

Combining student independent learning and peer advice to improve the quality of undergraduate dissertations.

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Abstract

The majority of UK undergraduates studying one of the Geography, Earth and Environmental Sciences (GEES) disciplines undertake a dissertation as part of their studies. Recognising the importance of the dissertation, the GEES Subject Centre funded a small project in 2004/05 to examine the student dissertation experience. Students and former students at the Universities of Gloucestershire and Queen's Belfast were asked to give their views on undertaking a dissertation. Their responses to a questionnaire have contributed to the development of an interactive website: DISCUS, the principal aim and output of the project. The project was extended to include a review of 32 departmental dissertation handbooks. Analysis of questionnaire returns and several in depth interviews with students, as well as the preliminary analysis of handbooks, has informed the design of DISCUS and led to the identification of certain recommendations related to a department's approach to the dissertation venture.

Introduction

A dissertation is a major piece of independent study undertaken by most undergraduate GEES students and confirmed by Subject Benchmark statements (QAA, 2000). Whilst recognizing the variability of practice across UK Higher Education Institutions (HEIs) in terms of size, weighting and timing of the work, a dissertation usually forms a substantial part of the final year of studies and can play a significant role in determining degree classification. Students will use a variety of skills, and invest a great deal of time and effort, in the production of a dissertation (Race, 2001). As a result, students and staff often regard it as the pinnacle of an undergraduate programme.

Various texts, such as those by Parsons and Knight (2005) and Walliman (2004), as well as departmental handbooks, have been produced to guide students through the dissertation process. These publications can be seen as 'top-down' productions; they contain valuable guidance to students from academic staff on 'how to study' or 'what to do', but they rarely contain the student perspective. The aim of this GEES project was to develop a student-centred, interactive learning facility, DISCUS, to assist students undertaking a dissertation. The project is based on the theory that students can and do learn from their peers (Boud *et al.*, 1999) and that, through peer support, students have the opportunity to participate in critical transformatory learning (Brockbank and McGill, 2000). Student peer advice and views have been incorporated into the DISCUS website which is essentially a 'bottom-up', self-help facility designed to complement existing material. Through exploring DISCUS, students can read and hear how others have 'survived' and successfully negotiated the dissertation experience. An explicit intention of DISCUS is that student peer advice can contribute towards an improvement in the quality of undergraduate dissertations.

Data collection

Data have been collected from students and former students of the School of Environment¹ at the University of Gloucestershire and School of Geography² at Queens University Belfast. These students had just completed a dissertation in either 2003/04 or 2004/05; we sought to obtain their views on what went well, or not so well, as they undertook a dissertation. Student opinion was acquired via a questionnaire that contained both open and closed questions and was constructed to gain the maximum amount of information from our respondents. Following on from the questionnaires, five of our former students were interviewed; each interview was video-recorded to gain in-depth case study examples and further information on the key issues and concerns that students have when studying for their dissertation. These students have also supplied electronic copies of their dissertations and each has given their permission for extracts of their work to be included in DISCUS. Additional information has also been obtained from informal discussions with second year students prior to undertaking a dissertation, as well as staff supervisors.

Analysis of the questionnaires and interviews, and thus a good understanding of the students' experience, has to be set in context. Both institutions expect Honours Degree students to complete a dissertation in their third year. At the University of Gloucestershire students undertake a double, 30 CATs points, module and at Queens University Belfast students take a single, 15 CATs points, module. Each institution issues its

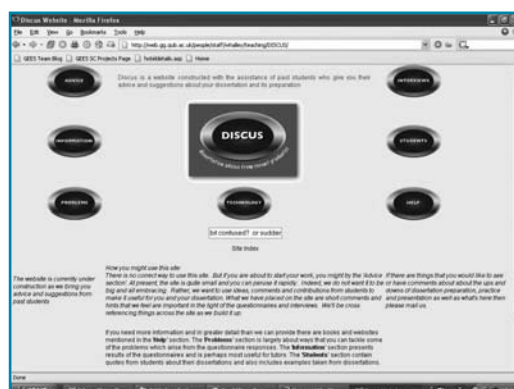
dissertation handbook in the second year of studies. Students are expected to carry out various elements of preparatory work prior to the summer vacation and are encouraged to undertake their fieldwork in the vacation.

