary collaboration on research projects.

This is an area where the strand of interdisciplinary study meets that of research, as the question of whether undergraduates could be involved in interdisciplinary study is added to that of whether they could be involved in research. There is in some departments a perception that undergraduate students cannot be involved in research until they are nearing the end of their degree and there is an argument that students need more confidence in and awareness of their own ability to be involved in research. (See part three of the Research-led Environment section.)

Interdisciplinary study as study method versus study goal

There is a distinction to be made between the different ways in which interdisciplinary study is mentioned in the discourse. In some instances, typically with the departments that take a more self contained approach, interdisciplinarity is seen more in the differing approaches to study used, although the degree may only be based in a single discipline.

To use the Theatres Studies department as an example, the first year core module Introduction to Performance, is described as follows:

'Performance studies will be presented as an interdisciplinary practice which, on the one hand, can be applied as a method with which to interrogate and understand social and cultural processes, incorporating modes of enquiry related to such fields as ethnography, psychoanalysis, philosophy, politics and geography.'[139]

[138] http://www2.warwick.ac.uk/fac/arts/hrc/

[139] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_1/intro_to_performance_0708/

Here the language, especially the use of the phrase 'interdisciplinary practice' shows how the approaches taken to learning themselves are being put forward as interdisciplinary.

Going back to the previous section, the model of leaving interdisciplinary study to a postgraduate stage fits in with the idea of interdisciplinarity as a study goal. However, also included in this category are some more typically interdisciplinary courses, such as combined courses and joint degrees. The reason for this is that for courses which take a multidisciplinary approach to learning, the methods used for study of each discipline are likely to be predominantly disciplinary.
In this case, actual interdisciplinary study is more likely to be a grey area, in that students are encouraged to pursue their own interests, but it is up to the individual student to reconcile different disciplinary perspectives with respect to their own academic literacy. Hence interdisciplinary study can be seen more as a study goal than a study method. As an example, take the Italian and Classics joint degree from the Classics and Ancient History and Italian departments:

'Italian and Classics is a joint degree equally weighted between both disciplines. You study Italian language and Latin at an appropriate level in Year One. After the Year Abroad, you study Italian language and choose from a wide variety of options in both departments (a dissertation bridging the two disciplines is also taken in Year Four).'[140]

This course is interesting because the two disciplines studied clearly have different approaches to learning but naturally complement each other. The basic approach would seem more multidisciplinary than interdisciplinary, but the fourth year dissertation "bridging the two disciplines" is clearly interdisciplinary. Hence it would appear that students are trained in both disciplines, building up to be sufficiently competent in both to be able to apply their knowledge in an interdisciplinary setting.

This seems to be a good example of a course containing interdisciplinarity as a study goal, rather than a study process, although as mentioned above the Classics and Ancient History department

[140] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/italian/rq38/

claim an interdisciplinary approach to study as well, hence it could in fact be seen as claiming to be dually interdisciplinary.

The Strength of Interdisciplinary Study as a Discourse in the University

Interdisciplinarity seems to be most visible as a discourse with respect to postgraduate research and further investigation as to whether undergraduates could be more involved in some of the interdisciplinary research centres based in the University is worth considering.

Overall, despite the differences between faculties, departments and courses, such as having a more self contained or a more externalised approach to interdisciplinary study and incorporating interdisciplinary study as a study method or a study goal, the discourse of interdisciplinary study in Warwick University appears to be very healthy, helped by strong links between departments and by overlapping research interests and areas of study. Further investigation is needed to ascertain to what extent departments claims match those found in the discourse.

The two types of interdisciplinarity of Lattuca's four that I mentioned in section 1.1 that are most apparent in the University are informed disciplinarity and synthetic interdisciplinarity. The other two types, transdisciplinarity and conceptual interdisciplinarity, are arguably closer to true interdisciplinarity than the others, but by their very nature are perhaps quite difficult to design and to implement, especially conceptual interdisciplinarity.

Transdisciplinarity is best achieved in the University through good communication between departments and the willingness to organise jointly taught modules and combined or joint honours courses that cross disciplines. A lot of combined and joint honours courses, not to mention individual modules, were analysed as part of this research and, in general, courses that included jointly taught modules or were otherwise 'integrated' between disciplines were less often seen than 'synthetically' interdisciplinary courses, those in which disciplines were bound together in a more artificial way, with the aim of fulfilling a specific skills set or working towards certain course goals. Hence it seems there is more room for transdisciplinarity within courses, although this does require a high level of organisation and co-operation between departments. For an example of the kind of transdisciplinarity I am referring to, see Shakespeare

and the Law, a co-taught module between the English department and Law school that is available to Law students as an option.[141]

Conceptual interdisciplinarity is something that is perhaps very difficult to facilitate on a wide scale for undergraduates. It is the most abstract and theoretical form of interdisciplinarity and I did not find any examples in the undergraduate curricula that I examined. However, there were some examples on the postgraduate level, as noted above. The creation of new courses that lie between disciplines is part of conceptual interdisciplinarity and this is up to University staff to conceptualise. I would warn that in this case it is not sufficient to imagine that the existing department structure could encompass all possibilities for conceptual interdisciplinarity. In this area, the creation of new departments or re-organisation of current ones would be needed. It is important to remember that discipline boundaries are constantly being redefined and expanded; disciplines are social constructs and should not be seen as completely rigid. However, any investigation into potential for new conceptually interdisciplinary studies is far beyond the scope of this analysis.

Summary

- Interdisciplinarity is prominent and explicitly labelled as such on the level of postgraduate research in the University.
- Departments that take a more 'self contained' approach to interdisciplinarity tend to use interdisciplinary study as part of the study method, whereas those that take a more 'externalised' approach tend to view it or the ability to undertake it more as a study goal.
- The types of interdisciplinarity most present in the University on an undergraduate level appear to be 'informed disciplinarity', characterised typically by the 'self contained' approach and 'synthetic disciplinarity', characterised typically by the 'externalised' approach.
- 'Transdisciplinarity' is seen to a lesser extent, but is evident in some modules and courses as part of the 'externalised' approach.
- 'Conceptual interdisciplinarity' is not seen on an undergraduate level, but seems rather to be the provision of postgraduate and higher level research.

[141] http://www2.warwick.ac.uk/fac/soc/law/ug/current/materials/half/en347-15/

3.4 Global Knowledge

What does 'global knowledge' in higher education mean?

Global perspectives, knowledge and awareness are increasingly claimed to be part of the culture, curriculum and community of the UK's higher education institutions. Despite the growing emphasis on global knowledge and its importance in higher education, a clear description of what it encompasses remains elusive. Despite this lack of clarity, there are certain common words and descriptions that are used in the literature to describe global knowledge. Europeanization, internationalization and globalization are common terms used in labeling global knowledge in universities.

Europeanization, Internationalization and Globalization

Yang (2002) admits that despite the common use of the term 'internationalization', the core definition of the word in higher education remains unclear. It is often confused with 'globalization', which Yang (2002) simply describes as social processes that transcend national borders.

Internationalization is defined varyingly depending on the institution, country or global region using the term. The Association of Universities and Colleges of Canada (AUCC) (1993) has described it is a range of activities aimed at providing an educational experience within an environment that truly integrates a global perspective. However, the European Association of International Education (EAIE) (1992) defines internationalization as the entire collection of processes by which higher education becomes less national, and more internationally oriented. Yang unifies these definitions by stating that 'for a university, internationalization means the awareness and operation of interactions within and between cultures through its teaching, research and service functions, with the ultimate aim of achieving mutual understanding across cultural borders' (Yang, 2002: 83).

Europeanization introduces a regional dimension to the description of global knowledge. Toyoshima (2007) describes it as a regional aspect of internationalization that is characterized by the common and shared history and culture within the European continent. Toyoshima (2007) labels it as 'internationalization light', and argues that the concept of europeanization is included within internationalization, and globalization. The three terms can therefore be arranged in a

certain hierarchy, where europeanization is included in internationalization, which is covered within globalization.

With the growth of global knowledge in UK higher education institutions, other terms have also been coined to describe internationalization. Some universities in the Toyoshima (2007) research study use words such as 'international engagement' in place of internationalization. The University of Warwick's History department has used 'international experience' in describing the nature of global knowledge it conveys.[142] Delanty (1998) used the word 'deterritorialization' when describing the globalized nature of knowledge in higher education. As we see in Toyoshima (2007)'s study of pre- and post-1992 universities, the definition of internationalization varies depending on the universities questioned. One post-1992 university in the study even explained that they use three different ways of approaching internationalization in terms of the student population, the faculty and the curriculum.

This makes it very difficult to compare the extent to which universities convey global knowledge, as there are no set definitions or benchmarks. Eventually, certain parallels do emerge in the way most universities convey global knowledge. These, as we shall see later, have been driven primarily by globalization and its political, economic, academic and social factors.

Motivations and rationales behind internationalization and global knowledge in higher education institutions (HEIs)

Motivations and rationales for internationalization vary across different institutions, and their internal departments. However, most of these motivations can be categorized into four main areas as Jiang (2008) stated: political, economic, academic and social/cultural.

- *Political:*

The political rationale is related to a country's political status and role as an independent nation in the world. 'It takes account of such issues as national sovereignty, identities, security, stability, peace, culture and ideological influence' (Jiang, 2008: 349). Internationalization of universities is seen as a means by which the world's most powerful nations both assert their influence in the world and also learn cultural aspects from other parts of the world. This rationale

[142] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/admissions

has long been attached to universities in developed countries such as the United States and the United Kingdom.

- *Economic:*

Jiang states that 'the revenue gained by institutions has further been a key alternative source in a situation of deregulation and reduction of subsidies on HE' (Jiang, 2008: 350). In the Toyoshima (2007) study, some universities admit that financial benefits formed part of their motivation for pursuing internationalization. Universities in this study also mentioned that the recruitment of international students is encouraged for financial reasons, and it is a 'prime income generation source' (Toyoshima, 2007). The reduction of subsidies to UK HEIs in the 1980s meant that many had to employ some entrepreneurship in their income generation. Foreign students have increasingly contributed significant revenues to universities successful in attracting them. Also, 'foreign students are considered as vital links to a country's trade relationships, as well as bringing direct economic benefits to institutions' (Jiang, 2008: 350). This can be seen by the contribution that has been made to the national income of Australia and Canada by attracting large populations of foreign students. Yang (2002) states that instead of the universal character of the university in advancing human understanding and knowledge, its contribution to economic growth has been increasingly cited as the dominant rationale for internationalization.

- *Academic:*

Different researchers argue that certain aspects of internationalization are reflective of the 'market orientation' (Jiang, 2008) in HE as there has been an increased focus on higher quality and accountability. This, the paper believes, has created the popular assumption that by enhancing the international dimension of teaching and research in HE, there is an improvement to the quality of higher education systems. This is evident at many university departments when advertising the quality of their research to prospective students. The statistics department at Warwick for example quotes that 'in the most recent national Research Assessment Exercise (RAE 2008), the Department had 70% of its activity rated as *internationally excellent* …with more than a quarter classed as *world leading*'.[143] Toyoshima (2007)'s findings agree with this as they reveal one main motivation amongst universities was recruiting the best students and staff

[143] http://www2.warwick.ac.uk/fac/sci/statistics

from all over the world, in order to become better known internationally as a world-class university, both in teaching and research.

- *Social/ Cultural:*

Recognizing and understanding factors related to diverse cultures and ethnicities between countries, is a strong motivation for the internationalization of a nation's education system. It is claimed also that 'the preparation of graduates who have a strong knowledge and skill base in intercultural relations and communications' (Jiang, 2008: 351) is a strong rationale for the internationalization of the undergraduate learning experience.

Ways the faculties at Warwick University adopt and convey global knowledge

Yang (2002) highlighted popular perspectives of internationalization that different institutions emphasize on such as: international contributions on curricula, literature in foreign languages, teacher and student exchanges, international studies, international educational exchanges cooperation, mobility of academic personnel, and foreign language education. Toyoshima (2007) also revealed how universities adopt an approach that considers internationalization in terms of the student population, the faculty and the curriculum. This means that universities bring international students into their taught and research programs, exchange their faculty members with universities across the world, and emphasize the international relevance of the curriculum.

These examples are similar to those that have been adopted at Warwick. The different ways global knowledge is conveyed by Warwick's faculties can be summarized into three main areas: Curriculum Structure, Exchanges/ Travel and International Staff/Students. The following is a summary of the main ways in which the departments examined claim to convey global knowledge to their undergraduates:

Faculty	Department	Curriculum Structure	Exchanges/ Travel	International Staff/ Students
Arts	**Classics & Ancient History**	Greek & Asian society modules, Italian joint degrees	Study tours with staff members	
	History	Global modules e.g. 'Making of the Modern World' in first year	Erasmus, North America, Venice Scheme	45%[144] of the academic staff at Warwick studied at a foreign university
	Theatre Studies	European modules e.g. 'European Street Theatre'		Teaching by visiting academics
Sciences	**Statistics**			One-third foreign student MORSE intake.
	Biological Sciences		Intercalated year programs abroad.	
	Chemistry		Exchange programs to Europe and Tasmania.	
Social Studies	**Economics**	Modules on international economic aspects	Erasmus, University of California	International visiting scholars
	Law	International and European law modules	University of Hong Kong or a European university	Over 50 nationalities in staff & students
	Politics & Intl Studies	Modules that study different areas of the world	Georgetown University, University of California, City University in Hong Kong	Students from around 40 countries

Table 9: A summary of the main ways in which the departments claimed to convey global knowledge to their undergraduates

From the above we can identify certain similarities between departments in the same faculties. These are useful in comparing the nature of internationalization across faculties and disciplines.

[144] The figure of 45% is not claimed by the History Department, it was calculated from the information given on History's Academic Staff web page: http://www2.warwick.ac.uk/fac/arts/history/people/staff_index

Below are key characteristics of global knowledge at the Arts, Sciences and Social Sciences faculties at Warwick.

- *Faculty of Arts:*

As the above grid shows, departments in the Arts Faculty convey global knowledge to undergraduates mainly through their curriculum structure. The Classics and Ancient History department consists of global and cultural modules such as 'Greek Culture and Society', 'Art and Architecture of Asia Minor', and 'Domestic Space in the Roman World'. The history department's students start their degree studying a broad, global module, i.e. 'Making of the Modern World' in first year and 'The European World 1500-1720' in the second year. The Theatre Studies department provides region-specific modules e.g. 'European Street Theatre' (Year 1). It also provides the study of global theatre through the modules 'Intercultural Theatre Practices' (Year 3) and the study of global identities and culture in theatre through the module 'Theatre and Ideology: Exilic Perspectives' (Year 3). Departments such as the Classics and Ancient History department also offer joint degrees such as 'Italian and Classics' with aspects of foreign language in the course[145].

In addition to a globally oriented curriculum structure, the Classics and Ancient History departments also offer study tours with members of staff for students taking modules in Art and Architecture of Asia Minor, and Domestic Space in the Roman World[146]. The History department has a well-established Venice Programme for students studying Italian on the Renaissance/Venice stream.[147] The students on this stream complete the first term of their final year in Venice, Italy. The department also offers exchange programs with North American universities and those in Europe, through the Erasmus programme.[148] Despite not claiming large foreign student numbers, the history department does claim to have a large proportion of its academic staff that has studied in a foreign university.[149]

[145] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/italian/rq38/
[146] http://www2.warwick.ac.uk/fac/arts/classics/admissions/
[147] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/international/veniceprogramme
[148] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/international
[149] http://www2.warwick.ac.uk/fac/arts/history/people/staff_index

- *Faculty of Sciences*

Overall, the departments of the Sciences Faculty seem to convey global knowledge to a lesser degree than the Arts and Social Studies faculties. The departments of Statistics, Biological Sciences and Chemistry make no claims of a globally oriented curriculum, except through the provision of language optional modules administered externally by Warwick's Language School.

Despite this, the Statistics department has a very diverse and international student body. This has been mainly by offering specialist and unique courses such as the MORSE degree with over one-third of its undergraduate intake being foreign[150]. The more scientific departments, Biological Sciences and Chemistry, have focused on intercalated year and exchange programs as a means of internationalizing their courses. The Biological Sciences department claims to have developed excellent links with industry in the UK and worldwide, where students can spend a year working as part of their course[151]. The Chemistry department offers students exchange programs at universities in Europe and Tasmania[152].

- *Faculty of Social Studies*

The Social Studies faculty seems to be more internationalized than the Arts and Sciences departments. Its departments convey global knowledge extensively through their curriculum structure, exchange/ travel programs and their international staff/student body. This as we shall discuss later may be as a result of the more social nature of disciplines within the department.

The Economics, Law and Politics & International Studies (PAIS) departments all have a wide range of modules covering European and international perspectives. The Economics department has undergraduate modules that cover international economic aspects such International Economics, Development Economics and International Macroeconomic Theory. The department also offers a joint degree in Economics, Politics and International Studies, which offers a challenging multi-disciplinary course in economics and politics at an international level[153]. The Law department has three year and four year LLB degrees that claim to convey global knowledge by the list of international and mostly European law options and half modules.

[150] http://www2.warwick.ac.uk/fac/sci/statistics/courses/morse
[151] http://www2.warwick.ac.uk/fac/sci/bio/ug/courses/intercal/
[152] http://www2.warwick.ac.uk/fac/sci/chemistry/ugstudy/placements/proexperience/
[153] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/economics/lld2/

The faculty also has vast opportunities for its students to study abroad. The Economics Department offers the ERASMUS and University of California programs that both allow students from the department to spend a year studying in Europe or California, respectively[154]. The '4-Year LLB with a year abroad in English' is a four-year law programme where students spend a year at the University of Hong Kong or a European university being taught in the English language[155]. For law students with a good knowledge of French, German or both languages and who want to combine an English law degree at Warwick with studying another European legal system, there are opportunities to spend an academic year abroad a European country[156]. The PAIS department sends at least one student every year to study in America at either Georgetown University or the University of California[157]. The department's students can also apply to spend part of their second year at the City University, Hong Kong[158].

Additionally, the faculty's departments also have a global representation in their student and staff populations. The PAIS department claims to attract students from around 40 countries giving it an essential mix of diversity, vitality, a broad range of opinion and valuable international expertise[159]. Many of its lecturers have worked in international institutions as well. The Law department claims that the student and staff body is drawn from over 50 countries worldwide and most lecturers on undergraduate courses have first-hand experience of teaching or practicing law in non-UK jurisdictions[160].

Are some faculties more global in nature than others?

From the above departmental claims, it is clear that even within the same university, internationalization and global knowledge have been adopted to different extents across disciplines and faculties.

The departments reviewed above of the Arts and Social Studies faculties at Warwick convey global knowledge to a greater extent than those of the Sciences faculty. From the previous grid,

[154] http://www2.warwick.ac.uk/fac/soc/economics/ug/admissions/socrates
[155] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/degrees/yearabroad/english/
[156] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/degrees/european_law/
[157] http://www2.warwick.ac.uk/fac/soc/pais/staff/mccrisken/georgetown
[158] http://www2.warwick.ac.uk/fac/soc/pais/currentstudents/cityu/
[159] http://www2.warwick.ac.uk/fac/soc/pais/prospectivestudents/
[160] http://www2.warwick.ac.uk/fac/soc/law/ug/

the Arts and Social Studies departments have conveyed global knowledge using their curriculum structure, exchange/travel programs and by attracting an international student body. This is reflected less by the Sciences department where only the intercalated and exchange year programs offer a global exposure to students. This may be as a result of the scientific nature of the Science faculty's discipline, which is viewed largely as universal and not relevant to location. However, another reason maybe a difference in philosophy as to what constitutes global knowledge. The Statistics department places a heavier emphasis on the provision of 'world leading' or 'internationally excellent'[161] research that can maintain its cutting edge as a globally leading institution. The concept of global knowledge may not be as directly applicable to Statistics as to the disciplines of Arts and Social Studies, but if we see global knowledge in terms of knowledge that is world leading or internationally excellent then the department makes a claim for this.

Summary

- The adoption of global knowledge in higher education is commonly termed as internationalization.
- Internationalization in higher education can be described as an interaction between cultures in teaching and research with an aim of achieving mutual understanding across cultural borders.
- Internationalization has been driven by globalization and its political, economic, academic and social/cultural elements.
- Global knowledge is conveyed at Warwick's departments using the main areas of curriculum structure, exchange/travel programs and international staff and students.
- There appears to be a difference between the extent to which Warwick's Arts, Social Studies and Science faculties convey global knowledge.
- These varying extents may be because of the differences in the disciplines and their departments' interpretation of what constitutes global knowledge.

[161] http://www2.warwick.ac.uk/fac/sci/statistics

3.5 Community engagement

Community engagement occurs when "students combine academic study with some sort of direct, practical involvement, usually with a community close to the university" (Bednarz at al, 2008: 87). Community engagement can occur in a variety of different ways which "appear to depend significantly and understandably on university, community, regional and national contexts and are related to varying economic, social and political agendas" (Bednarz et al, 2008: 88). Community engagement is claimed as a priority within Higher Education Institutions (HEIs) because it ,"…allows students more autonomy over their learning, allowing them to become active learners on a deeper level" (Waddington, 2001). Students involved in community engagement must, however, find the projects interesting and relevant to their course of study in order to find real value in the learning experience" (Bednarz et al, 2008: 87). This analysis will show how different departments at Warwick react to the different policy frameworks affecting them in order to choose the community engagement activities they feel will be most beneficial to their students.

The initial brief from Kings College London specified that we should consider both national and international community engagement. Another useful distinction to make is between economic and social features of the graduate capability as we discovered within the literature on community engagement in Higher Education. "Political rhetoric, while sometimes crass, reveals an agenda that increasingly demands of universities that they more clearly demonstrate their social, and especially economic worth" (Bond and Paterson, 2005: 332). Both distinctions help us classify different aims and objectives community engagement activities. University departments and faculties connect with communities locally, nationally and internationally for social and economic reasons. We have identified several communities which are important to departments at Warwick. These are academic communities (within departments themselves, within faculties, within the university, nationally and internationally); the local community (i.e. people living in Coventry, Leamington, Warwickshire, Staffordshire or the West Midlands); business communities or communities of practitioners (i.e. Chemical and Biological companies, theatres, NGOs , legal and medical professional and other relevant practitioners); the national Higher Education Community (in particular research-focused Russell Group universities) and International Communities (the world's top 100 universities, European universities and the European Union being the most important).

