What is learned at university: The social and organisational mediation of university learning (SOMUL)

Research Report

Background

While there has been a substantial tradition of ‘college impact’ studies in the United States (e.g. Pascarella and Terenzini, 2005), research of this kind has been relatively fragmented in Europe. In the UK, there have been individual studies from the 1970s onwards looking at the effects of particular factors, such as residence (Brothers and Hatch, 1971) or social class (Abbot, 1971), and there is an active research field which has built on the work of people like Perry (1970) and Marton (1976; 1984) to explore processes and conceptions of student learning (Richardson, 2001). Studies of academic and disciplinary cultures and identities have focused mainly on the experiences of academic staff (Becher and Trowler, 2001; Henkel, 2000) but have a potential relevance to an understanding of the student experience. Previous research has tended to be either psychological or sociological in approach, quantitative or qualitative, and frequently has been based on single institution studies.

Within the larger Teaching and Learning Research Programme, the SOMUL project sought to draw on these diverse strands of previous research in order to address the learning outcomes (broadly conceived) of a much expanded and differentiated higher education system. In the UK over the last 30 years, higher education has become increasingly diverse, both in terms of its institutional forms, its students and the conditions and contexts under which they study. It is a system which has been described as ‘vertically differentiated’ (Teichler, 2007) with increasingly steep reputational differences between institutions and with an increasing importance attached to where one studies.

From a policy perspective, the expansion and diversification of higher education has been accompanied by a wide range of attempts to increase higher education’s accountability to society (e.g. Scott, 1995; Barnett, 1997; Kogan and Hanney, 2000; Brennan and Shah, 2000). These have included a greater attention to the employability of graduates (e.g. HEFCE, 2001), a public concern with the nature of ‘graduateness’ (HEQC, 1995) and a consequent shift in the focus of the quality debate from input and process factors towards the outcomes of learning. Government-funded initiatives from the late 1980s onwards (in particular the Enterprise in Higher Education Initiative) aimed to effect a closer integration of higher education and the world of work. This involved the identification and development of key transferable skills and a more general move towards identifying more clearly just what a learner knows and is able to do. By the late 1990s, and following the publication of the Dearing Report, the Government was openly endorsing the need for institutions to place increasing emphasis on learning and teaching strategies, and in particular on what was actually learned through higher education.

Subsequently, under the aegis of the Quality Assurance Agency for Higher Education (QAA), subject benchmark statements were published and institutions required to formulate programme specifications that ‘should make explicit the intended outcomes in terms of knowledge, understanding, skills and other attributes’ (QAA Guidelines, June 2000).
Benchmark statements represent explicit formulations of the academic community’s tacit knowledge and expectations about what is learned in higher education (Jary, 2002). Together with their associated programme specifications and criteria and methods of student assessment, subject benchmarks were used in this project to represent a primary ‘official’ and subject view of what is learned against which would be contrasted other more-empirically derived formulations, primarily from the students themselves.

The project therefore has drawn on various strands of the national and international traditions of research into student learning to investigate the outcomes for learners and society of the UK’s expanded and differentiated higher education system. It has been concerned with whether the outcomes of learning are as diverse as the contexts for learning and whether they are adequately captured by the various ‘official’ pronouncements about them.

Objectives

The aims of the project were to increase and broaden our understanding of the learning outcomes of an increasingly diverse higher education system, to explore how these are socially and organisationally mediated, and to support their enhancement and full recognition.

The project has drawn on the psychological and sociological literatures on student learning, involving three conceptions of student learning: as cognitive development, as academic and professional development, and as personal identity and conception of self.

Its two central concepts were social and organisational mediation. By social mediation, we meant the life situations of the students on a particular programme of study individually and collectively, including the social and educational backgrounds of the students as well as features of the student culture within the particular institution or programme. These make up the ‘social context of study’.