Results and outcomes

The questionnaires

Within the questionnaire, respondents were asked to provide answers on a range of topics including: what they most and least enjoyed about doing a dissertation, what they found easy, what was most helpful to them, where any difficulties lay, what advice they would give to current students, what more the supervisor or School/Department could do to support students undertaking a dissertation, and what aspects of completing a dissertation helped prepare them for employment. Finally, students were asked to summarise how they felt about undertaking and completing a dissertation.

Questionnaires were issued to two cohorts of students completing in 2003/04. The first cohort were those who had achieved 60% or more in their dissertation whilst the second cohort were those who had obtained a mark between 40 and 59%. A total of 57 returns were received from the first cohort and a further 25 from the second. All views are important,



irrespective of grade or mark, although the number of responses is skewed 2:1. Another 55 questionnaires were received from students who had obtained a mark of 40% or more in their dissertation in 2004/05. In general, the results of both sets of questionnaire returns are very similar.

One key finding is that students report fieldwork to be one of the most enjoyable and rewarding aspects of dissertation work, as it gives them the opportunity for independent study and to study something that really interests them (Figure 1). Continuing on the fieldwork theme, many found it to be 'easy' and, from their perspective, it went well. These replies would seem to indicate that students have confidence in their own fieldwork skills.

As well as positive experiences, students identified certain problematic issues, such as time management and the task of writing up (Figure 2). Other issues highlighted as concerns were: supervision, access to information and knowing how much reading to do, and (interestingly) understanding what is expected in a dissertation. Similarly, respondents identified certain challenges such as dealing with stress, knowing how to maintain one's motivation and momentum during the extended study period, and balancing other study demands alongside the

dissertation. If a student had a problem with their dissertation they usually turned to their supervisor. However, on more than one occasion a student commented that the supervisor could have given more guidance, so clearly from a student perspective the supervisory experience can be less than satisfactory.

Useful advice from respondents includes: 'start early', 'do as much as you can during the summer vacation', and 'keep focused on the aims and objectives of the work'. Other issues are presented in Figure 3 some of which are included on the DISCUS website.

Selected responses to the final question, which asked for a summary of what the student felt, thought and valued about undertaking and completing a dissertation, are presented in Box 1. We may think we already know what students might say but it is of real value to have these honest, heart-felt quotes. Information like this should be shared with colleagues but, more importantly, with current students to highlight that others do understand what it feels like to do a dissertation, and that completing a dissertation will be a valuable, enriching, achievable but possibly stressful experience. As Shah (1999:308) found when undertaking a dissertation: 'I was simultaneously excited and scared about doing a dissertation'.

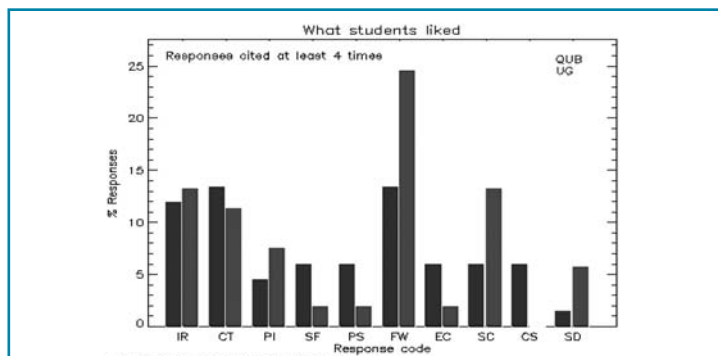


Figure 1a: What students of 2003/04 liked

- | | |
|--|---|
| IR Opportunity for independent research/study | EC Establishing contacts / opportunity to meet new people |
| CT Allowed to choose and develop own topic of interest | SC Satisfaction and sense of achievement of completion/submission |
| PI Personal Input – ie opportunity to push topic in your own direction | CS Developing and implementing computer skills (incl GIS) |
| SD Discovering findings of significance/originality | SD Exploring a particular sub-discipline of Geography in depth |
| PS Building a professional relationship with your supervisor and sharing ideas | |
| FW Fieldwork / Data collection / Lab work | |