	National	International
Social	Local Community Academic Community Student Societies Local NGOs National HE community	International Academic Community International Student Community European Higher Education
Economic	Industry Practitioners Government economic policy University consultancy groups	International HE (competition) International Industry European Industry European Union World's top 100 universities

Table 10: Different forms of community engagement

Community engagement is defined on the Warwick website as "partnerships between universities and members of the public, schools and the wider community."[162]As emerges from the website, community engagement can have many different meanings and many different words are used to describe it: "There is no consensus on what this type of activity should be called, and what exactly terms such as 'community engagement', 'public engagement' or 'outreach' encompass."[163] Warwick, as a Russell group university has a clear identity as a research-focused university. Community engagement is also stated as a priority for this group. In 2003 the Russell Group universities developed a Higher Education Community Engagement Model (HECEM).[164] The model aims to "capture community activities which are conducted over and above the University's core purposes of teaching and research."[165] The model involves a survey of community engagement activities. This model was included in a conference on community engagement in 2005. A lecture by Professor William Peterman from the Institute of Advanced Studies at Bristol University was distributed as a flyer to advertise the conference. Professor Peterman said that "engagement is a process, not an activity or set of activities". Professor Peterman referred to a project that he undertook with the Chicago Housing Authority, saying that "This project was not something I did in addition to my university work. It was a part of my university work and it employed my research and scholarly skills" (Peterman, 2005: 3). The focus on community engagement being something that was part of the academic work of the

[162] http://www2.warwick.ac.uk/about/community/communityhub/
[163] http://www2.warwick.ac.uk/about/community/communityhub/
[164] http://www2.warwick.ac.uk/about/community/communityhub/model/userguide.pdf
[165] http://www2.warwick.ac.uk/about/community/communityhub/model/modelpack.pdf

university is important to the way in which this analysis will access discourses at the University of Warwick. This analysis will focus on community engagement in the undergraduate curriculum. One of the references to community engagement that Professor Peterman made was to the work of Ernst Boyer, which we also made reference to in the Research-led learning section. In his work, 'Scholarship Reconsidered: priorities of the Professoriate' Boyer made reference to "Application" being a key part of the range of skills that a scholar must have. Application of scholarship involves the scholar asking "How can knowledge be responsibly applied to consequential problems? How can it be helpful to individuals as well as institutions?" (Boyer, 1990: 22). This is one of the earliest descriptions of community engagement which we can find, and again shows the emphasis on incorporating interactions with the community into the Higher Education curriculum. The following literature review will provide the policy background to each of the four areas shown on the table above and then continue on to describe how Barbara Holland has created a matrix which can be used to measure levels of community engagement.

Literature Review

Community engagement is an interesting graduate capability because it appears inherent to the concept that it must occur within the locality of the university. Bond and Paterson write that as well as having a strong economic dimension, contemporary calls for greater university-community engagement also more frequently focus on the sub-national arena" (Bond and Paterson, 2005:334), which illustrates the view that community engagement activities occur at a local level. One of the most important reasons for this can be to ensure that those in the local area can benefit from the presence of a local Higher Education institution. Our analysis will also look for social community engagement which occurs within departments at the university, because community engagement can, and does occur within the curriculum for social as well as economic reasons. Cross-university organisations such as the Students' Union will be analysed elsewhere within our report. Community Engagement with local industry is important because "Higher education...(is)... increasingly seen as related to the economic requirements of the country" (Bond and Peterson, 2005: 333). Our reading showed that universities are part of a policy environment which requires them to appreciate the role they have in shaping the economy for years to come. This is especially clear in the Science faculty where the highest number of collaborations with industry, intercalated years in industry and engagements with practitioners

(apart from in the departments of Law[166] and Theatre Studies[167]) occur. Engagement with industry occurs on the regional level, reflecting a "shift in the policy environment... (and the)... emergence of the region as a critical space for the engagement between universities and their communities" (McNay, 2000: 123). Research intensive universities such as Warwick respond to policies which reflect the "devolution of political power to the regions (which) coincides with a growing emphasis on 'learning regions' or 'high-skills regions' as critical spaces in the creation of new knowledge, skills and wealth" (McNay, 2000:130). community engagement within a region can result from policies focused on boosting regional economies Bednarz writes that placements which are part of undergraduate courses can be seen as community engagement ("Placements involve the student in learning through working in an appropriate organization, usually external to the university, but within a reasonably accessible distance" (Bednarz et al, 2008: 96)).

Community Engagement has been seen as a process which lends itself to new agendas about student progression through school and into Higher Education in Science, Technology, Engineering and Mathematics. The STEM Programme Report,[168] published in 2006, by the Department of Children, Schools and Families (DCSF), aimed to show that more support was needed to encourage young people into Science, Technology, Engineering and Mathematics courses after 16 and into Higher Education. This is another piece of recent legislation which shows the importance of students engaging with communities of practitioners for economic reasons. Universities such as Warwick can help "increase the flow of STEM qualified people into the workforce"[169], by encouraging students to take up opportunities with STEM practitioners.

The Sainsbury Review[170] which states that global economic competition is a real and pressing danger for the UK and has key implications for the role of universities:"The role of Higher Education Institutions (HEIs) in the knowledge economy: HEIs play an increasing role in the economy and the UK, with its world-class universities, is well placed. A diversity of excellence is required, with research universities focusing on curiosity-driven research, teaching and

[166] http://www2.warwick.ac.uk/fac/soc/law/
[167] http://www2.warwick.ac.uk/fac/arts/theatre_s/
[168] http://www.dcsf.gov.uk/hegateway/uploads/STEM%20Programme%20Report.pdf
[169] http://www.dcsf.gov.uk/hegateway/uploads/STEM%20Programme%20Report.pdf
[170] http://webarchive.nationalarchives.gov.uk/ and http://hmtreasury.gov.uk/d/sainsbury_review051007.pdf

knowledge transfer, and business-facing universities focusing on the equally important economic mission of professional teaching, user-driven research and problem-solving with local and regional companies."[171]

The report highlights the importance of training professionals for the UK economy and the role that universities have both in doing so, and in providing an environment in which innovation can flourish. It also however divides universities which face industry from those whose main focus is research. The Russell Group made a response to this claim on their website, saying that universities can be both research-focused and engage with industry in their following statement:
"We understand the reasons for making a distinction in the report between 'business-facing' and world-class, research-intensive universities, but we do want to emphasise the scale and quality of the interaction between research-intensive universities and business – including SMEs[i]. The HE-BCI survey clearly shows that 79% of HEIs whose contract research with SMEs was worth over £1M in 2003-4 were Russell Group institutions.

Russell Group universities are at the forefront of interactions with business across a diverse range of indicators. We believe that it is in the interests of achieving the goals of Sainsbury Review that excellence in knowledge transfer and interaction between universities and business should be supported wherever it is found"[172].

The above statement made by the Russell Group appears to show that Russell Group universities feel that they can provide within themselves the "diversity" of approaches required for engagements with research and industry. This suggests that a university such as Warwick will have to engage in a number of different communities through a range of different activities.

Academic communities and the norms set within them are clearly important to universities: "universities, it is said, remain dominated by academics whose principal professional loyalty is to their national and international peers" (Goddard, 1999 cited Bond and Paterson, 2005:334)". We can also see evidence of the importance of international academic communities in the undergraduate curriculum at Warwick. At the undergraduate level international social and

[171] http://webarchive.nationalarchives.gov.uk/ and http://hmtreasury.gov.uk/d/sainsbury_review051007.pdf
[172] http://www.russellgroup.ac.uk/policy-statements.html

academic connections are made through exchange schemes as well as through student societies. Exchange programmes at universities are seen as a way to set international norms, most notably the Erasmus programme which is open to students from different disciplines. McNay writes that it is "the European Community's best known initiative for higher education cooperation, the Erasmus programme, is widely taken as a demonstration of the best of the *communitaire*" (McNay, 2000: 134). All the departments analysed in this study claimed to provide a variety of opportunities for students to study abroad. It will be important to find out in the evaluation process exactly how accessible those opportunities are, and if students felt after them that they were members of an international community.

Another important international scheme involving undergraduates is the International Association for the Exchange of Students for Technical Experience (IAESTE)[173]. This organisation offers students the opportunity to take part in placements in other European countries. Engagements which involve the gaining of global knowledge are often made in order to establish universities in a way which improves their global branding or strengthens the UK economy. This is discussed in more detail in our section on Global Knowledge.

The following analysis will also use the table shown below devised by Barbara Holland (Holland, 1997:35). This table will allow us to classify the extent to which Warwick can be shown to engage with communities. Holland used this matrix to create a system in which engagement could be classified in levels from level 1: *"We would* provide service to the community, if we had additional time and resources, but it is not specifically encouraged or rewarded" (Holland, 1997:36) to level 4: "We ask the community to be our partner in setting and conducting our scholarly service agenda. We invest in service-learning within the curricular experience of students, and have support and reward structures for faculty and students who engage in community-university partnerships" (Holland, 1997: 37).

[173] http://www2.warwick.ac.uk/fac/sci/chemistry/ugstudy/erasmus/

	Level One: **Low Relevance**	Level Two: **Medium Relevance**	Level Three: **High Relevance**	Level Four: **Full Integration**
Mission	Not mentioned or undefined rhetorical reference	Service is part of what we do as citizens	Service is an element of our academic agenda	Service is a central and defining characteristic
Promotion, Tenure and Hiring	Service to campus committees or to Discipline	Community Service mentioned; may count in certain cases	Formal guidelines for documenting and rewarding community service	Community-based research and teaching are key criteria for hiring and rewards
Organization Structure	None focused on service or volunteerism	Units may exist to foster volunteerism	Centers and institutes are organized to provide service	Flexible unit(s) support widespread faculty and student participation
Student Involvement	Part of extracurricular student activities	Organized support for volunteer work	Opportunity for extra credit, internships, and practical experiences	Service-learning courses integrated in curriculum; student involvement in community based research
Faculty Involvement	Campus duties; committees; disciplinary focus	Pro bono consulting; community volunteerism	Tenured/senior faculty pursue community-based research; some teach service-learning courses	Community research and service-learning a high priority; interdisciplinary and collaborative work
Community Involvement	Random or limited individual or group involvement	Community representation on advisory boards for departments or schools	Community influences campus through active partnership or part-time teaching	Community involved in designing, conducting and evaluating research and service-learning
Campus Publications	Not an emphasis	Stories of student volunteerism or alumni as good citizens	Emphasis on economic impact, links between community and campus centres/ institutes	Community connection as central element; fundraising has community service as a focus

Table 11: Levels of Commitment to Service Characterized by Key Organizational Factors Evidencing Relevance to Institutional Mission (From Holland, B. 1997)

The analysis in this report on community engagement will be based on an analysis of data that can be seen as corresponding with Holland's fourth category "Student involvement" (because we are analysing the experiences of undergraduates) and final category – "Campus Publications" (because we are analysing websites which are used to promote the university). We will analyse which level on the matrix to the discourse analysis found on websites corresponds to. This analysis will not expect Warwick to operate at Level 4 of "Full Integration" because it is primarily a research institution. One assumption behind this is that research activity involving community engagement is not rewarded as highly as other kinds of research. Another assumption may be that research activity which is international and assumed to be more applicable universally may be held in higher regard than research activity involving the local community. What may follow from this is that universities aiming to achieve an international reputation for research may be unlikely to focus on research in their local area. This is an area which requires further investigation. Holland writes that "the intent is solely to provide a framework that may be useful to an institution in comparing where it ideally seeks to be positioned on the matrix and its assessment of its current location, all in the service of coherent institutional planning and decision-making" (Holland, 1997: 37). If we are to adopt Holland's matrix then we might argue for the reasons stated above that a research university such as Warwick should not wish to be level 4 on Holland's scale of community engagement because that might not be consistent with the institution's aims. It appears to be the case that community engagement is a graduate capability which individuals at a university may be less eager to adopt than others we have investigated. Professor William Peterman said in the Benjamin Meaker lecture at Bristol University, a UK research university and a member of the Russell Group, "that I personally believe that level four in the matrix, 'Full Integration', is not something to which a research university like the University of Bristol can or should aspire. The changes that would be needed to achieve level four are so great so as to fully change the character of the University if implemented. This is something that I suspect very few of us would support" (Peterman, 2005:10). It is important, then to investigate whether community engagement as a whole is seen as inconsistent with the aims of a research institution, ore just community engagement on a local or national level, in favour of international engagement activities. The nine departments we have analysed will be discussed below by faculty using the table we have devised to classify communities and Holland's matrix which classifies the extent of Community Engagement activities.

Science (Biological Sciences, Chemistry, Statistics) Industry

	National	International
Social	• Students societies: Atomic (Chemistry), BioSoc, MORSE society) • Department academics • Science faculty academics • Vacation research at Warwick	• Student Associates Scheme (SAS) • Erasmus/Socrates exchange programme
Economic	• Five Chemistry Research clusters • Three Statistics Research groups • Thirteen Biological Sciences Research groups • Science, Technology, Engineering and Maths (STEM) initiative • Royal Society of Chemists • Intercalated year work placements	• Intercalated years abroad in industry (IASTE programme)

Table 12: The Empirical Table for Natural Science

One of the key aims of Community Engagement within Higher Education is the forging of relationships with industry to prove that universities add value to the national economy. The focus on the importance of proving the university's economic worth is most visible within the Science faculty. The suggestion that "Overall scientists do tend to be somewhat more likely to value economic objectives" (Bond and Paterson, 2005:343) is reflected in the focus on intercalated years, research skills for industry or university research and graduate employment across this faculty. The claim that "scientists are significantly more likely to believe in the importance of developing consultancy links with business and industry" (Bond and Paterson, 2005:343) is supported by the range of consultancy groups within the science faculty, including 'RISCU' from Statistics, which has collaborated with the Physics and Chemistry departments. These groups appear to perceive Community Engagement as "Highly Relevant" to their activities. Unfortunately groups that engage with local industry through a consultation process do not appear to encourage undergraduates to become involved with the work that they do. These activities do not appear (from what we gain from the website) do not appear to directly involve undergraduates so it would be interesting to investigate further what relevance they have to the

undergraduate experience. The Academic Community at Warwick clearly engages with the local and national economy, as Higher Education policy suggests that it should, but it appears that undergraduates have a limited role in this kind of interaction.

Engagement with industry nationally (for undergraduates) does not occur within University consultancy groups, but in other ways. The Science faculty organises the most intercalated years in Industry, which are a prime example of the link between industry and Higher Education benefiting undergraduates. Community engagement holds " Medium Relevance" (Holland, 1997: 36) where these activities occur according to the matrix, because students gain from a practical experience. The Chemistry department has a range of opportunities for its undergraduates (the companies AstraZeneca, GlaxoSmithKline, Pfizer, Azko Nobel, Infineum and Johnson Matthey are listed on its website)[174] and so do the Statistics and Biological Sciences departments. Students who do not have the opportunity to take part in a year in industry are given opportunities to meet Medical, Chemical and Pharmaceutical practitioners within the curriculum.[175] The Biology department offers competitive opportunities for 20-30 students to do intercalated year placements[176] at companies such as Astra-Zeneca, GSK, GE Healthcare, Pfizer, Novartis, Jannsen-Cilag, Abbot, Improvision, Advanced Technologies Cambridge and many others. It is interesting that both departments are offering opportunities for the same companies. Although these opportunities involve community engagement of "High Relevance" (Holland, 1997: 36), they are only open to a small percentage of students. Undergraduate curricula within the Science faculty also put great emphasis on research skills as a key feature of graduate employability and progression both in academia and in industry. 4 year degrees which are available across the faculty give students greater opportunities to engage with research groups within the university, practitioners and national industry in order to increase their employability. This shows that community engagement is considered more important for those students who will spend an extra year at university and gain further research skills in the fourth year. MORSE students are told, however, that they will receive 'no help'[177] finding a job from the department and are directed towards the Careers Centre. It is interesting to see that even though policy frameworks such as STEM apply to Statistics as much as they do to Chemistry or Biological

[174] http://www2.warwick.ac.uk/fac/sci/chemistry/ugstudy/placements/
[175] http://www2.warwick.ac.uk/fac/sci/bio/ug/courses/intercal/
[176] http://www2.warwick.ac.uk/fac/sci/bio/ug/courses/intercal/
[177] http://ww2.warwick.ac.uk/fac/sci/statitics/courses/handbooks/morse_08-09.pdf

Sciences, this department does not provide any assistance helping students to find a career, and also that the Biology and Chemistry departments are offering opportunities with the same companies. This may be because the Chemistry and Biology department have established these links together, and as Natural Science departments feel that these links to industry are important for undergraduates. On the other hand it might be that the companies who are most invested in the STEM programme are most interested in the Biology and Chemistry disciplines. Astra-Zeneca, for example, is listed in the acknowledgments of the STEM programme report[178] and offers placements in both the Chemistry and Biology departments. Clearly community engagement with industry is of "High relevance" (Holland, 1997: 36) to these 2 disciplines. It is interesting to see the direct connection that can be made between policy and industry aims and Community Engagement experiences of undergraduates.

Engagement with the international community is also an obvious priority within the Science faculty. However, undergraduate curricula appear to show a different aim to engagements at this level. International links are primarily academic. Science faculty departments give students the opportunity to take part in the Erasmus/ Socrates scheme. Science undergraduates are given opportunities, under this scheme, to study at European universities. The Chemistry department also gives undergraduates the opportunity to spend a year in a university in Tasmania, Australia. These opportunities show Community Engagement to be highly relevant but are only available to the minority of the student population. Arguably, the aim of the Erasmus scheme is social as well as economic - "young people increasingly see themselves as European citizens; universities have roles as transmitters and interpreters of cultural values" (McNay , 2000: 145). The literature on community engagement appears to suggest that study abroad schemes enable students to see themselves as a member of international communities. It is clear that at higher levels of the university, academics are keen to take advantage of developments abroad[179]. The community of international academics within Warwick science departments who establish links with academics internationally allows undergraduates (even if they are not able to go on exchanges) the ability to take advantage of global knowledge. Students are able to engage with an international

[178] http://www.dcsf.gov.uk/hegateway/uploads/STEM%20Programme%20Report.pdf

[179] An example of this is Bruker, the local chemical company which is involved in a collaboration with academics from the Chemistry department at Warwick in order to develop "applications and fundamental instrument technology in the area of extreme resolution mas spectrometry" (http://www2.warwick.ac.uk/newsandevents/pressreleases/bruker_and_the/ ; accessed 15/11/09) In this case an academic who is an expert in the field has come to Warwick from the US,

community within science departments and within the Science faculty (especially within collaborations between the Biological Sciences and Chemistry departments).[180] Outside of the curriculum (but of note because it is recommended by the Statistics department), the Student Associates Scheme[181], which allows Warwick students to teach Maths in Johannesburg and surrounding townships, also allows for engagement with a community on an international scale. This is an interesting opportunity because it is geographically different from other international opportunities which are mostly European or North American. This is also an interesting opportunity to consider because instead of gaining knowledge, students are imparting it, which makes the Student Associates Scheme different from any exchange opportunity. This might suggest that international opportunities we might broadly describe as Western are most likely to involve students benefiting from their environment; whilst the Student Associates Scheme, in part, seems to show the department establishing a connection to a community who they feel will benefit from the presence of Warwick students. However, this may not be the case, because it appears that the aim of this experience appears is to encourage Statistics students to pursue teaching as a career. This non-Western international experience is not only not academic in terms of giving the students a learning experience, but it is also a career-building experience, rather than one which will give students a wider academic knowledge base. Holland would classify this as "Medium Relevance" (Level 2) community engagement (Holland, 1997:36) – the department supports the activity, but does not integrate it into the curriculum. Opportunities such as intercalated years organised by departments themselves and encouragement to become involved in the Student Associates Scheme appear to show that the Statistics department sees itself as providing more of a professional than an academic education. This is because four year students who are seen as those most likely to go into research careers have more opportunities to engage with industry and research communities within the university, as we will discuss below.

The MORSE society (for students of Mathematics, Operational Research, Statistics and Economics (MORSE)), the Chemistry Society ("Atomic") and "BioSoc", the Biology society, all provide opportunities for students to network. Atomic is not mentioned on the Chemistry department web space, but does have a site attached to the Student's Union website.[182ii]

[180] http://www2.warwick.ac.uk/fac/sci/bio/ug/courses/biochem/
[181] http://www2.warwick.ac.uk/fac/soc/wie/sas/
[182] http://www.warwicksu.com/societies/atomic/

"BioSoc" also has its own page on the Student's Union website,[183] which links to a group[184] on the "Facebook" social networking site. These two societies provide opportunities for students to socialise with each other. The MORSE society has its own website[185] on the University website with details about social and career-focused events.[186] These societies are very different from those in the Social Studies departments which focus on discussions and talk- based events with guest speakers. It would be interesting to investigate whether this shows that there is more of a careers-focused, networking approach to social networking among students in the Science faculty and more of an academic focus within the Social Studies faculty. Further research would be required to fully establish this conclusion. These societies interestingly show very few examples of engaging with other communities, perhaps because of the wealth of opportunities within the Science faculty.

Science faculty

Perhaps the most interesting part of the Science faculty's community engagement was the opportunities within the Biology and Chemistry departments for students to engage with the research community in the department. The Biology department presented information about vacation research projects[187], and the Chemistry department presented information about research projects[188] in the final year of the 4 year MChem degree. The final year research project in Chemistry, which counts towards 50 % of the year involves "training the student in the latest research methods using advanced instrumentation"[189]. This shows Community Engagement to be of "High Relevance" because it involves students engaging practically with academics. It is interesting that engagement across the year group only occurs in the fourth year where all students are identified as potential researchers. The claims made about undergraduate research within the Science faculty appeared to show that these departments aim to create professional researchers which is why they introduce their undergraduates to the latest "methods" and "instrumentation". It appears that these departments within the Science faculty are actively encouraging undergraduates towards research as a career. This impression was reinforced by the claim made by the Statistics department in the MORSE handbook that a course aim is to

[183] http://www.warwicksu.com/societies/biosoc/
[184] http://www.facebook.com/group.php?gid=19134876504
[185] http://www2.warwick.ac.uk/sunion/morse
[186] http://www2.warwick.ac.uk/sunion/morse/events/
[187] http://www2.warwick.ac.uk/fac/sci/bio/ug/research
[188] http://www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/chemistry/
[189] http://www2.warwick.ac.uk/fac/sci/chemistry/prospective/undergrad/chemistry/

"produce high quality graduates who are well prepared for the next step of their professional lives... research training or moving directly into a career."[190] The Statistics, Chemistry and Biology departments' web pages appear to show that they are preparing their undergraduates to engage the research community. This occurs where departments encourage students to engage in research projects during their final years or through intercalated years. It is possible that such opportunities exist because of government initiatives such as STEM which demonstrate the policy objective to train more scientists of all kinds so that their academic skills can be used professionally for economic reasons, as mentioned in the Sainsbury Review.