By organisational mediation, we were referring to the ways in which curriculum knowledge is organised, including the influences of modularity, extended student choice and different modes of study. As the project evolved, a wider notion of organisational mediation was adopted, incorporating a range of structural and cultural features of universities. These make up the ‘organisational context of study’.

The project aimed to explore seven main research questions. They were:

- What conceptions of student learning underpin subject benchmark statements, programme specifications and methods of student assessment?
- What is their relationship to the conceptions of student learning held by students and graduates, and to the changes effected in them?
- How do student identities and conceptions of self affect formal learning outcomes?
- How and to what extent are student identities and conceptions of self formed by the interactions between disciplinary cultures and student experiences inside and outside higher education?
How and to what extent are student learning outcomes mediated by social and organisational factors?

When and to what extent are student identities and other learning outcomes maintained after leaving higher education?

How might official conceptions of learning outcomes (formal assessments of learning, programmes specifications, benchmark statements) be adapted to take greater account of research into student learning, and be used to shape and improve learning experiences and outcomes?

The objectives of the study were as follows:

a) to explore the various conceptions of learning underlying the formulation of benchmark statements, the approaches to and perceived uses of programme specifications and student assessment criteria and methods, in three contrasting subject areas;

b) to gather evidence from students and graduates in these subjects on their conceptions of learning and personal and professional identity;

c) to explore how these conceptions are socially and organisationally mediated through the social context of study and the principles of curriculum organisation;

d) to explore these relationships between learning, social context of study and curriculum organisation through a survey of students from a wider range of subjects;

e) working with partner higher education institutions and with bodies such as the Higher Education Academy, the Quality Assurance Agency for Higher Education and the Council for Industry and Higher Education, to explore the implications of the study for the enhancement of learning and the greater recognition of all learning outcomes from higher education.

Objective a) was addressed through examination of the literature on subject benchmarks, meetings with senior officers of the QAA, discussions with relevant Academy subject centres and staff interviews in all the case study institutions where the application of benchmarks to local study programmes was explored. In addition, a section of the student questionnaires was developed from the QAA benchmark statements in order to obtain student perspectives on the validity of subject benchmarks and associated statements of student learning. This work has already been drawn upon (see the Research Briefing) and will be addressed in more detail in the Routledge-Falmer book and a report for the QAA.

Objective b) was addressed through 15 intensive case studies and a wider survey of student learning. This provides the core evidence base for the project and is drawn upon in all the project’s outputs.

Objective c) was addressed both through the project’s initial conceptualisation of learning contexts, its application to the selection of the 15 cases, and its subsequent refinement in the light of fieldwork experiences. Most project outcomes concern an examination of the effects on learning of various aspects of social and organisational mediation.

The survey referred to in objective d) was carried out although disappointing response rates in certain subjects have limited its value.
Objective e) has been achieved through meetings with representatives of the organisations mentioned, through attendance at conferences and by the publication by the Higher Education Academy of a series of working papers based on the project.

Methods

The main part of the study adopted a case study methodology and concentrated on students and graduates in three contrasting academic subjects: biosciences, business studies and sociology. This combination of subjects allowed academic/vocational and science/non-science dimensions to be explored. For each subject, five study programmes from different universities were selected to represent the different social and organisational features in which the project was interested. Students from these programmes were investigated by means of questionnaires and face-to-face interviews at various stages during and after their undergraduate careers. There was a particular focus on their conceptions of learning and personal and professional identity, and on the factors which they saw as influencing these conceptions.

The design of the main part of the study is summarised in Figure 1 below.

**Figure 1: Summary of the project**

<table>
<thead>
<tr>
<th>5 cases in each of 3 subject areas</th>
<th>3 ways in which learning is mediated</th>
<th>3 conceptions of learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosciences</td>
<td>By formal educational curricula and assessment</td>
<td>As cognitive development</td>
</tr>
<tr>
<td>Business Studies</td>
<td>By the organisational features of the university</td>
<td>As academic and professional identity</td>
</tr>
<tr>
<td>Sociology</td>
<td>By the social context of study</td>
<td>As personal identity and conception of self</td>
</tr>
</tbody>
</table>

The selection of subjects took account of various subject typologies (e.g. Becher and Trowler, 2001) and the views of the newly established Higher Education Academy. Subject centres of the Academy provided vital advice on the selection of the 15 cases. These were finally chosen following visits by research team members to a larger number of institutions in order to assess both the characteristics of the learning contexts and the interest/willingness of subject staff to engage with the project.

