

Enhancing practice

Quality Enhancement Themes: The First Year Experience

Peer support in the first year

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ISBN 978 1 84482 787 9

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Registered charity numbers 1062746 and SC037786

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Fiona M. Black
Jane MacKenzie

Preface

The approach to quality and standards in higher education (HE) in Scotland is enhancement led and learner centred. It was developed through a partnership of the Scottish Funding Council (SFC), Universities Scotland, the National Union of Students in Scotland (NUS Scotland) and the Quality Assurance Agency for Higher Education (QAA) Scotland. The Higher Education Academy has also joined that partnership. The Enhancement Themes are a key element of a five-part framework, which has been designed to provide an integrated approach to quality assurance and enhancement. The Enhancement Themes support learners and staff at all levels in further improving higher education in Scotland; they draw on developing innovative practice within the UK and internationally.

The five elements of the framework are:

- a comprehensive programme of subject-level reviews undertaken by higher education institutions (HEIs) themselves; guidance is published by the SFC (www.sfc.ac.uk)
- enhancement-led institutional review (ELIR), run by QAA Scotland (www.qaa.ac.uk/reviews/ELIR)
- improved forms of public information about quality; guidance is provided by the SFC (www.sfc.ac.uk)
- a greater voice for students in institutional quality systems, supported by a national development service - student participation in quality scotland (sparqs) (www.sparqs.org.uk)
- a national programme of Enhancement Themes aimed at developing and sharing good practice to enhance the student learning experience, facilitated by QAA Scotland (www.enhancementthemes.ac.uk).

The topics for the Enhancement Themes are identified through consultation with the sector and implemented by steering committees whose members are drawn from the sector and the student body. The steering committees have the task of establishing a programme of development activities, which draw on national and international good practice. Publications emerging from each Theme are intended to provide important reference points for HEIs in the ongoing strategic enhancement of their teaching and learning provision. Full details of each Theme, its steering committee, the range of research and development activities as well as the outcomes are published on the Enhancement Themes website (www.enhancementthemes.ac.uk).

To further support the implementation and embedding of a quality enhancement culture within the sector - including taking forward the outcomes of the Enhancement Themes - an overarching committee, the Scottish Higher Education Enhancement Committee (SHEEC), chaired by Professor Kenneth Miller, Vice-Principal, University of Strathclyde, has the important dual role of supporting the overall approach of the Enhancement Themes, including the five-year rolling plan, as well as institutional enhancement strategies and management of quality. SHEEC, working with the individual topic-based Enhancement Themes' steering committees, will continue to provide a powerful vehicle for progressing the enhancement-led approach to quality and standards in Scottish higher education.



Norman Sharp
Director, QAA Scotland

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Acknowledgements

We would like to thank the following for contributing case studies to the report:

Frank Brown and Elizabeth Mooney, Glasgow Caledonian University
Joan Muszynski, University of Dundee
Neil Speirs, University of Edinburgh
Scott Sherry, University of Glasgow
Hugh Fleming, Bournemouth University
Morven Shearer, University of St Andrews
Mary Sattenstall and Sally Freeman, University of Manchester
Ole Pahl, Glasgow Caledonian University

Thanks also to Karen O'Rourke and all at the Centre for Excellence in Enquiry-based Learning at the University of Manchester who took the time to meet with us to discuss the project.

Special thanks are due to William Buckingham for assistance with the literature review.

Fiona Black and Jane MacKenzie

I Background to the First-Year Experience Enhancement Theme

The first year has become a subject of focus in terms of higher education (HE) practice and research. This has, in part, arisen from concerns about student retention in our now mass HE system. Thus the First-Year Experience was identified as an Enhancement Theme for consideration by Scottish higher education as part of the Quality Enhancement Framework. The Enhancement Theme has taken as its focus not retention but how the first year can be developed as a transformative experience for students and how it can be developed to engage and empower students. A number of sub-themes or projects were identified. The Enhancement Theme's two sector-wide discussion projects were:

- sector-wide discussion: the nature and purposes of the first year
- student expectations, experiences and reflections on the first year.

In addition, seven practice-focused development projects were undertaken, including the one detailed in this report. These covered:

- curriculum design for the first year
- transforming assessment and feedback: enhancing integration and empowerment in the first year
- peer support in the first year
- personal development planning (PDP) in the first year
- personalisation of the first year
- introducing scholarship skills: academic writing
- transition to and during the first year.

As a recent review commissioned by the Higher Education Academy (HEA) pointed out, it is difficult to examine a given topic - for example, peer support - related to the first year in isolation; there is much overlap between topics (Harvey, Drew and Smith, 2006). Thus, some of what is examined in this report necessarily relates to other projects.

2 Peer support in the first year

For the purposes of this report, the first year is taken to mean the first year a student, whether undergraduate or postgraduate, spends in HE. We define peer support as the role other students play in a student's academic learning, social well-being and familiarisation with the institution. This report explores examples of horizontal peer support, where students within the same year group support each other, and vertical peer support, where more senior students support first-year students.

While many of our findings, case studies and recommendations focus on the first year, they are not solely confined to the first year. Much of the literature and practices that focus on the first year have arisen from a growing concern about student retention. As such, the literature related to the first year is dominated by a concern about the reasons for student withdrawal, rather than student engagement or empowerment. This focus on retention has impacted on practice. Many of the peer 'support' practices put into place by institutions are predicated on the view that first-year students are 'in danger' or lack survival skills (that is, the ability to manage academic tasks and expectations effectively, and the ability to make links with peers) and that the focus of institutionally-sponsored peer interaction should, therefore, be one of supportive intervention.

Central to the literature in this area is the work of Vincent Tinto, who for the past 30 years has researched and theorised student retention. While the key elements of his work have been revised over the intervening period, they are still salient today. Briefly, students will withdraw from HE if they are not successfully integrated, both socially and academically. It is our contention that peer support can, in the right circumstances, contribute to students' social and academic integration. Further, we contend that interaction with peers can aid engagement with the institution through the motivational aspects of experiencing a 'sense of belonging'. Finally, we explore how the sector can take this a step further towards empowering students.

We undertook this study with the realisation that peer support exists in a number of basic forms. Student groups play a major role, whether formally affiliated ones like student associations, student media groups, sports groups and other clubs and societies, or more organic friendship groups that form in the contexts of student learning spaces, social spheres or where students live. Students frequently and naturally gain support from their peers. Meaningful and supportive relationships form with or without the interventions of the institution. The focus on retention and support has also impacted on the role and remit of student officers (officeholders of student unions, clubs and associations), with a move towards a broader and more inclusive student experience based on an awareness of the student survival agenda. This is to be welcomed and institutions should work closely with student officers to inform strategy and practice. It is also important that student groups - formally connected to the institution or otherwise - should exist purely to provide friendship and to meet students' common interests rather than with any explicit function of 'support' and the negative connotations that can involve.

We have chosen to examine HE practices from two distinct angles. First, academic departments and support services in higher education institutions (HEIs) that introduce frameworks and practices **explicitly** to enable students to support each other.

Second, practices that often look like, and are, normal parts of the student's course, which foster opportunities for peer support; these we term **implicit** practices. We shall consider explicit and implicit forms of support separately in the first instance.

2.1 Explicit forms of peer support

Included under the heading of explicit forms of peer support are examples of schemes that have been implemented to increase students' opportunities to meet and support each other. Case studies 1-4 outline mentoring or buddying schemes designed to provide first-year students with access to more experienced students in higher years who can provide information, advice and guidance. These case studies are primarily concerned with integration into the institution and each describes a practice which, while supporting students throughout the first year, starts prior to induction. The final explicit practice, a peer-assisted learning (PAL) scheme outlined in case study 5, has a primarily academic focus.

The practices outlined in these case studies all operate somewhat differently, each having different levels of formality in the mentoring/tutoring relationships. The common feature is the use of students as mentors/tutors in the sense of experienced and trusted advisers. All of these case studies are institution-wide schemes, but similar practices exist within individual departments in institutions.

A final form of explicit support is the student learning community (SLC). This type of initiative, usually in the form of freshman interest groups or first year seminars, has been widely adopted in the US but as yet is rare in the UK (see the literature review in Appendix 1). It involves students meeting regularly in small groups to study their academic subjects and/or undertaking a skills-based programme aimed at easing the transition to HE. The students are supported by academic and/or support staff. SLCs can be situated within halls of residence or can be non-residential.

The Further Education/Higher Education (FE/HE) Transition mentoring scheme (case study 1) is the most informal of the schemes outlined in the case studies. There is no matching of mentors with individual first-year students or groups, and the mentors are less likely to be involved in providing support on in-depth personal matters resulting from homesickness, for example. The mentors operate very much as information providers. As Frank Brown and Elizabeth Mooney put it, the mentors signpost the 'wee stuff' - the seemingly basic, often practical or technical queries and concerns that first-year students have when faced with new terminology, systems and procedures. The Glasgow Caledonian University (GCU) mentors are trained to have a good awareness and understanding of the support available to GCU students, but it is their personal experience and approachability that are key to their role.

Case study 2, Peer Connections, contributed by Joan Muszynski, differs in that first-year students using the service are more formally matched up with Peer Connectors who meet them to discuss issues and challenges they may be facing. Peer Connectors are involved in activities such as the University of Dundee's suicide awareness campaign, and their role can come closer to a more formal mentoring one in the sense of providing guidance and psychological support as well as information and the voice of experience.

The University of Edinburgh's M-Power scheme (case study 3) represents the most formal of the mentoring systems. Specifically targeted at non-traditional entrants and with the explicit aim of enhancing student retention, M-Power matches individual first-year students with a personal mentor who will maintain a relationship with them throughout their first year. Mentors are trained in student attrition theory and act as a point of referral and of connection to the institution. The formal mentoring relationship involves what Neil Speirs refers to as the four strands of educational mentoring: academic, social, financial and personal issues.

The Student Network's e-mentors (case study 4) provide information about the University of Glasgow to first-year students via email and respond to individual enquiries. The mentoring role is predicated on information and personal experience. The Student Network differs from the other 'mentoring' schemes in its use of virtual activities in the form of forums, blogs and photo-blogs. These involve horizontal peer interaction that, according to Scott Sherry, provides a virtual 'space' for students across the university to interact with one another.

Case study 5, contributed by Hugh Fleming of Bournemouth University, is an example of a long-running peer-assisted learning scheme. PAL is a form of explicit peer support that operates on both the horizontal and, to a lesser extent, the vertical axis; first-year students learn with and from each other, and this learning is facilitated by a more senior undergraduate. The scheme provides first-year students with a space to meet and work together in order to integrate and engage with each other and their coursework. Second-year students facilitate PAL sessions and so provide a flavour of mentoring, in the sense of being available to impart their experience. This is the added extra that makes PAL different from other forms of first-year teaching. PAL practitioners are keen to stress that PAL is supplemental to first-year teaching and should not be viewed as a substitute for tutorials. There is an argument that PAL could operate effectively in academic terms with staff facilitating PAL sessions rather than student facilitators. However, that would lose the access of first-year students to more experienced peers - students who have already successfully negotiated the course or programme of study as well as the first year itself.

All of the explicit forms of peer support illustrated in the case studies require more experienced students to operate, and all actively encourage those who have benefited as first-year students to become mentors or facilitators in their second year. This cyclical driver benefits both the institution and the individual student.

2.2 Implicit forms of peer support

Included under our term of implicit forms of support are many of the normal activities of a university. Students are offered a range of opportunities to engage with other students in academically and/or socially meaningful ways. A friendship group is probably the most powerful form of peer support a student is likely to encounter, so opportunities that allow students to meet with like-minded people on campus or in a virtual environment (VLE) are essential. Student associations, societies and unions play a very important role in this regard, as do halls of residence. Similarly, students are using online networks such as institutional VLEs and, increasingly, publicly accessible resources like Facebook and MySpace to meet and keep in touch with other students.

Many of our current educational practices involve opportunities for students to work alongside each other in small groups, and for many students this is where friendship groups are likely to grow. While such learning activities (for example, tutorials, laboratory practicals and field trips) are not included in the curriculum with the explicit intention of allowing students to make friends with and support each other, that this occurs is a natural outcome. However, with the massification of HE such opportunities are becoming rarer, particularly in the first year where they might have the biggest impact. We present case studies 6-9 as examples of small-group, collaborative learning opportunities, which are meaningful for students in terms of their learning and that offer a range of benefits in terms of peer support.

Morven Shearer (case study 6) introduces us to the use of survey-based research projects supported by tutorials to facilitate learning in a human biology module at the University of St Andrews. The use of tutorials in science teaching is not unusual, but introducing science students to human-based research is not the norm: much first-year biology learning happens in the laboratory setting. Here, students are expected to investigate in groups (through a piece of survey-based research) human behaviour in relation to some aspect of human biology. A tutor, whom they meet formally on only a handful of occasions, supports the students; the tutorials are designed to support students by introducing a series of structured tasks to enable them to complete their projects.

What is important about these projects is not simply that they facilitate learning of the subject, but also that they introduce students to a group of their peers early on in their first year. It is clear from feedback that the students find this beneficial in a number of ways. Students have reported that since the projects required them to learn with others this allowed friendships to form that would not have done otherwise. They have also reported that the projects allowed them to become more familiar with the practices of the department.

In case study 7, Sally Freeman and Mary Sattenstall of the University of Manchester report how a first-year pharmacy module has been modified to include an enquiry-based learning (EBL) element. Students are supported by their year tutor to investigate a clinical condition and the drugs used in its treatment. Again, participating students have reported the benefits in terms of 'settling into university life' and making friends. Particularly significant is that subsequent to its initial pilot year, this EBL element has become the major component of the first-year module - that is, it accounts for 80 per cent of its assessment. In this case, the opportunity to learn with peers has been embedded in the practice of the course. By making this commitment to EBL, with its often small-group focus, the department is acknowledging the importance and impact of peer support in the first year.

In case study 8, Ole Pahl of Glasgow Caledonian University describes an unusual practice that has been in existence for approximately 16 years. Students from different year groups (one to three) work together on the Vertical Project (VP). As students progress through the years, their role in the project changes. In the first year the student is expected to act as an 'administrative assistant' or 'apprentice' to assist the project work undertaken by the second and third-year students. By the time the student enters the third year, they are expected to act as project manager. Again, the evidence indicates that this is effective in terms of learning the subject content and discipline-specific skills. But in addition, like the explicit forms of support described above, it gives first-year

students the opportunity to meet and gain advice and support from more experienced students in more senior years.

These examples of implicit peer support bear similarities to what might be termed normal practice in first-year teaching - students meet in groups to be supported in their learning by a member of staff or postgraduate tutor. What distinguishes them is the focus on students working independently of the tutor and supporting each other's learning. The requirement of engaging in a research project or process of enquiry means that students are essentially given ownership of their learning. Further, they are often required to work together **outside** the classroom, making the formation of friendship and social networks more likely. Such opportunities can and should be highly motivational, and offer students essential opportunities to get to know each other and to integrate socially and engage in academically meaningful study.

Clearly, there are many other examples of good, innovative and engaging peer-support practices within the sector. However, we have selected case studies 6-8 as examples of how the classic tutorial-supported or laboratory-based module might be modified in a fairly straightforward and economical manner to provide a fruitful ground to allow for student friendships, effective collaborative learning and a feeling of engagement with the department. Case study 9 has wider implications for other work-based learning and professional learning contexts. We would argue that course designers, policy-makers and academics should, when designing and reviewing courses, take into account opportunities to foster peer support.

2.3 Peer support: survival or success

The majority of implicit forms of support focus on learning and academic engagement (that is, academic integration and success); the more social aspects of such practices represent a fortuitous side effect. In contrast, most examples of explicit forms of support (PAL being an exception) take as their starting point social integration or integration with the institution and its practices (for example, information about hardship loans, services available to students). However, at best, both forms of support offer something more than just information for survival. They can also offer the opportunity to develop skills and attributes that will enhance students' lives beyond the subject of study (for example, volunteering, clubs/societies, media, sports), and thus enhance their success both at university and in wider society.