Arts Faculty

The Arts faculty appeared to show the most evidence of engagement with the local community. Perhaps this is because there is a longstanding tradition of engagement at the national or local social community level within these subject areas. It is important to note that this engagement actually occurs within the Theatre Studies and History departments. The History, Classics and Theatre Studies departments benefit from the local community in a way that the other faculties might not. Classics students were able to write testimonials about Iron Age findings on University land. On Holland's matrix this is a highly relevant Community Engagement activity because students are involved in a practical experience. The department appears to be willing to promote a range of opportunities for undergraduates to engage with the academic community that supports knowledge in an institution such as the British Museum.[191] Although three research groups in the History department engage with the local community ("Medical History, Immersive Museum Theatre, and 'The Last Women'", "The Coventry and Warwickshire Hospital Project" and "Coventry Education Business Partnership Centre for Health and Social care"),[192] there is no evidence from the website that undergraduates are able to engage in these projects. This is interesting because it suggests that this may be an area where undergraduates do not have the necessary skills to participate. It shows that Community Engagement is highly relevant to research and it will be interesting to find out at a later stage why undergraduates are excluded both from the Community Engagement and Research activities. The History department may, however, assume that undergraduates have enough opportunities to engage with the local community through the 'Student's Union' and 'Warwick Volunteers'. The department

[190] http://www2.warwick.ac.uk/fac/sci/statistics/courses/handbooks/morse_08-09.pdf
[191] http://www2.warwick.ac.uk/fac/arts/classics/admissions/
[192] http://www2.warwick.ac.uk/fac/arts/history/chm/outreach/

does not provide links to such activities, however which might show that they have "Low Relevance" to the undergraduate curriculum. The fact that details of this kind of activity are missing from the website may imply that the department does not consider it important. Students in the History department are able to engage with their own student community through the 'Group Project'[193] which is completed in the first year. This opportunity allows students to work together. Students are also given a voice in the academic community through the Student Staff Liaison Committee (SSLC).

Practitioners are extremely important to departments within the Arts Faculty. The Theatre Studies department, for example, is able to support courses like "Staging Shakespeare"[194], because it has access to performances by the Royal Shakespeare Company (RSC)[195] and is in geographical proximity to Stratford upon Avon. This is extremely important because it gives undergraduates the opportunity to work with practitioners related to their subject area. These opportunities show that community engagement is of "High Relevance" to the subject area. The Classics department is able to engage with practitioners, for example by arranging trips to the British Museum[196]. A webpage for prospective undergraduates included a testimonial where a student claimed to have found 'evidence of Iron Age settlement.'[197]The same student wrote that trips organised within the department were 'of relevance and importance'[198], implying that the department wishes to show that learning by engaging with the subject outside of the university is valued. Perhaps the difficulty in analysing testimonials from the department's most successful students is that opportunities they experience may not be available to all. Further research is required to discover whether community engagement may be highly relevant to the experience of a few students but less relevant to the experiences of the majority. The Theatre Studies department provided the only example of "Full Integration" of Community Engagement into the curriculum. The "Community Theatre"[199] course which engages with the local community has as one of its assessment criteria that students should be able to "identify and discuss the theoretical and practical strategies that are currently in evidence within contemporary community theatre practice". This course reaches level 4 on Holland's matrix because it shows "service-learning

[193] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/modules/hi153/group_project/
[194] http://www2.warwick.ac.uk/fac/arts/theare_s/ug/intro/year_three/staging_shakespeare/
[195] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_three/staging_shakespeare/schedule/
[196] http://www2.warwick.ac.uk/fac/arts/classics/admissions/
[197] http://www2.warwick.ac.uk/fac/arts/classics/admissions/
[198] http://www2.warwick.ac.uk/fac/arts/classics/admissions/
[199] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/intro/year_two/community_theatre/

integrated" into the curriculum. This is interesting because a claim is made that in this course and department community engagement is seen as a useful tool for the teaching and learning process. Further investigation is needed to understand what this may mean in the context of a UK university and Warwick and particular, and how this use of community engagement may or not contribute to a research – rich learning environment. The Classics and Theatre Studies departments are clearly aware of instances where practitioners are engaging with the subject areas and how undergraduate students can be involved in a way which can be incorporated into the curriculum and even assessed. This faculty does not appear to have the same amount of policy surrounding its engagements with industry, but the subject areas appear to lend themselves to Community Engagement in a way which results in "High Relevance" and even "Full Integration" even within the undergraduate curriculum of a research-focused university such as Warwick.

	National	**International**
Social	• Visits to the British Museum/ Roman forts • Archaeological Digs near the university • Classical Society theatre trips and socials • History Society • Theatre Studies 'Community Theatre' Module (Year 2)	• British Summer school in Rome • Optional field trips • Erasmus/Socrates programme • History's Venice Programme • History's North America Programme
Economic	• Testimonials about successful Alumni and their careers • Theatre Studies 'Aspects of Practice' Module (Year 1) and 'Staging Shakespeare' (Year 3) – access to practitioners and their work	• Erasmus/Socrates

Table 13: Empirical Table for the Arts Faculty

History and Classics among the arts faculty give undergraduates a broad range of opportunities to study abroad. History opportunities are mostly European or North American[200] and Classics opportunities are mostly European, for example at the British Summer School in Rome.[201] The

[200] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/international/
[201] http://www2.warwick.ac.uk/fac/arts/classics/students/

Venice Programme[202] in the History department gives students the opportunity of studying Italian and History (taught by Warwick academics alongside Italian students), in Venice. These are opportunities which show Community Engagement to be of "High Relevance" because they involve students in practical opportunities. This might suggest that the department values language skills and opportunities for Warwick students to communicate with Italian students using those language skills. Further research is required to fully establish that conclusion. Academic Communities are very strong within departments and clearly see the benefit of international scholarship. As in the Science faculty the gaining of international social links, often for the sharing of knowledge, was seen as important. This was shown by the range of opportunities to study abroad in the Classics and History departments. Opportunities to study abroad in the Theatre Studies department were not advertised on the departmental web pages. The History and Classics department advertised a range of international opportunities. The Theatre Studies department website made a great effort to convince readers that it was part of the Arts/Humanities community. The History and Classics departments showed that languages were an important part of learning Humanities. Modern languages are compulsory for History students ("Modern languages play an important role in the degree")[203] and Classics students must take Greek or Latin[204]. This may allow students to communicate with other communities, but further investigation should be made as to whether the learning of these languages is purely for academic rather than engagement purposes as is suspected.

Social Studies (Politics, Economics, Law) – Global

The international social community was very important in the Social Studies faculty. This can be seen in the Student Community in the faculty which is strong and cosmopolitan. Subject area societies, such as the Economics Society/Summit[205], the Law Society[206] and the Politics Society[207] are strong and active. It is important to note that these societies are run independently from departments. Holland's matrix would classify these activities as low relevance because they are extracurricular. The sense of community among Social Studies students is even stronger because of the presence and strong identity of the joint degree programmes run within the Social

[202] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/international/veniceprogramme
[203] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/history/
[204] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/classics/
[205] http://www.warwickeconomicssummit.co.uk/
[206] http://www.warwicklawsociety.com/
[207] http://www2.warwick.ac.uk/fac/soc/pais/ss/polsoc/

Studies faculty (i.e. PPE, Economics and PAIS, Politics and Sociology, Law and Sociology). The Law and Economics Societies are well funded and well established. The Law Society produces its own magazine, organises mooting competitions and facilitates pro bono work for undergraduates, the Economics Society runs a weekend-long annual Summit and the Politics Society produces a magazine also. It would be interesting to investigate whether departments have more influence over societies than the websites suggest and whether students feel these societies contribute a great deal to their undergraduate experience.

	National	**International**
Social	• Economics Society • SSLCs in all departments • Link to 'voluntary work'/ NGOs –(PAIS) • Twitter (social networking website) • Politics Society • Law Society	• (PAIS) University of California/ Georgetown opportunities • (PAIS) City University Hong Kong exchange • Erasmus/Socrates in all departments
Economic	• NGOs – PAIS work experience • Law Society 'pro bono' work	

Table 14: The Empirical Table for Social Studies

International social links are also formed through exchange programmes. These opportunities are highly relevant for the few people who have the opportunity to take them, but less relevant for the majority of undergraduates. Students have opportunities to study abroad in a different language or in English in all departments. Economics and Politics opportunities are largely through Erasmus and the University of California Education Abroad Programme,[208] and the Law department has other established European exchanges[209] which students complete in English. The Law department also offers courses in European Law.[210] As part of this degree programme undergraduates learn French, German or both and then go on to study at a year abroad in either country or both, in some cases completing a dissertation. This programme is completed through the Socrates programme and Warwick law school has established links with 2 French

[208] http://www.eap.ucop.edu/
[209] http://www2.warwick.ac.uk/fac/soc/law/ug/current/studyabroad/yai/
[210] http://www2.warwick.ac.uk/study/undergraduate/courses/depta2z/law/m125/

universities (Lille II and Bordeaux IV) and 3 German universities (Giessen, Konstanz and Saarbrücken). It is important to note that overall, opportunities for exchanges are extremely limited for undergraduates. There were few details about the actual number of exchange opportunities available. Testimonials from students who had participated in these exchange programmes suggested that they were positive experiences and gave a global perspective. One student from PAIS described an exchange to City University Hong Kong as "visiting Asia's world city"[211], which suggests that the department wishes to portray these as opportunities which give students a global experience rather than simply an opportunity to experience another local culture. This is a high relevance Community Engagement experience because students have the opportunity to engage with another community in a practical way. There was very little space dedicated to local as opposed to international opportunities. Information on the PAIS[212] website about local volunteer work was outdated (2005), suggesting perhaps that local community is considered less valuable than international communities. Although the Economics website said that there were links between the department and nine European universities as well as two places at the University of California, the website did not give information about the exact number of exchange opportunities. This is true of most departments we investigated and suggests that this is of low relevance to most students. Although a great deal of space is dedicated to exchange opportunities on Social Studies department websites they are very distant from the undergraduate experiences of most of its students. The amount of space dedicated to international opportunities does not reflect the quantity of those opportunities, but it does appear to reflect how internationally focused the departments in the Social Studies faculty are. This international focus appears to have brought them some success as the only faculty at Warwick ranked in the top 50 faculties of its kind in the Times Top 50 Social Sciences faculties in the world.[213]

The Academic Community

The key way in which students communicate with the academic community is through the Student Staff Liaison Committee, or SSLC. In PAIS the SSLC is described as "for students and staff to meet and discuss matters relating to studying in our department. These include assessment and examinations, curriculum and teaching, student support, the library, IT and E-

[211] http://www2.warwick.ac.uk/fac/soc/pais/currentstudents/cityu/
[212] http://www2.warwick.ac.uk/fac/soc/pais/currentstudents/
[213] http://www.timeshighereducation.co.uk/hybrid.asp?typeCode=425

learning provisions, Academic resources, Careers provision and all other things related to the department"[214]. The mention of "careers provision" is interesting because careers are mentioned less often in the Social Studies departments than in the Sciences. The SSLC in the PAIS department appears to have the power to change a great deal in the department, but evidence of this is not provided. The Law department SSLC, however, does provide evidence of its achievements, in the form of a form[215] describing the way that the Law SSLC proposed a change to the way the 3 day loan system in the Library was applied to books used by Law undergraduates. The Economics department web site includes a page on the Economics SSLC, and tells its current students "Your opinions are valued and carefully considered, so voice them!"[216]. The SSLC is clearly seen by some as a way to bring together staff and student communities and in the Social Studies departments' web space is dedicated to promoting these committees. It is difficult, however, to conclude how relevant the SSLC is from department web sites alone. We have dedicated another section to the SSLC and it would be interesting to evaluate student perceptions of the SSLC system. The Economics page on the SSLC suggests that the undergraduate student community is valued and their input is welcomed by departments. The Economics web page which shows SSLC membership from previous years[217] shows that although all degree courses are represented sometimes only one person from each year of a degree course is an SSLC member, which raises questions about the extent to which this representative system allows the views of all students to be heard.

The Law department is the most vocal in praising its international student body - "international nature of the School is reflected in the cosmopolitan nature of the student body"[218]. It is the only department which tells visitors to the site how many countries its students and staff come from - "The student and staff body is drawn from over 50 countries worldwide"[219], which suggests that the department feels that the diversity within the staff and student body is something which it should promote. It would be interesting to investigate how integrated UK and international students feel in this department, given that it claims to value the cosmopolitan nature of its student body, and whether they felt more or less integrated than other departments. The Law

[214] http://www2.warwick.ac.uk/fac/soc/pais/currentstudents/sslc
[215] http://www2.warwick.ac.uk/fac/soc/law/ug/current/3-day_loan_book_consultn-2008-05_3.doc
[216] http://www2.warwick.ac.uk/fac/soc/economics/ug/sslc
[217] http://www2.warwick.ac.uk/fac/soc/economics/ug/sslc/previous_sslc/
[218] http://www2.warwick.ac.uk/fac/soc/law/about/
[219] http://www2.warwick.ac.uk/fac/soc/law/ug/

Society[220], which brings together the "student population of 750 (550 of them undergraduates)"[221], gives students the opportunity to write articles related to their discipline in the society magazine "Obiter dicta"[222], take part in "mooting" competitions[223], and get involved with the local community by working "pro bono"[224]. These activities are of "low relevance" to the undergraduate experience in these departments according to Holland, however, because they are extracurricular. The Politics and Economics departments, unlike the Law department are given space on their department websites. This Politics society web page [225] shows students ways they can get involved with the Politics Society which involve writing for the magazine, attending meetings to catch up on the week's news called "L7D" (Last Seven Days) and attending lectures by visiting speakers. The Economics Society is also very active within the student community and its main focus is an annual event called "Warwick Economics Summit" which has its own dedicated webpage[226]. The Student community is obviously very active in the Social Studies departments at Warwick, but they do not appear to be linked to departments and websites do not show exactly how many students from the department are involved in them.

Conclusion

Discourse analysis of the departments' web pages appears to show that the most important communities undergraduates engage with are national practitioners and industry and international social communities. National social communities are given little mention by the Science and Social Studies faculties. Opportunities to engage with the local community (i.e. within Coventry) appear to be rare within the undergraduate curriculum, possibly because of administrative difficulties or because supervision of these activities is seen as the role of the Student's Union[227]. This is surprising, given the limited availability of international exchange opportunities and industrial placements which are publicised more. We might expect that the opportunities which are actually available to all students might be those which are most widely publicised. Departments appear to be more focused on promoting the international rather than national or local engagements that they make with communities except in the case of the Arts

[220] http://www.warwicklawsociety.com/
[221] http://www2.warwick.ac.uk/fac/soc/law/about/
[222] http://www.warwicklawsociety.com/obiterdicta.php
[223] http://www.warwicklawsociety.com/mooting.php
[224] http://www.warwicklawsociety.com/probono.php
[225] http://www2.warwick.ac.uk/fac/soc/pais/ss/polsoc/
[226] http://www.warwickeconomicssummit.co.uk/
[227] http://www.warwicksu.com/

faculty. The subject area of the department and the conventions within the dominant academic communities within the field appear to affect the types of engagement which occur within societies. The exception to this seems to be when local engagements are made for economic reasons or as part of schemes for widening participation or increasing the amount of Science students. Here the role of Higher Education policy in influencing community engagement activities at Warwick can clearly be seen. Interestingly, literature on community engagement suggests that international work (especially research) is more respected than work on a national or sub-national level which might explain why departments are keen to emphasise international links. The faculty which is most highly respected internationally (Social Sciences) is the department which is most involved in international community engagements. The most important research results that we found were:

1. *The divide between the economic and the social communities that the university engages with:*

The disagreement between the Sainsbury Review which divided business-facing and research-focused universities epitomises this research result. It was clear that these two very different roles were going to require very different approaches. Student engagement with industry was on a more regional or national level, whilst student engagement with different academic or research environments most widely publicised as being international in the Social Sciences and Arts faculty. In both cases community engagement appeared to be highly relevant for the few who gain industrial placement or international exchange opportunities, but of low relevance for the majority.

2. *The divide between professional and the academic disciplines in the department:*

Departments appeared to have clear identities which could be seen through the communities they chose to engage with. Science departments appear to engage heavily with industry within the curriculum, showing us that there was a clear professional focus to the education the Science faculty wishes to give its undergraduates. It appears that this faculty appears to give students the impression that research is a profession. Vacation research projects, 4 year degree courses which give greater opportunities for research and well established intercalated years as well as certification for Chemistry students presented an image of a faculty which saw its undergraduates as on a path towards a professional career. This led to discourse showing

engagement between undergraduates and academics as highly relevant. A focus on professionalism was not found only within the Science faculty, however. The Theatre Studies and Law departments both allowed students to engage with communities in a way which showed their undergraduates were gaining a professional qualification. The wealth of opportunities for students in those departments, advertised on the web pages, to engage with practitioners showed that undergraduate education in these departments was focused on professional goals. Other departments such as the Politics and History departments which have well established North American and ERASMUS exchange programmes appeared to focus on giving students an in-depth academic experience in a renowned academic institution, albeit in another country.

3. *The divide between academic and 'business-facing' engagement activities:*

There appeared to be a divide in the ways that departments encouraged their students to engage with academia as opposed to business. A good example of students engaging with academia outside the department is the opportunity for Classics students to attend the British Summer School in Rome. This opportunity involves students funding their own trip to Rome to take courses (which they must pay for) in Classics, in Rome. This type of activity is completely different to opportunities for intercalated years in the Science department. First, the academic experience is funded by the student and the intercalated year is not. Second, the academic experience involves the student engaging with students and university staff instead of professionals in a business environment. This distinction can clearly be linked to policy about Science education and the importance of Science in Higher Education to the economy. It is interesting to see that this influences what we might perceive as department identities (as professional or academic), as well as the opportunities to engage with other communities that departments may offer.

4. *The correlation between global focus and global recognition:*

Another key result which was interesting was the success of the Social Studies department in World Top University league tables, which we might infer is linked to their globally-focused attitude, which is analysed in greater depth in our chapter on Global Knowledge. It was interesting that this is not the faculty we expect to be most focused on global economic competition. We might have expected that the Science faculty which is influenced by policy such as the STEM programme and the Sainsbury report to be more successful globally. Further

investigation is required to understand the relationship between a focus on international communities and international recognition of the quality of an institution's research.

5. *The distinction between giving and gaining knowledge between engagement activities:*

One of the most interesting community engagement activities was the Student Associates Scheme (SAS) programme. Although it does not appear formally in the curriculum it is mentioned into the undergraduate handbook for Mathematics, Operational Research, Statistics and Economics (MORSE) and so was included in our analysis. It is interesting because it is the only opportunity which does not occur in a Western university or industry environment. It was also interesting because the aim of this scheme is not for students to gain knowledge, but for students to first, gain experience of teaching and perhaps be encouraged to do so in the UK and second, for students to impart knowledge to children in schools in South Africa. This was a contrasting engagement activity which highlighted the qualities that linked all the others together and showed perhaps the most about the communities which Warwick departments felt their undergraduates could gain from engaging with.

6. *Levels of engagement across the faculties:*

Overall the level of engagement in the university at the undergraduate level appears to be what Holland's matrix (Holland, 1997: 36) would class as a Level 3, where it occurs across faculties. This is an extremely positive result. Peterman's lecture explained that a research-focused university should not aim for Level 4/ "Full Integration". The second result that we found when using Holland's matrix is that community engagement is highly relevant in the few cases of those who are able to be involved in such programmes. The websites dedicate a large amount of space to such programmes, but as undergraduates ourselves we know that these opportunities are not numerous, which might mean that community engagement is less relevant to the experiences of most undergraduates at Warwick, at least through the curriculum. This may be connected to the strength and size of the Students' Union at Warwick or alternatively that community engagement is not a key priority of the curriculum in some departments. The Community Theatre course in the Theatre Studies department was interesting, however, because it appeared to show how one course could be an option for students to engage with communities through their curriculum. This was not a compulsory course, but showed how a research institution can offer the opportunity for community engagement within the curriculum. Further research will be

required to ascertain whether this can occur without fundamentally changing the academic nature of the course which is being taught or the research identity of the institution.

4 Discourses on graduate capabilities in webpages of cross-university institutions and services

So far, we analysed how different departments at the University of Warwick claim to enhance research-based learning and academic literacy, how they convey global knowledge and interdisciplinarity and how they make students engage with various communities. Whereas in an honours model of studying, departments are still at the core of undergraduate students' learning experience, there are also a number of institutions across the university that equally contribute to the student experience. In the following, we will investigate a few of these institutions – the library, the Centre for Student Development and Enterprise, the Reinvention Centre for Undergraduate Research, the Undergraduate Research Scholarship Scheme (URSS), the Careers' Centre, The Student Staff Liaison Committee (SSLC) System, The Students' Union and Warwick Volunteers. More specifically, we will analyse their webpages and how they claim to contribute to undergraduate students' experience, following the five strands of the graduate pledge – research based learning and academic literacy, interdisciplinarity, global knowledge and community engagement.

4.1 The library

Learning within a research-led environment

The Library is the physical and intellectual environment in which certain types of research can be conducted and where all literary research sources can be found. A number of services and research and library spaces such as the Wolfson research exchange, the Learning Grid, the Modern Records Centre, the Teaching Grid and the Biomedgrid are part of the library at Warwick.[228] Yet, as some of these spaces –e.g. the Wolfson Research Exchange are designated for postgrads only, this analysis will therefore attempt to explore services of the library that provide facilities for undergraduates.

The home page of the library website describes it as a 'practical study environment'[229], inferring that undergraduates do not do 'research' but merely study. However, the library may be aware that they provides services for a vast range of students. Thus they may have used the term 'study'

[228] http://www2.warwick.ac.uk/services/library?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Flibrary
[229] http://www2.warwick.ac.uk/services/library?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Flibrary

to cover the range of activities students use the library for. When exploring the main library site further, this becomes apparent. The library has a link 'Support for Research'[230]; this page provides further links, one of which is used by undergraduates, 'subject and electronic resources'. The library, although non-explicitly, is therefore referring to a resources used by undergraduates as a research resources.

The Modern records centre provides archive sources from the 19th century onwards. The Modern Records Centre organises training sessions for both undergraduates and postgraduates as well as academics. Whilst it is mostly used by postgraduates and academics, the MRC does provide material for several undergraduate modules in History, PAIS and Sociology. Further research is needed to establish how well informed Warwick undergraduate students are about the MRC and the richness of its resources that can be used for essays and dissertations.

Interdisciplinary Study

The library at Warwick University goes a long way past being a simple collection of books and journals in the way that it engages with students and researchers. The way in which it facilitates study and whether or not it is conducive to collaboration, is a key condition for interdisciplinarity. If we consider the library as being central to undergraduate study in the University, then by examining closely how it provides for study, we can also address the issue of interdisciplinary study.

The main library itself contains some study areas which it labels as 'Group Study areas with open access PCs, Smart Boards and other interactive learning resources'[231]. It is through the provision of such areas for group work and flexible learning that it seems to enable interdisciplinary study. The organisation of the library is in keeping with traditional disciplinary boundaries, with most publications organised by faculty.