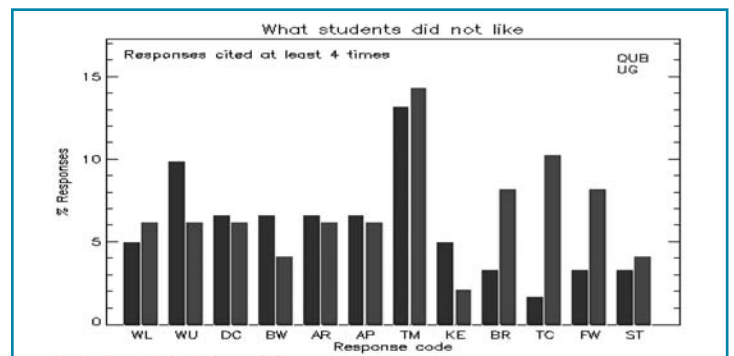


Figure 2a: What students did not like in 2003/04

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|--|--|
| WL Keeping to designated word limit | TM Time management / meeting deadlines |
| WU Write-up of a large project | KE Knowing exactly what is expected / what to do |
| DC Problems with gaining appropriate data / sources of info. From contacts / knowing what to ask | BR Background reading – too much, what is useful, etc |
| BW Balance work of dissertation with other modules | TC Time consuming – very long piece of work, hours of research etc |
| AR Analysis of results / number crunching / graph work | FW Fieldwork / Lab work / Interviews |
| AP Appropriate presentation / structure / organization | ST Stress (general) |

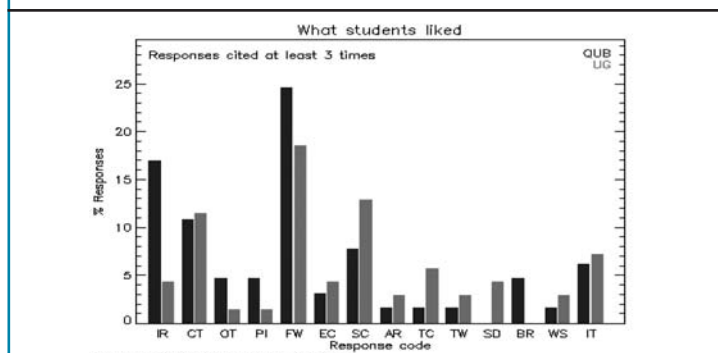


Figure 1b: What students of 2004/05 liked

- | | |
|--|--|
| IR Opportunity for independent research / study | SC Satisfaction and sense of achievement of completion / submission |
| CT Allowed to choose and develop own topic of interest | AR Analysis of results |
| OT Ability to work in your own time (within reason) | TC The challenge (all aspects) |
| PI Personal input – ie opportunity to push topic in your own direction | TW New type of work – had not carried out anything like this before |
| FW Fieldwork / Data collection / Lab work | SD Exploring a particular topic / sub-discipline of Geography in depth |
| EC Establishing contacts / opportunity to meet new people | BR Reading literature |
| | WS Work satisfaction / progress of work |
| | IT Interest in / learning about / involvement with topic |

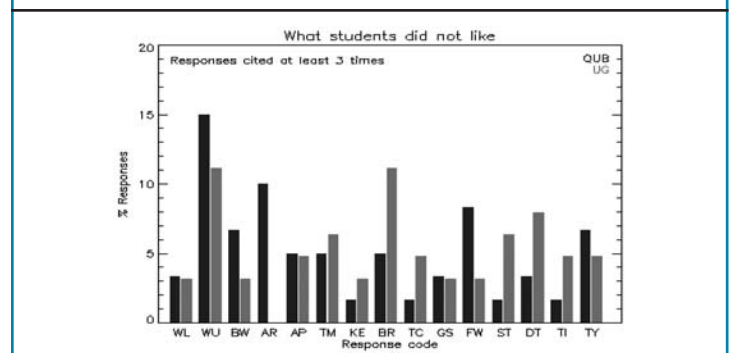


Figure 2b: What students did not like in 2004/05

- | | |
|--|--|
| WL Keeping to designated word limit | KE Knowing exactly what is expected / what to do |
| WU Write-up of a large project, final edits, other content/writing probs | BR Background reading – too much, what is useful, etc |
| BW Balance work of dissertation with other modules | TC Time consuming – very long piece of work, hours of research, etc. |
| AR Analysis of results / number crunching / graph work | GS Getting started |
| AP Appropriate presentation / structure / organization | FW Fieldwork / Lab work / interviews |
| TM Time management / meeting deadline / sorting priorities | ST Stress (general), last minute panics |
| | DT Deciding on topic |
| | TI Choosing title / writing proposal |
| | TY Typing / proofreading / other writeup issues unrelated to content |