These support practices can also offer students an opportunity to feel part of something - the department, the institution or a friendship group. They can offer students the opportunity to experience university as a pleasant, welcoming place in which they experience a feeling of belonging. Kember, Lee and Li (2001) made the point that a sense of belonging is more likely to develop in small groups. They stated that the 'logical consequence is then to attempt to build a sense of belonging with relatively small units such as departments rather than large impersonal bodies like a university' (p 339). As Yorke and Longden (2004, p 137) argued: 'For some students, a sense of belonging will develop as a matter of course; for others this may not happen unless the institution makes an effort'. The benefits that might arise from being part of an effective collaborative learning group or a mentoring scheme can be manifold.

Some of the peer support practices detailed in this report (and in the literature review) have arisen as a salve to what is frequently seen as the 'first-year problem', namely low retention rates and disappointing academic achievement levels. However, perhaps we need to see them not only as simply responsive to a lack of knowledge or skills or experience, but also as potentially transformative.

We have examined forms of peer support from the dual viewpoints of implicit and explicit support. Our analysis has attempted to move away from this division and to identify elements of both forms of practice, which we would hope to see become universal in the first year.

2.4 Engagement and empowerment

The aim of an institution is to engage students and thus encourage their persistence and success. Students enter HE with a range of experiences and associated receptiveness to engagement, and their response to the HE experience or their engagement with it depends on what they find when they get there. Engagement can be encouraged and supported. In keeping with much of the literature, we believe that engagement will only result if the student is able to integrate - socially, academically and with the institution itself. Thus engagement, to a greater or lesser extent, is dependent on what the institution offers the student.

Engagement is with the institution in its entirety (subject, department, peers and staff). Frequently it involves learning, accepting and conforming to the norms of the institution. From the point of view of peer support in the first year, learning the norms of the institution and thus engaging with it can be encouraged by providing first-year students with suitable 'space' where they can interact with peers in an academic and a social context. Space can be physical, psychological or virtual. Halls of residence are an obvious example of physical space, but in an increasingly mass system of HE many students do not get the 'halls experience'. For students who commute to university, this lack of a physical space to 'belong' can have a negative impact on engagement. For students who leave the lecture theatre and have nowhere to go other than the library or the union, the message received can be that the institution does not want them to spend time on campus interacting with others in an academically meaningful way outside of the classroom.

Student unions, common rooms and coffee bars provide some social space. In many institutions, however, demands on space for teaching and postgraduate study mean that first-year students are finding it increasingly difficult to find somewhere to engage with each other in a social context that is not defined by alcohol or a retail function. Braxton and Hirschy (2004) stated that students will not socially integrate with the entire student body of an institution but with subsets of that population. These subsets might be their classes, student societies or clubs, halls of residence, sports teams and so forth. Providing one homogenous bar or coffee bar will not meet the requirements of every first-year student. Thomas (2002, p 437) pointed out the value of 'smaller social venues, where students can more readily feel comfortable, and be more certain that they will meet people they know'. She indicated the potential of many social spaces to exclude certain students, for instance those who do not drink alcohol or who feel uncomfortable in bars. She argued for the need for a range of venues for social meetings.

Where space is available it is important to ensure that meaningful activity can be supported to take place within that space. Many of the mentoring systems represented in the case studies would benefit from access to suitable physical space, as would student-led clubs and societies. In terms of academic engagement large lecture theatres provide space for mass teaching, but there is perhaps an equally urgent need for adequate space suitable for small-group learning.

The value of psychological space to student engagement is less easy to define and quantify. For many students, the curriculum and the student timetable are filled with space. First-year students who are unused to this can struggle to fill this space meaningfully, and peer-support initiatives and implicit peer support can be useful in providing a psychological space-filler outside of the classroom. The first year is when students should develop time-management skills. Certain forms of peer support can provide not only the advice on how to do this, but also some practical and engaging opportunities in both the real and virtual worlds. If the institution provides spaces for students to interact with peers, staff and the institution, it is likely that first-year students will seek to occupy them. We believe therefore that students' engagement is to a great extent a response to what the institution provides for and does to the student.

Leslie Ashcroft (1987) defined empowerment as 'bringing into a state of belief one's ability to act effectively'. Empowerment is therefore only possible when students are given the opportunity to take action within the institution rather than simply being acted upon or provided with space for self-development. We argue, therefore, that empowerment occurs when students are confident enough in their ability to negotiate the norms and practices of the tutorial, club, department or institution to develop a voice. The implicit argument of this Enhancement Theme is that for a majority of students the process is, or should be, a movement from engagement (to our mind the primary purpose of the first year) to empowerment, where they can feel confident as effective and effectual actors within that space.

If empowerment is about allowing students to take action rather than be acted upon, it represents a potential challenge to the institution. While the space for engagement is, or can be, controlled by the authority of the tutor, department or institution, providing students with a voice means that we need to accept that they might make decisions that do not 'fit' the institutional view. Students could withdraw from their studies and therefore act in seemingly direct contradiction to the aims of engagement and empowerment. They might challenge the authority of the tutor, department or institution; they might question the status quo and act in a way that does not fit the model of the ideal student, for example by not attending lectures. So in effect empowerment is about encouraging students to be individuals, and it remains to be seen whether a mass HE system can cope with this.

2.5 Self-confidence, self-belief and self-actualisation

There are parallels between this move from engagement to empowerment and the classical model of student motivation put forward by Abraham Maslow (1987): the hierarchy of needs. Maslow theorised that humans have a range of needs, from those necessary to life to needs for belonging and feelings of worth. The essential feature is that an individual cannot move to the highest level in the hierarchy - self-actualisation - until lower-level needs are met. Tennant (1997) summarised the hierarchy thus:

- physiological needs - such as hunger, thirst and sleep
- safety needs - the need for safe space and a predictable world
- love and belongingness needs - the need for meaningful relationships with others
- self-esteem needs - these involve feelings of competence, confidence, credibility and the respect of others
- self-actualisation - where the full expression of talents and potential can be demonstrated.

Self-actualisers are able to follow a social norm without being restricted in their own views and beliefs, and may 'on occasion transcend the socially prescribed ways of acting' (Tennant, 1997, p 13).

For some students in HE today, even the first two levels in the hierarchy (physiological and safety needs) are not guaranteed; the onus is on them to provide food and shelter for themselves and, in some cases, their family. If this involves undertaking long hours of paid employment, then finding the time - let alone the motivation - to become socially and academically integrated into the institution is challenging. To this end, institutions need to be aware that even their full-time students are not full-time in the same sense as they were one or two decades ago. Similarly, a sense of familiarity with the campus will engender students' self-confidence, which is a prerequisite for a sense of belonging. Opportunities for learning and support, including peer support, must be offered in a flexible manner. This ranges from supplying information on how to access the 'wee stuff' to providing forums for students to interact with one another and the institution when on or off campus. The sense of belonging that can be achieved through all forms of peer support can play an important role in a student developing self-confidence.

Engagement comes into play on the third and fourth levels of the hierarchy - belongingness and self-esteem needs. These needs tie in with the issues of social and academic integration, where social integration can be equated to the need for belonging and academic integration with the need for self-esteem.

As described above, empowerment cannot come about until the student has integrated/become engaged and is given a voice to act. This may represent reaching the final step in the hierarchy - self-actualisation - which requires not only that the institution give students 'a voice', but also that it listens.

3 Recommendations

Tinto argued that to improve retention - and we would say student engagement and empowerment - there have to be changes in the normal educational practices of HE, its policies and its infrastructure. Students are more likely to succeed if the institution expects them to succeed, and are more likely to progress and be retained when what the institution expects of them is made explicit and consistent. He also contended that students need to feel they 'belong' within the institution, are provided with academic and social support, and are actively involved in their learning. In short, he proposed that universities change to become true learning communities (Tinto, 2006).

This section presents our recommendations for enabling HEIs to evolve into effective and accessible learning communities. First, we outline the changes we believe are necessary to provide the space (physical, psychological and virtual) needed to maximise students' opportunity to engage fully in the HE experience. Next, we explore ways to empower students through providing them with a voice. These changes require higher education to take the first year seriously; as Yorke and Longden (2004) stated: 'the institution can enhance the learning experience of students by investing effort and resources in first year and by acknowledging that HE is a social process'.

3.1 Space for engagement

3.1.1 Making space in the curriculum for peer support

Small-group teaching practices are under threat in HE today; they are frequently seen as uneconomical when dealing with large first-year cohorts. Further, practices that are known to make pedagogic sense, for instance the inclusion of problem-based or enquiry-based learning elements in curricula, or even complete revision of curricula to be predicated on these pedagogies, are too infrequent. To take engagement and empowerment in the first year seriously involves devoting time and resources to the first year. We would argue that course designers, policy-makers and academics should, when designing and reviewing courses, take into account opportunities to foster peer support by implementing methods of learning and teaching based on collaboration.

Currently, the elements of explicit support outlined above are not perceived as being the norm. They are supplemental to the learning and teaching activities of the first year and are often seen as being there for 'at risk' students - those most likely to fail or leave the institution. However, all students need to adapt to the new environment they experience in HE if they are to be successfully integrated and engage with the institution, and therefore these explicit practices are beneficial for all students. To be effective they must be part of the fabric of the institution and be seen by students as a mainstream practice, which is there to enhance the student experience.

Recommendations - institutional policy-makers:

- to demonstrate through policy, practice and funding an institutional philosophy that recognises the benefit of collaborative learning and opportunities for students to meet in small groups to aid social and academic integration
- to establish mentoring and peer-support schemes that are integrated into the curriculum, promulgate the expectation that engagement with these schemes is universal, and support such schemes through assured funding
- to explore the implementation of innovative forms of explicit peer support, in particular the use of different forms of student learning communities to ease transition to HE.

Recommendations - practitioners:

- for academic staff and student support professionals to work together to inculcate elements of peer support and transitional practice into the classroom
- to design curricula, courses and learning activities that build in small-group learning opportunities.

3.1.2 Learning space

Currently, much of our learning space is devoted to large lecture theatres, laboratories or computer clusters; small-group learning space is coming under threat. We would argue that institutions need to invest in learning and teaching that is collaborative in nature. This involves providing flexible learning space for student-student and student-teacher interactions, but it also means providing students with space for use by project and self-study groups away from the teacher. Increasingly, library space is being given over to house computer clusters; while these are vital in the twenty-first century, so too is the space for discussion.

Areas within departments that were previously given over to common rooms have often been reclaimed for office and laboratory space. Space is at a premium within many HEIs, but the HEIs have a responsibility to their students' learning and well-being. There is no better way to signal to students that they are welcome within their department of study than being provided with a common room in which to interact with peers (and perhaps staff). Such interactions are known to be effective in terms of both social and academic integration.

Recommendation - institutional policy-makers:

- to consider during new-build projects and refurbishments the provision of small-group learning space and invest in this as a priority.

Recommendation - practitioners:

- heads of departments to consider devoting space for students to learn and socialise together within their department of study.

3.1.3 Social space

As discussed above, most social space on campuses is given over to student unions and commercial outlets such as coffee bars. While these can at times function as social spaces that allow for discussion with peers and interaction within friendship groups, such venues do not support all students.

Recommendation - institutional policy-makers:

- to consider during new-build projects and refurbishments of student service areas the provision of a range of venues to meet the needs of all students. This includes bars and catering venues, but also comfortably furnished 'lounging areas' where students can meet informally.

Recommendations - student bodies/student officers:

- to consider the need for a range of spaces within student unions and clubs to allow for meaningful small-group discussions on social and academic topics
- to consider providing opportunities for peer support during orientation/freshers' week, giving due consideration to a diversity of students' needs.

3.1.4 Virtual space

Increasingly, our students are spending more time off campus because of family or work commitments. If HE is serious about engaging these students, the provision of peer support has to be done flexibly and imaginatively by providing access to meaningful learning and teaching opportunities.

Similarly, with the increasing provision of 'computer clusters' within departments and libraries, students are being discouraged from engaging in real-time discussion, as these areas are seen as 'quiet spaces'. However, many of our students choose to learn more flexibly and the provision of laptops and wireless-enabled social areas is becoming increasingly the norm; this signals to students that learning does not necessarily have to be a solo and/or silent activity.

Recommendations - institutional policy-makers:

- to provide students with meaningful 'off-campus' access to learning opportunities and to their peers through well thought out and engaging virtual learning environments and social networks
- to consider providing access to computers, through laptop lending schemes, and to the internet in socially engaging spaces, through the provision of wireless-enabled lounging areas and meeting rooms.

Recommendation - practitioners:

- academic staff to exploit the full potential of online learning opportunities for students through the design of curricula and courses with integral online learning.

3.2 Voice for empowerment

Pike and Kuh (2005b) determined that institutions with measurably high levels of student engagement demonstrate a commitment to student learning in their policies, missions and practices. Thus institutional policies and practices directly influence levels of student engagement. We contend that for institutions to take that one step further there has to be a clearly expressed desire on their part to give their students a voice and to commit to listening to that voice in all of its practices.

3.2.1 Student voice through evaluation practices

A common theme of many of our case studies was the challenge of finding meaningful evaluation tools to demonstrate their impact on the first-year experience in a holistic sense. Practitioners were certain that there are benefits to first-year students in learning together and being supported by each other. There is much qualitative evidence that shows that students who experience such explicit peer support schemes and implicit peer support in academic practices, as outlined in our case studies, appreciate the 'safety' and integrating elements these provide. What is more difficult to measure is the impact these schemes have on student engagement. For instance, the less formal the peer support system is, the more likely it is that students will 'dip into' it rather than participating over an extended period. Accounting for this 'dipping in' can be difficult to tally with quality drivers that see quantity as the main measure of success.

Pitkethly and Prosser (2001) argued that every institution needs to understand its own students and their experiences if it is to enhance retention and success. As Kember, Lee and Li (2001, p 339) stated: 'it is only through a holistic evaluation of the initial student experience that good practice can be highlighted and aspects that need improvement discovered'. Too often our evaluation practices focus on measurable outcomes of satisfaction that are useful for audit purposes and league tables. If we wish to uncover the first-year experience of students, we must ask them and acknowledge that their views are worthwhile by acting on the outcomes of such evaluations.

Increasingly, reflection is being used as both a learning and an evaluation tool. Students during the time of transition into HE can be empowered by being given a voice through their reflective writing. Donahue (2004, p 77), in a study that analysed the reflective essays written at the end of the first year by students who had participated in first-year seminars, 'confirmed prior research that looked at the central role student connections and involvement play in their first-year experience'. Such measures are frequently missing from student evaluation instruments. Donahue further stated that the reflective process has 'potential to give students a voice, enable them to articulate and understand the importance of connections, and lead to improvements in their learning environment'. We argue that the potential to improve would be much greater if students were given the opportunity to reflect on the environment and its effect on their learning, and if that feedback were acted on.

While not all students can or would choose to be student representatives, speaking on behalf of their peers in staff-student liaison committees, we argue that the aim should be to empower students to feel motivated to give meaningful feedback on all of their university experiences.

Recommendations - institutional policy-makers:

- to develop and adopt evaluation instruments that really capture the whole of the first-year experience in addition to more quantitative measures of retention and assessment
- to publish the outcomes of annual evaluations in formats accessible to students, and make public changes implemented in response to that feedback.

Recommendations - practitioners:

- to include reflective learning elements in first-year curricula that both scaffold student learning and progression and provide departments with meaningful feedback
- Many students feel intimidated by membership of staff-student liaison committees and we would recommend that departments consider setting up peer-support partnerships where student representatives work in pairs to attend staff-student liaison committees.

3.2.2 Voice through action

We have argued that empowerment is not a universal or perhaps even very common feature of our current first-year courses. We have also contended that to be empowered means being given the opportunity to take action and to have the motivation and confidence to do so. One way that students can take action is by being given the opportunity to get involved in student societies, peer-support schemes and staff-student liaison committees.

All of the explicit forms of peer support presented in case studies 1-5 rely on the goodwill of students who experienced the schemes in their first year to then get involved as mentors or tutors. In most cases this involvement is voluntary, although on occasion a small payment is involved. If the institution wants to encourage this action it is essential that it recognises that such involvement is worthwhile.

Also, while 'stakeholders' such as prospective employers and/or professional bodies may be consulted during periods of course or curriculum introduction or review, students are rarely involved in this consultation process. Similarly, the 'consumers' of our courses - the students - are rarely given a central role in our quality assurance processes outside the staff-student liaison committee.