The library's move towards interactive, multimedia and group study practices is evident in the main library itself, as seen above, but is best seen in the Learning Grid, a complementary facility of the library located in nearby University House. 'The Learning Grid, open 24/7, provides an exciting, innovative, integrated, flexible space that supports you by facilitating independent

[230] http://www2.warwick.ac.uk/services/library/main/research
[231] http://www2.warwick.ac.uk/services/library/main/basics/about

learning, individually and as part of a group, in new and changing ways.'[232] In its use of words such as 'integrated', 'innovative' and 'flexible', the library claims to provide for the kind of study conditions necessary for interdisciplinary study to take place. Certainly this would seem to allow opportunity for what Frank et al. (1992: 224) describe as 'the preservation or increase of the cognitive and social complexity', a factor in interdisciplinary learning.

There is a wide range of equipment and facilities at the Learning Grid including video cameras, networked PCs, moveable whiteboards and presentation rooms.[233] The flexible nature of the physical learning environment is akin to the flexibility required in standard disciplinarity to enable effective interdisciplinary study.

The Learning Grid claims to provide students with 'an alternative study environment in which to collaborate, discuss, debate and experiment with different learning methods.'[234] This claim seems again to echo some of the language often used in the discourse surrounding interdisciplinary study in the University. In this way the learning grid seems to set itself forward as an environment that would greatly support interdisciplinary study.

A stated aim of the Learning Grid is, 'to provide students at the University of Warwick with a facility that actively supports the development of study, transferable and professional skills.'[235] In the earlier chapter on interdisciplinary study, it was put forward that interdisciplinarity is often mentioned in conjunction with career skills and hence a connection is made with interdisciplinarity being responsible for the development of transferable skills and skills required by employers. Here we see the learning grid claiming to develop the same skills, which by association implies that it is conducive to interdisciplinary study.

Overall, the library claims to provide a flexible and innovative learning environment, which in some ways link in very closely to the discourse of interdisciplinarity in the university. The Learning Grid especially makes claims that suggest it could be a rich environment for interdisciplinary study, but finding the extent to which these claims are true and if so, whether or not this potential is being used or left untapped would require a more extensive study.

[232] http://www2.warwick.ac.uk/services/library
[233] http://www2.warwick.ac.uk/services/library/grid/newvisitors/what/
[234] http://www2.warwick.ac.uk/services/library/grid/newvisitors/support/learning/
[235] http://www2.warwick.ac.uk/services/library/grid/newvisitors/what/

How does the library define global knowledge?

The Library has in the past claimed that internationalization is part of its strategic plans. In the 'Library Strategic Plan to 2007/2008' it emphasized on '*the enhancement and promotion of the University's international reputation…an institutional priority given the increasingly global market'*[236].

The Library seems to define its global knowledge as the means by which it facilitates and complements the internationalization of the university and its academic departments. This is evident in its provision of detailed information for specific users such as international students[237]. It produces a 'Library Guide for International Students' that welcomes international students to the library and provides useful information for the needs of Warwick's international students[238]. This definition is also seen in the priorities and aims of The Learning Grid and The Biomed Grid. These modern and flexible learning spaces blend together a range of learning facilities that aim to support a diverse learning community of international students[239].

From the above we get an impression that the library services do not primarily have an independent global knowledge agenda, but focus on facilitating the various internationalization plans of the university. This is especially the case, when creating an environment that satisfies the needs of an international staff and student community.

How does the library convey global knowledge?

The library claims to hold a large amount of 'global information' within it. It contains over 16,000 electronic journals, several thousand electronic books, a large number of databases and a wide range of printed material. All these provide the student community with a significant amount of knowledge from all over the world. An example given is the *Factiva* database, which gives access to newspapers from all over the world[240].

[236] http://www2.warwick.ac.uk/services/library/main/basics/about/aims/stratplan.pdf
[237] http://www2.warwick.ac.uk/services/library/main/basics/about
[238] http://www2.warwick.ac.uk/services/library/main/basics/international
[239] http://www2.warwick.ac.uk/services/library/grid/newvisitors/development/
[240] http://www2.warwick.ac.uk/services/library/main/basics/international

Through its special collections, the library also provides unique global perspectives on international issues affecting various parts of the world. The Library's Ethnicity and Migration Collections are major research resources for the study of race and ethnicity, with both a UK and international focus. The resources in the collection include UK community political material, United States' collection on black history and an African collection on colonial history[241]. The Library also claims to convey global knowledge through the collaborations and partnerships it has with university libraries around the world. The Library is a member of the US-based Research Libraries Group (RLG), which includes other global university libraries[242].

The Modern Records Centre (MRC), part of the university's library services, also provides students with a reliable source of international archives. It has a major collection of overseas and international trade union and employers' association publications[243]. The MRC also holds archives of global organizations such as Amnesty International, and international social and political archives such as the Gurharpal Singh Archive, a substantial source for the history of the Communist movement in the Punjab from the 1920s to the 1970s[244].

Therefore, The Library and its subsidiaries define and convey global knowledge differently from the academic departments at Warwick. Instead of conveying global knowledge in curriculum structure, exchange programs and attracting international students, it relies on the vast amount of global information it holds to convey international perspectives to students.

- From the discourse used, The Library's definition of global knowledge seems to be the means by which it facilitates and complements the internationalization of the university and its academic departments.
- This definition is especially the case, when creating an environment that satisfies the needs of an international staff and student community.
- The library claims to convey global knowledge through the 'global information' in its wide range of printed and electronic material, special collections and international collaborations.

[241] http://www2.warwick.ac.uk/services/library/main/basics/about
[242] http://www2.warwick.ac.uk/services/library/main/basics/about
[243] http://www2.warwick.ac.uk/services/library/main/basics/about
[244] http://www2.warwick.ac.uk/services/library/mrc/holdings/main_archives/

- The Modern Records Centre (MRC), part of the university's library services, also provides students with a reliable source of international archives.
- Instead of conveying global knowledge in curriculum structure, exchange programs and attracting international students, it relies on the vast amount of global information it holds to convey international perspectives to students.

The Library and Community Engagement

The Library engages with students from local schools by allowing them to access resources and also allows members of the public to access resources for a day or purchase an annual or sixth monthly membership card. The library also provides facilities for students to communicate with library staff so that resources and library space and equipment can be used effectively.

Community Engagement in the Library does not fit the requirements which have been set for academic departments in the University. Community Engagement which occurs through the library does not involve research activity directly affecting a community, so it would not be community engagement in the sense that Peterman believes it should be. Community Engagement through the Library would not be what Boyer would consider "application" because there is no academic work directly impacting on a community. It would also not attain Level 4 on Holland's matrix, because it is not defining the curriculum and hence the identity of the university. It would also not achieve High Relevance or Level 3 on Holland's matrix because there are no opportunities for students to gain practical experiences through the library. The fact that Community Engagement within the library is separate from the curriculum means that it is Community Engagement in a fundamentally different way from what has been analysed before. It is important, however, because the library is a public space in which research activities and community have the opportunity to meet with and engage with each other.

School Visits

As part of an effort for the University Library to engage with the local community sixth form students are able to use it for their course work.

"The University of Warwick Library is pleased to offer reference facilities to staff and small groups of students from local and visiting sixth forms to help with course work. We hope that the experience of using our first class facilities will help to encourage students, who might otherwise

have not done so, to proceed to higher education"[245] and also offers to train students to use the library. This shows that the University sees the role that Library resources and library staff might have in widening participation and encouraging students to go into Higher Education. One might argue that access to the Library at an earlier stage for school children might be more useful, as those sixth form students who would use the Warwick Library for course work may be students who are very likely to continue into higher education anyway. It is also interesting that "training in the use of the Library and its resources may be available depending on staffing availability. Please indicate on the visit request form if you are interested in this service for your students"[246]. This is an interesting service for the library to provide, especially considering the reading on Academic Literacy which claims that students are perceived as not having skills (such as using a library) at University.

Engaging with Library users

The Library at Warwick has a range of way which it uses to engage with its users, which include several different communities in the university. "The Library is committed to discovering and responding to the needs of its users through formal and informal avenues. We are represented at Senate and Faculty Boards and attend Departmental meetings where invited. Subject staff also attend Departmental Staff Student Liaison Committees. In addition, there is also a general Library/Student Liaison Committee to ensure particular groups (such as part-time students) have a voice. Named Library staff have responsibility for Part-Time, 2+2, International and Foundation students. They attend inductions, liaison committees and other meetings. Lastly, we have an electronic "You say, We say" in order to encourage spontaneous comments and queries from our users. Users can also search the You Say We Say database for other users' comment and our responses. Finally we post responses on a prominent plasma screen - it is a very popular facility!"[247] It is interesting that the Library provides dedicated staff for different subjects and different types of students. The Library also engages with these communities in different ways, as it claims, both in "formal and informal" ways. It is interesting that Library staff claim to attend SSLC meetings as well as department meetings and senate and faculty boards. This shows what an important resource the library is to a research-focused university at Warwick, and how all the different communities within the university interact with it.

[245] http://www2.warwick.ac.uk/services/library/main/basics/schools
[246] http://www2.warwick.ac.uk/services/library/main/basics/schools
[247] http://www2.warwick.ac.uk/services/library/main/basics/about/

Members of the Public

The library website claims that members of the public can use the print resources in the library. "Members of the public may have access to the Library for reference use only with a day pass providing they call at the Library Welcome Desk and show photographic proof of their identity i.e. passport, driving licence and a recent utility bill or bank/credit card statement to confirm their current address. A day visitor pass gives reference access to the Library for the day of issue. Day visitor passes are issued during staffed service hours only"[248]. The library website also claims that print resources are available to members of the public for £80 annually or £60 plus VAT for sixth months – "Members of the public may request individual external borrowers' membership[249]. The library does not appear to claim that the members of the public who come to the library for reference purposes engage with undergraduate students.

Overall, Community Engagement as we have defined it in academic departments does not appear to be occurring in the Library. This is because a key quality of community engagement was that it related the work that occurred in the university with the outside community. Although sixth form students are able to use library resources, they do not have access to the academic or student communities at Warwick.

4.2 Centre for Student Development and Enterprise

The Centre for Student Development and Enterprise[250] and the Reinvention Centre[251] administrate programmes for all undergraduate students. Broadly, this analysis will find the centres administrate schemes which enable students to develop two of the graduate capabilities, 'learning within a research-led environment' and 'academic literacies.' Where relevant the other graduate capabilities will also be discussed. This analysis will therefore analyse, firstly the discourses within the name of the Centre for Student Learning and Enterprise, secondly, the discourses in the work of the Reinvention Centre, followed by the URSS. Both of these provide

[248] http://www2.warwick.ac.uk/services/library/main/basics/accessmembership/
[249] http://www2.warwick.ac.uk/services/library/main/basics/accessmembership/
[250] http://www2.warwick.ac.uk/study/csde/
[251] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl?fromGo=http%3A%2F%2Fwww2.warwick.ac.uk%2Fgo%2Freinvention

opportunities for students to engage in research-based learning. Finally Warwick Skills will be considered and its contribution to students' academic literacies.

The Discourses of 'Development' and Enterprise'

By analysing the name 'Centre for student development and enterprise', it can be seen how the centre confirms the idea that students need to 'develop' during university. Please refer back to the discourse analysis on research-led environment and interdisciplinary study. It is in these sections, it is discussed how in some departments, opportunities to engage in research and interdisciplinary activity usually come at the end of degree programmes; once the student has 'developed'. Kegan (1994) proposed that universities need to ensure that they 'bridge' the gap between stages of students' development or 'consciousness' as he termed it. It may be such centres at Warwick which attempt to fulfil this role.

Enterprise

The Russell Group website discusses the importance of university and business interaction, commending Russell group HE institutions for being 'business-facing' and dominating the research commissions from commercial business. Please refer to the community engagement discourse analysis**,** which exemplifies how the business community strongly engages with the Science faculty at Warwick. Therefore the inclusion of 'enterprise' in the title of a student development centre provides firstly another example of how Warwick strongly fulfils the concept of a 'business-facing' university and secondly that student's are encouraged to develop entrepreneurial skills.

4.3 The Reinvention Centre for Undergraduate Research: Encouraging Research-based learning

The Discourses of Undergraduate Research in the RC

On its webpage, Reinvention Centre (RC) claims to 'promote new methods' in research-based learning, re-design student learning spaces, provide funding for undergraduate research projects, publish an undergraduate journal and provide funding for academics to develop research-based

teaching strategies.[252] The RC thus provides opportunities and support which encourages research-based learning outside of the curriculum. It states the main aim of the centre is to 'integrate research-based learning' into the curriculum, not just teaching students research skills, but rather allowing them to engage in research and become integrated into the research cultures of departments.[253] The RC therefore has a clear agenda within HE, which is reflected in some of the literature already considered.[254] Lambert works at the RC, and it is therefore not surprising that her article celebrates the work from the RC. Moreover, Neary who collaborated with Winn to produce his analysis of the reactions against the commercialistion of HE, founded the RC. Boyer's work on HE and research-based learning 'has also been significant to the development of the centre' according to the website.[255] Conclusively, much of the academic debate that discusses research as a tool to maintain education for the sake of 'public good' rather than the economy has come from or inspired work in Warwick's Reinvention Centre. Interestingly the RC, like departments, mentions the funding they have received for research. However, the RC explains who receives the funding: primarily for the centre and its resources.[256] Thus a direct link can be made between research-funding, economic gain and undergraduate students. However, The RC does not link its research work to the economic gain of the UK; unlike how research is discussed in the Ramsden Report (Ramsden, 2008). The RC views the purpose of reinventing the 'spaces in which students learn'[257] for the sake of the quality of learning.[258] Therefore the RC appears supportive of the Humboldt model of university and preserving the idea of universities as liberal, humanist institutions (Neary and Winn, 2009: 128-129).

Reinvention Centre: influencing student learning experiences

The RC does advertise its previous projects and publications,[259] there are therefore examples that RC work is affecting some undergraduate students. Nonetheless, as concluded in the discourse analysis for 'learning within a research-led environment', research activity, often demands the support of the relevant academic staff. Thus the research culture of departments is still highly influential in the success of the work carried out by projects like the RC. It may be difficult to

[252] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/
[253] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/about/
[254] Please see discourse analysis on 'learning within a research-led environment' page.
[255] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/about/origins/
[256] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/about/
[257] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/
[258] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/about/origins/
[259] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/filmspublications/

assess the extent to which the RC's ethos and work has impacted on department's; the Theatre Studies department has a link for the RC on its website,[260] but there is no further evidence to explain how the RC has influenced the department. Conversely, the Law department, despite not advertising the Reinvention Centre, has in true RC style, enabled undergraduate students to engage in the research culture of the department, by allowing students to complete projects in their research centres.[261] One of the projects is funded by the Reinvention Centre. It is by uncovering these subtle links, that one can note how the RC's work influences departments; although concrete evidence of how the RC has influenced department's curriculum's is not available. It may be that the Reinvention Centre has changed the research culture of the Law department, which is why Law make statements about all degrees being committed to skills in legal research[262] and the department declaring its commitment to teaching and research.[263] Further research is needed to explore how the RC has impacted departments.

The Reinvention Centre supports the idea of interdisciplinary study by forming an interdisciplinary staff team[264] and funding research projects for students which may be interdisciplinary, such as this very project.[265] Moreover it is in partnership with Oxford Brookes[266] and is therefore an institution which is engaging in other academic national communities. However, there is no evidence that Warwick students are part of this collaboration with Oxford Brookes.

4.4 URSS: Undergraduate Research Scholarship Scheme

In the discourse analysis for learning within a research-led environment, evidence for URSS projects in the academic year 2008/09 is discussed. This section will explore how the URSS presents itself on its own website, how it 'talks' to academic departments and how research projects also promote the other graduate capabilities: interdisciplinary study, community engagement, global knowledge and academic literacy.

[260] http://www2.warwick.ac.uk/fac/arts/theatre_s/ug/
[261] http://www2.warwick.ac.uk/fac/soc/law/research/cjc/research/
[262] http://www2.warwick.ac.uk/fac/soc/law/ug/
[263] http://www2.warwick.ac.uk/fac/soc/law/ug/prospective/degrees/
[264] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/about/staff/
[265] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/team/
[266] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/

Discourses on the Importance of the URSS

The URSS is administrated by the Centre for Student Development and Enterprise and provides extra-curricular opportunities for undergraduates to engage in research. The existence of this scheme along with the RC is an indication that Warwick University, are calling for more undergraduate research-based learning opportunities. The Vice Chancellor (VC) on the URSS homepage states, *'URSS is part of Warwick's commitment to enriching the learning experience of all its students…As part of Warwick's commitment to enriching the learning experience of all students, the URSS scheme enables academics and students to work together in the advancement of knowledge.'*[267] As detailed in the discourse analysis for learning within a research-led environment, the VC outlined his commitment to research in his report on the future of Research Careers. From these two pieces of evidence, it may be concluded that the VC wishes to encourage students to engage in research, so that a pathway to research careers is made visible to students. He also presents *'working together'* as positive, thus echoing the calls of Garde and Calvert (2007) for *'collaboration'* between students and academics (Garde and Calvert, 2007:108). Crucially, he appears to support the RC's ethos that student learning spaces should be improved for the simple reason of 'enriching the learning experience' as the VC called it. Moreover, the VC also in this phrase makes a commitment to 'enriching' this experience for *'all students'*. Both of these commitments should be considered cautiously. The Thrift report, as discussed realises the importance of research to the future of Britain's global position. Moreover, as established previously, the URSS only affects a small number of students.[268] Ultimately however, the VC does describe the URSS as only *'part'* of Warwick's commitment to *'enriching the learning space'* and it is possible that the VC does not see the economic demands placed on universities, and enriching students' learning experiences as conflicting commitments. Nevertheless, his commitment to *'all students'* can only truly be achieved if curriculums and departments also change. As analysed earlier, the effect of the URSS is limited by departmental co-operation and thus such schemes can only act as accessories to the learning experience of some students. A concrete demand would need to be placed on all departments to ensure research-based learning approaches can be accessed by *'all students'*.

[267] http://www2.warwick.ac.uk/study/csde/urss
[268] Please see discourse analysis on learning within a research-led environment, page

The URSS: having to sell research based learning

From the web-site, it is clear, the URSS is attempting to sell what is can offer to both staff and students; indicating the URSS realises it must secure the support of staff for URSS projects to occur. Moreover from the extent of the 'sales pitch' to the staff, it would also suggest that the URSS realises they are facing a barrier in some departments, in which undergraduate research is an alien concept to some research cultures. An extract from the sales pitch to staff is provided in the footnote below.[269] In this, the URSS explains how getting involved in the URSS works. Also highlighted is how students can benefit, developing 'transferable skills' and being involved in 'cutting edge research'. Therefore implying that some departments do not realise what students can gain from research-based learning.[270] Moreover, they even provide a quote from an academic who had been involved with a URSS project, as shown below:

> Students can benefit hugely from taking part in the scheme, and the feedback from previous participants is overwhelmingly positive.
>
> "(My URSS student) proved a worthy collaborator and was a pleasure to work with"
>
> "the project was an opportunity for bridging the gap between teaching and research in the everyday life of the department"
>
> (http://www2.warwick.ac.uk/study/csde/urss/staff/)

They URSS is therefore attempting to combat negative reactions to undergraduate research in advance; dispelling notions that undergraduates are not developed enough to engage in research.

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[269] The Undergraduate Research Scholarship Scheme (URSS) gives students the chance to become directly involved in the research work of the University, experience what it's like to be a member of a research team and take part in cutting-edge research. Departments and research centres are invited to nominate potential projects which offer good opportunities for students to gain insight into research work and develop valuable skills. Bursaries of **up to £1000** are available for students to carry these out either full time during vacation or part-time during term or vacation. **15 Bursaries of £2200** were awarded in 2008/09 for students undertaking EPSRC (Engineering and Physical Sciences Research Council) funded projects. These are approximately 10 week Summer term projects for students registered on a degree in an EPSRC subject area. More about EPSRC funding and eligibility. http://www2.warwick.ac.uk/study/csde/urss/staff/

[270] The idea of developing 'transferable skills' suggests that students also develop academic literacies through research.

The URSS: developing other graduate capabilities

As discussed by both the discourse analysis on interdisciplinary study and global knowledge, research is often a means in which these graduate capabilities are developed within departments. By surveying the URSS projects that occurred in 2008/09, this is evident. For example, one group of students completed a project to build a Ugandan Micro-hydro project, thus demonstrating students are engaged with international communities and extending their global knowledge. Moreover, students that are supported by research centres, such as the Capital Centre, are in a community of researchers that are engaging with local communities, in this case, with the Royal Shakespeare Company. Moreover, one English student completed a project with the Renaissance Studies department, an interdisciplinary research centre, which hopes to unite different disciplines in the study of the Renaissance.[271] Therefore the URSS and undergraduate research is a tool in which the other graduate capabilities can be developed. On a more subtle level, it is likely that students will develop academic literacies through engaging in the research of the department. Although finding evidence for this on the web-spaces is difficult, if one assumes that students can develop simultaneously the other graduate pledges through research, then they are likely to become academically literate in their discipline, as the RC states, students are able to 'see the potential of their subjects.'[272]

Undergraduate Skills Programme

These programmes, accessible to all, help undergraduates develop academic literacies; there is also one area in the programmes which supports students engaging in a 'research led environment. Broadly however, these Skills programmes claim to help students develop skills which are applicable to many degree programmes. The website claims to offer three routes to develop these skills, The Warwick Skills Certificate, Advice for Academic coaching and Study Skills via appointments and Recipes for success: advice on postcards available throughout campus, online and 'Live' lessons at lunchtime.[273] Most information is provided about Warwick Skills Certificate; therefore this analysis will concentrate on this programme. Notably, the other

[271] http://www2.warwick.ac.uk/study/csde/urss/projects200809/
[272] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/about/origins/
[273] http://www2.warwick.ac.uk/study/csde/usp/

two routes 'Advice in Academic Coaching' and 'Recipes for success' help students develop the same skills as in the Warwick Skills certificate but using different methods.

Discourses on Academic Literacies being Universal

The Warwick Skills Certificate provides a number of modules that are called 'study skills' and includes separate modules on 'academic writing' in the arts/social science students and engineering and science students. Lea (1998) conducted a small study in which she showed that different subjects have different academic literacies and that even good essay writing style is subject specific and cannot be applied across faculties. The concept behind such modules provided by Warwick Skills therefore contradicts the evidence presented by Lea. The sample Lea took was small and not large enough to draw generalised conclusions from them. Nevertheless, it may be interesting to find out if students who take these Warwick Skills modules see an improvement in their essay marks. Conclusively, however the existence of the Warwick Skills programmes shows that the university believes some academic literacies, such as essay writing to be universally applicable, unlike Lea.