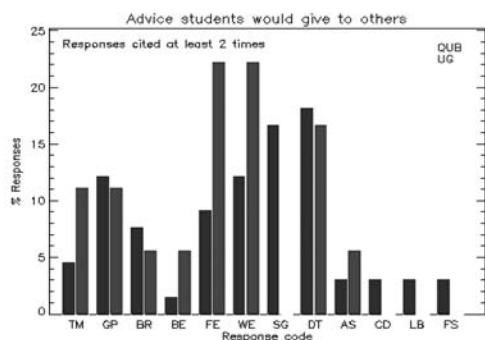


Figure 3a: Advice students of 2003/04 would give to others

TM	Employ effective time management throughout the project (and continuously work on it)	SG	Seek guidance (generally staff) and meet with supervisor regularly
GP	Make good, specific plans for your research (and be realistic)	DT	Take care in deciding topic – enjoyable, interesting, feasible, etc
BR	Take care over background reading (generally have said to read widely)	AS	Make sure you have the appropriate supervisor for your project / one you feel comfortable with
BE	Be excited by the opportunity /challenge	CD	Complete work well before deadline to allow for changes, printing, etc
FE	Carry out fieldwork early	LB	Keep a log book as a record of what you have done
WE	Begin plans, research, reading and write-up of sections early	FS	Undertake your dissertation in the first semester so that it is done early.

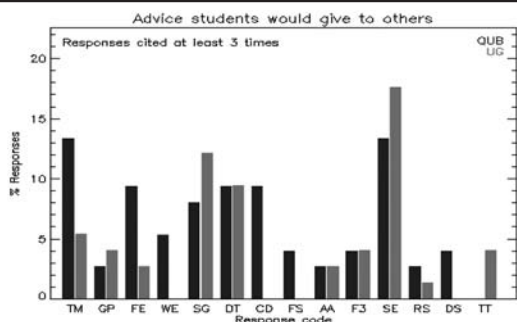


Figure 3b: Advice students of 2004/05 would give to others

TM	Employ effective time management throughout the project (and continuously work on it)	CD	Complete work well before deadline to allow for changes, printing, etc
GP	Make good, specific plans for your research (and be realistic)	FS	Undertake your dissertation in the first semester so that it is done early.
FE	Carry out fieldwork early	AA	Accept advice
WE	Begin plans, research, reading and write-up of sections early	F3	Fieldwork should be done in summer prior to third year
SG	Seek guidance (generally staff) and meet with supervisor regularly	SE	Start early (in general)
DT	Take care in deciding topic – enjoyable, interesting, feasible, etc	RS	Read in summer
		DS	Don't stress/panic
		TT	Make a timetable and stick to it as best you can.

DISCUS website

The DISCUS website (currently at : web.gg.qub.ac.uk/people/staff/whalley/teaching/DISCUS/) contains a series of advice and information pages, interview video clips, and the results of the questionnaire returns. We have consciously kept the amount of text to the minimum and endeavoured to use the words of former students and write in an accessible manner. Our aim is to make the site relevant, student friendly, and not just a list of need-to-know issues or replies to FAQs, but something that helps students see how others have resolved issues and to deepen their understanding of the process of dissertation production. The video recorded interviews are particularly important to the project; they provide current students with 'live' helpful information. Interviewees, through their 'stories', have revealed just how it was for them and highlight both the common and distinctive features of the dissertation experience.

We are currently exploring a discussion facility or bulletin board within DISCUS and other ways to making the site truly interactive. Peer advice and discussion within DISCUS should add an extra dimension to dissertation work, increase student confidence, contribute towards an improved student experience, promote independent learning, and play a part in the production of good quality dissertations. We know that for DISCUS to be successful and useful, students need to take ownership of the site, and this will only occur over time. It is our intention to use the website beyond 2005/06.

Evaluation of DISCUS

In 2005/06 students currently undertaking a dissertation in our departments have been given access to DISCUS. To date, a limited number of users have provided us with feedback on the website. They have been asked to comment on content, accessibility and usefulness, and encouraged to make suggestions for improvement. Generally, they find the website useful, easy to navigate, and the pithy comments from former students valuable. However, the video clips are not perceived as terribly helpful, some are too long, difficult to view – various technical problems have occurred – and one person is considered to be an 'atypical' student. Of course, this poses a question; what do current students think is a 'typical' student, and then, are they unable to recognize the diversity of the student body? The graphical results section on the questionnaire returns is considered to be of little use, in fact one student said that there were 'too many graphs and too much

Box 1

'My dissertation is probably the most useful thing I have ever written at university. I doubt I'll ever have to write an essay again, but if I do have to write reports, it'll be in the same form as my dissertation.'