Finally, if we really want students to be empowered to influence learning and teaching in HE today, we might wish to consider involving them in the process of designing learning and teaching opportunities. The use of student 'interns' or 'sabbaticals' is a fairly new feature of HE but one with significant potential to give students a voice. For instance, the Centre for Excellence in Enquiry-Based Learning at the University of Manchester has, for the past few years, used student interns to work with members of academic staff in faculties to introduce elements of EBL into the curriculum. These interns work together as a small team to support each other in this work.

Recommendations: institutional policy-makers:

- to develop reward systems for involvement in peer-support schemes in the form of academic credits or statements on student transcripts
- to consider adapting quality assurance procedures such as departmental reviews to include full student representation (representative of the most appropriate year of study) on review panels. As indicated above, students might feel intimidated by such membership, but they might be empowered to be involved through a partnership with another student on the review panel.

Recommendation: institutional policy-makers/practitioners:

- to consider finding opportunities for students (including first years) to work as student sabbatical officers or student interns to engage in areas of priority for the university.

Recommendation: student bodies/student officers:

- to recognise the range and diversity of our first-year students by providing a range of clubs, societies and opportunities for them to get involved with other students.

4 Case studies

Case study 1: Student mentoring as part of the FE/HE articulation project, Glasgow Caledonian University

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All students at Glasgow Caledonian University (GCU) can access a mentor, but the FE/HE Project Mentoring Service (FEHEMS) is specifically targeted at students entering GCU from further education colleges. Mentors provide a range of services, including pre-entry advice, induction activities and 'surgeries' throughout the academic year. Mentors from within the same school of study support transitioning students, and mentors are recruited from all the schools. Mentors provide advice and guidance about all aspects of university life. The scheme was piloted in 2005-06 as part of the project to support articulation from FE to HE, with funding from the Scottish Funding Council (SFC). It works in close liaison with the other strands of the FE/HE articulation project, and in particular with the disability strand.

Aims of the FE/HE articulation project

This mentoring scheme was implemented to enhance the college-to-university transition experience for students at the university, and to provide them with ongoing peer support throughout their first year.

Target group

Approximately 25 per cent of GCU's annual student intake comes from FE colleges. FEHEMS is a mentoring service available to all students in their first year at the university, whether they are entering into level 1 or directly into levels 2 or 3. It is specifically targeted at students entering from FE colleges. Peer support for students entering from colleges begins while they are still studying in college. Approximately 40 students, all of whom have successfully completed their first year, act as mentors and role models each year on FEHEMS. Mentor numbers are determined by budgetary considerations and there is an optimum number that can be effectively supported by the Mentoring Coordinator. Mentors are recruited from across GCU with a variety of different experiences of routes and transitions into GCU, including students who have successfully undertaken the FE/HE transition, mature students, school leavers and international students. Mentors are trained and are supported throughout the year by the Mentoring Coordinator.

Pre-entry

Student mentors visit colleges as part of the FE/HE transition team and are able to answer questions and provide information about the university from the student perspective.

Induction

During induction week, mentors are highly visible around campus, acting as 'student signposts'. The mentors provide information at key locations to familiarise new students with how the campus operates. Information and guidance can be on a variety of topics, from where to access information about student loans to how to operate a photocopier. The role during induction week is very much one of familiarisation and reassurance.

Throughout the first year

Throughout their first year, students can access mentors both physically and via email. Mentors run 'surgeries' in spaces accessible to students and have business cards with the mentor scheme contact details. Mentors operate within their respective schools, advertising who they are and where and how they can be contacted on departmental notice-boards. Mentors also have badges that they wear in places where students congregate, such as the Learning Café and the Saltire Centre.

From the first-year student's perspective, the mentors can provide information and links to their programme and/or department as well as to the support network at GCU. Mentors act as role models for first-year students, providing reassurance and practical advice about the 'wee stuff', which could be perceived as too trivial to approach a member of staff about.

The mentor scheme is available to students across the whole institution. FEHEMS has built up closer relationships with all of the schools over the two years since its inception. Staff members in all schools refer students to the mentoring scheme, and mentors are recruited from across the institution.

Resource requirements

Mentors are paid for one hour each week throughout the semester for surgery work, plus an additional hour to be proactive around campus. They are also paid for visits to colleges. Mentors receive ongoing support and training from the Mentoring Coordinator, and this is vital to the success of the scheme. Materials to support the scheme include mentor business cards and mentor t-shirts.

Benefits

For students

Pre-entry, students benefit from the opportunity to speak to current students and gain early student-focused insight into HE. This opportunity continues into and beyond their first year in the institution. The mentoring scheme provides an informal triage service where mentors can address straightforward concerns or queries and can signpost students to formal student services or departmental support where necessary. First-year students can themselves become mentors in succeeding years, and the employability

agenda is considered important by the Mentoring Coordinator. Mentors have access to the Student Leadership Programme and are actively encouraged to see the experience of mentoring as attractive to potential employers.

For teaching and/or support staff

As part of the FE/HE transition project, the mentoring scheme benefits staff within both FE and HE institutions by providing student input into the transition process. It is hoped that the scheme will also have positive impacts on student progression and retention throughout the transition and beyond.

Issues and challenges

The mentoring scheme is a relatively new venture at GCU and a key challenge since its inception in 2005 has been to raise awareness of the scheme among the student body and staff across all of the schools. As part of the Scottish Funding Council's project - The promotion of more effective FE/HE articulation - the mentoring scheme is also reliant on recurrent funding and this has to be taken into account in the planning process.

The mentoring scheme is successful in both reaching out to college students and being accessible and relevant to incoming students. This inclusive approach, however, means that it has to be responsive to different needs and expectations.

Conversely, the Mentoring Coordinator also reported that, at times, mentors need reassurance that the work they are doing is worthwhile and deserving of payment. Some mentors, for example, had not been recording everything they had been doing in terms of offering information and guidance to first-years and claiming payment, as they felt 'it was only showing someone how to do x or find y'. The sheer scale of the potential mentee body and the 'it was only' perspective combine to make mentoring a problematic role to define. The mentors, therefore, require ongoing support and encouragement to fulfil their role; this is a key focus for the Mentoring Coordinator.

Evaluation of the practice

Evaluation and feedback are built into the mentoring scheme throughout the cycle, including feedback from college staff and students and ongoing feedback from mentors, beginning during their initial training. First-year students have the opportunity to provide feedback via mentee feedback sheets. The Higher National (HN) Survey is part of the FE/HE articulation project; it is a questionnaire given to all of the university's direct entrants (approximately 800) at the point of entry. One section of the HN Survey informs students about the mentoring scheme and asks whether they would be interested in being put into contact with a student mentor and what issues they would like to know more about.

Qualitative feedback and evaluation show that the mentoring scheme is a valued component of the transition and first-year experience at GCU. First-year students are reassured by the visible presence of student mentors on campus. It is more difficult to measure quantitatively the impact and effects of the scheme. Each year 3,500 new students enter GCU and the presence of the mentors around the campus during induction week is seen as very important but difficult to measure in concrete terms. In the week after induction, in the first semester of 2006-07, the mentors recorded

approximately 90 formal mentoring contacts, but this figure was almost certainly low and excluded those contacts that mentors deemed too insignificant to record. Given continued funding, the scheme will continue to develop and embed.

There is an additional research strand to the mentoring scheme and further information and updates will be available from the Mentoring Coordinator.

Case study 2: Peer Connections, University of Dundee

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Peer Connections is an ongoing project that began in September 2004 when the first cohort of student volunteers was trained. It is located within Student Services and coordinated by the Peer Connections Coordinator. It was implemented as the result of discussions within Student Services and other areas of the university about the need for some sort of befriending and mentoring for students who were facing particular difficulties or transition issues. An initial needs analysis took place in February 2004. There was a very positive response from students to the idea of a peer befriending/buddying/mentoring scheme being available for new students.

Student volunteers (Peer Connectors) are drawn from all colleges within the university, across most disciplines, and include undergraduates, mature students and postgraduates. Potential Peer Connectors must provide a personal and an academic reference. They are informally interviewed by the coordinator and receive 10 hours of training, including an exploration of the issues of boundaries, confidentiality, self-care and needs awareness, interpersonal/listening skills, diversity, personal safety and common student issues. The coordinator works closely with other staff within Student Services to support the student volunteers.

Aims of Peer Connections

The main aim is to help students to settle into life at the University of Dundee, assist them with the transition, and offer support to other students who want it. This is facilitated through the use of student mentors to enable students to get the information they need to find their way around and settle in, and to help students to meet, mix with, learn from and share information and experiences with other students.

Target group

Peer Connections is open to any matriculated student of the University of Dundee, and is also available to students prior to their entry to the university. It is primarily used by first-year undergraduate, postgraduate and international exchange students.

Pre-entry

Prospective students receive information about Peer Connections from admissions and are given information at visit days, when they can speak to Peer Connectors about the scheme. Information is sent out to students accepting university places with information about halls of residence. The scheme is advertised via email to exchange students (transatlantic and Erasmus) and international postgraduates. It is also promoted to Wider Access Summer School students, and links have been established with local FE

colleges for articulating students. Contact between pre-entrants and Peer Connections is via email, with face-to-face contact taking place on arrival.

Orientation week

Flyers are placed in every room in the halls of residence for students on arrival. Flyers and posters are also available all over campus. The Peer Connections website is publicised on these flyers and posters, and there is information about what is involved for both volunteers and connected students. Peer Connectors have a large visible presence in yellow Peer Connections t-shirts during orientation week.

Throughout the first year (and beyond)

A student may self-refer for individual support via email, by visiting the Student Services offices, by telephone, or simply by approaching a Peer Connector or member of Student Services staff on campus. Alternatively, students may be referred by other units from within Student Services (for example, counselling, health, student support worker or residences), or by other staff within the university from the academic colleges or Students' Union.

The Peer Connections Coordinator arranges a short meeting with the student to explain about the scheme, and establishes the student's requirements and expectations. The coordinator then decides which Peer Connectors to match the student with; decisions are made based on needs, interests and personality. The aim is to do this within one week of the initial contact.

The coordinator arranges an initial meeting of the student and the Peer Connectors. This is usually held within Student Services at a mutually convenient time and date. After that it is left up to the connected student and the Peer Connectors to organise regular contact. The coordinator monitors this contact to ensure that it is progressing. Occasionally the initial contact with the Peer Connectors is by email, but this is exceptional and usually only occurs during holiday periods. A regular evening drop in session was established during 2007-08, staffed by two Peer Connector volunteers. Buddy groups are to be established for new students during the first six weeks of semester during 2008-09.

All befriending/buddying is carried out with at least one pair of Peer Connectors, from a small team of three or four, meeting with the connected student. A rota system operates and Peer Connectors are monitored to ensure that they are not overdoing the volunteering to the detriment of their studies.

Peer Connections maintains a pool of 50 trained student volunteers as Peer Connectors. The principal role of the Peer Connector is one of befriending and buddying other students: offering a listening ear, helping fellow students to consider their options, and answering questions about life in and around the university. Peer Connectors work together in small teams to offer support to others. They are not expected to meet students on their own.

Peer Connectors attend events throughout the academic year to welcome new or prospective students and to encourage students to volunteer for Peer Connections. There are also roles for anyone wanting to be involved in Student Services campaigns

(especially those relating to well-being), campus (and residence) sports events, Peer Connections social events, buddy groups and residences outreach. Peer Connectors can also assist with presenting Suicide TALK sessions as part of Student Services ongoing suicide awareness campaign. Most volunteers play a combination of roles within Peer Connections.

Peer Connections works closely with the Student Support Worker (who provides support to students living in halls), counselling service, university health service, disability services and student advisory service. It is emphasised during training that these services are there to support students, and Peer Connectors are encouraged to provide information about them.

Resource requirements

Peer Connectors are all volunteers and the major resources are the Peer Connections Coordinator and the input from other Student Services staff. The scheme and the coordinator's salary costs are met from the main departmental budget for Student Services.

Benefits

For students

Students can gain a lot from volunteering with Peer Connections as it enables them to practise and develop skills, enhances their university experience and adds to their employability. Student volunteers have access to places on staff personal development workshops as quasi staff members, and have the opportunity to gain credits with the university's Enterprise Gym. Peer Connectors aged under 25 are eligible for the Millennium Volunteer Awards scheme.

For first-year students and other 'connected' students

First-year students benefit from having someone who is close to their age and/or experience who can listen to their concerns and provide information and grassroots knowledge. The sense of student community is an important aspect, in the sense of 'psychological safety', but also in more practical ways related to flexibility of support in terms of time of day or week and location. Peer Connections can combat feelings of isolation experienced by many students, by providing a focus for peer support and interaction that is more closely related to the student experience. Students can feel more comfortable approaching another student rather than a member of staff, as they feel it is less formal. Peer Connections can also help with confidence-building.

For teaching and/or support staff

It is recognised that Peer Connections is not, and should not be viewed as, a replacement for institutional student support from Student Services or academic staff. However, the success of embedding Peer Connections, whereby support staff have an additional 50 people with an enhanced ability to reach students at grassroots level, can mean that the pressure and time commitment in providing emotional/social support to students can be reduced for academic and Student Services staff.

Issues and challenges

Peer Connectors must balance their academic workload, paid work, social life and any other volunteering with their contributions to Peer Connections. Time management, communication skills and the organisation of meetings can prove challenging. Ensuring

that the relationship with students they are connected to is appropriate and sustainable is a key challenge.

For connected students, the challenges can depend on the issues that led them to being connected. Issues relating to depression or homesickness may mean that students find it difficult to motivate themselves to meet with other students. There is sometimes a reluctance to engage for fear of the perceived stigma attached to having some sort of problem (especially if it is to do with mental health). Students may also find it difficult to come to terms with the idea of needing support; they wonder why they cannot cope when it seems that others can. Lack of self-esteem and confidence can also make students less likely to accept support.

For teaching and/or support staff, as well as dealing with any issues that may arise for individual connections, ongoing work is required in supporting the Peer Connectors and in encouraging students who would benefit from Peer Connections to take up the support offered. Ensuring a timely response in arranging connections is important, as is managing the expectations of students seeking to be peer connected.

Evaluation of the practice

Annual evaluation questionnaires are administered to volunteers and connected students; information from these supplements oral feedback from both groups of students and from staff. In addition, a large-scale survey was conducted in spring 2006 to allow the university to investigate the first year and international student experience.

Of the first-year students surveyed, 80 per cent were aware of Peer Connections and 2 per cent had used the service (this probably does not include casual encounters with Peer Connections' halls outreach teams or general help on campus). Experience of the service provided was positive, with 40 per cent rating it as adequate or very adequate and 31 per cent as reasonably adequate. Among international students surveyed, 84 per cent were aware of Peer Connections, with 11 per cent having used the service; 38 per cent rated it adequate or very adequate, and 25 per cent as reasonably adequate. Students (both international and non-international) felt that the service was useful for many things, all groups citing, in rank order: someone to talk to; loneliness; someone to listen; contact with other students; help in finding things on campus; general information about university/city/student life; homesickness; stress; issues with flatmates; worries about others; and academic concerns.

Oral and email feedback over the three years Peer Connections has been operating has been positive. Student volunteers believe that the scheme has genuinely helped individual students, and that they have also benefited by having to find ways of dealing with different people and their issues. Some said that at times they found some individuals quite challenging, but this had led them to a better understanding of themselves and others. Students who have received support were also positive about the scheme, saying that they found the Peer Connectors helpful in overcoming initial homesickness and that it was good to know that someone 'cared about you'. There was a noticeable change in the demeanour of some of the students after the support they received; they seemed much happier and less anxious. Many students coming forward to volunteer each year cite as one of the reasons for doing so that they liked the welcome and support they received from Peer Connections when they first started.

In 2007, Peer Connections was starting to benchmark soft-skills development and improvements in, for example, confidence levels for connected students as part of this process of evaluation. Current evaluation methods focus more on impact than simply evaluating service provision.

In July 2007 we were awarded Approved Provider Status from the Mentoring and Befriending Foundation via Scottish Mentoring Network at best practice level. This puts the scheme within the top 10 per cent of all befriending and mentoring schemes within the UK.