Recognition that Students need Confidence to Engage in Research

As previously discussed students need to recognise their own capabilities to conduct research (Hodge, et al. 2008:6-15). The Warwick skills module, 'Research as learning', is a self-reflexive module in which students will 'consider the skills' they already have. Please see the below course outlines.

During the course you will:

- consider the skills you already have as a researcher and how to develop these further
- plan your research as a project
- schedule supervision and identify milestones
- consider best research practice in your discipline
- identify the features of team-based research versus individual research
- make a presentation about your findings (if you are taking part in the URSS scheme, the presentation will usually be done at the formal poster presentation event at the end of the year)

http://www2.warwick.ac.uk/study/csde/usp/wsc/CM4g?fromGo=http%3A%2F%2Fgo.warwick.ac.uk%2Fusp%2Fwsc%2FCM4g

From the course outline, this appears to be a module which helps provides a framework for students to complete research but also act as a confidence builder in which students develop and realise themselves as 'researchers'. It is claimed on the website by the end of the course, you should have 'confidence in your ability to undertake self-managed research'. This contrasts greatly with the History, Classics, Theatre Studies and Economics department in which students are not made aware of their research skills until final year.[274] Departments could be interviewed on their opinion of this module and students could be interviewed asking what they have gained from completing this module.

Conclusion

The university has two institutions which are accessible to all students that promote undergraduate research based learning, and help students hone their academic literacies. Firstly, both the URSS and Reinvention Centre view research-based learning as an aim within itself; for the sake of enriching students' learning experiences. They both provide opportunities for undergraduate research and the Reinvention Centre also hopes to promote and encourage research-based teaching in departments and the undergraduate curriculum. As discussed previously, engagement with the URSS varies from each department. Whilst it is not clear to what effect the Reinvention Centre is influencing the research attitude of departments. Further research and analysis is needed. However, as the previous discourse analysis on a research-led environment reviled, the root to changing the undergraduate curriculum is changing the research culture of departments. Both the URSS and Reinvention Centre may foster research cultures which are inclusive to undergraduates, but these two institutions need to impact on departmental cultures if they are going to affect all students. Secondly, the existence of Undergraduate Skills programmes shows that the university is aware of the idea of academic literacies, it also indicates that they believe that good academic writing is not subject specific but only specific to whether a student belongs to the sciences or arts/social science faculties. This service requires further research to determine if its schemes are helping students improve their writing and learning experiences.

[274] Please see discourse analysis for learning within a research-led environment.

4.5 Careers Centre

Academic Literacy

The Careers Centre's description of academic literacy focuses mainly on employability, i.e. educating and equipping Warwick's students on the generic and transferable skills useful to make them more employable and successful in their careers. These transferable skills can be categorized into people skills, self-reliance skills, general skills and specialist skills[275].

The Careers Centre conceptualizes all students as possessing certain generic and transferable skills that they need to be made self-aware about.[276] The center therefore assists students in the identification of skills using a number of tools and exercises such as those on the Warwick Advantage[277] website.

The main way in which the Careers Centre develops transferable skills in students is through the use of the Career Management Certificate. The Career Management Certificate is a certificate awarded by the University of Warwick leading to 30 CAT points that appear on the students' degree transcript. The course is offered through Warwick Skills and is led by the Careers Centre. Its modules consist of highly interactive workshops, individual work and the submission of a portfolio for assessment. Through the certificate's various modules it claims to develop application, CV and interview skills, self-confidence and presentation skills and an understanding of how to research recruiters effectively and prepare for graduate applications.[278]

Research-led Environment

Research in relation directly to academic areas is not an area the Careers Centre has placed great emphasis on. However, the center does mention its involvement in developing students' ability to research recruiters, careers, job roles and other areas of employment. One of the claimed benefits of the Career Management Certificate is to help students *'understand how to research recruiters effectively and prepare for graduate applications'*.[279]

[275] http://www2.warwick.ac.uk/services/careers/developing/skills/transferable/
[276] http://www2.warwick.ac.uk/services/careers/developing/gettingstarted/
[277] http://www2.warwick.ac.uk/study/csde/advantage/start
[278] http://www2.warwick.ac.uk/services/careers/events/cmc/
[279] http://www2.warwick.ac.uk/services/careers/events/cmc/

With respect to the research of recruiters the Careers Centre, in liaison with The Library, provides online database programs for students to collect extensive information on the industry and employees they wish to apply to. These resources include Business databases[280], Employer Visit Reports[281], Careers Films[282], Journals[283] and Publications[284]. Despite all these resources available for student research, it is important to note that the focus on research is to aid employability rather than any academic use.

Community Engagement

The nature of the Careers Centre's work involves both local and international engagement. With respect to undergraduate students, the local community the Careers Centre engages with mainly is students, graduates and employers[285]. The Careers Centre claims to help employers '*meet their graduate recruitment needs by providing a range of general and targeted services that are to the mutual benefit of students, graduates and employers'.*[286] Every autumn it works with various UK employers in organizing careers fairs[287] and employer presentations, which allows students and employers to engage with each other.

In addition to local employers, these fairs and employer presentations attract multinational and global companies that recruit graduates to various locations around the world. An example is the annual City and Finance Fair, which in *'2008 attracted 1400 penultimate and final year students looking for graduate and placement opportunities and hosted 67 organisations, both multinational and local'*[288].

Therefore, through the above fairs and employer presentations, the Careers Centre allows students to engage and meet various local and international employers.

[280] http://www2.warwick.ac.uk/services/library/main/tealea/socsciall/business/key/
[281] http://www2.warwick.ac.uk/services/careers/findingajob/researching/employers/visit_reports
[282] http://www2.warwick.ac.uk/services/careers/hub/films/
[283] http://www2.warwick.ac.uk/services/careers/hub/journals
[284] http://www2.warwick.ac.uk/services/careers/hub/publications
[285] http://www2.warwick.ac.uk/services/careers/
[286] http://www2.warwick.ac.uk/services/careers/employers
[287] http://www2.warwick.ac.uk/services/careers/employers/recruit/fairs/
[288] http://www2.warwick.ac.uk/services/careers/employers/recruit/fairs/#genrecruit

Global Knowledge

The Careers Centre conveys global knowledge in similar ways to its encouragement of international community engagement. This is mainly through its work in attracting global employers to attend its career fairs and recruit from Warwick.

Additionally, the Careers Centre also conveys global knowledge to students through its online resources that are focused on global career and employment resources including international job vacancies, internship listings, industry profiles and country-specific career information.

These databases include Going Global[289] that has constantly-updated content including topics such as: work permit/visa regulations, cultural/interviewing advice, corporate profiles and worldwide job listings. The resource MarketLine[290] also provides over 200 country profiles with summaries and standardized data on over 50000 companies.

Interdisciplinary Study

There are no claims made by the Careers Centre to facilitating interdisciplinary study. This may very well be as a result of the centre's focus on employability and generic skills, rather than promoting specific academic disciplines. Even when compared against conceptual interdisciplinarity, which Lattuca (2003:3) states as including *'issues and questions without a compelling disciplinary basis'*, there is no claim made. The Careers Centre does not claim to offer an intellectual space outside the conventional academic disciplines, its focus remains on enhancing student employability independently of any academic disciplines they may be in.

4.6 The Student Staff Liaison Committee (SSLC) System

The Student Staff Liaison Committee system in The University of Warwick, is a system whereby selected student representatives meet and discuss issues with staff. It is organised primarily on a departmental level, with involvement from staff members and on a higher level, with student's union officers and University policy makers, hence it would be negligent not to include it in an analysis of departmental policies and claims. I will begin with a brief overview of the system and

[289] http://www2.warwick.ac.uk/services/careers/hub/goingglobal
[290] http://www2.warwick.ac.uk/services/careers/hub/marketline

what it claims to do, then briefly detail the system's relevance (or non-relevance) to each 'graduate capability' and finish with some concluding remarks and recommendations for further investigation.

The basic premise of the SSLC system is to create a forum for discussing teaching, learning and student support with staff. There is an SSLC in every department and there are SSLCs for all types of students, not just undergraduates. SSLCs are student led, but generally there will be at least one member of staff present at each meeting. Nominally this is the responsibility of an appointed 'academic convenor'. The chair of the SSLC and the secretary are both students.

SSLCs are hence mainly compromised of 'student representatives', who aim to gauge the views of students on their course and present those views effectively at meetings, then relay what has been discussed and what, if any, action has been taken back to the general student body. [291]

A primary duty of the 'academic convenor' is to ensure 'that SSLC concerns and requests are considered at staff meetings, and that a student representative is invited to attend staff meetings to discuss SSLC items.' [292] Hence there is a large responsibility placed on staff to make sure that concerns raised by the SSLC are taken forward.

There is also a strong relationship with the Student's Union. 'The SSLC system is at the centre of the Students' Union's work. Feedback from the SSLC system enables the Union to identify problems within Faculties that might otherwise go unnoticed.' [293] The SSLC system as a whole is mostly overseen by the Students Union's education officer and other union staff, as well as four elected faculty representatives, who are responsible for collecting common issues that arise within faculties among SSLCS and taking these on to a higher level of policy making decision. Another way that SSLCs make sure that their findings are recorded and noticed are through the submission of annual reports, which are examined on a high level.

[291] http://www2.warwick.ac.uk/sunion/sslc/handbook/representstudents/
[292] http://www2.warwick.ac.uk/sunion/sslc/handbook/academicconvenor/
[293] http://www2.warwick.ac.uk/sunion/sslc/handbook/su/

Academic Literacy

In the narrowest sense of the term, as in Academic Literacy as skills for writing academically, there is not much to say here. However, taking a slightly broader view, there are claims made for the development of skills relevant to future employment or further study.

> "Through your role as a SSLC member, you will be undertaking you will be developing (sic) a rich set of skills which will provide you with significant raw material to draw on when applying for graduate jobs or further study.
>
> For example, you will be using effective communication skills, such as persuading and influencing others, diffusing conflict and presenting effectively." [294]

From my own experiences as working as an SSLC representative for Statistics, I would support these claims, but we must be clear about the context. From anecdotal evidence, the demand for being an SSLC representative seems to vary between departments, with some struggling to find any representatives, while others having to hold elections because of the high demand. There is also fluctuation in participation from year to year, for example there were no student representatives for Mathematics and Economics on the Economics SSLC in 2006/7, whereas in 2008/9 there was at least one representative for each year of study. [295] [296] However, in any case only a small number of students can be representatives, so any benefits gained from being on the SSLC are only available for a select few.

The claims of SSLC participation increasing employment related skills should be taken with a pinch of salt, as the SSLC organisers are coming from the position of trying to convince students to participate in the scheme. It should be investigated to what extent the claims are supported in reality or whether the SSLC scheme is just seen as 'CV filler' by students.

Learning within a Research Led Environment

The SSLC system is naturally concerned with ensuring the quality of the learning environment available to students, however it seems to have little weight when it comes to influencing large scale theoretical teaching and learning issues that span the University, being a collection of committees focussed on their own course and departmental issues.

[294] http://www2.warwick.ac.uk/sunion/sslc/handbook/gain/
[295] http://www2.warwick.ac.uk/fac/soc/economics/ug/sslc/06_07/mathematicseconomics/
[296] http://www2.warwick.ac.uk/fac/soc/economics/ug/sslc/2008-09/maths_econ/

It is however possible to see how SSLCs can influence smaller issues that may have affected the general learning environment for students, for example they claim to have been responsible for the 'Extension of Library opening times' and 'Substantial improvement in IT.' [5]
The Law department mention on their website that the Law SSLC has attained a student consultation over 3 day book loans in the library.[297] This may be a somewhat minor issue, but is certain to affect the learning experience of students. More importantly, that the SSLC is considered important enough to consult and that information about the consultation is put on the departmental website gives some validity to the SSLC and shows that it is being taken seriously and having an impact in this case.

Interdisciplinary Study

The system itself is perhaps not directly related to interdisciplinarity, as it is divided along disciplinary lines and does not claim to involve any kind of interdisciplinary content. However, again, as the SSLC system is, in theory, intrinsically linked to departmental policy and decision making, there will inevitably arise issues to do with interdisciplinary study in which the SSLC will become involved in an effort to improve the student experience.

Evidence of this can be seen in the claim of 'The alignment of joint-honours students' reading weeks,' [5] which is in itself perhaps a relatively minor issue, but even small improvements to joint-honours courses can be seen as worthwhile in helping to facilitate multidisciplinarity/interdisciplinarity, which can often be stymied by administrative problems.

Global Knowledge

The SSLC system is not just concerned with academic issues, but the entire student experience. Although it is clearly a local community that does not extend beyond the University, it is a platform through which students can meet and interact with others on their course that they may not otherwise have come into contact with. Of course in this specific case I am referring to international students, so it depends to what extent the students studying each course are international and whether they are involved in the SSLC or not.

[297] http://www2.warwick.ac.uk/fac/soc/law/ug/current/3-day_loan_book_consultn-2008-05_3.doc

Clearly the needs of all students must be represented by the SSLC, and so they can represent demands by students for a more global experience if they are forthcoming. There is an example of the SSLC system claiming to have enhanced opportunities for Global Knowledge listed on the website as a recent achievement, 'Increased departmental support for Erasmus and year abroad systems.'[298]

Community Engagement

Community engagement is perhaps the strand that the SSLC system has the most relevance to. Here we see a select student community interacting with the wider student community and the staff community. The SSLC system is jointly run by the Student's Union and the University itself and claims have a real impact on policy decisions and on improving conditions for students. [299] Ramsden (2008: 3.37-3.47) strongly recommends a type of learning community which sounds very similar to what the SSLC system provides, specifically the following excerpt seems to be close to the kind of claims made:

'There is abundant evidence that the most effective higher education environments are ones in which students are diligently involved as part of a community of learners. As part of this engagement, they work together with academics to enhance teaching, assure quality and maintain standards. In these contexts, they understand themselves as active partners with academic staff in a process of continual improvement of the learning experience.'

That SSLCs concern themselves with course material and teaching standards is undeniable, however it is not clear whether this is an equal partnership with staff or more of a reactive process to staff decisions. There is only one staff member required to be present at meetings and it is only stated that a single student member of the SSLC should be 'invited' to attend staff meetings.

On the SSLC website it states clearly 'The SSLC should ALWAYS be consulted of any major changes to course structures or content.'[300] This seems to be a reactive statement, probably from the student side of the SSLC system's organisation. For such a statement to be necessary, it could

[298] http://www2.warwick.ac.uk/sunion/sslc/handbook/sslcs/#Achievements
[299] http://www2.warwick.ac.uk/sunion/sslc/handbook/sslcs/#Do
[300] http://www2.warwick.ac.uk/sunion/sslc/handbook/sslcs/

be inferred that major staff decisions have done in the past or habitually bypass the relevant SSLC entirely. More investigation is needed here to ascertain whether or not this is the case.

The SSLC system as an instrument is a very good example of community engagement within the local academic sphere, in this case being reflexive as students and staff engage each other to address student issues.

Its influence can be seen through how it affects policy decisions, which may also end up being relevant to other 'graduate capabilities'.

It is all very well reading the claims made on the SSLC website, but these claims should not be taken at face value and would require further investigation before they could be taken as fact. There is some evidence that hints that there may be room for improvement as to how influential SSLCs actually are and whether they are seen as equal partners or 'inferior' in departmental decision making. However, this requires further investigation before any concrete recommendations could be made.

4.7 The Students' Union/Warwick Volunteers

The student union provides a range of services to the student community. These include societies, sports, volunteering, jobs within the students union, advice and representation of students' views to the university[301]. The Union's mission statement is as follows: "This Union is directed by its members and aims to enhance the experience of students whilst at the University of Warwick". The Union was founded in 1965 and claims to be one of the largest in Europe[302]. The Students Union is very different to an academic department in that it works across the University with students of all disciplines. It is also independent from the university. This affects the discourse analysis that we have below on the Students Union because we are not able to test the extent to which the graduate capabilities are present in the undergraduate curriculum in the sense that we could with academic departments. It is, however, important to discuss the Students Union because it has an effect on the experience of all undergraduates at Warwick

[301] http://www.warwicksu.com/
[302] http://www.warwicksu.com/about/

Warwick Students Union is part of the Aldwych Group of Students Unions affiliated with Russell Group universities. It includes the Students Unions of the 20 universities within the Russell Group. The Aldwych Group organisation has the following mission statement: "The Aldwych Group exists to vocalize the distinct interest of the students they represent, ultimately securing a better student experience and a fairer settlement for the future"[303] The Aldwych group is an organisation involving those who lead the unions in each of the 20 Russell Group institutions. Another organisation which the Warwick Students Union is a member of is the National Union of Students (NUS): **"**NUS (National Union of Students), is a voluntary membership organisation which makes a real difference to the lives of students and its member students' unions. We are a confederation of 600 students' unions, amounting to more than 95 per cent of all higher and further education unions in the UK. Through our member students' unions, we represent the interests of more than seven million students. [304]

In addition, NUS provides an infrastructure that helps individual students' unions to undertake their own work supported by the research it carries out, the training, advice and information it offers, the materials it produces and the documents it publishes.[305]The Students' Union at Warwick, although independent from the university is subject to the research and policy decisions of these larger organisations.

It appears that there is sometimes tension between university administrations and Students Unions. The National Students Unions of Europe write in their 2007 report "Bologna with Student Eyes" that "In terms of independence of students' unions the faculty level has proven to be rather problematic. More than that, in some countries student representatives are not regarded and treated as equal partners by governments, institutions and other stakeholders. Some actors even principally regard students as troublemakers, no matter what they actually say or do. Only in few countries, a sustainable partnership culture exists.[306] It would be interesting then to discover how independent the Students Union at Warwick is, and whether it feels pressures from the university in the way that this review claims other European Universities do.

[303] http://aldwych.ukmsl.com/
[304] http://www.nus.org.uk/en/About-NUS/
[305] http://www.nus.org.uk/en/About-NUS/Benefits-Of-Affiliation/
[306] http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3d/0e/d1.pdf

One of the roles of Students' Unions is to protect the rights and the social position of the student. The report by the National Students of Europe mentioned above also mentions the campaigning activities of Students Unions. "In many of the answers, the national student unions reported on campaigns on issues related to social dimension. For example in Belgium (French community) students' unions have been promoting gender law in Higher Education and in Spain students proposed a Student Charter to Government. Some of the campaigns are against official policies, such as in Slovenia, where the Government proposed a package of reforms that have a negative effect in students' wellbeing (introduction of tuition fees, limitation of the students' right to work and decreasing access to student meals). After Slovenian students' campaigns, the proposals on tuition fees and access to student meals were taken out of the package of reforms. These are some of the examples of the commitment of students to social dimension and how active the student unions are when it comes to this issue.[307]

There have been calls for less independence for students unions and for more assessment of the services that they provide. This is because "evidence indicates that in most cases the processes and mechanisms in place for monitoring and managing the quality of the services provided by UK students' unions are significantly inferior to those in place in the respective union's parent universities" (Rodgers, 2008: 80). Rodgers' work for Coventry Student's Union concluded that the monitoring quality of the student experience outside of the curriculum is as important as the monitoring of the student experience within the curriculum.

Within the UK, there is government legislation regarding the way that Students Unions should be run as described below:

"Concerns regarding the ways in which unions were using their resources, and also in respect of the ways in which they were being run, led to calls from some politicians in the 1980s for state funding of union activities to be ended. Although this did not occur, legal constraints were subsequently placed on their activities by the *Education Act 1994*. This Act defines the role of unions in broad terms. In s.20(1) this is defined as 'promoting the general interests of its members as students' or, alternatively, a union's 'principal purposes include representing the

[307] http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/3d/0e/d1.pdf

generality of students at an establishment … in academic, disciplinary or other matters relating to the government of the establishment' (Rodgers, 2008: 80).

In the following we will analyse whether the Students' Union at Warwick claims to represent student interests in the way that the student organisations above it think it should, using the graduate capabilities at the core of the Kings Project.

Student Societies, administered by the Student's Union allow students to form academically-focused communities of their own. It is interesting to see that the Classics department website includes a testimonial which praises what the Classical Society does. It writes that "the Classical Society organised theatre trips and weekly socials"[308]. The Classics society appears to have a less- career-focused idea of what students should be doing in their spare time. "Socials" and "theatre trips" would still allow students to focus on the subject area, but with less focus on skills for careers after university. This reference is from a student testimonial. No department makes any public statements about the Students Union. We might assume that this is an accurate representation of how the department feels about the Students Union because this testimonial has been placed on their website. We felt that it was likely that departments felt students would engage with the Student community and local community through activities organised by the Student's Union, which is why they have relatively few of these opportunities.

Community engagement

Student Societies

The students within the student community are able to engage with each other using societies which are administrated by the union's "Societies Federation". "There are currently over 250 societies in Warwick Students Union[309], administered by the Societies Federation. This organisation looks over a broad number of societies including academic, activities and games, campaigning, cultural, film and media, food and drink, hall societies, music appreciation, performance, religious societies and welfare, charity and action societies[310]. The Societies Federation claims to be democratically elected: "The Societies Federation is run by an elected committee like a society, and it is here to represent society interests and help develop societies.

[308] http://ww2.warwick.ac.uk/fac/arts/classics/admissions/
[309] http://www.warwicksu.com/societies/all/
[310] http://www.warwicksu.com/societies/all/

The committee also recognises and derecognises societies, handles emergency fund applications, and organises the Society Awards Party in Term 2."[311]It would be interesting at a later stage to find out how helpful students felt the Societies Federation was in encouraging student societies to develop.

Warwick Volunteers

Warwick Volunteers is part of the "Welfare, charity and action" societies group. It has its own space on the University website[312], and "enables students and staff from the University to take part in community volunteering"[313]. It is one of the biggest societies at Warwick, having over 1000 members each year. This is an interesting organisation for the community engagement strand because it shows how students are involved in a large number of projects which involve them in the local community.

Interestingly the people who wrote the Warwick Volunteers website are keen to emphasise that "Volunteering can offer you some invaluable work experience opportunities, and can really enhance your job prospects", which is an interesting theme. This shows that students are not only choosing activities which will enhance career prospects within academic departments but outside of them too. It is interesting to see, though, that this site portrays volunteering as an activity as useful for CV-building, but departments were likely to point out certain projects that fulfilled their own policy objectives (i.e. the Student Associates Scheme). It was interesting to see a section labelled **"**What transferable skills can you gain from volunteering?"[314] along with a link to Warwick Careers Service and the suggestion of a career in the charitable sector, which had not been mentioned on any of the department websites.

Warwick Volunteers also understand that students are attracted by the idea of being involved with something international, and are keen to advertise opportunities as such. They describe some of their volunteering opportunities as having an "international dimension"[315]. There is also

[311] http://www.warwicksu.com/organisation/4003/
[312] http://www2.warwick.ac.uk/about/community/volunteers
[313] http://www2.warwick.ac.uk/about/community/volunteers
[314] http://www2.warwick.ac.uk/about/community/volunteers/vols/careers/
[315] http://www2.warwick.ac.uk/about/community/volunteers/projects/international/

a page dedicated to volunteering opportunities both in the UK and overseas that can be undertaken during the summer vacation[316].