A quasi-longitudinal design involving two cohorts of students was adopted. The first consisted of students who were surveyed in the first and third years of their degrees (the ‘entering’ cohort); the second consisted of students who were surveyed in their final year and then again after graduation (the ‘exiting’ cohort).

Data were collected through questionnaires, interviews and focus groups.
The questionnaires administered to the two cohorts of students shared four scales intended to measure their conceptions of learning at university, their approaches to studying, their personal development and change since coming to university. The questionnaires also asked the students about their endorsement of benchmark statements.

Interviews explored students’ levels of engagement with their courses, their approaches to learning, their academic achievements, the consequences of curriculum organisation and mode of study, their involvement in other aspects of university life and their lives outside higher education. There was particular emphasis on the effects of individual biographies, aspirations and life circumstances.

The focus groups explored the existence and effects of student culture and the social and organisational characteristics of each case.

Additionally, up to ten staff were interviewed in each case to examine the local subject context and programme objectives and also to explore their implications for departmental practice.

Eight of the case study institutions plus one ‘new’ institution provided the samples of students from a wider range of subjects for the survey undertaken during the later stages of the project. This survey adapted questionnaires used in the case studies to facilitate comparison between data collected in these two parts of the project.

Wherever possible, research instruments were developed from existing work, including another project in TLRP. Analysis of quantitative data used SPSS and a variety of established techniques. Interviews were transcribed and analysis undertaken using NVIVO.

Results

The rich and extensive data sets collected by the project provide opportunities for a variety of approaches to analysis and this will continue beyond the lifetime of the project. At the time of writing, we can point to the following results from analyses undertaken to date.

- Using psychometric techniques of analysis, small but statistically significant differences in conceptions and approaches to learning have been identified, both between subjects and between individual cases. Larger differences were obtained in students’ reports of personal development and change.

- Drawing on a typology of student orientations developed by the French sociologist, Francois Dubet, important differences in the orientations of individual students have been identified and related to the different learning contexts provided by the project’s case studies.

- Various typologies of learning contexts have been developed and explored during the project and tested out against the data collected. A typology based on the project’s central concepts of social and organisational mediation is being used to draw together some of the main concerns of the project. It is described below.
In considering how the different forms of institutional diversity combine with the different forms of student diversity to help shape the student experience, the project developed a simple typology based on the two dimensions of a) the diversity of the student population, and b) the extent to which the student experience is a shared one. These reflect the project’s initial concepts of social and organisational mediation but re-compose them in ways which allow their operationalisation in respect of particular universities and courses. Figure 2 below suggests three types of context for student learning arising from these dimensions.

**Figure 2: Three types of contexts for student learning**

![Diagram of Student Experience and Student Diversity]

- **Shared Experience**
  - **High Student Diversity**: Type A
  - **Low Student Diversity**: Type B
  - **Individualised Experience**: Type C

In a Type A context, a diverse group of students come together to share a largely common experience. In a Type B context, broadly similar kinds of students share a largely common experience. In a Type C context, students have only limited contact with other students, thus the diversity of the group is not particularly significant. These are the students who typically have demanding outside commitments, whether domestic or employment-related.

It is of course possible for individual students to have, say, a Type C experience in a Type B setting. But in relation to the dominant experience in each of the 15 case study universities, there appeared to be three examples of Type A, eight examples of Type B and four examples of Type C. (In type A and B settings, it may also be useful to distinguish between i) shared experiences with students on the same course, ii) shared experiences with other students at the university.)