Case study 3: M-Power, University of Edinburgh

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M-Power started in pilot form in the academic year 2001-02 and has grown and developed each academic year since then.

The programme provides a personal mentor for new first-year widening participation students. The mentor is normally from the same academic subject as the mentee, although this is a matter of choice for the mentee. M-Power is funded to a level whereby 60 new first-year students can be assigned a mentor each year. Each trained mentor is assigned one mentee.

Mentees are interviewed and briefed about what to expect from the programme and their mentor. Mentors are trained in basic student attrition theory, current theories in mentoring and the practical application of these in their mentoring relationship. The fully trained mentor understands that guidance given to their mentee is based on the mentor's own experience. Mentors appreciate that they are in effect expert referrers. Any situation which may arise that goes beyond the role of mentor is referred to the project officer. Mentees and mentors receive a mentoring handbook.

The process is one of typical face-to-face dyadic mentoring. The pair meets every two weeks to cover four strands of educational mentoring: academic, social, financial and personal issues. Contact between meetings is provided by e-mentoring.

Mentees can become mentors the following academic year, employing their experience and furthering the development of transferable skills.

Aims of M-Power

The aim of M-Power is to improve student retention and the progression of those students whose backgrounds may place them at increased risk of discontinuation.

Target group

Widening participation students or students who are the first in their family to access HE are eligible to take part. These students enter the University of Edinburgh via a variety of routes, including schools outreach programmes, summer school and adult learner access programmes. Students receiving the university access bursary are also eligible to take part in the programme.

Resource requirements

The scheme is coordinated by one 0.5 full-time equivalent (FTE) member of staff. Mentors are paid for each face-to-face mentoring session.

Benefits

For students

M-Power provides a tangible support mechanism for students within which they can increase their confidence and ability to engage with the first-year experience. The mentoring experience helps students to develop interpersonal and communication skills and to build on their cultural and social capital. Matching mentees with mentors in the same academic subject means that the mentoring also provides support in learning and study development.

For teaching and/or support staff

By working with students taking part in the mentoring programme, staff get to know the issues and problems that can arise for students in their first year. An understanding of the kind of student involved in the programme develops, which allows the programme to be moulded to fit the students' needs.

Issues and challenges

For first-year mentees the main challenge is to fully understand the role and remit of their mentor and the nature of the mentoring relationship. It is important that mentees do not expect their mentor to play a role of academic tutor or student counsellor. It is, therefore, important that their expectations of the mentoring programme are realistic and effectively managed. For mentors the major challenge is to appreciate the importance of recognising when an issue that arises with their mentee needs to be passed on to the staff coordinator. Pre-mentoring interviews and briefings with mentees and mentors help students to gain a good understanding and expectation of the mentoring, and mentors undergo an extensive training programme.

The main challenge for staff is matching mentees with mentors. It is vital to match as many variables as possible to allow for instant rapport while also allowing room for differences. These differences in personality and learning habits, etc, afford the opportunity for the mentee to learn from the mentor.

Evaluation

The programme is evaluated every year through a questionnaire sent to mentors and mentees. Changes are implemented every academic year in response to the outcomes of the questionnaires. Continuous informal evaluation also occurs throughout the academic year, with mentees and mentors feeding back monthly. Any part of the programme can be dealt with and modified immediately if necessary.

The programme was externally evaluated in 2006 and further information is available from Neil Speirs.

Case study 4: The Student Network, University of Glasgow

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The Student Network (the Network) is a peer-support network that puts prospective, new and current students in touch with each other via email and web-based resources, including MOODLE forums (the university's virtual learning environment, see www.moodle.org), student blogs and photoblogs. The Network also runs creative writing workshops for students, facilitated by students with experience of creative writing, and publishes an annual anthology of students' work.

Each year in May, 30-40 undergraduate and 10-20 postgraduate e-mentors are recruited from across the university's faculties. They are provided with training so that they can send information by email and answer email enquiries from new and prospective students in a supportive, effective manner. Students who have applied to the University of Glasgow and hold an offer of a place receive information about the Network as part of their offer letter and can contact an e-mentor to ask for information about any aspect of student life. Prospective students can also contact the Network, and information about the service is available via the prospectus, website and at recruitment events. E-mentors continue to provide email information and advice to students throughout their first year at the university.

Students can request an e-mentor via the website and the Network Coordinator allocates students to appropriate e-mentors; matching is based on a common course of study. Students can also register on the Network's website and gain access to MOODLE-based forums to which they can contribute.

Aims of the Student Network

The Network aims to:

- provide student-centric information, advice and support to new and prospective students
- contribute to the student experience
- enhance student employability
- improve student retention.

Blogs and photoblogs

In 2006-07, the Network piloted student blogs, including from three first-year students; one postgraduate and two undergraduates. The blogs were reflections of the students' experiences of studying at the university and living in and around Glasgow. The student bloggers were free to write about anything they chose, with the understanding that they

must conform to agreed guidelines regarding the privacy of other people and the reputation of the university. Entries included reference to:

- learning and teaching and studying
'I am reading for my dissertation, and I am seriously scared. The amount of literature is enormous, and frankly I am getting more confused the more I read. Will spend a day tomorrow, and then try to pull myself together and look for the data I need... Scary. I wish I'd done it during the term.'
- accommodation
'Will have to leave the halls soon to move to the flat we've rented. I feel a bit sad; my room and kitchen now seem so dear. So many great memories.'
- sports facilities
'I have also made more use of the gym facilities at the Stevenson Building, which has provided me with an option to fill in the time spent waiting for my 5pm bus (considering some days I finish at 10am!). I have re-found my love for swimming and have become a regular to the sauna and steam room as well, which is great.'
- extra-curricular activities
'Another ambition for next year is to complete the Duke of Edinburgh award...I very much look forward to completing them with the university as from what I have heard and seen they look far more fun than the type you complete at school, which are much less adventurous!'
- student finance and part-time work
'I need a job, money is just too tight and although next year SAAS [Student Awards Agency for Scotland] are changing things (money every month, yeehaa) I still need a wee bit extra. I've applied for a few jobs thanks to the SRC [Students' Representative Council] and I'll be helping out at the applicants' open day. It's weird though, working at uni is so second nature to some people but I've tried to resist it for study reasons. '

The photoblog provided a space for students from different years of study and different faculties to share their visual experiences of university and city life. Students were supported by the Network Coordinator, who ran workshops for participants and encouraged them to work around various themes - for example, thinking space, architecture, 'everydayness'.

Creative writing workshops

These workshops provide the space and opportunity for students who are interested in creative writing to meet and be given the support to experiment and develop their work. The annual anthology of students' work is available in hard copy from Scott Sherry or for download from the Student Network website.

Target group

The Student Network was piloted in 2000 as a widening access initiative to support students entering the university from schools with low participation rates. It continues to

provide support to non-traditional entrants, but is available to all new and prospective students - undergraduate and postgraduate, home and international.

Resource requirements

The Network is coordinated by one full-time member of staff. The student e-mentors are all volunteers. Students who facilitate the creative writing workshops and contribute to the blogs are paid. The website is the primary resource for the Network.

Benefits

For students

The Network provides students with opportunities to seek information and guidance from other students in a safe virtual environment. This is not limited to e-mentors providing email support to students in the same faculty, but also involves networking of students via shared experiences of university life using online media. Students gain reassurance that they are not alone in their experiences of university, and the student perspective in the emails and blogs also helps to match expectations to reality: 'it perfectly gave me an idea of what to expect in uni from professors, departments and the city itself. It prepared me well to face the new environment comfortably'.

The photoblogging provides students with the opportunity to share their photos and experiences of university while gaining feedback from their peers. The creative writing workshops and anthology provide an opportunity to develop and practise writing skills. One student who participated in the 2006-07 workshops gained a post with a music magazine in London based on work published in the anthology.

For staff

The Network provides staff with a link to the student perspective and an additional channel of disseminating information about events and activities to students. Network students also get involved in open days, schools' campus activities and during orientation week as student guides.

Issues and challenges

It is easier to recruit e-mentors from some faculties and departments and there are sometimes gaps in provision, meaning that new students cannot be put in contact with a student on their particular course. E-mentors require ongoing support and encouragement, particularly when they are not receiving many emails from their contacts.

The Network Coordinator has to monitor email correspondence, blogs and the photoblog site to ensure that all information being sent out from Network students is accurate and appropriate. He must always balance the need to ensure that Network students are allowed freedom of expression to accurately record their experiences of university life with making sure that messages are appropriate.

Evaluation

Online questionnaires are used to gather feedback from undergraduate and postgraduate students who register with the Network, students who take part in the photoblogs, and creative writing workshop participants. Feedback is also sought from e-mentors during training and briefing sessions.

During the pre-session period in 2005-06, email correspondence was analysed to see what types of information entering students sought from e-mentors. Undergraduates looked for information and guidance about (in rank order) starting university, living in Glasgow, student life, courses and accommodation. They were less likely to have specific queries about coursework and learning and teaching issues. Postgraduates (many of whom were international students) were interested in accommodation, and then equally in learning and teaching and coursework issues, alongside student life and city information. This analysis was used to modify and develop training materials for e-mentors and to inform the Network MOODLE pages.

Questionnaire results from 2005-06 showed that 81 per cent of students felt that the Network had provided them with useful or very useful information and advice and that, while 52 per cent of students had not emailed an e-mentor with specific enquiries, they had been reassured to know that the e-mentors were available. The student-focused personal response and the inside knowledge of the e-mentors were appreciated:

'My mentor has answered my questions very quickly. She provided me with all the relevant information and links. I have been given the details of some ventures I wouldn't have found out about in any other way. I felt her responses were very personal and that she was really willing to help.'

So too were practical advice and help:

'My mentor was able to help me locating books to fit my budget rather than forking out for expensive books I wouldn't need next year.'

A former Network student and e-mentor summed up the benefits of the Network as:

'a valuable way of connecting people across university years and departments, allowing informal interaction on a friendly basis and guidance as and when it is needed. I would certainly recommend this experience to any student as it is a great way of widening your social circle and of gaining new skills for the future.'

Case study 5: Peer-assisted learning, Bournemouth University

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The PAL scheme at Bournemouth University has been running since 2001. Financial support was initially provided for three years by the Higher Education Funding Council for England under Phase 3 of the Fund for the Development of Teaching and Learning. Subsequently, further money was made available by the HEA to assist the transference of PAL to two other universities, where the scheme has been successfully implemented. Bournemouth is at the forefront of PAL provision and development in the UK and its experience and materials have been used by numerous institutions in the UK, Ireland, Australia, Belgium and Morocco.

PAL is a scheme intended to foster cross-year support between students on the same course. It encourages students to support each other and learn cooperatively under the guidance of students from the year above. After receiving training, the more experienced students - called PAL leaders - facilitate study-support sessions for groups of students from the year below. At Bournemouth, PAL sessions run weekly, with PAL leaders working in pairs or individually.

Aims of PAL

PAL aims primarily to enhance the level of support and advice available to first-year undergraduates. PAL has five main aims and its purpose is to help students to:

- adjust quickly to university life
- acquire a clear view of course direction and expectations
- develop their learning and study skills to meet the requirements of higher education
- enhance their understanding of the subject matter of their course through collaborative group discussion
- prepare better for assessed work and examinations.

PAL groups at Bournemouth are usually based on the student's normal seminar group of 15-20 students. The emphasis is on everyone in the seminar group working cooperatively in small groups of three to four students to develop their understanding of course topics, analyse assignment requirements and improve their study habits. The role of the PAL leaders is, first, to liaise with their group to agree the topic for discussion and ensure that the PAL session is well planned and structured and, secondly, to facilitate small-group discussions and ensure that each small group presents the outcomes of their discussions to the other students in their PAL group. The content for PAL sessions is based on existing course materials: handouts, notes, textbooks and set reading.

PAL has been adopted across five of the six academic schools at Bournemouth University. For 2007-08 it was anticipated that there would be 150 PAL leaders offering PAL sessions to 1,800 first-year students in 23 different programmes (39 named degree courses). Since 2001, Bournemouth University has trained over 500 students to become PAL leaders.

Resource requirements

PAL is coordinated centrally from within Academic Services: 2.5 FTE staff support PAL at Bournemouth, including PAL management, administration and research. 20 academic staff members, acting as course PAL contacts, select the PAL leaders and meet every two to four weeks with the leaders from their course to contextualise PAL and provide course-specific advice, guidance and support. The course PAL contacts are often the year 1 tutor for the course, and the meetings with PAL leaders are seen as part of the normal range of duties of the year 1 tutor. In areas where the course PAL contact is not the year 1 tutor, some (though not all) have negotiated between 30 minutes and one hour remission from teaching. Student PAL leaders are paid by academic schools.

PAL leaders are all provided with a *PAL Student Leader Manual* and a *How to run PAL sessions* DVD has been produced for use in PAL training. The PAL leader manual and the DVD are available for purchase from Hugh Fleming.

Benefits

For students

Feedback obtained during evaluation indicates that PAL benefits first-year students both academically and socially. First-year students consider that PAL has improved their understanding of the subject content of their course and helped them to get to know other members of their group and settle into university. They enjoy the small-group work and collaborative discussions that take place during PAL and like the PAL environment, where it is alright to admit to not understanding something and to make mistakes. PAL, therefore, offers peer-support benefits among first-year students, but it also involves peer interaction between year groups. First-year PAL participants welcome the opportunity to meet regularly with their PAL leader as a student who has been through the first year and survived it, and who can offer advice on course direction and on what is expected of first and second-year students.

The benefits to PAL leaders include skills development in confidence, leadership, teamworking, organisation, time management, communication, presentation and facilitation, which can help with their current studies and in future employment. PAL also enables them to revise and practise their subject and gain a deeper understanding of it. The Peer Assisted Learning Programme is a portfolio-based form of additional accreditation for which PAL leaders can register. This accreditation has been formally validated by Bournemouth University.

For teaching and/or support staff

Feedback from staff suggests that PAL helps students to learn to work more effectively in a peer-based group, come to their classes better prepared, manage their workload more effectively, and keep up with their coursework. PAL leaders, acting as a first point of contact for first-year students, can reduce the number of 'minor' requests that staff receive from students as well as providing regular feedback to their course PAL contact on how first-year students are receiving course content.

Issues and challenges

The success of PAL at Bournemouth is as a result of ongoing efforts to embed the scheme within the university's learning and teaching, widening participation and other strategies. This has involved ensuring that the PAL scheme is, and continues to be, properly resourced.

As PAL at Bournemouth is coordinated centrally, good communications with academic schools are important for sharing ideas and advice, and to dispel uncertainties and false impressions about PAL. For example, PAL may be perceived as a threat to first-year teaching or a universal panacea in terms of first-year engagement.

Staff in academic schools need to find time in their schedules to timetable PAL sessions, recruit suitable PAL leaders and provide them with ongoing support.

It is essential that first-year students perceive PAL as a normal part of their learning activities. If they do not, attendance at PAL sessions - particularly at the start point of new schemes - can be variable. This can be dispiriting to PAL leaders, first-year participants and coordinating staff.

PAL leaders also face challenges in planning and facilitating sessions, dealing with group dynamics and understanding the boundaries of their role. They may try to be too helpful, by providing answers to questions rather than redirecting these questions back to the group, or by attempting to re-teach a topic when they lack the expertise to do so. Additionally, some PAL leaders find it difficult to strike the right balance between being too informal, unstructured and 'student-like' on the one hand, or too authoritarian and 'teacher-like' on the other. These issues are addressed during initial and follow-up training, and through observation of PAL sessions followed by formative feedback. For PAL leaders to be effective, the importance of good training, suggestions in their manual and one-to-one feedback, together with support from the course team, should not be underestimated.

Evaluation

Ongoing monitoring of PAL takes place via attendance registers, and informal feedback is routinely collected by course PAL contacts in their regular meetings with the PAL leaders. Several additional strands to the evaluation, run by Academic Services staff, include:

- annual written and online questionnaires
- observations of PAL sessions
- focus groups
- written statements
- registry data
- student grades
- information provided in student portfolios.

Initially, evaluation was used to make major and minor adjustments to the PAL scheme. Latterly, evaluation has been used to obtain more general feedback on the scheme, which could be used as an information and public relations tool. The feedback gathered

from students has mostly been extremely positive and it is important that stakeholders within the university are made aware of this.