Ethics in the Students' Union

It is clear that there is an ethical code which Student societies are expected to adhere to: "The Students' Union has a number of policies that affect who societies and sport clubs may and may not be sponsored by. There are a number of ethical concerns with each of the companies and the Union, largely through Union Council, has decided to ban any sponsorship or advertising from these companies.[317]

Not only are Student Societies prohibited from acquiring funds from these organisations, but they are also rewarded for using ethical clothing for societies. Societies using ethical clothing have the opportunity to get accredited by the Students Union[318]. One of the companies that the Students Union prohibits student societies from engaging with collaborates with Warwick students and has named a Warwick student undergraduate of the year[319], which shows that the university has different ideas from the Students Union about which communities students should engage with.

"Have your say"/ Campaigns

The Students Union runs campaigns[320] on a variety of issues, from environmental to women's campaigns. These are very interesting because in many cases they appear to show students getting involved with what they see are problems within their own community (i.e. Domestic Violence within Women's campaigns). These campaign groups reflect the campaigning activity which was described in the report from the National Students Unions of Europe. The website does not show how many students are involved in these campaigns and to what extent.

[316] http://www2.warwick.ac.uk/about/community/volunteers/projects/summervol/
[317] The current banned company list stands as: McDonalds, Esso/ExxonMobil, Arms Companies, e.g. BAE Systems, Rolls Royce, AWE, etc; Nestle, Oil Companies, e.g. Shell, BP, Chevron, Total, etc
[318] http://www.warwicksu.com/societies/ethos/
[319] http://www.rolls-royce.com/investors/news/2009/220509_engineering_grad_recruiter.jsp
[320] http://www.warwicksu.com/haveyoursay/campaigns/

Academic Literacy

The Students Union claims to offer students advice on academic matters. The website advises students that "You should first contact your Personal Tutor or Supervisor or someone in your department you feel at ease with. The University Senior Tutor may be able to help. The Counselling Service also offers workshops on Study Skills. As well as this you can contact The Student Advice Centre for help with academic problems." This statement appears to show that the Students Union appear to see themselves as providing a service which is secondary to the services which students receive within departments. It is interesting that this advice is being given to students, particularly given the recent QAA report advice about areas for improvement. This advice stated that Warwick should "review the operation at departmental level of the new central guidelines on personal tutoring with a view to enhancing consistency of implementation"[321]. Perhaps it would be interesting to ask undergraduates at a later stage whether they thought the Students Union was a useful source of advice.

Global Knowledge

The Student's Union conveys global knowledge most publicly through the One World Week event. This event is the largest student-run international event in the world[322], with talks, corporate sponsors and events which are accessible to all undergraduate students. The Students Union links to a website about this event which says that: "The week aims to be a celebration of the international mix of students present at the University of Warwick and aims to stimulate personal development and inspire a view based on acceptance and appreciation of the world's mosaic of cultures. The week also highlights the importance of awareness of global issues which affect our One World."[323] It would be interesting to discover how much undergraduate students feel they gain from "One World Week", and whether this event allows international and UK students the opportunity to engage with each other to a greater extent than they might do otherwise.

Interdisciplinary study

The way that the Students union engages with interdisciplinary study in the university is by providing resources for students studying interdisciplinary degrees. Student societies for students

[321] http://www.qaa.ac.uk/reviews/reports/institutional/Warwick09/RG409Warwick.pdf
[322] http://www.oneworldweek.net/about
[323] http://www.oneworldweek.net/about

on joint degree courses include Maths and Physics society, MORSE society and the PPE society. The Maths and Physics society organises catch-up lectures, revision sessions and exam guides to students studying for this degree programme. The PPE society provides a lecture series, discussion forums, and socials for PPE students and the MORSE society provides careers presentations, has provided an award winning options fair and gives MORSE students opportunities for socials.

Overall the Students Union seems to be most relevant to the Community Engagement capability. It will be interesting to find out whether students feel as engaged with each other through the Students Union as the web site claims and whether the majority of students are involved with societies on a regular basis. It would also be interesting to interview the President and Education Officer at the Students Union to ask them what role they have to play in influencing the undergraduate experience within departments and whether they feel that what happens in departments affects student activities within the Students Union.

5 Departmental case studies: academic literacy, research-based learning, interdisciplinarity, global knowledge and community engagement in practice

Based on discourse analysis of departmental webpages and webpages of institutions across the University of Warwick, the first part of the research has established how departments claim to contribute to what we have identified as the five areas of graduate capabilities: academic literacy, research-based learning, interdisciplinarity, global knowledge and community engagement. The insights and categories that were developed as part of the discourse analysis form the framework of reference against which we will now look at departments' practices with regard to the five graduate capabilities.

Whereas the discourse analysis provided a broad overview of the claims departments and institutions across the university made, it would be beyond the scope of this study to establish the respective practices of all these departments. In analysing departments' practices we therefore need to confine the research to a selection of departments.

In the first research phase, the following departments were analysed as representative for their respective faculties:

Faculty of Social Sciences	Economics
	Politics
	Law
Faculty of Arts and Humanities	Theatre Studies
	History
	Classics and Ancient History
Faculty of Science[324]	Statistics
	Biological Sciences
	Chemistry

Table 15: Selection of departmental webpages

[324] Against the background of medicine not being taught at undergraduate level at Warwick, the medical school was not included in this analysis.

For the second research phase, a rationale for selecting departments was needed. We wanted to select departments that are on the one hand representative of their faculties as well as departments whose research and learning practices would challenge current conceptualisations of academic literacy and thus enrich the insights gained in this research. The following departments/modules were chosen for in depth-case studies:

	Key features
Chemistry department	Lab-work, global exchange programs, research internships
Theatre studies department	Practice as research, community engagement
FAUST module (taking its point of departure from the English department)	Interdisciplinarity, practice as research, challenging ways of assessment
VENICE study programme (History department)	Learning in new environments, global knowledge, community engagement

Table 16: Case studies

Methodology

As will be elaborated on in more detail in the respective case studies, each of them adopted a mixed methods approach. The key objective of each case study was to find ways of representing both the students' as well as the academics' voices. The chosen methods of inquiry involved qualitative interviews with students and academics, focus groups, ethnographic classroom observation, reflexive diaries, documentary research and analysis and secondary analysis of questionnaires. The variety of methods allowed us to look at our cases from multiple angles and to analyse different voices, such as students and academics, in their togetherness.

Care was taken in analysing all five graduate capability themes in each case study – academic literacy, research based learning, interdisciplinarity, global knowledge and community engagement. However, due to the diverse nature of the case studies, not all the graduate capability themes are equally present in all case studies.

The research was carried out following research ethics guidelines of the British Sociological Association [British Sociological Association, 2002] and the university of Warwick. Informed consent to interviews, classroom observations and focus groups was sought from the relevant

participants. Students as well as academics were informed about the purpose of the research, its aims and objectives. All participants were assured that the research data will be anonymised. Especially in the case of students, it was emphasised that their responses will be treated with confidentiality and that recordings and primary data will not be passed on to module convenors or other third parties. However, in the cases of academics, complete anonymity could not be assured as their identity could be traced through their being module convenors of quite unique modules in the university.

5.1 Case Study: 'The Venice' Experience

Phase 1 of this report examined how the five graduate capabilities, was presented and facilitated by departments according to their web-based resources. In an attempt to further analyse in practice how global knowledge and engagement with international communities was provided for, the History department's Venice programme was identified as a case study. The main reason why it was chosen above other foreign study opportunities was because I, one the researchers from Phase 1, was participating in the Venice programme during this autumn term in 2009. This unique opportunity therefore enabled research to be conducted not only from a position of passive observation and enquiry but also through active participation. My findings have led me to maintain an interest in all five of the graduate capabilities (Academic Literacy, Research-rich Learning Environment, Interdisciplinary Study, Global Knowledge and Community Engagement), with a slight emphasis on the last two capabilities.

Explanation of the Venice Program

The Venice programme, from 1967, enables history students to study and live in Venice for the first term of their final year. A group of history students, averaging 30 (according to one of the Venice co-ordinators), go with Warwick history staff to study in Warwick University's base, a palazzo near the Grand Canal.[325] Students rent flats in Venice that have been organised by the department's Venetian administrator.[326] It is not surprising therefore, that this could be described as a 'Warwick experience in Venice'; this theme will later be discussed. Moreover, the module focused on Venice and Florence. Students are also encouraged to go to Florence whilst in Italy.

[325] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/international/veniceprogramme/introduction/
[326] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/international/veniceprogramme/introduction/

The module structure facilitates this by having a 'travel week' opposed to 'reading week'. Assessment is due the week before to deter students from studying opposed to travelling. The focus on 'seeing' the things and places students study is central to the course, 'The point of the module is to give students a unique opportunity to study the history of a great Mediterranean city while living in it'[327]. Crucially, this was something I and my fellow students all commented on. History students are also joined by a similar sized group from History of Art; whilst Theatre Studies, for the first time, also used the university's palazzo as a base during their weekend of study in Venice. The findings of this report draws from the experiences of all three courses.

The Methodology

The methodology is based on qualitative research:

- *Interviews with Students*- Four history students and one history of art student were interviewed at the beginning of the term, regarding their expectations. They were interviewed again in the final week to record their actual experiences. An interview with one of the Venice Co-ordinators was also conducted to get a perspective on the module from a member of staff, who had seen the term run from 2001. Finally, interviews were conducted with several theatre study students.
- *Observation*- As an active participant in the experience, I recorded my own experiences and observations of other people in a research diary, which will form part of the evidence in this case study. I also acted as a passive observer of the experiences of the Theatre Studies students, although, because I had directly experienced some of the things they discussed, it felt as if I was an active part of their experience as well.

The Findings

Global Knowledge

As discussed in Phase 1, there are various terms used to discuss 'global knowledge' including internationalisation, globalisation and europeanisation. The latter term, which is certainly applicable to the Venice Programme, introduces a regional aspect into internationalisation (Toyoshima, 2007). Internationalism broadly aims to 'develop mutual understanding across

[327] The point of the module is to give students a unique opportunity to study the history of a great Mediterranean city while living in it, and Venice is well-suited for the purpose, since its overall appearance and structure have changed so little in the last four hundred years

cultural borders', through 'awareness and…interactions within and between cultures through its teaching, research and service functions' (Yang, 2002: 83). Crucially, Warwick's History department uses 'international experience' to describe the global aspects of its course.[328] As explained however, the Venice program could be described as a 'Warwick experience'. One of the Venice Co-ordinators acknowledged that the course is certainly a more an 'Italian experience' this year with the links with the Venetian university, Ca'Foscari. This has enabled students to opt to take Italian lessons at the university and be paired up with an Italian buddy. It was therefore hoped that students would mix with Italian students, opposed to merely their Warwick classmates. A female history of art student at first exclaimed it was 'definitely a Warwick Experience', and explained that's what attracted her to the opportunity. Upon reflection however, she said 'the language classes and buddy scheme makes it better.' Furthermore, she said she did feel part of the student community in Venice. Notably, all students said they thought the Venice Program was a better alternative, for them personally, than Erasmus. They deemed a whole year abroad too long and daunting. A male history student argued he felt more secure knowing you were coming with a group from Warwick and felt confident that the 'facilities would be quite good'. He also pointed out his language skills were not adequate for some Erasmus opportunities. All students in the interviews and myself in the research diary remarked how the security of having Warwick lecturers and friends their made it more appealing. I said 'it was a good balance between feeling secure and having the opportunity to study in a foreign environment' (research diary, 22nd September 2009). Consequentially, the Venice program appears to provide a middle ground for students who are no confident with or wish to spend a whole year abroad, on their own.

In what ways did students therefore feel as if it was an 'international experience'?[329] Regarding the physical surroundings, all students noticed how this change in environment effected how they studied and lived. All students highlighted the lack of resources: computer facilities, books available for essays, internet, opening and closing times of places (see Pictures 1 and 2). A male history student described it 'harder' to study in Venice. Conversely, he also noted it was a more attractive learning environment. He describes the Italian libraries as more 'traditional' in terms of wooden floors and old bookshelves (opposed to 1960s Warwick). A female history student noted the lavish environment of the university's palazzo, something I too recorded in my research

[328] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/admissions
[329] http://www2.warwick.ac.uk/fac/arts/history/undergraduate/admissions

diary.[330] At the time I was fairly critical of this showy environment of the palazzo, which 'failed to compare to the practicality of Warwick.' (25th September 2009). However, once I discovered the *Querini* library, the following week, which combined students' study needs with beautiful rooms to work in, I was a lot more content with the learning environment. In short, students needed to adapt to their new environment, and for some this would have been harder than others. A male history student remarked how much he enjoyed studying in a city, with the ease of getting a slice of pizza or spritz[331]. The Theatre Studies students also noticed the different, Venetian environment, during their weekend in the city. 'The dominance of water' (Theatre Studies students, 9th November 2009) was a common phrase used by the students, as they discovered how the flooding impacted on the city and consequentially on their work (see Picture 3). Living in a city where flood boards were part of its furniture and air-raid like sirens sounded to warn you of the approaching floods acted as a constant reminder that I was not in Warwick. (research diary, 15th November 2009). Consequentially, this evidence suggests this was not just a 'Warwick experience'. Students had constant reminders that they were living and studying in a foreign environment.

[330] Research Diary: 25th September 2009: 'Above us, Murano glass chandeliers…the floors are made from original stone…lots of gold paint, marbles, antique furniture in the computer room, rich colours and fabric on furniture'
[331] A spritz is a traditional Venetian drink that all locals drink.

Picture 1: The computer room.
Lavishly decorated with paintings and antique furniture, it Contrasts greatly with Warwick campus facilities; in appearance and on a practical level. Due to the lack of facilities, students were forced to use public libraries in Venice. More funds are needed to improve these facilities, yet being prompted to find other areas of study in Venice, is a rewarding and worthwhile experience, that enables students to be a part of Venice's community. (research diary, 13th November 2009).

Picture 2: The library facilities, in a room without internet. We ran the library ourselves, using pen and paper. It therefore seemed very backwards compared to high-tech Warwick facilities. All students interviewed highlighted the problems in obtaining books, many of which were not in Venice. Consequentially, regarding studying, there seemed to be a general consensus amongst students that it was more difficult to do work in Venice.

Picture 3: Flooding in Venice. The flood boards carry two lines of people but it is very slow moving, especially when tourists stop to take pictures. Walking to university in this environment, amongst tourist is a completely alien experience to Warwick.

Moreover, the foreign environment was central to the delivery of the history course and students' obtainment of 'global knowledge'. The course was structured with a compulsory site visit per week, enabling students to be shown Venice's historic masterpieces and have them explained by experts. In short, it 'brought the history alive' (research diary, 2nd November). Crucially, two of the female history students interviewed commented, that the compulsory site visits were also an important way of ensuring students saw all the key sites of Venice, one per week, amongst a heavy workload. In the earlier parts of my research diary I clearly felt tensions between completing assessment and 'getting the most out of Venice' (5th October 2009). In hindsight however, I think I felt impatient (research diary, 4th December 2009) at the beginning. By the end of the term I had seen everything I had wanted to see, aided by site visits. Moreover, my research diary records how I 'appreciate the area even more' after being taken around it by my tutor. Crucially however, the site visits are an example of how the Venice program helps develop an understanding of global culture Yang discusses (2002). Studying in Venice therefore contributed something to the course that would not have been possible in Warwick. Likewise, theatre studies students stated that completing their research in Venice was central to their project, arguing, 'the drama, and theatricality of the city' and the importance of aesthetics supported their work (female, Theatre Studies).

Community Engagement

In phase 1 of the report, it was acknowledged that community engagement can be categorised into social/economic and national/international. The Venice program is an example of social international engagement, whereby, "students combine academic study with some sort of direct, practical involvement, usually with a community close to the university" (Bednarz at al, 2008: 87). Notably, all students interviewed wished to engage with locals and people outside of the Warwick network. For example, one of them said that the 'they wanted to have an international experience, and this cannot be done without learning the language' (male, history). Whilst the history of art student stated that she 'wanted to engage with the international culture'. All students said they welcomed the opportunity to take Italian lessons, directed towards speaking opposed to translation[332]. Consequentially, the majority of students signed up to Italian classes (research diary, 12th October 2009). Moreover, importantly all students strongly praised the teaching in these lessons, my research diary recorded, 'that they were best language tuition I had ever received' (20th November 2009). This new opportunity therefore supported students in their hopes to engage with the Venice community. Moreover, students were introduced to Italian students through a buddy scheme, which too was praised by all the students interviewed. Notably, all students acknowledged the extent to which one engaged with the local community, depended what people put into it. For example I decided to stop going to Italian lessons after week 6 because I felt, it was 'pointless', and my attentions would be more wisely spent on my history assessment. Only 8 out of the original 25 in my Italian class took the exam at the end of the term (research diary, 24th November 2009). A fellow student also said that if the assessment was slightly less, she would have utilised more social opportunities with the Italian buddies. Therefore, some students chose to prioritise their history work over opportunities for international engagement. Others conversely felt able to cope, using all social opportunities available. Notably the student who said this was the only student interviewed who said he had held conversations in Italia (male, History). Arguably students will have experienced day to day social interaction, at libraries, in shops, bars etc. The Venetian co-coordinator pointed this out; whilst a student said that she had felt confident talking to Italians in social situations, in bars etc (female, History of Art). Community engagement at least occurred at a basic level in day to day activity; whilst further interaction was dependent upon the student.

[332] All history students in their interviews said that Italian lessons at Warwick University had been directed at written translation, opposed to oral communication.

Research-intensive environment.

Phase 1 of the report discussed the importance of student's confidence (Kegan, 1994) and the need to break down power relations between students and academics in order to facilitate more collaborative research opportunities. At the beginning of the module, we were instructed to do a research project. Moreover, the Theatre Studies students, in their weekend exploration of city conducted their own creative research. Their presentations and exhibitions certainly conveyed a large degree of ownership over their work and experiences. Moreover, all 4 history students interviewed described the relationship between their tutor as more 'casual', explaining how 'they got to know their tutor more'. It was even recorded that some students went for drinks with their tutor (female, History). It may be too early to tell how this effected students' engagement with the course, but enquiry into the relationship between tutor and student back in England would be useful. Nevertheless, one student remarked how she talked to her tutor about her work more and this had helped her (female, history).

Interdisciplinary Study

The nature of the module which heavily relied on renaissance artefacts facilitated interdisciplinary study, in a self-contained approach as discussed in Phase 1. Site visits and teaching regularly examined art, architecture and literature.

Academic Literacy

Central to the application of interdisciplinary study in Venice was the site visits. The History and History of Art students interviewed, all emphasised the benefits of seeing what they were studied: 'it was imperative the course' (female, History of Art) it was an aspect she looked forward to and described it as the best academic opportunity she had been given during the term. The female history students too praised the course for enabling them to visually learn. Crucially therefore, this hands on approach provided an effective method for tutors to disseminate their knowledge and for students to engage with their discipline. Therefore students in this learning process develop new skills and academic literacies appropriate to the course. Similarly, the methods used by the Theatre Studies students to present their work were an effect way of disseminating their knowledge of Venice to other students and lay people. History students also remarked the quantity of assessment also forced students to hone their skills, particularly in essay writing, to work more time effectively (female, History and Research Diary, 2nd November

2009). Although for some students therefore, the quantity of the assessment perhaps detracted from some social opportunities, these students also recognised they became more effective workers (female history students). One student remarked, despite spending less time than usual on her essay, her marks improved (female, History), whilst another student added, that if I had asked her how she felt about the workload whilst in the midst of the essay, she would not have had the same positive response. My own changing feelings towards the assessment are recorded in the research diary. Originally I wished to take half of the assessment in an exam, along with one other student. Although this other student still would have preferred to taken an exam in Venice- if it was possible (the exam option is taken in the summer). I had seen the benefits of doing such concentrated essay writing and concluded that the intense workload would be beneficial for me next term.[333]

Conclusion

Through a unique method of active participation and enquiry, several findings have emerged.

- The dramatic differences between the physical environments of Warwick campus and Venice city act as a constant reminder when studying and living that students were in a foreign environment.
- Students were given opportunities to engage with locals, through buddy scheme and language classes. The extent to which students stretched the potential of these opportunities depended on the student.
- The academic assessment of the module was a contentious issue and student's opinions of it changed over the course. On the one hand, the sheer quantity of work may deter students from taking some social opportunities. Conversely however, it forces students to hone their academic skills.
- The module also provides an undergraduate research opportunity and facilitates interdisciplinary study.

[333] The handbook for the module states that students have a choice of assessment; either one 4,500 word essay and an exam in the summer or two 4,500 word essays and a 2000 word book report. Since the latter option is really the only option students have, this perhaps should be stated in the handbook. Please see: http://www2.warwick.ac.uk/fac/arts/history/undergraduate/modules/hi320a/moduleregs

5.2 Chemistry Department Case Study

Introduction

This section focuses further on global knowledge and community engagement; investigating their connections and correlations with other graduate pledge strands, particularly research-led environment and academic literacy. The Chemistry department serves as a useful case study due to its advanced research-led environment, and the variety of exchange and placement programmes it offers its undergraduate students. The department also has a reputable research-led environment, as students in all years are involved in laboratory modules where they are taught various research skills.

Besides, as we saw in earlier chapters the Chemistry department, like others in the Sciences faculty, conveyed global knowledge mainly using exchange and travel programs. Chemistry therefore provided a valuable opportunity to investigate further the interactions of the global knowledge and community engagement with the research-led environment strand.

Methodology

The methodology involved four main phases:

Student Presentations: We began by observing and analyzing the research report presentations of students who had taken part in exchange and placement programmes during the 2008/2009 academic year.

International Office Report Surveys: An extensive discourse and content analysis of the International Office's exchange program reports was carried out. The reports were written by students from several departments who had taken part in exchange programmes all over the world. The surveys acted as a valuable comparison between the Chemistry department case study and other departments.

Student Questionnaires: The third phase involved sending out a short questionnaire to Chemistry students who had made report presentations on their year abroad or industrial placement. The questionnaires involved open-ended questions such as:

- Why did you apply for the intercalated/industrial/Tasmania program that you undertook?
- What were the main differences between studying/working in the institutions you were placed, in comparison to Warwick?

- Did you undertake any research, if so what activities did this involve?

Programme Coordinator Questionnaires: Along with the student questionnaires above, a general questionnaire on the nature of year abroad programmes was sent to the coordinator of the Comparative American Studies year abroad programme in the American continent. This questionnaire provided key insights for comparisons with the Chemistry department's programmes in its relation to a research-led environment.