The project has been investigating whether different things are learned (taking a wide view of learning to embrace the academic and the non-academic, the personal and the social) in these different kinds of learning context.
Summarising quite complex data, we can say that some things seem to be the same irrespective of context:

- Change among students appears to be conceived of more in terms of social and personal aspects than in terms of the academic.

- Characteristics most emphasised were to do with developing personal self confidence and an ability to get on with a wide range of people.

But some things do seem to be much more associated with a particular type of student setting. For example:

- Students from Type B university settings appear to develop strong loyalties towards their universities which are not shared by students in the other two types. They generally emphasise the importance of the people they have met at university, their ability to get on with a wide range of people and their commitment to maintaining contact with them after university.

- In Type A settings, students also emphasise the importance of friends made at university but without the associated loyalty to the university itself. They are the students who seem to be most committed to their subjects and their studies. But they are rather less likely than other students to feel that their time at university has changed the way they see the world.

- Students from Type C settings differ from other students in a number of respects. They report lower gains in self-confidence and are much less likely to expect to retain university friendships after graduation. They are more likely to feel that they ‘never fitted in’ and very much more likely to feel that the ‘qualification was the main thing’ and that life outside university remained the most important aspect of their lives. However, compared with other students, they were more likely to have a clearer view of the future than when they commenced their course.

There are of course subject differences within each type and difference related to the characteristics and circumstances of individual students. The importance of these will be reported on in the project’s various forthcoming publications.

**Activities**

The project was supported by a Steering Group chaired by the Director of the Higher Education Policy Institute and with a membership representing both academic and policy expertise and interests. The Steering Group met five times during the course of the project with a further two meetings held in seminar format at which researchers in the field and from other TLRP projects also participated.

At an early stage in the project (September 2005) a three-day project research seminar was held at Clare College, Cambridge. This explored the project’s conceptualisation of student learning and the factors that shape it. The seminar was attended by members of the project team, one of the project’s international advisors and fifteen invited researchers from the UK.
All the case study institutions have been interested in the progress and outcomes of the project and provided strong support for all the empirical research elements. Over 1600 questionnaires were completed by students at the 15 case study universities and over 600 questionnaires returned as part of the wider survey. Over 250 interviews were conducted with students and 56 with staff. Informal workshops have been held at each of the case study sites, the purpose of which was to provide a mixture of initial feedback and identification of implications for local policy and practice. Several of the universities have also invited presentations from the project to wider institutional audiences. In addition, a seminar was convened with representatives of the case study institutions in May 2008, the aim of which was to discuss the project’s findings and their implications for learning and teaching and for course organisation and the student experience.

The project’s principal investigator visited several of the case study institutions towards the end of the project in order to (i) explore the project’s implications for institutional policy and practice with institutional leaders and (ii) to obtain institution-level information and insights on matters such as attitudes to national policy frameworks, local circumstances and community features, institutional cultures and structures, and student services.

The Higher Education Academy agreed to publish a series of project working papers. Four have been published to date (in May 2005, December 2005, October 2006 and February 2007). The final two are in preparation and will be published later in 2008.

Presentations have been made at many national and international conferences and other networks (see below).

Regular meetings have been held with representatives of the Higher Education Academy and its relevant subject centres. There have also been meetings with bodies such as the Quality Assurance Agency, Universities UK, the Higher Education Funding Council for England and the Council for Industry and Higher Education.

Outputs

The list below provides details of the publications to date (or agreed with publishers) and the presentations made at conferences and other networks. All relevant publications have been uploaded onto the ‘Society Today’ network, via D Space.

Publications

**TL RP Research Briefing**

*What is learned at university? The social and organisational mediation of university learning*, March 2008, Teaching and Learning Research Briefing, Number 32, London: ESRC/TLRP.

**Project working papers published by the Higher Education Academy**

REFERENCE No. RES-139-25-0109


Subject overview reports


Book


Journal articles/book chapters


Conference presentations

Project team members have made presentations at all the case study institutions and at the TLRP annual and other conferences. In addition, the following presentations have been made.