Feedback obtained during early evaluations helped the PAL coordinating team to review the scheme's operation, providing information which led to adjustments to aspects such as the training the PAL leaders received, the contents of their PAL *Student Leader Manual*, and the level and nature of support/guidance with which leaders and course PAL contacts need to be provided. Feedback continues to inform the running and development of PAL.

Annual evaluations are now published and circulated internally. In the 2006 evaluation, first-year undergraduates following courses on which PAL was available were asked to indicate how the scheme had helped them. Of a possible 1305 evaluations, 252 were received; this is a return of 19.3 per cent.

- 59 per cent said that PAL had helped them to integrate more quickly into university life.
- 82 per cent said that PAL had helped them to get a clearer understanding of course direction and expectations.
- 61 per cent said that PAL had helped them to develop their study and learning strategies.
- 66 per cent said that PAL had helped them to improve their understanding of the subject matter of their course.
- 77 per cent said that PAL had helped them to prepare themselves better for assessed work and examinations.

Case study 6: Tutorials in a human biology course, University of St Andrews

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The Human Biology Level 1 module runs alongside two other biology modules, both of which have practical classes timetabled. The course was designed in part to abrogate the need for laboratory practicals, since it is taken by students from a number of different schools with varying experience of laboratory work. It was also perceived that the opportunity to work in small groups early in their academic lives would be beneficial for many students in terms of helping them to integrate both socially and academically into the School of Biology.

Approximately 130 students take the course each year and small-group tutorials (approximately eight students per group) are timetabled for weeks 2, 4, 6, 9 and 11 of semester 1. The tutorials are supplemented by lectures and a dedicated WebCT resource. The main purpose of the tutorials is to support students in undertaking a group project on a topic related to human biology (for example, sleep, alcohol, stress). The tutorial group is required to design, carry out and report a survey-based study of attitudes, opinions or behaviours around their topic area. Each group is expected to survey 150-200 participants, with the students having to negotiate the division of tasks among the group. Each group then reports their findings in the form of an oral presentation and a written report, these representing 15 per cent of the continuous assessment element of the course. The students are given the opportunity to peer review each other's performance and contribution, and are asked to discuss the individual allocation of 25 per cent of the marks as a group.

The students are expected to undertake work in preparation for each tutorial. In 2006-07, for example, they were asked to design questions that would be used in their survey. However, there was no requirement for them to work as a group prior to the survey design phase. The introduction of structured tasks requiring students to work together outside of the tutorial could be beneficial to group formation.

Aims of the human biology tutorials

The tutorials were introduced to support the learning of course content and introduce students to a range of research skills. In addition, it was hoped that the tutorials would allow students to 'feel part of the department' and ease the transition to university.

Resource requirements

Facilitators of the group tutorials are postgraduate tutors, postdoctoral researchers or teaching fellows with an agreed workload of five contracted hours. Tutors report that any additional input is minimal, such as the need to respond to occasional email queries from students. The requirement for staff/tutor time is less than for other first-year biology modules. Running the module without the need for a laboratory practical element substantially reduces costs.

Benefits

For students

Students report a greater sense of being part of a group in the human biology tutorials compared with other first-year tutorials. They believe that the introduction of structured tasks in tutorials is beneficial to developing skills and confidence. The tutor role is seen as that of a safeguard, someone students can ask for reassurances that they are addressing the task effectively and who will step in only when there is a problem. Students see this as beneficial in terms of confidence building and group cohesion. The students engage effectively in tutorials and with the process of the project; they feel it belongs to them and that they have ownership of it. It is also beneficial for students to be reading scientific articles from a very early stage in their academic career.

For teaching and/or support staff

Tutors consider the tutorials and group work to be academically motivating, with the peer-pressure element as an additional positive motivator - the students do not wish to let each other down. There is evidence of students thinking much more scientifically and going some way to learning that teachers do not know all the answers. Tutors also find the tutorials useful in helping them to get to know the School's undergraduate students at an early stage. Tutors for the 2006-07 tutorials reported that although many of the students were very quiet in the initial tutorials, by the end of the semester all 'were contributing', and by the second or third tutorial they were 'pretty much running it themselves'.

Issues and challenges

As with all small-group tasks, the issue of every student contributing equally arises. However, students are given the opportunity of distributing a proportion of the project marks to each team member, and the tutors believe that the groups normally manage any disparity in members' contributions. For instance, non-contributors might be given the option to present. Communication among the group is important outside of the tutorials. Tutors express surprise that the students, on the whole, do not choose to use WebCT to communicate, but use email and/or Facebook to keep in touch instead.

Evaluation

In 2006-07, the students were emailed and asked to respond to a series of prompts designed to explore the tutorials from the student perspective. They were asked to describe any aspects of the tutorials that were useful in terms of the human biology coursework, any other part of the first-year course and getting to know people on the course. They were also asked to identify any benefits or drawbacks in being assigned to tutorial groups in the first couple of weeks of the first year, and to consider what changes they might make to the tutorials or the group project.

The questions were administered by email during the Easter vacation and the timing resulted only 11 responses. Nonetheless, a number of themes emerged from analysis of the responses. Students identified themes relating to the design and delivery of the tutorials and made a number of suggestions for change. Tutorial groups were allocated by surname, so students were likely to be working with the same cohort of students they worked with in labs in other courses. Since one aim of the tutorials was to help with students' social integration, it might have been better to allocate the students to groups

randomly. It was also suggested that the course would have worked better if the tutorials were more intensive, for instance running one afternoon each week for half the semester.

Analysis also identified themes related to the role the tutorials played in:

- meeting and learning with other students
- students' familiarisation with the university or school of study
- developing transferable skills
- supporting learning in the rest of the course.

Students commented on the benefit of having the tutorials early in their first year in terms of meeting people at university with common interests, and meeting people they would not otherwise have 'become friends with':

'The friends you make in first year are mostly people you live with in halls, or meet at societies. You make only a small number of friends through your classes and labs because you are working and concentrating.... So working in a group for a project was a good way to meet new people.'

'I found them very useful as it helped me get to know some new people both from in the hall I am staying in and some people from outside of hall who I probably would never have talked to otherwise.'

There was also recognition of the academic benefits of working with each other. Some saw the link between learning together and the formation of social attachments:

'I liked the fact that there were groups of eight. I found it useful to be working with seven other people for this piece of coursework because there are enough people to be bouncing ideas off each other and actually getting somewhere, but not so many that you're all scrambling to do different things or going off track.'

'It was good to study one specific aspect of human biology in depth, and the tutorials allowed us to work closely as a group, meaning that we could share knowledge, research and ideas, so we got much more out of the experience than if we'd worked individually and put everything together at the end.'

In terms of enabling the students to become more familiar with the institution, some of them described that getting to know other students through working together in the tutorials was beneficial in terms of making them feel more at ease within the university - that is, knowing a few 'friendly faces':

'It was very helpful in terms of getting to know people on your course...especially because it can be quite frightening when you start all your courses in [the] first year and don't know anyone.'

'Also, when entering the lecture theatre and seeing faces you recognised, made it a lot nicer too!'

Others commented on the fact that having to engage in tutorials allowed them to feel more that they were part of the School:

'It was good to understand straight away how the tutorial system works within university, and to get used to the fact that they are compulsory and so you have to attend them. (Not that I consider lectures non-compulsory of course!)

The human biology tutorials will continue and the results of the evaluation will be used to ensure that they continue to support student learning and encourage integration into the School.

Case study 7: Pharmaceutical Chemistry: an EBL team-building approach, University of Manchester

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In the academic year 2005-06 (semester 2), an enquiry-based learning component was introduced into the first-year Pharmaceutical Chemistry module in the Master of Pharmacy degree (MPharm) at the University of Manchester. Enquiry-based learning (EBL) is an active form of learning, which involves students taking responsibility for and initiating their own learning, while staff act as facilitators. Following an interactive introduction to EBL, students - in their personal tutorial teams - chose a therapeutic area and a number of medicines for its treatment. During the semester the teams completed several assessment milestones, culminating in a poster (2006) or oral (2007) presentation and a report linking the chemical properties of selected drugs to their use in practice.

Aims of the EBL teams

The aims of the module are to develop lateral thinking (to link basic science with clinical situations and discourage compartmentalisation of knowledge), so that the pharmacy student develops a deeper understanding of pharmaceutical chemistry principles and why this basic science is pivotal to a pharmacy degree. The exercise also aims to develop key transferable skills in teamworking, time management, presentation (written and oral), database searching and use of the library. In addition, the social and academic benefits of networking diverse groups of students in an exercise relevant to their degree should not be underestimated.

Target group

The EBL module is compulsory for all first-year MPharm students (intake 180-190) in their personal tutorial groups (six to eight students). Members within each team choose their own roles, for example chair, scribe, information technology (IT) coordinator.

The EBL module has now been fully embedded into the MPharm curriculum. In its first year (2005-06), the exercise was only worth 20 per cent of the Pharmaceutical Chemistry module, whereas in 2006-07 assessment by examination was removed and the 80 per cent contribution of the EBL exercise to the module better reflected student effort.

Details of the module have been disseminated (Hutchings, O'Rourke and Powell, 2006) and are being written up for an education journal.

Resource requirements

All 32 personal tutors provide two one-hour facilitation sessions with their tutor group and are invited to attend the appropriate poster/oral presentation. The module leader introduces EBL in four 1.5-hour sessions and attends the team presentations. In addition,

subject specialists are timetabled for two to six hours of optional help. The time spent on assessment exercises and the reports would be equivalent to time previously spent setting and marking an examination. Appropriate rooms for 50 students, with good IT facilities, are required for the introductory sessions and presentations.

Benefits

For students

Students are able to get involved in a project that relates their scientific knowledge to the practice of pharmacy at an early stage in their academic life, thereby emphasising the relevance of their knowledge to their later careers. They are given an opportunity to work together and support each other on an academic exercise, and many students also make new friends within their groups. This can lead to increased motivation and much happier students, which may have a positive impact on retention rates. It also requires a deeper level of understanding of the material, as students have to be able to answer questions at the poster/oral presentation event.

The module involves skills other than rote learning of material and is one of a small number of modules that are assessed only by coursework instead of examination (2007). Therefore it gives those students who understand their material but do not work effectively in examination conditions an opportunity to perform well.

Many of the students commented that they really enjoyed the EBL experience. They said that it was beneficial to have such an exercise in the first year to help them settle in to university life and get to know other students (and tutors) who could help them with any issues they faced, both personal and academic. It also developed their interpersonal and teamworking skills and helped to improve their time management and confidence.

As an example, author Mary Sattenstall is a fourth-year undergraduate student who has remained in contact with one of the students she met during the poster session. Mary has given this student guidance on work when she was struggling, and support when she was finding things hard, and hopefully helped to relieve any concerns she might have had.

For teaching and/or support staff

The EBL teams represent a greater amount of staff-student interaction and a more interactive way of teaching, where staff are able to support their students and get to know them better. Author Sally Freeman has also learnt about several therapeutic areas and their treatment through interaction with the students.

Issues and challenges

Students can find it hard to have to initiate their own learning and only receive guidance from tutors rather than answers. This process can be difficult to get used to, but once they do students really find it an effective method of learning.

Students vary in the ease with which they are able to fulfil this exercise, as it can be a challenge to quiet members of the group. It is therefore important to create a friendly environment in which everyone feels comfortable speaking and other members of the group offer encouragement.

The initial setting-up of the exercise is time-consuming, and some staff may possibly be reluctant to take part. It might also seem a risk at first to change an already established course. However, it allows greater interaction with the students, and once students are established with the exercise it simply requires providing guidance on any problems they are having. The increased staff time is significant (see resources), but this type of exercise could become embedded into the personal tutorial programme.

Evaluation

All of the 185 students in 2005-06 were provided with an evaluation form, and 124 (65 per cent) of these were completed and returned. A variety of topics were included, for which students were asked to indicate a score of between 1 (poor) and 4 (good). Students rated the relevance to pharmacy highly (3.05), which was one of the main aims of initiating the exercise.

Positive comments on the feedback forms included the following:

'I believe this project should be carried on in the future as it is fun, informative and unique in its approach.'

'...met deadlines and made great relationships with group members.'

'It has had a very positive effect on me as it has improved my interpersonal skills.'

Negative comments, most of which could be addressed, included the amount of credit the exercise was given (20 per cent), which is why it was changed to 80 per cent for 2006-07. The amount of chemistry staff support was also increased for 2006-07.

Case study 8: The Vertical Project, Glasgow Caledonian University

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The Vertical Project (VP) is a half module for students on the BSc Environmental Management and Planning at Glasgow Caledonian University (GCU). It was first implemented in around 1988. The course is currently convened by Ole Pahl.

Students in their first, second and third year of study are organised into groups of four to five. They work together during the second semester to put together a project plan, undertake the project work, prepare and submit a written report, and deliver an oral presentation to the larger group. Each group is supervised by a staff member, but responsibility for organising and convening group meetings and allocating tasks within the group is the responsibility of the group. Senior students are expected to take a role in group leadership, and first-year students in working to support the group by undertaking allocated tasks. The VP runs every year throughout the cycle of the individual student's degree programme, so first-year students recognise that in succeeding years they will fulfil the leadership role within a VP group.

Assessment is based on the written group report, the oral presentation and the individual reflective report. Another important and controversial aspect of the assessment is anonymous peer assessment: each member of the group must provide a mark for the other members, based on the perceived contribution to the group's progress and outputs. The peer assessment mark is used to modify the report mark for each member, with the mark being weighted by deviation from the average.

Aims of the Vertical Project

The VP aims to:

- give students the opportunity to work with students from other years of their programme, and provide a learning and teaching process between students throughout the programme
- give students practice in, and help them to develop, group-working skills, including time management
- give students practice in assessing the work of their co-workers
- enable students to undertake research on a topic of their choice, including researching information from a variety of sources
- give students the opportunity to integrate different parts of their taught programme in a single project
- help to develop report-writing and presentation skills.

Target group

The VP has been running for over 10 years. All first, second and third-year students within the Environmental Management and Planning programme have to undertake the VP; in the early years the project was extended to include fourth-year students although this is no longer the case. The first-year group member's role is that of apprentice, to provide support to the group. With regards to peer support, the group members in higher years provide modelling behaviour for the first-year member. This is in terms of the project work, with a focus on academic learning and skills, but can also operate in a wider sense.

Resource requirements

Students are provided with course documentation in the form of a project guide, and have space allocated for group meetings. This level of resource is no greater than for any other half module. Staff time for set-up, supervision and assessment of the VP is not seen as problematic.

Benefits

For students

Students acquire research, report-writing and presentation skills as well as group-working skills, with built-in role progression throughout the years of study. The project work allows students to practise and develop transferable and subject-specific skills that prove useful for project work, work experience and, ultimately, in employment.

The course convenor believes that the VP provides an important element of peer support and feeling of connection to the department and the university, for at least some first-year students. This is most evident with regard to the programme, but also extends to student life beyond the confines of the course. A good example is that the university's Environment and Sustainability Society was set up by a third-year and a first-year student working on the VP together.

For teaching staff

There is a general feeling that the VP represents a good learning experience for students and that it is important for students to acquire project-management skills at an early stage in the curriculum. Course material learning can be enhanced where projects are directly relevant to the coursework, but some projects underpin principles more than specifics.

Issues and challenges

The structure of the VP and the communication required can be challenging to students. Groups are responsible for arranging suitable times to meet, which can be problematic for students in different years of study. Furthermore, while each group is allocated a staff supervisor, it is the responsibility of the individual students and the group itself to ensure that the project is successful. Group working can be a positive experience, but it is often challenging and the VP requires students to work as a group at a sustained level and for an extended period of time. The peer assessment is a challenge for some students, who can lack confidence in providing an honest assessment of their co-workers' contribution and may be concerned about how they will be assessed by the other members of the group.

Annual course evaluation from students shows that while some value the VP, others find it difficult. The peer-review element of the assessment is challenging in terms of students' varied responses. There are also challenges in matching up the VP to the Scottish Credit and Qualifications Framework and rigid learning outcomes. The focus on 'soft skills' and the variation in projects make quality assurance a continual focus. However, the course has been applauded by Quality Assurance Agency for Higher Education.