Descriptions of Chemistry Exchange and Placement Programmes

In an earlier chapter of the report, we highlighted the extent to which different faculties engaged their students in global knowledge and community engagement. The Sciences faculty seemed to convey global knowledge to a lesser degree than the Arts and Social Sciences faculty with regards to promoting a globally oriented curriculum. However, as we shall see, the Chemistry department is involved in several international and local placements that enhance both global knowledge and community engagement in their students.

The programs include industrial placements, intercalated year programmes and a Tasmania Exchange programme[334]. The 12-month or 6-month industrial placements take place after the second year of study. The 12-month placement is part of the MChem Chemistry with Industrial Training degree and involves the students taking certain modules by distance learning whilst they are away. The 6-month placements are part of the MChem Chemistry with Professional Experience and take place from April to September during the student's third year. Both these industrial placements involve writing a report and making an oral presentation of the work involved.

Intercalated year programs offer BSc and MChem students the opportunity to spend a year working in industry. Although an intercalated year does not formally contribute to degree results, the words 'with Intercalated Year' are added onto the degree of a student that undertakes it. The industrial placements and intercalated year programs both involve the placement of students in a wide range of companies from pharmaceuticals to environmental and oilfield services[335].

[334] http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/ugstudy/placements/
[335] http://www2.warwick.ac.uk/fac/sci/chemistry/chemintra/ugstudy/placements/

The Tasmania Exchange programme is classified as a part-year exchange programme. This is because the exchange only lasts for three months in the summer term, where students carry out a research project whilst based at Tasmania University.

The Chemistry Department offers these programmes with an aim of providing students with experience of chemistry in a business or industrial environment, i.e. an experience outside the classroom. The department highlights some useful benefits of the programmes as an opportunity for students to carry out interesting and challenging research beyond that of the academic world. Despite the intercalated year not counting towards the final degree results, the department aims for it to offer a valuable experience in work outside the classroom. The department outlines that both the intercalated year and industrial placement programs make the students extremely employable as they involve students working as salaried employees for some leading industrial companies in the United Kingdom and Europe.

Student Perspectives

Chemistry students had interesting perspectives on their experience working or studying outside Warwick. When asked in a questionnaire why they had applied for their chosen exchange programme, they all mentioned the opportunity to gain additional research experience as a key motivator. Gaining further research experience and exposure outside university seems to have been perceived as very valuable and interesting. Another key motivating factor, especially for students applying for the Tasmania Exchange programme, was the chance to travel and explore other cultures. The Tasmania exchange students were attracted to the programme as it was an opportunity to expand their world travels and engage with practitioners from other cultures. Consequently, students found that this exchange had enhanced their zest for travel, and many spoke fondly of their host families and co-workers in Tasmania.

Other motivating factors given by students included the fact that undertaking an exchange programme would act as an impressive component of their CV and enhance their employability. Some students used their intercalated year to get industry specific experience that would help them decide on their future career. An example is an intercalated year student who mentioned that he applied for the programme specifically to gain experience in the pharmaceutical industry

and to see if he wanted a career involving chemical research. These programmes were therefore seen as students as an opportunity to experience the world of work and make informed choices on the direction of their future careers.

Another question that the chemistry students were asked was the main difference in studying/working at other institutions compared to Warwick. Here their responses varied widely and were dependent largely on the culture and nature of work at their host institutions. One industrial placement student found that the workplace was much more structured than the self-study environment at Warwick. Almost contrastingly, Tasmania exchange students found that Tasmania University was much smaller than Warwick and the culture was definitely less formal with students and lecturers socializing and interacting with each other much more than at Warwick.

However, one similarity across all the different types of exchanges and placements was that all students mentioned that they got to do more independent research than their laboratory sessions at Warwick. One Tasmania exchange student mentioned that their lab research project in Tasmania lasted for 10 weeks compared to between 3 to 6 weeks at Warwick. Students also mentioned they had easier access to necessary journals and information for research, and the equipment they used at many of the companies were much more advanced than they had previously used in their degree. Another intercalated year student also mentioned that the research they carried out was less restricted than at Warwick and involved experimenting new techniques using advanced equipment.

Therefore, it is clear that the Chemistry department's aims in offering these programmes, agreed largely with the students aims in participating in them. Both the Chemistry department and its students agreed that these programmes offered opportunities for students to gain an advanced research experience outside the academic world. There was also agreement in the fact that these programmes enhanced the employability and professional experience of the students. Many of the industrial placement students also mentioned the programme was a valuable opportunity to meet and work with industry experts.

The Enhancement of a Research-led Environment

By observing the research presentations of the exchange students at Warwick, it was clear they had all carried out well detailed and extensive research projects. They had all studied new and innovative (in some cases 'classified') research topics. Their presentations were all very professional and resembled the presentations of formal research conferences. Despite the large difference in topics amongst the students, the research projects were both very disciplinary, i.e. chemistry based, and applicable to various academic and commercial topics. Some of the wide-ranging topic applications included environmental studies, diabetes drug research and household goods research and development.

Also, despite students working closely with industrial experts on their research projects, they still portrayed a strong claim to ownership of their work. They had definitely been fully involved in the research process and this was reflected by their detailed knowledge of their subject matter. This was portrayed especially in the Tasmania exchange presentations where students not only explained clearly their aims and methodology of research, but also gave recommendations for further future work in their research field. In all the programme presentations, students had to answer questions from both their lecturers and other students on their research findings and methodology.

Evidently, the industrial placements, intercalated year and Tasmania exchange programmes all enhance the research-led environment of the Chemistry department. Apart from the formal research exposure the students gain, the experiences they gain from these programmes have strong benefits for their final year study. Students mentioned that the exchange programmes helped them prepare for their final year research project as they were able to learn about new, applicable and practical techniques. Students also mentioned that writing out a research report and presenting it served as good practice for their final year research, even in cases where their year abroad research project was unrelated to their final year research. The above also highlights the promotion of a more practical nature of academic literacy, where students in addition to writing out research reports, were engaged in practical laboratory research where they used various practical techniques to gain and convey their research findings. These programmes are therefore a useful way of developing strong and extensive research skills in Chemistry students, applicable and useful in their final year study.

Other Departmental Findings

The Chemistry Department's exchange and placement programmes shares certain characteristics with other Warwick departments when it comes to the enhancement of a research-led environment. From a discourse and content analysis of student reports[336], many students agreed that exposure to new ideas, environments, lectures and institutions gave a number of possible ideas for their final year dissertations. Similarly to the Chemistry department's industrial placement where students interacted with industry experts, there was a general view amongst University of California exchange students, that they found it academically useful interacting with other world leading academics and lecturers outside Warwick.

Students on exchange programmes under various departments in the Social Sciences faculty also mentioned that access to an incredible amount of resources at their host institutions, enabled them to present a wider variety of information in their research work. Some students mentioned that they had been involved in researching and presenting papers at conferences during their year abroad, which enhanced their research skills and allowed them to develop a stronger interest on their degree.

Additionally, there was evidence that exchange programmes also enhance the interdisciplinary study of undergraduate students. Overseas programmes provided the opportunities for students to experience a different university system. Students from different Warwick departments mentioned in the surveys that the quarterly system of most American universities allowed them to take a wider variety of classes and subjects compared to their Warwick departments. The larger variety of subjects and modules furthered their interdisciplinarity, which students described as useful at an undergraduate level.

Summary

This section focused on global knowledge and community engagement; investigating their connections and correlations with other graduate pledge strands, particularly research-led environment and academic literacy.

[336] Reports from International Office's American Study & Student Exchange Committee (ASSEC) Grant Report Forms

The students agreed largely with the Chemistry department that these programmes offered opportunities for students to gain an advanced research experience outside the academic world. There was also agreement in the fact that these programmes enhanced the employability and professional experience of the students.

From the student presentations, they had all carried out well detailed and extensive research projects, where most of them studied new and innovative research topics. They had definitely been fully involved in the research process and this was reflected by their detailed knowledge of their subject matter.

Students mentioned that the exchange programmes helped them prepare for their final year research projects, as they were able to learn about new, applicable and practical techniques. Writing out a research report and presenting it served as good practice for their final year research, even in cases where their year abroad research project was unrelated to their final year research.

The seems to be a promotion of a more practical nature of academic literacy, where students in addition to writing out research reports, were engaged in practical laboratory research where they used various practical research techniques to gain and convey their research findings.

Most students from other departments agreed that exposure to new ideas, environments, lectures and institutions gave a number of possible ideas for their final year dissertations. There was evidence from other departments that exchange programmes also enhance the interdisciplinary study of undergraduate students. The larger variety of subjects and modules offered in other university systems furthered their interdisciplinarity.

5.3 A Case Study of the Theatre Studies Department

The first stage of our work at the Reinvention Centre at Warwick led us to analyse discourses in the web resources provided by the University which it uses to describe the courses which are available to students at the University. The second phase of our research saw us maintaining an interest in all of the five graduate capabilities (Academic Literacy, Research-rich Learning

Environment, Interdisciplinary Study, Global Knowledge and Community Engagement). Our phase two research is also focused on further investigation of the Academic Literacy and Research-rich Learning environment strands.

Why the Theatre studies department?

This chapter will focus on the School of Theatre, Performance and Cultural Studies at Warwick. This is because our investigations in the first part of our work showed that this department had distinct ways of producing a research-rich learning environment and had worked on a wider concept of academic literacy. The Research-rich learning environment in Theatre Studies is interesting because of the presence of artists and practitioners, both as permanent and visiting staff. Academic literacy in the Theatre Studies department is of note because students are assessed not only through the written work that they produce, but also through performance and creative pieces. Within the Theatre Studies department we focused on three particular courses, the Hip Hop Theatre and Practice module which was part of a larger module for first year students entitled Aspects of Practice, the second year Theatre in the Community course and the third year . These courses were chosen because they not only appeared to show evidence of innovative approaches to academic literacy and the research-rich learning environment, but also because they linked to other strands which we had studied in the earlier stages of our project (namely global knowledge and community engagement) and showed how the graduate capabilities are not exclusive and can be found in the same learning experiences.

Research methodology

The case study of the Theatre Studies department was completed using a variety of methods. The first type of analysis that was completed within this phase of the research was qualitative interviews with staff. The staff interviewed were the module convenor for Theatre in the Community module, and the module convenor for European Street Theatre, American Theatre and the third year dissertation option. The interviews enabled us to understand what they thought it meant to provide students with the graduate capabilities listed above.

Our focus on research-rich learning environments resulted in interview questions focusing on what types of research activities students engaged with, how undergraduates gained the skills and

the confidence to do research, and what topics undergraduates were involved in researching. We asked the following questions in the interviews:

- How did this course come about?
- What makes this course different to other courses?
- What role does engaging with the community have to play in a research institution like Warwick?
- Do students begin with many of the skills that they need to get the most out of community engagement when they start the course?
- How have your past experiences as a practitioner influenced the way that you teach this course?
- Have there been any difficulties in keeping this course going?

The focus on the academic literacy graduate capability resulted in interview questions which asked how students were assessed with a particular focus on the difference between practical examinations and written essays or examinations. We asked questions which were targeted at understanding final year research options, and how students were expected to acquire the skill set required to complete these options (the literacy journey).

- How do you think the modules have altered student's perspective of theatre?
- Do you think that the Theatre Department tries to convey an international perspective on theatre?
- How do you think it is put in perspective?
- What has your experience of the options of observing students doing dissertation vs. doing a practical option in the third year?
- Is there a focus on personal development in Theatre Studies?
- How is that practised?

The second type of analysis completed in the case study of the Theatre Studies department was a discourse analysis of a module (Hip Hop Theatre and Practice) which had been funded by the

Reinvention Centre[337]. The module convenor had focused on the research that the students had performed, the role of practitioners, and the use of performance through the course. The module convenor also included excerpts from the critical reviews that students complete after they have finished their performances, in order to evaluate them. This analysis gave us the opportunity to understand the use of practitioners and performance in Theatre Studies modules. We also analysed video evidence from the same module to understand the way in which performances occur in the Theatre Studies department, and the role that visiting practitioners have which enables them to enrich a course like Hip Hop Theatre and Practice.

The fourth method employed within this case study was an observation of a course which is currently running, the Theatre in the Community course. The course was observed once, during a session in which students were presenting their research about companies working in community theatre. This session was interesting to observe because it allowed us to understand how students were able to engage in web based research. The students taking part in the module had been asked by their module convenor whether they wanted to take part, and were willing to talk about how the session differed from other sessions that they had experienced as part of the module and other classes. This method was also used in order to understand student-staff relationships in the department and as a unique opportunity to understand how community engagement and a research-rich learning environment can be present in the undergraduate experience.

The Graduate Capabilities

Community Engagement

The community engagement research strand had been particularly interesting in the first stage of our research. The second phase of our research allowed us to investigate whether that claim was true, and if not, what the benefits and drawbacks of allowing opportunities for students to gain this graduate capability within the curriculum were. The module which allowed us to gain most information about this capability was the Theatre in the Community module which students are able to take in their second year of an undergraduate degree in Theatre Studies. The module focuses in particular on the prison community, as the module convenor runs a theatre company that works in prisons in the West Midlands. Students in the course take part in workshops and

[337] http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/fundingopps/fellowships/fellows/gluhovic_final_report.pdf

prepare to be assessed when they produce a workshop and performance to be carried out in a prison.

The qualitative interview that was conducted with the module convenor revealed several benefits for students who took part in opportunities within the curriculum to engage with other communities. The first apparent benefit to this approach was the personal development of students, which had not been mentioned in the literature on community engagement that we had read as part of our first phase research. The module convenor noted that students gained a great deal of confidence by moving from the "closed environment" of the university to that of the prison. The change, he claims is a result of the fact that students are forced to change the way they operate and analyse the university environment in which the study, by comparing it to the prison environment. It was extremely interesting from a sociological standpoint to hear that he felt the main point of comparison that students made was between their own socioeconomic background and that of the prisoners. Our earlier chapter which analysed the way in which a research –rich environment appeared to be shown on the website included literature which claimed that it was important to give undergraduates the confidence to research. The module convenor for the Theatre in the Community claimed that the engagement makes students more aware of the positions of themselves and others in society, by giving them an opportunity to evaluate their own university environment as well as the prison environment of the people they work with as part of the course.

We also found the "personal development" discourse in the report made by the module convenor for the Hip Hop Theatre and Practice module. The module convenor for the Hip Hop Theatre and Practice module wrote that he wanted the students to become "citizens", and aimed for the course to allow students to ask questions and analyse their own work critically. The two practitioners who performed on the video that was produced by the module convenor, said that they enjoyed "seeing you guys grow" and seeing "some of that anxiety we talked about just dissipate"[338]. This appears to have a great deal to do with the concept which was discussed in the literature review about research rich learning environments which focused on the importance on of allowing undergraduates to gain the confidence engage in research activities. Exposure to

[338] Hip Hop Theatre and Practice video: Performances, Introduction

practitioners appeared to help students gain more confidence to engage with the subject matter (Hip Hop), when they had previously not felt comfortable exploring the genre.

The module convenor for the Hip Hop Theatre and Practice module quoted a student who had written in his critical review "Kevin Powell made the claim in a 2003 publication of Newsweek, "Let's be honest. All this fascination with hip hop is just a cultural safari for white people" (Powell cited in Kitwana 2005, p.53). This summed up my initial approach to hip hop as practice. It was a medium to observe, with an understanding that my socio-cultural background meant that I had no "ownership" over it. Through the process of the project, however, I felt that the importance of engagement in the genre came with the appreciation, adaptation, and embodiment of its cultural aesthetics over the assimilation into its culture"[339]. It was interesting that the student claimed to be engaging with the subject. It appears that the student felt they were engaging with an art form from a community that they did not belong to. The statement that the student makes is also very interesting because reference to the "socio-cultural background" of the student herself is made, which connects to the comments made by the module convenor for the Theatre in the Community module about the thought processes of the students in the module. This phenomenon could also be seen as interdisciplinary because of the way that social, political and economic facts about the students and the community which produced the art form they were studying seem to have been important to their development of an understanding of the genre.

Research-rich learning environment

The development of a capacity for self-examination and social evaluation (which we can see from the use of critical reviews as module assessment), can be viewed as a method which may result in students feeling that they are capable of doing research as we discussed earlier in the report (see page x). The key to the building of confidence in research activities appears to be in enabling students to experience genres that they do not have previous experience of. The module convenor for the Dissertation option claimed that students were given a great deal of autonomy when they took part in practical activities, and a sense of achievement when the project was finished gave them a great deal of confidence. Students in the Hip Hop Theatre and Practice module were able to talk to practitioners and perform as part of their research activities. These

[339] Milija Gluhovic's Report : http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/fundingopps/fellowships/fellows/gluhovic_final_report.pdf , page 7

types of activities can be described as "research-as-practice" and in his report the module convenor highlights this as a "key word"[340]. Our research also discovered the use of the term "research-as-performance" in the Theatre Studies department. The module convenor for the Hip Hop Theatre and Practice module quotes Kershawiii in his report as saying that "performance as research dislocates knowledge; produces new ways of knowing" (Kershaw, 2008: 10).

The module convenor for the Hip Hop Theatre and Practice module wrote "I see performance in general as meaningful in our daily lives as citizens, rather than a special, or worse "elite" event. In my classes I aim to create a community of scholars/artists/citizens, who refuse distinctions between theory and practice and who insist on the importance of their work to democracy locally and nationally, even globally. My experience is that students hunger for such relevance. I teach my students to imagine particular audiences for their research. I invite them to ask what is important right now, in this historical moment? What do I want to say and why? To whom do I want my words to speak? And most importantly, who cares? The question is not necessarily what is original (a scholar's usual question), but what is urgent? What can I say about this performance that will communicate how it changes my world, if only for a moment, how it gave me an idea of how we might act differently toward one another?"[341]. This is a statement which displays an intention to give students to gain a number of the capabilities which we are investigating. First, the description of students as "scholars/artist/citizens", shows that the module convenor sees the student as playing different roles in the course of their learning, first as a scholar, who engages in research, then as an artist who perform and also as a citizen who is aware of the socio-economic state of affairs within which they and others exist. Second, the module convenor for the Hip Hop Theatre and Practice says that he would like his students to "refuse distinctions between theory and practice". This is interesting, and connected to the discussion below on how academic literacy is conceived in the Theatre Studies department, as both theory and practice.

[340] Milija Gluhovic's Report : http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/fundingopps/fellowships/fellows/gluhovic_final_report.pdf (page 1)
[341] Milija Gluhovic's Report : http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/fundingopps/fellowships/fellows/gluhovic_final_report.pdf (page 9)

The module convenor for Hip Hop Theatre and Practice also wrote that he asked his students to "imagine particular audiences for their research" and to ask particular kinds of research questions: "The question is not necessarily what is original (a scholar's usual question), but what is urgent?". Focusing students on particular research questions appears to provide a research-rich learning environment. The fact that the module convenor encourages students to focus on what is "urgent" implies that there was a sociological nature to the research questions that the module convenor encouraged students to develop. This is also evidence of interdisciplinarity within the course. Students perform and conduct research, but that research is not just about the theatre process, but also about the social context of the works and genres that they are studying. We found claims that students were able to engage with the social context of work on the website and this statement by the module convenor appears to explain how this works. When these claims were made in the web resources it was difficult to know whether students were merely meant to know about societies that were relevant to their work or whether students were actually going to evaluate social contexts and therefore to engage with sociology as a discipline. It appears here, that the aim of this module was to encourage students to engage with a genre partly through sociological evaluation, which is a clearly interdisciplinary approach (link to Alex – say what type of interdisciplinarity it is). Unfortunately we have been unable so far to contact the module convenor to ascertain whether a sociological research approach was an initial aim of the course.

Academic Literacy

It seems that those who teach in the Theatre Studies department wish to teach students more than just the theories of Theatre. Teaching about the practice of theatre is just as important. The module convenor for Hip Hop Theatre and Practice noted that "some of the students commented that the feedback that they received from the tutor and the workshop leaders while working on their final performances was sometimes contradictory...(but the)... dialogic process... (is a)...fundamental part of any theatre making". In this case, the module convenor appears to claim that the different viewpoints of the practitioners who assisted with the course enabled the students to gain an insight into the way that performance works outside of an academic environment where there is more than one narrative to dictate the form that a performance might

take. Students also had to take responsibility for the technical aspects of their performance. The module convenor wrote that he "also organised for students' sessions with our technician"[342].

Other members of staff in the department appeared to agree that practice is as important as theory to the subject area. The module convenor for Theatre in the Community believed that students needed to gain knowledge about the realities of working within a theatre company. During the session which we observed as part of our research he said that the "course doesn't train people to be in a theatre company". He focused on making sure that students understood the financial and legal nature of theatre companies, in his session where student were researching theatre companies. The module convenor for the third year Dissertation option, when interviewed explained that there was a "blur" theory and practice, and that students often found themselves undertaking projects using research questions which involved both theory and practice. An example of this is a group of students who at the time of the interview were preparing a third year practical option which focuses on the Berlin wall. These students have had to engage with academic theory of the responsibility to understand history and how that relates to theatre, whilst also using a workshop to investigate actor-audience relationships in a practical way. The module convenor argued that students "think of it as different", but there is no real distinction between the two forms of research. We were unable to ask students why this might be, as we were unable to gain responses to a questionnaire we had sent out. Different forms of assessment, however, may be the reason why students perceive a divide between theory and practice.

The module convenor for the third year Dissertation option argued that the reason why students are able to use performance and practice as research and why these sorts of activities are sometimes preferable to essay writing was because of the importance on the "process" of theatre as well as the subject "content". The module convenor gave an example to describe how in some cases practical assessment is more appropriate than written assessment. The module convenor described how researching a Japanese tea ceremony so that it could be performed is extremely difficult using written work and how it would be better to research it through experience. The module convenor explained that it was difficult to assess students in a dramaturgy course who

[342] Milija Gluhovic's Report : http://www2.warwick.ac.uk/fac/soc/sociology/rsw/undergrad/cetl/fundingopps/fellowships/fellows/gluhovic_final_report.pdf (page 4)

were engaging in such research activities in an examination. Students in the course had to be able to identify what areas needed research when they were given a play, and then carry out that research. The module convenor said that the first time she taught the course she told students to produce dramaturgy protocols [343] and bring them to the exams so that they could answer questions on them, but that this was not a true test of the research activities that students had completed because examination as an assessment form focuses on testing students' knowledge and understanding of content, not processes. The module convenor for the Dissertation option argued that research essays might have captured this process more efficiently, but that this was difficult because of the requirement for 50% of assessment to be in examination form at Warwick. We were also told that the department were rethinking the research option in the third year. The module convenor for the Dissertation option said that in the future this option may become compulsory and students in addition to the dissertation and practical option which are currently on offer would be able to take a "hybrid" option which combined both the research of theory and practice.