Jary D, 2007, ‘*Similarity and diversity in the student experience in UK sociology and some possible implications for year one teaching and learning*’. Keynote presentation to the C-SAP/Higher Education Academy Conference on First Year Teaching in Sociology, Bath Spa University.


Richardson, J T E, June 2007, *What is learned at university: results from the SOMUL project*. Presentation at the Annual Learning and Teaching Staff Conference, University of Bolton.


Richardson J T E, Edmunds R and Lebeau Y, September 2007, ‘*What is learned at university: results from the SOMUL project*’. Workshop presented at the 15th Improving Student Learning Symposium, Dublin.


**Impacts**

Discussions within the case study institutions and with bodies such as the Academy subject centres and the Quality Assurance Agency have been ongoing throughout the project. Meetings with these and other organisations have been well-attended and the Academy’s working papers based on the project appear to have been well-received. It is of course difficult to assess the impact of the project on those who have taken part in these discussions but considerable interest has been aroused.
Now, as findings emerge, the implications of the project are being discussed with bodies such as the Quality Assurance Agency, the Higher Education Academy, the Department for Innovation, Universities and Skills, the Council for Industry and Higher Education and the Higher Education Funding Councils. The project’s Research Briefing identifies implications from the project’s findings for intending students, for higher education staff, for employers of graduates, and for government and national higher education agencies. These implications will be elaborated further both in the project book but also in the project’s final working paper to be published by the Higher Education Academy. This publication will be an important mechanism for achieving impact across higher education institutions. A separate report on the project’s implications for policy and implementation of subject benchmarks will contribute further to the project’s impact at national and institutional policy levels. Employer interests will be addressed through the Council for Industry and Higher Education with a presentation planned to the Council’s policy forum. In addition, several of the above organisations (DIUS, HEA and HEFCE) have expressed interest in the possibility of commissioning additional analysis of the SOMUL datasets. The project is also relevant to a new project on Student Engagement commissioned from the Open University by HEFCE.

The project’s findings on the effects of the increasing diversity of higher education – both in terms of its students and its institutional forms – have implications at different levels and for different stakeholders in higher education. But common to all of them is a set of challenges to those who uncritically accept a reputational hierarchy as being the key to the understanding of the effects and consequences of diversity. On the one hand, the project has identified many commonalities in the experiences and outcomes of university study, almost irrespective of where and what one studies. But, on the other hand, where differences exist they do not automatically match onto existing reputational hierarchies.

**Future Research Priorities**

The project has been drawn on in a new project proposal submitted by the principal investigator to the European Science Foundation on ‘Differentiation, Equity and Productivity’ and it will be drawn on further in a subsequent research application to ESRC provisionally entitled ‘Beyond skills: the personal and social impacts of higher education’. One of the co-investigators intends to draw on aspects of the project in an application to ESRC provisionally entitled ‘The evolution of decision-making: choice and study pathways in UK higher education’.

Other issues suggestive of new research arising from the project include the following:

- exploration of the project’s concept of ‘parallel universities’, especially the implications for those who study, teach or manage in them;
- further exploration of the links between the social and organisational contexts of study, different forms of student engagement and the outcomes for learners;
- international comparative studies on these matters;
- institutional and staff responses to these matters;
- the impact of the greater use of IT and virtual learning environments upon student engagement, learning outcomes and social and organisational mediation.

**Ethics**
Both the 15 case study universities and the individuals (students and staff) who participated in the fieldwork phase of the project have been guaranteed anonymity in any uses and reporting of the collected research data. Therefore, the results cannot be attributed to any particular institutions or cases. Student engagement with the project was based on their informed consent and aimed not to affect their normal academic study.

Annexes

Annex 1 – References
Annex 2 – Example of questionnaires used in student surveys
Annex 3 – Fieldwork instruments and key variables
Annex 4 – The case studies
Annex 5 – Project research briefing