

Student Support in the Higher Education Science and Engineering Sector (0291)

Jane Reid¹, ¹*Queen Mary University of London, London, United Kingdom* **Background**

This work forms part of an ongoing study of student support, which was motivated by several recent, related initiatives at the author's home institution [1], [2], [3], [4]. The aim of this part of the study is to review and analyse current strategy, policy, practice, operational issues, good practice and areas for improvement within the Science and Engineering Faculty of the institution. The analysis will feed into development of a framework for critical analysis and future planning of student support.

1. Methodology

Twenty-nine members of senior management, academic and administrative staff involved in the area of student support were interviewed. Figure 1 shows the distribution of staff across departments and staff categories.

All interviews were individual and conducted between January and March 2010. The length of the interviews varied between 32 and 81 minutes. A standard set of interview questions was developed for each staff category: senior management questions focused on strategy; academic staff questions focused on policy and practice; and administrative staff questions focused on operational issues.

	Management	Academic	Administrative	TOTAL
Office of the Principal (central)	2	0	1	3
Biological & Chemical Sciences	1	3	2	6
Electronic Engineering & Computer Science	1	2	1	4
Engineering & Materials Science	1	3	1	5
Mathematics	1	3	2	6
Physics	1	3	1	5
TOTAL	7	14	8	29

Figure 1. Staff distribution.

Following the staff interviews, four student focus groups were arranged for fifty-three first year, second / third year and final year undergraduate students, and masters students. Figure 2 shows the distribution of students across departments and year groups.

The focus groups were conducted in March 2010. The length of the focus groups varied between 86 and 103 minutes. A standard set of focus group questions was developed, covering: definition and scope of student support; level and type of

support offered by home departments; and examples of good practice and areas for improvement.

	First	Second/third	Final	Masters	TOTAL
Biological & Chemical Sciences (SBCS)	4	3	5	0	12
Electronic Engineering & Computer Science (EECS)	2	5	3	5	15
Engineering & Materials Science (SEMS)	4	4	5	1	14
Maths	1	2	3	1	7
Physics	5	0	0	0	5
TOTAL	16	14	16	7	53

Figure 1. Student distribution.

Both staff interviews and student focus groups were documented through extensive notes made on a laptop and audio recordings made with the participants' consent (two staff participants refused consent).

The staff and student data were then subject to a thematic analysis, using an approach based on the principles of Grounded Theory [5].

2. Findings

The findings are categorised into the following nine "meta-themes":

- A. Purpose and characteristics of student support;
- B. Student and student body characteristics;
- C. Learning, teaching and assessment;
- D. Staffing;
- E. Student community and student-staff relations;
- F. IT infrastructure and communications;
- G. Student cohort data and student-generated feedback;
- H. Staff community and leadership & management;
- I. Specific support issues and services.

Under meta-theme A, staff and students agreed that university is about more than pure academic achievement. Staff emphasised longer-term and aspirational purposes of student support and the importance of judging the right type and timing of support. Students focussed on shorter-term, concrete support issues and services. Both staff and students were concerned about the stigma that students sometimes feel in seeking support.

Under meta-theme B, staff identified different characteristics associated with the following categories of students: joint programme students; placement programme students; first year undergraduates; second / third year undergraduates; final year undergraduates; masters students; mature students; top academic performers. Students also mentioned lack of support for top academic performers.

Under meta-theme C, both staff and students highlighted feedback as the main issue. Staff favoured a reduction in assessment load and separation of assessment from

feedback. Students emphasised the value of consistent, good quality, timely, qualitative, individual feedback. They expressed a wish for exam feedback and greater opportunity to seek clarification and ask questions through feedback lectures or meetings with module lecturers or advisers.

Under meta-theme D, both staff and students commented on the valuable role of administrative staff. Staff highlighted increasing use of teaching assistants due to staff time pressures. Students commented on a lack of teaching assistants and their perceived lack of knowledge of the materials for some modules, and expressed a wish for increased contact with module lecturers.

Under meta-theme E, staff highlighted the importance of students forming a strong community both with their fellow students and with staff. Staff felt responsible for driving this process, but often suffered time pressures, especially because the burden of student support generally falls on a small number of engaged staff. Students focussed on the importance of socialising with older students, especially from their own programme. One important facilitating factor was seen to be a dedicated student social space.

Under meta-theme F, both staff and students commented on the value of timely, user-friendly student access to personal administrative data through a “student portal”. They also both recognised the usefulness of modern communication technologies, e.g. text messaging, Facebook and Twitter. In addition, students mentioned the need for consistent online module materials, access to subject-related technology and IT to facilitate administrative processes, e.g. room / computer booking.

Under meta-theme G, both staff and students highlighted the importance of informing students of concrete actions taken in response to student-generated feedback, and mentioned the issue of student “questionnaire fatigue”. Students commented that the effectiveness of student representatives is variable. Staff commented that production and dissemination of student cohort data by central college services could be improved.

Under meta-theme H, staff expressed a wish for a lightweight mechanism to share student support practice and experience. They also commented on the difficulty of balancing learning and teaching with research, engaging staff, and establishing standards to ensure consistency for students while also allowing flexibility for departments.

Under meta-theme I, both staff and students mentioned extenuating circumstances, including financial problems for postgraduate and overseas students. Staff commented on the increase in extenuating circumstances, while students felt that submission of extenuating circumstances was not always sufficiently supported or sympathetically treated. Students also commented on the importance of timely careers information and advice, the difficulty of finding time to participate in additional support activities, and the role of academic departments as a “signpost” to central support services.

3. Further work

The next stage of thematic analysis, now in progress, is to compare and contrast these findings both within each academic department (across participants groupings) and within each participant grouping (across academic departments). The analysis will feed into development of a framework for critical analysis and future planning of student support.

Acknowledgements

The author acknowledges the contribution of Marc Trepanier, who performed some of the data analysis for this work.

References

- [1] Queen Mary, University of London Student Support Strategy 2008-2010.
- [2] Queen Mary Learning, Teaching and Assessment Strategy 2010-2015.
- [3] The Queen Mary Statement of Graduate Attributes, Summer 2010.
- [4] Queen Mary, University of London Strategic Plan 2010-15.
- [5] The Discovery of Grounded Theory, Glaser B & Strauss A. 1967. Aldine Publishing Company, New York.