Main findings

- The personal development discourse and it's connection to the development of confidence to do research and engagement with different communities
- The importance of exploration of sociological contexts and the interdisciplinary nature of the research which enables this to happen
- The use of practitioners and the effect this has on the ability of students to engage in research and engage with different communities
- The importance of skills other than writing about the theory of Theatre
- The relationship between theory and practice in the department
- The importance of "process" as well as "content" in the department

Conclusion

The second stage of our research allowed us to complete a review of the work in the School of Theatre, Performance and Cultural Studies at Warwick. We were able to interview staff and gain an insight into the undergraduate learning experience across the three year groups of

[343] A dramaturgy protocol is a pack of information which contains relevant information about the way that a play should be performed.

undergraduate Theatre Studies. Our findings that performance and practice as well as writing are integral to the work that goes on in the Theatre Studies department. Our research appeared to show that engaging with practitioners and communities outside the university enabled students to gain more confidence in their own research abilities. Students also gained confidence in their research abilities through engaging in "practice as research". We found that students do perceive a gap between the theory and practice of Theatre Studies, but that staffs within the department feel that that distinction is not as obvious as students think.

5.4 The Interdisciplinary and Creative Collaboration Module (Faust)

The Faust module is the first incarnation of a groundbreaking new module that has just been introduced for the academic year 2009/2010 at The University of Warwick, with the help of a fellowship from the Reinvention Centre. It is a module that is open to students from all different departments, in which students analyse a single topic from the perspective of many different disciplines, with help from weekly visiting experts from different disciplines, both from within and outside the university. The online module outline reads as follows: 'We will study the myth as it has evolved through a rich history of adaptation (in literature, drama, music, film, and art); we will also make more lateral connections between the Faustian pact and key issues in economics, ecology, neuroscience, theology and law. A range of experts from across the University and beyond will lead the seminars on a week-by-week basis.'[344]

The module is highly interesting from the perspective of interdisciplinarity, as it represents the fusing of several different important threads of the interdisciplinary discourse. It is also interesting with regards to academic literacy and the kinds of disciplinary assessment criteria that are employed, given the students' various disciplinary backgrounds. In addition, as the module opens the space for performance and other nonwritten forms of assignment, the dimension of academic literacy gets enriched with more practical features. One can also consider it interesting from the point of view of someone investigating research in the undergraduate curriculum, as will be explained in further detail below. In light of the uniqueness of the module and the many aspects of the graduate pledge that it relates to, it was decided to do a case study of the module,

[344] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration

so that a small piece of the living teaching and learning in the University could be examined and that conclusions could be drawn in relation to our previous research. Areas of good practice and any institutional barriers to the development of 'unusual' modules like this one will also be highlighted.

Methodology

In order to get as complete a picture as possible about the module, a multimethod approach was used in researching it. It was felt that it was especially important to get a student perspective on the matter. Firstly, a base of knowledge relating to the module was built up from analysing the extensive module webpage, the University module proposal form and Reinvention Centre fellowship application relating to the module. In this way, certain themes started to emerge relating to the module, which helped inform the direction of further research. Considerable insights into the concept and ideal of the module were also gained.

After this documentary analysis, more 'living' data was collected, in the form of observational data from the weekly group sessions, a qualitative interview with the module convenor[345] and, crucially, data from a focus group of students taking the module[346]. Thus the realisation of the module in practice was analysed.

The research owes a lot to the co-operation of the module convenor and the students taking the module, who demonstrated a remarkable degree of self awareness and reflexivity during the focus group, as is explored in more detail later.

All data was collated and used to write this case study. The research was carried out according to the ethical guidelines of the British Sociological Association [British Sociological Association, 2002]. All participants were informed about the purpose and aims of the study and full consent was sought for voice recordings. Students and staff were assured that the data would be anonymised and not passed on to third parties. Care was taken to present all paraphrasing and direct quotations as neutral and faithful to their sources as possible and participants have been made anonymous or given pseudonyms to protect their privacy.

[345] 18th November 2009
[346] 1st December 2009

The results of the case study have been split up into three sections, each one relating to one of the three key areas of the graduate pledge that relate to the module.

Research Findings

Interdisciplinary Study

The module is a rare example of a module within the University that explicitly states its aim to be interdisciplinary and furthermore aims to be interdisciplinary in more than one sense, in that it not only accepts students from a wide range of backgrounds, but with the course content itself being interdisciplinary as the online course outline suggests: 'Each session aims not only to cast new light on the Faust myth, but also to offer an introductory insight into the ways of seeing and knowing of a different discipline.'[347] In addition, the module is unique in its being open to all university students: 'The module is open to *all* second-year students across the University, regardless of degree subject. It is particularly aimed at those students who enjoy working practically, collaboratively, and creatively, and who relish the challenges of interdisciplinarity.' [348]

Whereas it is rare enough to find a module that crosses different departments within the same faculty, a module based in an academic department that is open to all students within the University is perhaps unprecedented.

With the FAUST module aiming to attract students from all disciplines as well as its contents being interdisciplinary, investigating the theme of interdisciplinarity, alongside the other four graduate capabilities, seemed particularly attractive.

For this reason, the case study refers back to the terminology that was developed in the discourse analysis of departmental webpages concerning interdisciplinarity in the first research phase. Following this terminology, it can thus be stated that the interdisciplinarity in the FAUST-module can be described as 'informed disciplinarity'. This is the case as students do not seem to be restricted to examine the subject of the module purely from within their own discipline.

[347] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration

[348] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration

Rather, they are encouraged to pursue their own interests which may be outside the realms of their original discipline of study. Students in the focus group agreed that they had independence to pursue their own interests, saying that they were told "If you have an interest, go with it."

Whereas this approach to interdisciplinarity may at first sight seem closer to 'transdisciplinarity' as students from different disciplines take their own disciplinary backgrounds and apply them to a shared goal. Yet the fact that students are exposed to so many disciplines other than their own challenges this perception again which is why it is perhaps better to place the interdisciplinarity in Faust in the category of 'conceptual interdisciplinarity', as developed in the first research phase.

What the students and lecturers are then essentially aiming to do is to create a new disciplinary space associated specifically with Faust that is formed from the collaboration of people from the multiple different disciplines involved - such as English, German, Medicine, Economics, Sociology, Theology, Law and Psychiatry[349] - as well as the shared perspectives and links drawn out by the students as they progress through the module.

Some of the things students said in the focus group would appear to back this up. Leanne: 'You find in your other modules that you start seeing Faust in everything.' Another student, Alice, said, '...striving to achieve a goal, it's like a journey... ...I don't get that with any other course.' This also matches what the module convenor said in interview, that when queried about the outcome of the module, he responded, '...the real outcome would be that a group of students would go on from this to have their attitudes and their experiences changed in a way that would be extraordinary,' suggesting also that a considerable amount of the value of the module is contained in the experiences formed along the way.

It appears that interdisciplinarity here is then valuable not just in the output it produces, but in how it broadens the perspectives of the students and helps them learn to collaborate together. We return again to the notion visited in the previous chapter on Interdisciplinarity that 'interdisciplinary courses are more than the pieces of disciplines from which they are constructed' (Newell, 1992: 220). The approach that the module takes can be characterised as 'externalised', in that it relies on the expertise of visiting lecturers and does not take the view that

[349] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration/syllabus09-10/

interdisciplinarity perspectives can be taught by a single lecturer. We see some of the reasoning behind this in the interview with the module convenor, where he states that he aims to challenge the model of knowledge being delivered by a single authority figure and downloaded to students, telling them what they need to know for assessment and then giving them a 'pat on the back' and an upper second or a first.

So we see already that the theory of the module is backed up by the empirical data gathered in the research. It is also important to take note of areas where the observed data did not match the theory too however. Even though the module is stated as being open to students from all departments, the student intake was, at the admission of the module convenor, entirely from the Arts Faculty. This should not be dismissed as lacking interdisciplinary potential however, as there were students at the focus group studying English, Philosophy and Literature, Cultural Studies and English and Theatre, which are far from being homogenous disciplines.

This actually turns out to have been a symptom of the institutional complexities involved in introducing a new cross-faculty module. The module convenor mentions that there was 'no obvious precedent and no obvious structure provided by the University,' so that to an extent the development and publicity of the module feels 'improvised'. The module proposal form needed to be circulated among every single University department to be considered and this ended up taking a very long time. Hence by the time the module was ratified by all departments, a lot of students had already chosen their modules and hence would not have been aware of the Faust module. The module convenor expressed some regret at having to sacrifice this part of the 'ideal' of the module for this year that it is running. In the focus group this is confirmed by a student saying, 'Most people I knew from other departments hadn't heard about it.'

Another issue that restricted the takeup of the module, particularly among Science students, was the credit weighting of the module. The module stands as being worth 30 credits, which is equivalent to 25% of a student's recommended yearly workload and it came out in the interview and the focus groups in discussion that this is felt as being too much for most Science students to take outside their own discipline. Leanne mentioned how she had friends who are studying Mathematics and wanted to take the module, but felt that it was too many credits to sacrifice outside their discipline. In this context, the word 'risk' was mentioned a few times. It is worth

emphasising that whilst all students came from different departments within the Arts and Humanities faculty that developed specific ways of writing essays and thinking that were subsequently to be challenged in the module, this challenge and risk was nevertheless much bigger from the perspective of a science student who was not used to writing essays but had developed other forms of academic literacy. The module convenor seemed well aware of this issue in the interview, and suggested that in future years the module will be run as a 12 or 15 credit module and only last a single term, in order that Science students might find it more attractive.

On a more positive note for the discourse of interdisciplinarity in the University were the experiences the module convenor had in finding other lecturers willing to contribute to the module. He noted that this is tricky due to most lecturers being 'overworked already,' but, quoting 'A Streetcar Named Desire', 'I have always depended on the kindness of strangers,' he goes on to say that 'in general the generosity and curiosity of colleagues was immense'. This point brings to mind Newell, on how other academics are one of the best resources for an academic planning an interdisciplinary course: 'Staff in the School of Interdisciplinary Studies have a number of resources at their disposal for learning about other disciplines. Foremost among these, perhaps, are the other staff at Miami University.' (Newell, 1992: 215) In fact, the module convenor said that there was enough interest in the module that he could have included another entire term of teaching, but he didn't have space for all those who offered to teach.

This brings us to the main question, namely in what ways does interdisciplinary study have an impact on students and what advantages and challenges does it present? The module convenor states two main things that he hopes students will gain from the process of interdisciplinarity and collaboration. The first is a greater degree of reflexivity and self awareness and the second is a good preparation for life after University as 'reality is interdisciplinary,' he argues.

This would seem to be evidenced by some of the students' perspectives in the focus group, with one saying, '(The module is) something you could use in any interview or any job you go into,' and all the students agreeing that they were starting to see all kinds of references to the Faust myth in different areas of their lives and different media. One student challenged the idea that the module would provide good analytical skills, saying that it 'Doesn't seem as concrete as in a pure

subject.' The discussion developed into the group agreeing that the module may not develop analytical skills, but rather 'creativity' and 'innovation'. In fact, asked what they would associate the module with, most students in the focus group mentioned the word 'creativity'. That one student said 'you challenge your thinking a lot more I think,' is quite revealing and would seem to show that the students are indeed being made to think more reflexively.

The greatest challenge identified both in the interview with the module convenor and the focus group was adopting new ways of thinking and adjusting to different disciplinary cultures. A student spoke up on this, saying 'It's (the course is) so spread out, you don't have time to specialise in them (the disciplines).' They went on to say that during the seminar on the Economics of Faust he felt that he did not know about terms such as 'fiscal policy' which came up, they comment, 'I want to know more about Economics itself before I can bring Faust into it.'

This is no doubt one of the biggest challenges that interdisciplinarity poses, but most students were positive rather than overly concerned, as they explained, 'If you have a particular interest you can pursue it further, it's left up to us to take it a step further.' What came out of the discussion was that if a particular topic was too obscure or not interesting to the student, then that was not a problem, as they could simply choose to write their essay and base most of their work on a separate topic.

There was some concern that the experts coming in to teach were 'not being used to their full potential,' but this was also tempered by other students saying that even if one does not understand everything in a particular reading or lecture, it is still possible to apply it. Clearly this area is always going to be challenging, but the level of awareness of the issue among the Faust students was clearly very high and in later years, when there are Science and Social Science students in the mix, one can imagine them sharing knowledge from their disciplinary backgrounds to help their fellow students get the most from lectures in Economics, Medicine and so on.

Overall, the student response to the module was very positive, with students describing it as 'A breath of fresh air' and 'really interesting'. When asked specifically what the interdisciplinary

aspect of the course gave them, the response came that it was 'like a journey', striving to achieve a shared goal, the student adding, 'I don't get that on any other course.'

Academic Literacy

Even from a cursory glance at the module webpage, one can tell that the module has a very broadly based approach to learning, not just in terms of the different origins of material studied, but also in terms of the varying media through which students can analyse the Faust myth. Listed on the website is not just a bibliography, but a filmography and discography as well[350]. We also see an interactive, multimedia timeline relating to Faust, containing articles, images, videos and links[351]. Furthermore, there are links to articles and other material available online relating to Faust[352]. The website is also used to share material that the students have already produced together as part of their group projects and their work in general through the course.

Following up on the first phase of our research, that suggested that the concept of Academic Literacy can be applied in a wide variety of settings, not merely that of academic writing, we see here that studying Faust from an interdisciplinary perspective naturally leads to a wider range of assessment and learning practices. This in turn leads on to challenges in teaching and assessment, as will be explored below.

The students on the module are learning through the process of interdisciplinary collaboration to think critically about different forms of media apart from just texts as well as expanding their own academic literacies, as they practise different ways to express themselves beyond writing. In interview, the module convenor confirms that he is not fixated on '"the text" as absolute', being himself involved in convening modules that teach Shakespeare through practice. He talks about how often the students are faced with different approaches to learning and academic expression, mentioning 'wild fluctuations' as students go from a physical theatre workshop one week to a more conventional PowerPoint presentation the next.

[350] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration
[351] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration/fausttimeline/
[352] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration/links/

An example of students developing their academic literacies in spheres other than writing is the PowerPoint presentations that students were asked to do (which are available for viewing on the module website). The module convenor described how after students received an 'excellent' forty minute PowerPoint presentation from a visiting expert from the German department, he asked students to make their own presentations for the following week in small groups. Here we see academic literacy once again alongside career development, with the communication skills being developed equally valuable in the spheres of academia and of corporate work.

This is a small example, which is perhaps not as important as the group projects, 'The module culminates in the production of a Group Project, a public 'performance' which might take the form of an original adaptation (stage, film, radio), an installation, or an exhibition.' [353] On the skills that students will gain through taking the module, the module convenor mentions 'putting over a persuasive entertaining argument in the public sphere,' and clearly seems to be referring to the group project here, as he also goes on to cite, 'to be able to defend your background, to defend your discipline, to defend the kind of knowledge you are interested in and to be able to communicate that to a non-specialist audience.' Here we see an important aim central to the core of the module and one that reinforces the importance of developing academic literacy.

However, if we are to view becoming academically literate as being inducted into the social practices and norms of a particular discipline and becoming fluent in communicating in these, then it is undeniably very difficult for a single person, be it the module convenor or anyone else, to be 'academically literate' in a variety of disciplines and media, that he or she might be able to accurately assess students' work and the module is equally demanding of students, in asking them to step beyond their own disciplinary boundaries and into others.

The module convenor acknowledges this issue to an extent, saying, 'I'm very clear that when someone comes in to teach the group... that I am then part of the group and learning with the group.' The issue of how to mark students' essays is then addressed by the essays being first marked by someone contributing to the module with appropriate knowledge in the disciplinary base of the essay, and then second marked by the module convenor himself. It is interesting to note then that the lecturer challenges the 'deficit model' of students versus academics, seen to be

[353] http://www2.warwick.ac.uk/fac/arts/english/undergraduate/current/modules/fulllist/special/interdisciplinaryandcreativecollaboration

common in the previous research, by acknowledging that academics themselves can also be at a deficit in some areas.

The group project seems undoubtedly interdisciplinary in nature, as does the 'individual portfolio' that contributes to half of a student's mark, but there are greater issues to think about surrounding the assessed essay that makes up the remaining 25% of the final mark. In reality, this is somewhat of a moot point for this year, as the module intake is entirely from disciplines where students are used to writing essays, but is something to consider in future years when there may be science students taking the module who are not used to writing essays.

The assessment practices in the module are important not just from an academic point of view, but are key to the concerns of students, as seen particularly in the focus group, where a large part of the discussion revolved around assessment. There was a fair amount of concern among students about not knowing exactly how they would be assessed for the group project, or for their individual portfolios. This is perhaps evidence of the 'addiction' to a certain model of learning for assessment, as mentioned by the module convenor in interview. The response to some of these concerns by some of the students was 'If you're doing Faust, you can't afford to be too scared.' It was explicitly mentioned as 'a risk,' which shows how important students see the assessment of their degree as being.

Students on the module were nevertheless positive to the idea of the group project, one going as far as to say 'The group project suits the feel of the University, because there are so many resources.' Hence one could argue that this kind of ambitious project is seen by students as the kind of thing that 'suits' a leading Russell Group University like Warwick.

The most concerning issue relating to academic literacy in this kind of interdisciplinary setting that came out of the focus group was the story of a Sociology student who dropped out of the module, as narrated by a fellow student, '(There was) a lot of literary stuff in the first two weeks and he felt that was a bit too much for him.' This unfortunate event should not be put down to any one particular cause, but is evidence of how difficult the challenge of adjusting to the academic literacy required in different disciplines is for a student. The Faust module is based in the English department as is the module convenor, so there may be a danger of assuming

academic literacy related to English where there is none. Perhaps however, the student may have felt more comfortable as the course moved on to other topics apart from literature, which was only the beginning of the module.

An interdisciplinary course like Faust seems to present a great deal of challenges in terms of academic literacy, especially relating to assessment, but the skills gained through it are valuable and important in later life. None of the students questioned in the focus group had ever done a group project or presentation before and yet they were already developing a strong group identity, one student referring to the group as the 'Family of Faust,' provoking laughter and smiles from the other students. Another student added, 'It's nice to be mixing with people from other departments in terms of academic work, because normally you don't get that opportunity.'

Research-Led Learning Environment

Mentioned as an aim in the initial module proposal form and in interview, was an explicit recognition of the students in the module as researchers. From the previous research, this level of recognition of the undergraduate student as being capable of research is quite rare. This is not just a superficial platitude, but seems to be embedded in the rationale of the module, for example in the module proposal form, the module convenor explicitly mentions that the module is engaging with issues from an online post by Professor Michael Whitby, calling for, among other things, 'Development of a research-rich learning environment in all departments and at all levels, from first-year undergraduates through to PGRs.' Also mentioned in the module proposal form, relating to the group project is, 'The project's combination of texts, contexts and interdisciplinary approaches is designed to produce distinctive and original undergraduate research.'

Not only are the students acknowledged in this way, but, in the words of the module convenor, there is a 'strong onus on students to devise their own research agenda.' Students in the focus group seemed to be in accord with this idea, stating that the module gave them 'freedom to think' and generally agreeing that they had independence to pursue their own interests. An example is the assessed essay, for which they explained that they were told, 'write about something that interests you'. This is in contrast to the majority of assessed essays, where students would normally be given a title or asked to choose from a list of titles.

Furthermore, in interview the module convenor said that the skills he hoped the module would develop in students included research skills, independent research skills and critical thinking. It could perhaps be argued that the interdisciplinary aspect of the module naturally lends itself to the situation of the student being placed in the position of researcher, as they are faced with analysing a very wide range of material from different sources relating to a single subject and then trying to make their own balanced analysis and produce content from it.

In this case, we can draw a link between the strands of Research and Community Engagement, as the module convenor describes in interview how we views the group presentation as particularly important so that the students' research is made active in the public domain and not just kept to the "ivory towers" of academia. This is engaging with the wider population outside of academia on a national and social level, in terms of the previous research, which was identified as one of the least common spheres of engagement seen in departments.

The learning environment in the module was said by students to be 'always friendly' and quite varied, going from everyone sitting on the floor together, to more formal lectures. The module convenor said that he wanted the learning environment to be things like 'lively', 'energetic' and 'curious,' going on to add that he thought that some of the best moments in teaching were when he let students themselves be in charge of sessions, joking that he wanted an atmosphere in which 'the inmates can run the asylum'. Observational data from the sessions supports that this takes place, with students on the module being lively, articulate and unafraid to ask visiting experts questions or make comments of their own observations and thoughts. This is perhaps partly down to the relatively small size of the group (the module capacity is 14), but also seems to be down to encouragement by the module convenor, who states that he does not want to 'overmanage' the learning process.

This degree of independence and curiosity seen in the students is a distinguishing feature of the module and it is perhaps something one would expect from 'ideal' students in a prestigious University. The module also capitalises on the richness of research in the University, by allowing students to benefit directly from the research of academics who choose to contribute to the module.

Conclusion

In the focus group, a student said that Faust was ‘so different to every other module’ and this rings true. It is important as it shows how some of the real strengths that you expect from a successful and prestigious University, such as a wide range of world leading academics in different disciplines, good quality facilities and cutting edge approaches to teaching and learning can be tapped to provide students with a unique experience that they would not otherwise have the opportunity to receive.

Researching it has also highlighted some of the main challenges to successfully implementing interdisciplinary study, including institutional, administrative problems as well as the intellectual difficulties that arise in developing different academic literacies.

Looking back to the previous research, there were several areas in which The Interdisciplinary and Creative Collaboration Module stood out from what was normal practice in departments, but it also fit into the general framework of the University providing undergraduates with a wide range of opportunities relating to the Graduate Pledge.

It was very insightful to gain observational data and views from students and the response from the students to the module was overwhelmingly positive, save some fears about assessment. Both the challenges and the positive results seen in the module so far should be kept in mind as the Graduate Pledge project continues.

6 Summary and implications for further research

- Extended understanding of academic literacy
- Strong relationship between academic literacies and research based learning
- Research based learning leads to increased student ownership of work
- Strong relationship between global knowledge and community engagement
- Interdisciplinarity in the FAUST module with regard to students, staff and contents

Implications for further research

- Further analysing the structural conditions for curriculum provision of research based learning
- Investigating the underlying structural conditions (resourcing) of the selected case studies
- Academic Fellowships and grants allowed for innovative teaching to develop
- How can change be made sustainable?
- How can all students have access to innovative teaching and learning?
- Why some students do not get involved in existing programmes?
- Investigating the relationship between research and teaching, the curriculum and assessment in relationship to the five graduate pledge areas

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[i] SMEs: Small and Medium Enterprises

[ii] Note: Although this page claims to link to the Chemistry website it does not

[iii] Kershaw was Director of the 5 year project "Practice as Research in Performance" (PARIP) - http://www2.warwick.ac.uk/fac/arts/theatre_s/staff/baz_kershaw/