Evaluation of the practice

The challenges relating to quality assurance and variations in experience of the VP for students are continually monitored, and the VP is evaluated in terms of student satisfaction and quality control. The belief that the VP provides students with a good learning experience, which will benefit them throughout their academic career and beyond, is balanced with an awareness of the ongoing challenges of assuring quality control.

A survey of 2006-07 students explicitly focusing on the benefits of the VP in terms of peer support tipped the balance to the side of continuing with it. Twenty-six students (10 level 1, 15 level 2 and 1 level 3) completed an anonymous questionnaire asking them to rank the following aspects of the VP in terms of importance: meeting students from different years; project management skills; research skills; understanding and knowledge of the topic; group-working skills; and peer assessment.

The second and third-year students generally saw the development of research skills and increasing understanding of the subject as most important. The 10 first-year students also saw research skills as important, but placed greater importance than the senior students on group-working skills and meeting students from different years of study. Neither of these groups saw peer assessment as important, both ranking it in last place. When invited to comment on the benefits, second-year students were more likely to remark on the research aspect, while first years focused more on the group-working and interaction, for example:

'Useful learning from students in higher years and getting advice.'

'Working with older group members and listening to what they had to say.'

All of the students were asked which people they had most benefited from working with on the VP. All students from across the years generally saw working with all members of their group as beneficial. First-year students were more likely to state that working with a particular student in the group had been beneficial.

It seems that the VP provides peer interaction and a sense of engagement with the programme to first-year students. Perhaps unsurprisingly, second and third-year students see more benefits in the research skills.

Case study 9: Scottish Teachers for a New Era project, University of Aberdeen

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Students working in self-chosen pairs take an investigative approach to serial day school placement in the first and second years of their BEd programme. Student pairs complete a series of enquiry tasks in schools and their communities, making independent field notes and sharing these with their partner and other peers in follow-up tutorial groups. Students plan and implement a series of learning conversations with children and adults to inform enquiry and progress their learning. With their partner, students plan and implement learning and teaching activities with small groups and the whole class. Students peer assess each other's learning conversations and learning and teaching activities with children, providing written feedback against set criteria.

Aims of the New Era project

The main aim of this project is to provide peer support and thus enhance the confidence of student teachers on placement. It also aims to foster the development of peer-assessment skills and, through structured observation, help students to appreciate the value of diversity in approaches to learning and teaching.

Target group

The intention is to support all students (years one to four) using this scheme. The programme has entered its third year, so this year the scheme is in effect for years one, two and three. The project has been supported by primary schools in Aberdeen city, Aberdeenshire, Moray and Highland.

Resource requirements

Time is needed for course development and for in-service development of the course team. We currently provide in-service training for head teachers and class teachers supporting student pairs in their primary school or class, and have secured local authority funding to cover the release of supporting teachers for in-service training. Approximately 112 teachers are involved in years one and two and a further 212 in year three.

Benefits

For students

By sharing their in-school experiences, students experience a reduction in anxiety when taking on the role of student teacher in a primary school and community setting. Shared problem-solving also leads to enhanced confidence and self-belief. Through the experience of peer assessment, students have a deeper understanding of assessment as learning, for learning and of learning. Since a collaborative approach and teamwork are underpinning principles of learning and teaching, students gain a greater appreciation of

these qualities and skills from the start of their studies. In addition, students form partnerships with several other students from early in the first year and thus can derive personal and professional support through their studies.

For staff

As identified in tutorials and written reflections, the student partnerships have resulted in a reduced dependency of students on their tutor, class teacher and/or support staff for reassurance.

Issues and challenges

Establishing effective working relationships within pairs can be a challenge for students and needs to be carefully managed. The use of peer assessment can be challenging at first, as students find giving and receiving constructive criticism in support of ongoing learning and improvement of knowledge, skill and values initially problematic. Also, students take time to see the value of peer assessment; they continue to seek 'expert' assessment from class teachers and tutors.

For staff there has to be a move towards taking on a 'new' role as facilitator of student experiential learning. Some staff experience uncertainty in their new role within this model of teacher education, especially where they are experienced mentors and assessors of student teachers on placement. As a result, support networks and in-service training may be needed. This new approach requires open communication channels between the primary school and the university.

Evaluation of the practice

Questionnaires were administered to all students, primary school teachers, head teachers and course tutors in the first two years the project was run. In addition, interviews with each of the above groups and student focus groups (25 participants) were carried out. Other feedback was gathered using the university's standard course evaluation forms and staff-student liaison committee outcomes.

Pilot year one (February 2006 to May 2006): when the peer relationship worked well, students had a positive experience where they drew on and developed mutual support strategies; student confidence was seen to develop with effective peer support. There was a mixed response from class teachers supporting two students in a class (rather than the previous one student). Class teachers and tutors required clarification about, and support in, their new role.

Pilot year two (October 2006 to February 2007): the majority of students indicated that the partnership relationship worked well, although a small proportion of students disagreed.

After two years, and having experienced 20 days of paired placement, students sought individual class placements. There is evidence of increased confidence, maturation and sense of ownership in the placement experience.

Some class teachers raised concerns about individual personalities within pairs and the resultant effect on individual performance and attitude and the validity of individual assessment. Some identified difficulty in gathering evidence of individual achievement

for assessment when all tasks were jointly planned and implemented. Finding time to observe two students was also difficult.

Evaluation would also suggest that it is essential to provide students with opportunities to gain objective support from a tutor not directly involved in the course if required - that is, when difficulties are experienced within pairs, placement settings or tutorial groups.

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6 Appendices

6.1 Appendix 1: Literature review

6.1.1 Introduction

The purpose of the following literature review was to survey the body of research conducted into student peer support, with a specific focus on such support in the first year at HEIs and its impact on student engagement and empowerment. For the purposes of this review we took the first year to mean the first year a student, whether undergraduate or postgraduate, spends in HE. In terms of what is meant by peer support we present research relating to the role of peers in students' academic learning and their social well-being. Some of the studies and interventions discussed are not solely confined to the first year, but we have attempted to identify where this is the case. Also, as Harvey, Drew and Smith (2006) pointed out, it is problematic to try to examine a given topic - such as peer support - related to the first year because of the overlap of topics. However, where a study relates to peer support, even if its focus is on another aspect of the first year (for example, curriculum design), we have chosen to include it.

Initially, we used two main strategies to identify appropriate literature. First, a broad-based survey was carried out using the search terms 'peer support' and 'first year' with Australian Education Index, British Education Index, Edresearch online, Education online, ERIC (Education Resources Information Center), Professional Development Collection and Google Scholar. We limited our searches to literature published in 2000 and onwards, and identified earlier works from within these articles. However, as explained below, the majority of articles identified using this strategy related to explicit forms of peer support. Our aim in undertaking this review was to examine both explicit and implicit forms of peer support in higher education. Therefore, reviewing the literature that exists regarding implicit support mechanisms required us to take a more inductive approach. A number of themes emerged which we then used as search terms, including small-group learning, collaborative learning, enquiry-based learning, residence and friends.

The works presented below include theoretical considerations of the impact of peer support and the factors contributing to it, along with research into interventions and practices that have been put in place with a variety of underlying motivations. These include enhancing student learning and persistence, easing the transition to HE and addressing shifts in student expectations, and increasing student numbers. In addition, we present examples of practices which have an impact on peer support either intentionally (explicit forms) or through fortuitous accident (implicit forms).

In his seminal work *Colleges as communities: Taking research on student persistence seriously*, Tinto (1998) noted that there had been a proliferation of orientation courses and peer-mentoring programmes aimed at first-year students. He made two highly pertinent observations in his overview of research and findings up to his date of writing. First, the interventions were overwhelmingly student focused and, secondly, the field was highly piecemeal in nature. This remains the case, especially in the implementation of practical initiatives. Virtually all the initiatives detailed in the later literature and the more

widely focused surveys and reports were also student focused. On the whole, initiatives were undertaken on a departmental basis or at institutional level at best, and were narrowly focused responses to specific areas of concern, some of which were highly specialised in one way or another.

This leads to a further observation not noted by Tinto. All the literature we identified was based on the implicit assumption that peer support is a 'good thing', although there appeared to be little solid backing to support this assumption. There is no overarching framework of the benefits of peer support and peer learning, and therefore little academically valid data to show that the various forms of peer support are beneficial in any meaningful way. There is clearly a paucity of systematic research in this area.

Be that as it may, the current survey involved locating and investigating a large number of articles and other publications relating to peer support. However, most of the items identified through searches looking specifically for 'peer support' were what we have termed **explicit** forms of support, often put in place by departments or institutions to address a particular problem (for example, retention or problem class). These mainly involved using student peer mentors in a variety of capacities. More **implicit** forms of support were more difficult to locate in the literature, but included small-group learning opportunities, student societies and student residences. In this latter category, while it is likely that additional sources remains to be located, it would appear that there is an overall paucity of material.

6.1.2 Student integration

The main framework employed when looking at student engagement - or more particularly retention - is the theory of student integration stemming primarily from the work of Vincent Tinto. Despite this focus on student persistence, it is a useful starting point to any review in this area. Briefly, the theory postulated that students will withdraw from HE if they do not feel integrated, both academically and socially. Academic integration is related to students' experiences in connection with the support of their learning, the clarity of the expectations placed upon them, and their success in assessments. While distinct from this, social integration is not separate; it relates to the development of appropriate peer groups in the institution. Also, a student may be integrated in one way and not the other. As Yorke and Longden (2004, p 79) pointed out: 'commuter and part-time students may not, for various reasons, become integrated socially and may be relatively isolated from peer support'. Nonetheless, these students may be successful academically. Conversely, a student may feel 'at home' within the institution, having constructed a meaningful friendship group and social life, and yet not be engaged academically.

Tinto (1993) argued that students' experiences, both formal and informal, impact on their commitment to their institution, aid their academic development and improve their performance. Braxton and Hirschy (2004, p 97) asserted that: 'Students experience social integration if they feel a sense of normative congruence and social affiliation with members of the social communities of a college or university'. Despite having its critics, the integration theory of student retention is now widely adhered to, having achieved 'paradigmatic status' (Braxton and Hirschy, 2004, p 4).

A number of studies have focused on establishing the impact of social and academic integration on student retention (more recent works include Rhodes and Nevill, 2004;

Zepke, 2005; Noble et al, 2007). Zea et al (1997) demonstrated that the constructs of academic and social integration are meaningful in practice, and that both contribute to student persistence; these findings were echoed by those of Napoli and Wortman (1996). In a study reported by Beil et al (1999), measures of academic and social integration were shown to be predictive of first-year students' commitment to the institution and ultimately their persistence. Bers and Smith (1991) noted that social integration was a more important factor in persistence than academic success.

Yorke and Longden (2004) argued that Tinto's model of retention is over-simplistic, and that retention and success are influenced by sociological, psychological and economic factors. Certainly, a survey conducted by Johnston (1997) at a post-1992 Scottish university indicated that non-academic problems (for example, financial difficulties, illness and other personal reasons) contributed more to a student's decision to leave the university than academic problems. Other reasons for student withdrawal cited in this study included psychological/emotional problems, domestic problems and general unhappiness; only 8 per cent of respondents stated that it was their 'inability to fit in' that caused them to leave. Conversely, a study at Middlesex University by Parmar (2004) found that students withdrew for a range of reasons, including lack of integration and peer relationships, feelings of homesickness, and a lack of support and dissatisfaction with the student experience, both social and academic.

Braxton and Hirschy (2004) considered that Tinto's theory of retention requires revision. Their examination of the factors influencing social integration identified three constructs: the commitment of the institution to student welfare, institutional integrity, and what they termed 'communal potential'. This last was described thus: 'Students who perceive multiple opportunities to connect with class mates who share their values, beliefs and attitudes are more likely to make contact with those individuals.... Interacting more frequently with peers in the community leads to greater social integration' (Braxton and Hirschy, 2004, p 101).

6.1.3 Explicit forms of student peer support

We would argue that a range of practices within the sector fall under the banner of explicit forms of peer support. This section starts with an overview of the range of induction and pre-induction practices primarily aimed at supporting students' academic and social integration. Next, we consider practices that use students (often from another year group) in a more or less formal manner to pass on study skills and advice on routine academic tasks, or to support first-year students in terms of the transition to and orientation within the new institution. For the purposes of this review, we consider those practices that use peers to support first-year students' academic skills, peer-assisted learning schemes, those that use student peers to aid in first years' familiarisation with the institution - both social and practical, and mentoring schemes. We also explore the use of online networking tools. The final category of explicit practices goes beyond induction and does not focus on the use of peer tutors or mentors; we have grouped these under the heading of student learning communities (SLCs).

Pre-enrolment practices

A number of initiatives in HE aim to ease the transition to university, and some start prior to enrolment. These include open days and summer schools (sometimes aimed at particular student groups, such as access students and students entering HE from FE).

While the main focus of these types of practices is to allow familiarisation with the institution and its academic and administrative practices, they can also play a role in the formation of peer support groups.

In an attempt to ease the transition of students into the first year, the University of Sydney's Faculty of Science began running one-day 'Transition to University' workshops in 1996, as detailed by Peat, Dalziel and Grant (2000). Building on experience gained over the years from pilot programmes and student focus groups, the workshops were held on the weekend before the start of the academic year. They were intended to assist the incoming first-year cohort of students in developing social links with their new peers. The recruitment process for the workshops was carried out as part of the university's enrolment process. Students were invited to return a letter detailing their area of academic study and future career plans. Respondents' parents were also invited to attend a special parents' programme.

Workshop participants were divided into groups of 60-100, which incorporated groups of students sharing the same academic timetable - a deliberate measure intended to assist bonding (similar to first-year interest groups discussed below). The workshops included talks by second and third-year students on their first-year experience and activities focused on creating peer groups, such as the innovative idea of supplying the students with 'business cards' to allow them to exchange contact details. Evaluation of the workshops indicated that the programme succeeded in its aim of easing the transition process by assisting the formation of student peer networks among new first-year students. This in turn led to a reduction in the incidence of anxiety, depression and isolation among workshop attendees in comparison with non-attendees, as well as greater personal well-being (Peat, Dalziel and Grant, 2000).

Another Australian initiative took a combined approach to support students entering HE. It encompassed high schools, students' family and peers, and the HEI, encouraging students to take an active role in the learning process, in part through establishing learning communities and employing peer mentors and tutors (Darlaston-Jones et al, 2001). One component of the initiative involved approaching students before they arrived at university, by forging links with secondary education establishments via workshops, presentations and promotional material and providing access to university facilities and orientation visits to university for year 11 and 12 school students.

At the university end, the initiative was intended to extend Tinto's model '...by recognising the unique role played by postgraduate sessional tutors in the lives of students' (Darlaston-Jones et al, 2001, p 4). This was primarily via a specially designed tutor-training programme intended to assist tutors in developing the requisite skills to provide support and constructive feedback to first-year students. In addition, collaborative peer learning communities and friendship networks were encouraged by maintaining initial tutorial groupings throughout the first academic year. A standardised orientation programme was also set up to acquaint students with the School of Psychology's premises, its academic staff and support services, as well as promoting the social side of academic life via entertainment and a barbecue. The initiative was named the Retention and Persistence Support (RAPS) project (Darlaston-Jones et al, 2003).

An evaluation was conducted in 2002 using focus groups made up of second-year students who had participated in RAPS the previous year. The focus groups indicated that RAPS had met its objectives, in so far as the participants felt that the level of support

provided by the project had reduced their levels of stress and anxiety and improved their ability to cope with the demands of academic study.

Induction practices

Induction has been defined as 'a period differing in length from student to student, during which structured activities assist them to become comfortable with their new environment, friends, intellectual challenges, expectations and study requirements' (Billing, 1997, p 125). According to the Student Transition and Retention (STAR) project at the University of Ulster, 'early establishment of a peer support group (a community of practice) should be a priority for all students' (Cook et al, 2005).