'From Level one I had dreaded the prospect of doing what seemed a huge piece of work, but with hindsight I feel that the support given along the way has resulted in a dissertation better than I thought I could do.'

'I valued this piece of work as it was a presentation of all the skills I had developed whilst being in education.'

'Felt that I learnt as much about myself as I did about the topic.'

'Probably the toughest piece of work done solely due to gaining confidence to collect data and time management.'

'There is no doubting completing my dissertation was one of the most stressful times of my life but at the same time the most rewarding.'

'I enjoyed having the chance to show what I am capable of. I found it very stressful at times, but achieved huge sense of satisfaction when over.'

information. Probably more useful for staff than students'. Finally, student evaluators consider that they wish to have both hardcopy and electronic handbooks and guidance notes, claiming that hardcopy is more portable and that not everyone has the technology to use electronic material everywhere. We are currently adapting the website to take these views into account to make it more 'student friendly' and easier to navigate. This will include placing the graphs, as they are informative to staff, in a less prominent position.

Dissertation guides

Having identified certain common themes within the questionnaires and our own handbooks, we decided that it would be useful to collect copies of dissertation handbooks from other GEES departments across the UK. This enterprise extended the remit of our project and opened up a new area of research, which we hoped would be of real value to the GEES community. A comparative analysis of these departmental handbooks could indicate common elements of advice, illustrate areas of innovation and good practice and provide a broader perspective on dissertation guidance. The detailed analysis of these 32 handbooks will form the basis of a paper for *Planet* in due course.

An initial review of these handbooks indicates that most departments provide the following information to students: assessment criteria, aims, supervisory arrangements, timetable of work, and general structure and format of the dissertation. Most, but not all departments, give details of learning outcomes, stress the importance of originality, caution against plagiarism, emphasise health and safety requirements and risk assessment, articulate the need for good time management and finally provide students with examples of the cover-sheet and guidance on presentation. Few departments gave specific guidance on fieldwork and producing a field notebook/diary. However, this information, as well as other material, may well be covered in other departmental documentation. For example, departments may have separate guidance notes for fieldwork but do they cover 'lone' fieldwork or interviewing and questionnaires? Another issue rarely covered was research ethics. Various examples of good practice have been identified, these include details of funding for fieldwork, lists of previous topics, incorporation of oral presentations in reporting dissertation progress, and alternative dissertation formats such as video recordings.

Conclusion and recommendations

The GEES student dissertation experience at our two institutions is very similar. Students value the freedom to choose their own topic, the ability to complete independent fieldwork and the opportunity to demonstrate their abilities. At the same time, students have difficulty with time management, the enormity of the exercise, balancing dissertation work with other studies, self-motivation and knowing what is expected. As staff, we realise that many students gain enormously from doing a dissertation whilst some encounter real difficulties. Some sensitive and complex topics lie behind certain questionnaire responses. In many ways we wish we could go back to these students and seek clarification. However, overall we now better understand the student dissertation experience.

From this project we make the following recommendations:

- Departments should evaluate how they prepare and support students throughout the dissertation process;
- Departments should consider how they manage the transition from guided learning to student independent learning;

- Departments should review whether too much emphasis is given to the dissertation and question whether it serves the right purpose.

Finally, our hope is that the outputs from this project will enrich student and staff awareness of the challenges, benefits and pitfalls of doing a dissertation. Students can easily feel overwhelmed and daunted by the prospect of completing a dissertation. DISCUS and this project are our attempt to dispel student fears. The 'success' of DISCUS will be measured by how our own students receive it in 2005/06 and beyond. In the long term we hope that resources will be made available to permit the continuance of the project for at least another year. In this way a longitudinal study of student dissertation experience may be obtained which could be used to inform the wider GEES community.

Acknowledgements

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Footnotes

1. As of 1st September 2005 the University of Gloucestershire School of Environment no longer exists and staff and students are now part of the Department of Natural & Social Sciences.
2. As of 1st August 2005 the School of Geography, Archaeology and Palaeoecology.

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VISIT THE DISCUS WEBSITE AT:

<http://web.gg.qub.ac.uk/people/staff/whalley/teaching/DISCUS/>