In the UK, most first-year programmes include some form of induction. This varies from one-day intensive introductions to the academic structures, aspects of the department of study and support services, to week-long orientation. Both of these are often combined with 'freshers' week', which often focuses on social elements of university life, including student unions, societies and clubs. Unfortunately, as Edward (2003) explained, 'freshers' week' can be a period of information overload and much of the information given is 'dull'; the effectiveness of actually inducting the student might therefore be limited. In addition, many current induction practices do not devote 'time to develop social and peer support groups in a more structured manner' (Laing, Robinson and Johnston, 2005). More recently, some institutions have aimed at extending induction at least through the first term or semester and others have attempted to introduce activities that facilitate academic and social integration.

Edward and Middleton (2002) described the development and evaluation of an induction programme for first-year engineering students. The design of the programme took into account data gathered from students who had withdrawn from the course. Aspects which had contributed to their withdrawal included not feeling part of the department and a sense of uncertainty about the expectations placed upon them. Induction had previously been a typical one-day event where information was provided for the students, and took place in a lecture theatre. The redesigned programme involved extending the induction from one day to a week-long series of activities related to students' course of study, with group work facilitated by academic staff. Other staff were used as expert consultants who could be contacted through a range of media. Student and staff responses to the new induction programme were favourable.

Many newer induction practices aim to include academically meaningful activities and offer opportunities to start the process of social integration. A study of the induction of new students into a large, post-1992 institution with multiple campuses identified peer-support networks as essential for successful induction (Billing, 1997). The study concluded with a series of recommendations for induction practices. These included: allocating email addresses early and using them to form and consolidate groups; encouraging the formation of self-study groups based on tutorial or laboratory class groups; and using team-building exercises during induction. Gaskin and Hall (2002) described one such team-building exercise, which formed part of the induction process for geography students. New students undertook the exercise prior to engaging in any formal coursework and, crucially, it was assessed. Evaluation of the orientation exercise indicated that students perceived many benefits from undertaking it, with 'meeting new people' and 'teamwork' being the most cited.

Peer-assisted learning schemes

A wealth of terms is associated with first-year students being supported by their peers, either from the same or a more senior peer year. Although most learning with peers happens informally in the shape of students learning together in the classroom and creating self-study groups, the form of peer learning most frequently addressed in the literature has a much narrower definition (Anderson and Boud, 1996).

For the purposes of this review we concentrate on peer tutoring (between learners of equal status, sometimes facilitated by more senior students, as in this sub-section) where the primary aim is academic support. Peer-mentoring schemes (see page 63) more frequently play a role in helping first years in acclimatising to university and integrating socially.

Formal peer-tutoring schemes have been adopted fairly widely in the UK and have a range of names. However, for the purposes of this review they are referred to as peer-assisted learning (PAL) schemes unless otherwise indicated. According to Bournemouth University's PAL project, PAL is 'a scheme that fosters cross-year support between students on the same course'. PAL grew out of the supplemental instruction (SI) model common in the US. However, in contrast to SI, PAL is based on cooperative and collaborative learning, that is, Student leaders are not there to teach (Bournemouth University, 2008). The PAL model varies in terms of its delivery, but is based on student tutors - often termed facilitators - meeting regularly with groups of more junior students, usually first years, from the same course; the aim is to support their learning and study skills (see also case study 5).

Here, we consider just a few examples of PAL schemes in more detail. Packham and Miller (2000) provided an example of PAL at the University of Glamorgan's Business School. The School set up its Peer-Assisted Student Support scheme (PASS) midway through the 1997-98 academic year. The aim of the initiative was threefold: to assist first-year students struggling with unfamiliar course materials; to improve academic grades and enhance social integration; and to enhance the post-education employment prospects of graduates by elevating graduation grades. Tutors were selected from volunteers from the Business School's second-year cohort, and student participation was voluntary.

PASS was intended to provide advice and guidance relating to the content of academic assignments, but feedback showed that students soon began to rely on the scheme for their wider academic needs. Informal registers taken by peer-tutors showed that students under the age of 21 dominated PASS sessions, and that 75 per cent of those attending were female. Grade comparisons between PASS attendees and the remainder of the first-year cohort showed an improvement in the order of 10 per cent in favour of the attendees (Packham and Miller, 2000). While the authors acknowledged that the paucity of qualitative data made it unwise to draw definitive conclusions without additional research, other than with specific relation to coursework assessment, they nonetheless felt that PASS provided the University of Glamorgan with a '...relative success in updating its existing student support systems' (p 56).

The School of Service Industries at Bournemouth University implemented a similar scheme, as detailed by Capstick and Fleming (2002). This PAL programme was intended to target courses with higher-than-average levels of student failure and withdrawal. However, the pilot of the scheme rolled out in the academic year 2001-02 was

incorporated into the School's first-year Management Foundation Course, a large common component with a more average record in terms of student attrition.

The PAL programme was intended to encourage student development and use of learning and thinking skills through informal discussion sessions rather than through more conventional teaching methods. Student leaders drawn from the second-year student cohort led the PAL sessions; they received a two-day training course that took place before the start of the academic year. This course contained a practical element, which permitted candidates to run and participate in PAL sessions, and covered topics that included the theory and background of PAL, deep and surface learning and group dynamics. The first year of this PAL scheme was judged to be a success to the extent that it was extended to two additional schools and a total of seven courses, administered through Bournemouth's academic support service.

PAL has grown elsewhere in the world. In Australia (in 2000), Clulow described the implementation and subsequent evaluation of a PAL initiative, here termed SI, at Monash University's Business School; this initiative was based on the University of Missouri's model of SI (Martin et al, 1983). In 2004, the idea was extended to assist overseas students studying marketing principles and commercial law at RMIT University in Melbourne, as detailed by Weisz and Kemlo (2004).

While most of the published material on PAL schemes has reported positive benefits, including increased performance in assessments, Ashwin (2003) argued that PAL schemes may result in students taking a more strategic, less meaning-oriented approach to their studies. For a detailed review of PAL see Topping (2005).

Mentoring schemes

As the above shows, explicit forms of peer support oriented to address academic matters are an increasingly prevalent feature of the first-year experience in HE. However, there have also been moves to offer peer-support opportunities that focus more on well-being than learning. Such schemes aim to ease transition and reduce the stress of students entering HE. They come in a number of guises, most commonly known as mentoring (the term used here) or buddying schemes. According to Michelle McLean (2004), a mentor should 'seek to assist students' socialisation into the academic culture and optimise their learning experience by providing emotional and moral support'.

Reducing first-year student stress and consequent attrition was the motivation for a scheme implemented by the School of Psychology at Edith Cowan University in Australia. The School's Peer Mentoring Program (PMP) was piloted in 1999. It involved matching first-year students who enrolled on the Introduction to Psychology course with mentors selected from the School's second and third-year cohorts (Breen et al, 2001). The latter received training in communication skills, setting boundaries, ethical issues and coping with stress, and were charged with providing their mentees with advice on university administration and support mechanisms and contacting academic staff at informal meetings. Evaluation showed that the attrition rate for mentees was significantly lower than that for unmentored students (Breen et al, 2001). As a result of the positive outcome of the pilot, the PMP was repeated the following year and expanded to include external students (distance students), a group with a higher-than-average attrition rate.

The effectiveness of the PMP was evaluated through role-specific surveys distributed to mentors and mentees at the end of the first semester. Responses showed that mentors

felt participation to have been of benefit in a professional and personal sense, specifically mentioning employment prospects and interpersonal, empathic and communication skills among others. Mentees were generally satisfied with the PMP and considered it to have achieved its objectives, albeit with some differences in emphasis between internal and external students. The latter found the practical advice about academic matters especially useful, while the former found the programme a useful tool in coming to terms with the realities of their new environment. Alongside their other functions, mentors were considered valuable as 'a friendly face' and some also provided emotional support, especially in the run up to academic deadlines and exam time.

Another mentoring study was described by Heirdsfield, Walker and Walsh (2005). Students entering the first year at Queensland University of Technology from a technical and further education (TAFE) background were offered the option of being peer mentored. TAFE students traditionally suffered from poor retention rates in comparison with students from more traditional backgrounds entering the first year of the same Bachelor of Education course. Mentors were in their third and fourth years of study; they had successfully completed an elective introductory course on counselling and social intervention, focusing on health and wellness, and were involved in implementing an 'integrated and contextualised program of support specifically designed for their [mentees'] needs' (Heirdsfield, Walker and Walsh, 2005, p 427). Mentors received training that familiarised them with existing student support systems, including the university's first-year experience programme; explored how a peer adviser could enhance students' awareness of wellness as a factor in academic success; and looked at how to document their experiences as tutors in journal form.

Mentees were divided into groups of approximately six and assigned to a mentor, who was provided with their email, mail and telephone contact details. Initial group meetings were arranged by email, and contact via all the above media and face-to-face meetings was conducted throughout the semester. Mentors were encouraged to compile reflective post-meeting comments and pass them to the programme coordinators via email. Findings from the pilot year found that the programme was beneficial and that most mentees were satisfied with the support given by their mentor. The mentor's personal character and attitude were identified as key factors for a successful outcome.

Meanwhile, the Nelson R Mandela School of Medicine in Natal had employed student peer mentors drawn from the fifth and sixth-year cohorts from the beginning of the 1990s. The School's rationale for this was to encourage student and cross-cultural interaction, promote student support mechanisms and provide academic guidance and positive role models for younger students (McLean, 2004). Mentors were paid a small remuneration and assigned approximately 10 first-year mentees. Meetings between mentors and mentees were informal and mutually arranged to avoid timetable clashes. However, problems with the existing mentoring programme arose when the School switched to a problem-based learning (PBL) curriculum in 2001.

Hitherto, mentors had experienced the same or similar curriculum as their mentees. Although the 2001 cohort of mentors was introduced to the principles of the new curriculum at their induction workshop and provided with handbooks containing additional information, this proved to be insufficient. Evaluation of the 2001 programme showed that the curricular mismatch reduced the effectiveness of the programme (McLean, 2004, p 178). The Medical School's response was to recruit mentors for its

2002 mentoring programme from second-year students who had undergone the PBL curriculum, rather than fourth and fifth-year students. This appears to have been a successful strategy, given that the mismatch disappeared from the list of problematic factors in feedback from the 2002 cohorts of mentors and mentees. The list reverted to the more usual and perennial concerns that had existed prior to 2001, such as arranging mutually convenient meeting times (McLean, 2004).

Online peer support

In contrast to the schemes outlined above, an initiative implemented at the Biological Sciences Department at the University of Sydney adopted a mixed mode of delivery. The number of students taking the first-year Biology course had increase rapidly over the previous five years (Peat and Franklin, 2002). To cope with the increase in student numbers with no expansion of academic staff, a virtual learning environment (VLE) was introduced in the first semester of 2000.

Laid out as a building, the VLE provided a variety of materials and functions for all biology students. First-year students were provided with their own virtual lobby that permitted access to a 'unit of study room' with all the connected materials and resources, along with more usual provision such as email, technical support and so on. The peer-support function consisted of a discussion forum through which students were encouraged to interact with other students. Topics raised included '...exams; lectures; lab reports; ethics of using animal materials; posters; lecture theatres; how to reference URLs; and technical help with downloading materials' (Franklin and Peat 2000, p 8). Student feedback on the VLE was positive, but the data cited made no specific reference to the peer-support aspect (p 9).

A similar programme was implemented by the School of Business Information Technology at RMIT University in Melbourne, as detailed by Grob (2000). Aimed at improving retention within the School, the programme encouraged students to form online peer linkages to enhance the benefit derived from online staff mentoring. Students were provided with resources and assistance to set up monthly discussion forums. Student feedback was positive and led to plans to expand the programme into two additional areas: the establishment of email 'buddy systems' to link first-year students to selected peer mentors from the fourth and fifth years of the same course; and to link English as a foreign language (EFL) students with more senior peer mentors from similar linguistic and/or cultural backgrounds.

Student learning communities

In the US, the number of initiatives and programmes specifically for first-year students has grown at a remarkable rate over the last decades (Tinto and Goodsell, 1993). *Time* magazine in 2001 (cited in Dabney, Green and Topalli, 2006) reported that '71 per cent of more than 4,000 [US] accredited universities surveyed offer some form of first-year seminar experience to aid incoming freshmen with their transition into university life'. These programmes have been introduced to encourage students to 'become integrated both socially and academically' (Goodsell-Love, 1999, p 2).

There is a great deal of current interest around the concept of community within the university and, in particular, in the introduction of student learning communities. However, this is not a new concept. In response to what he perceived to be increasing specialisation and fragmentation of students in HE, Alexander Meiklejohn (1932) called

for community in study and more coherence in curricula across the disciplines. These calls were echoed by John Dewey (1933), who called for learning opportunities that were centred on the student, required active participation and involved students in undertaking shared enquiries. In response to these calls a number of US institutions set up short-lived programmes to try to foster these sentiments. It was not until the 1970s, however, that several institutions set up SLCs following the model initiated at Evergreen State College (Jones, 1981). These initiatives reported increased student success as well as improved retention (Gabelnick et al, 1990).

In 1998, Patricia Cross gave three reasons why SLCs were becoming increasingly apparent. These were: 'philosophical (because learning communities fit into a changing philosophy of knowledge), research-based (because learning communities fit with what research tells us about learning), and pragmatic (because learning communities work)' (Cross, 1998, p 4, and cited in Cox, 2001).

According to Lenning and Ebbers (1999, and cited in Zhao and Kuh, 2004), there are four models of SLCs:

- curricular learning communities made up of students co-enrolled in two or more courses linked by a common theme
- classroom learning communities, which treat the classroom as the place of community building by featuring cooperative learning techniques and group activities
- residential learning communities, which organise on-campus living arrangements so that students taking two or more classes in common live in the same hall
- student-type learning communities, which are specially targeted at specific, usually non-traditional groups of students.

The models vary in complexity, and they can be residential and non-residential. They can range from linked courses where cohorts of students enrolled in two or more common classes are brought together, with varied levels of staff involvement, to coordinated studies where students and staff work together in a multidisciplinary, credit-bearing programme around a central theme (Gabelnick et al, 1990) either with or without components in halls of residence.

Zhao and Kuh (2004) found that participation in SLCs is positively linked to engagement as well as students' satisfaction with their institution. Students in learning communities: 'become more involved in both in-class and out-of-class activities...spend more time and effort on academic and other educationally purposeful activities and ...take more responsibility for their own learning instead of being passive receiver [sic] of information'; that is, they are engaged and empowered (Zhao and Kuh, 2004, p 118).

Tinto (1995, p 12) stated that students who participated in SLCs: 'learned more, [and] found academic and social support for their learning among their peers'. Students involved in the SLC described by Tinto and Goodsell (1993) could 'pursue friendships and learning at the same time'. As Cox (2001, p 70) put it: 'Learning Communities give students a sense of belonging; thus, they persist rather than retreat'.

Evidence regarding the effectiveness of learning communities is variable. Pike (1999)

found that, in comparison to students in traditional residence halls, students in residential SLCs (sometimes termed living-learning communities) had higher levels of involvement and interaction with staff and peers, and this was reflected in better performance in assessments and higher levels of persistence. In the work of Light et al (2005) investigating the impact of a residential SLC on students studying engineering, students reported that the SLC encouraged them to study more and perform better than their non-SLC peers; they were more likely to continue their studies in engineering; and the SLC facilitated the formation of friendship groups. For more information on residential SLCs, see Inkelas and Weisman (2003), and Pike, Schroeder and Berry (1997).

Non-residential SLCs come in a range of guises. Two of the most common 'brandings' are freshman interest groups (FIGs) and first-year seminars (FYSs). These are becoming an almost ubiquitous feature of first-year programmes in the US. According to a 2002 report from the Policy Center on the First Year of College (cited in Porter and Swing, 2006, p 89): '94 per cent of accredited four-year colleges and universities in America offer a first-year seminar to at least some students, and over half offer a first-year seminar to 90 per cent or more of their first-year students'.

First-year seminars (FYS) appear to focus on the transition to HE. They concentrate on academic development topics, for instance study skills and campus policies and procedures (Porter and Swing, 2006). Miami University offers an FYS that promotes 'a positive adjustment to university life and your residential college; approaches to learning and study skills; orientation to university resources; exposure to academic majors and requirements; enhancement of critical thinking skills and academic integrity' (University of Miami, 2007).

FIGs have a more academic focus. For instance, according to the University of Washington's website, a FIG is 'a pre-packaged cluster of high-demand freshman courses that is only offered autumn quarter' (University of Washington, 2007). Further, it allows students to take all of their classes with the same 20-25 students ('so even a lecture class will seem small'), is facilitated by an experienced undergraduate and is credit-bearing. The university offers FIGs on a range of topics, including: 'individuals and society, the natural world and the visual, literary and performing arts'. What FIGs and FYSs have in common is a focus on small classes and opportunities to form social and support networks.

Tinto and Goodsell (1993, p 1), reporting on the outcomes of a FIG, stated that the community allowed students to interact with a cohort of students across their different classes, and that this led to the formation of 'social networks in which other academic support mechanisms could begin to operate'. The model they presented included weekly one-hour meetings with a peer adviser, a more senior student whose job was similar in many ways to that of the mentors described above. It involved addressing first-year students' course and institutional concerns and queries.

Dabney, Green and Topalli (2006) reported on a FIG in the area of criminal justice. They noted that students undertaking the FIG could 'potentially benefit by way of increased retention rates, better academic and social connectedness, and a less stressful transition into university life' (p 63).

There is a degree of consensus regarding the reasons for introducing structures to foster student peer support: a focus on student retention, by easing the transition to university-level study, and to a lesser extent student engagement. However, the literature

cited above shows that while there are many examples of good practice in the sphere of explicit approaches to student peer support, the field is somewhat piecemeal, with little overarching coordination at national or international level. The implementation of initiatives lies largely with individual departments and schools within HEIs. Positive student feedback and the available statistical and empirical evidence strongly suggest that these explicit peer-support structures are a positive and welcome addition to the university experience which measurably enhances student retention and satisfaction.

6.1.4 Implicit forms of student peer support

A number of practices and occurrences in HEIs that are simply a normal part of institutional life may also contribute in terms of peer support. Some of these, for instance the provision of social and living spaces (student unions, sports clubs, halls of residence), are there to improve the student experience directly or by giving students the opportunities to make friends. We therefore firstly consider the impact of friendship groups on student engagement, and research that has looked at the impact of the place of residence on engagement. Following on from this we look at the role of the institution itself in fostering engagement before exploring a range of academic practices that foster peer support and that we, and others, believe play an essential role in student engagement and perhaps, ultimately, empowerment. These we have termed peer-learning opportunities and they are considered under three headings: small-group learning, collaborative learning and enquiry-based group projects.

Friends

Research has shown that a major influence on students' decisions to stay at university is whether they have 'good friendships and social networks' (Thomas, 2002, p 435). Woodfield (2002) reported that many first years who responded to a survey stated that friendships formed at university enhanced their enjoyment of the university experience. Similarly, a study by Yorke (1999) identified a range of reasons for student withdrawal, including an inability to settle into university life, selection of the wrong course, and feeling isolated and alone and unable to make friends. As Willcox, Winn and Fyvie-Gauld (2005) pointed out, 'students have an urgent need to belong, to identify with others, to find a safe place and to negotiate their new identities as university students, and friendship is about having friendly faces around and making initial contacts which may or may not develop into friendships'.

A study by Thomas (2002) took an atypical approach by examining the influence of peer culture, and specifically the role of students' social structure as a factor in first-year students' integration and persistence. The study looked at the experiences of first-year students at a private liberal arts college in the western US. The results confirmed prior studies suggesting that student persistence is positively enhanced by social networks, and that a wide range of acquaintances within the network have a beneficial effect on academic performance and, by extension, persistence. The results also recommended further research into contemporary models of persistence and the influence of different types of social relationships within the overall social network, and employment of the methods used in research into wider student learning issues.

The role of friends in learning should also not be underestimated and students frequently form self-study groups. Hendry, Hyde and Davy (2005) stated that 'effective independent self-study groups might be motivating and stimulating for students' learning'. These groups form spontaneously and are often based on classroom or friendship groups; they

help to minimise feelings of isolation and thus increase engagement with the institution (Bingham and Daniels, 1998).

Student residence

Astin (1975) argued that students who live on campus are significantly more likely to persist and graduate than other students. Several studies have shown that living on campus is positively related to engagement (Pascarella, Terenzini and Blimling, 1994; Pike and Kuh, 2005a). Although little of the research in this area specifically examines the first year, the evidence regarding residential SLCs (discussed above) is that student engagement is fostered. As Light et al (2005) pointed out, 'The common residence provides opportunity for ready-made study groups, quick answers to questions, common experiences for socializing and a more structured environment focused on academics'.

However, not all research has shown such a positive correlation in terms of student engagement, retention and success. For instance, in a large-scale Canadian study, Grayson (1997) reported that the grades of students who lived at home were greater than those living in halls of residence. These findings were echoed by those of Beekhoven et al (2004), who found that students living in rooms experienced more personal problems than those who stayed at home. Students living in rooms spent several hours less on their studies, which negatively affected study progress. Grayson (1997) argued that despite off-campus students' relatively low involvement and social integration, students living with their parents tended to have higher levels of classroom involvement than did those living in residence.

While living in a residence hall has been positively associated with higher levels of achievement in assessment, persistence and cognitive development, these benefits are even greater when 'hall environments are structured to reinforce class room experiences' (Pike, 1997, p 5), as is the case in residential SLCs (discussed above).

The institution

One way that students help themselves to fit in is to take part in extracurricular activities on campus in the form of clubs and societies. In a study by Christie and Dinham (1991), the students interviewed - who had participated in such activities - reported that taking part encouraged their social integration in much the same way as living on campus did, by providing opportunities to meet and form friendships. Further, the students saw these activities as explicitly linking them to the institution.

Liz Thomas (2002) wrote of the institutional 'habitus'. Institutional habitus can be understood as: 'the impact of a cultural group or social class on an individual's behaviour as it is mediated through an organisation' (Reay et al, 2001, para 1.3, and cited in Thomas, 2002, p 431). Thomas believes that the concept of habitus is useful and stated that 'if a student feels that they do not fit in, that their social and cultural practices are inappropriate and that their tacit knowledge is undervalued, they may be more inclined to withdraw early' (Thomas, 2002). Thus the outward statement made by the institution about its philosophy and policies, and the demonstration of that habitus through its practices, are likely to have a direct effect on a student's conceptions of the institution.

According to Pike and Kuh (2005b, p 187) one measure of institutions with high levels of student engagement is 'an unshakeable focus on student learning emphasised in their missions and operating philosophies. They also adapted their physical campus properties and took advantage of the surrounding environment in ways that enriched students'

learning opportunities'. Thus institutional policies and practices directly influence levels of student engagement.

One increasingly common policy of many HEIs is to offer a flexible, modular choice of courses. While this means that students can select a virtually unlimited range of choices, it can lead to a loss of cohesiveness among student groups. As Kember, Lee and Li (2001, p 335) put it: 'developing a relationship was more likely to happen if the students remained together as...a cohort. Conversely, effort invested in establishing a sense of belonging within a class reaps meagre dividends if the next semester the group of students are spread among a range of courses'.

Similarly, many institutions enrol students not into a department but into a larger grouping of departments, thus minimising the links students might feel with the 'community' they have chosen to enter. The situation is made worse in the case of many part-time and/or access students, who are often enrolled into departments of continuing and adult education and not into the department in which they will study (Kember, Lee and Li, 2001). While such enrolment policies may be administratively efficient, they may be exacerbating some of the problems that explicit support practices are trying to solve. Schroeder, Minor and Tarkow (1999, p 40) identified that the provision of funds by the institution was evidence of its commitment, but stated that 'perhaps even more profound was the willingness to alter current operating procedures'.

Smith and MacGregor (2000, p 77) argued that we need to 'reconceive classes as the unique social spaces that they can be'. However, at present there are few incentives to change the learning spaces on campus. Class sizes are increasing and there are limited resources to overhaul or redesign learning spaces. Most current learning spaces are not conducive to small-group or collaborative learning-based pedagogies (Graetz and Goliber, 2002). King and Kitchener (2004) argued that students should be encouraged to practise their reasoning skills in a range of contexts: not just the classroom, but in student organisations, residence hall councils and elsewhere, to gain practice and confidence applying their thinking skills; however, not all of these 'spaces' in universities are conducive to applying these skills. If, to foster student engagement, we acknowledge the importance of peer support through appropriate friendship groups, then universities need 'a diversity of social spaces', not just student union bars (Thomas, 2002, p 439).

Peer learning

Most learning that occurs with peers happens informally; for instance, students form self-support groups to study together. Griffiths, Houston and Lazenbatt (1995, and cited in Anderson and Boud, 1996) identified 10 forms of peer learning, ranging from models of PAL (discussed above) to discussion seminars, self-study groups, peer-assessment opportunities, group projects and work-based learning schemes. Anderson and Boud (1996, p 15) defined peer learning as: 'students learning from and with each other in both formal and informal ways'. They went on to argue that 'within the sometimes alienating milieu of a university peer learning activities can provide support for new students of whatever age or background' (p 16).

Anderson and Boud (1996) also argued that the maximum benefit is not derived from peer teaching and learning, because (in the form of PAL and SI schemes) it is overwhelmingly employed merely as a surrogate or supplement to more formal methods rather than as a valid method in its own right. Peer learning outcomes have been defined as: promoting student cooperation; encouraging critical enquiry and reflection;

improving communication and articulation of knowledge, understanding and skills; managing learning and how to learn; and improving self and peer assessment (Boud, Cohen and Sampson, 2001).

There are many forms of peer learning, from the informal study groups mentioned above through to extended group enquiry-driven projects. Below, we consider peer learning under three headings. First, we examine classic forms of small-group learning that happen in every institution in tutorials, laboratories and seminars. Here, learning occurs at least in part through discussion, and thus students are being supported in their learning by their peers. Secondly, we look at collaborative learning: that is, learning opportunities which formally require students to work and learn together in the classroom. Lastly, we examine enquiry-based group projects, which build structures that foster student engagement and encourage students to collaborate in and out of the classroom.

Small-group learning opportunities

According to Cooper and Robinson (2000, p 12), small-group learning not only provides effective learning and critical thinking opportunities, but also 'develop[s] affective dimensions of students, such as sense of community, altruism, self-efficacy and learner empowerment'. If one of the aims of the classroom is to develop 'affinity' within groups of students, Kember, Lee and Li (2001) stated that designing activities that promote discussion or group work is the most effective way. Such activities have been a mainstay of UK higher education and classically take the form of small-group tutorials or seminars, or laboratory-based activities. When asked what one wish he would like granted to improve learning in HE, Garth (1999, p 58) said: 'for more students to be engaged in more conversations'.

The small-group tutorial has been shown to be effective in facilitating peer support in the first year. Tutorials can 'offer students the opportunity to form peer relationships that can extend outside the classroom through the development of student-initiated study groups and social companionship' (Ramsay, Jones, and Barker, 2007). In their study of discussion-based tutorials, Yan and Kember (2003) examined the role that teachers and curriculum play in 'creating a positive social atmosphere and thus fostering [students'] relationship with peers'. Positive effects were found where teachers deliberately attempted to build the group relationship, put an emphasis on participation, and where activities promoted interaction and engagement.

Similarly, science teaching classically involves students participating in laboratory-based practical classes, and frequently students work in groups, often pairs, to complete the practicals. These may represent the only part of the curriculum where students learn outside of a large lecture theatre.

Unfortunately, opportunities for learning in small groups have 'come under threat' with the expansion of HE; at the same time, there is increased recognition of the part such learning can play in terms of fostering peer learning and peer support (Griffiths, 1999, p 96).

Collaborative learning

We wish at this stage to make a distinction between small-group teaching and truly collaborative learning opportunities. Twenty years ago, Chickering and Gamson (1987) identified *Seven Principles for Good Practice in Undergraduate Education*, one of which was to encourage cooperation among students. While students in small-group tutorials and laboratories may learn from and with each other and find opportunities to make

friendship groups, and thus may be supported by their peers both academically and socially, collaborative learning takes things a step further. Van der Linden et al (2000, and cited in Dolmans and Schmidt, 2006) defined collaborative learning as taking place when participants have a common goal, share responsibilities, are mutually dependent on each other and reach consensus through open interaction.

Perhaps the most commonly recognised form of collaborative learning is problem-based learning. Many courses include PBL sessions, but in some instances PBL is the core constituent of the degree programme. Barrows and Tamblyn (1980) defined PBL as: 'the learning that occurs during the process of working to resolve a problem'. The PBL process has been described in detail by Barrett (2005). Briefly, the process starts when the students are introduced to a problem or scenario. Students discuss the problem in a small-group facilitated tutorial, defining the issues and identifying what they need to learn to solve the problem. The students then work independently for a period of time (hours or a few days) researching the problem before returning to their tutor group where the solutions to the problem are shared and discussed. The final step in the formal PBL process is a reflective review of each members' contribution and of the process itself.

As can be seen from this list, most of the elements of PBL involve interaction with peers and discussion, and therefore represent opportunities for peer support and incidentally, perhaps, enhanced learning. Tang (1998) reported that students who seek to collaborate with their colleagues are more likely to take a deep approach to their learning than peers who do not.

Slavin (1996) identified a number of aspects of PBL tutorials that may be beneficial to students. These included the motivational effect of learning in a group - that is, being part of a group motivated the members to make more effort so that the group succeeded in its goals. Secondly, he identified the aspect of cohesiveness: the successful group developed a 'team spirit'. The third aspect was the development of cognitive abilities through group interaction, that is, through discussion, argument and mutual feedback.

For many students currently in HE, whether commuter or residential, their main point of contact occurs in the classroom. Cooper and Robinson (2002, p.12) argued that collaborative learning opportunities can 'build both involvement and important social bonds'.

While collaborative learning strategies like PBL are predicated on the concept of students learning with and from each other by sharing the outcomes of their (usually independent) research and learning, other pedagogic approaches can go further. Anderson and Boud (1996, p 17) argued that we should be looking to establish a 'tradition of mutual help in the classroom that continues over time and **outside** the classroom' (our emphasis).

Enquiry-based group projects

While research projects have been a mainstay of undergraduate education, especially in the final years of degree programmes, scholars are advocating that learning driven by genuine enquiry should form a greater part of the undergraduate curriculum. Hence there is a move to enquiry-based learning (EBL). Toohey (1999) suggested that the introduction of project work for students in the early years of degree programmes, perhaps on a smaller scale than the classic honours project, might be useful. Kahn and O'Rourke (2005, p 1) described the role of students in EBL: 'they seek evidence to

support their ideas and take responsibility for analysing and presenting this appropriately, either as part of a group or as an individual supported by others. They are thus engaged as partners in the learning process'.

John Dewey (1933) in his seminal text, *How we think*, promoted the idea that learning should be active, student-centred and involve shared enquiry. Small-group research projects, when implemented effectively, provide all three of Dewey's requirements; that is, the learning is active, centred on the student and involves a shared enquiry. It is known that peer pressure and peer support can enhance the learning experience (Gibbs, 1994). Mooney (2006, p 77), when reporting on the outcomes of a field-based group research project, indicated that 'a great deal of bonding takes place during a residential course between students and instructors and among themselves'.

The Centre for Excellence in Teaching and Learning on Enquiry-based Learning (CEEBL) at the University of Manchester has produced a number of resources to support the introduction of EBL elements within the university and further afield. Its website describes the introduction of aspects of EBL into a host of undergraduate programme areas, including geography, biology, classics and ancient history, engineering and business management (University of Manchester, 2007).

However, of our many educational practices - even those that encourage students to learn together (for example, tutorials and laboratory practicals) and perhaps undertake some form of enquiry (for example, PBL) - few encourage students to learn together **outside** the classroom. According to Howell (2006, p 2 of abstract): 'students recognize the benefit of learning...with other students both in and outside of class, but they do not do it outside of class!'. A project that used the analysis of students' reflective essays at the end of the first year found that students 'need peers who provide personal and intellectual support, faculty who are personable and approachable, courses that encourage connections and community, and co-curricular activities that create common bonds and out-of-the-classroom learning' (Donahue, 2004, p 77).

Howell (2006, p 2 of abstract) advocated formalising out-of-class learning opportunities. As she put it: 'organized, out-of-class interactions with undergraduates, TAs [teaching assistants], faculty, and professors in math and science-based programs have a strong influence in helping students to connect with others in these programs'. Group research projects offer the opportunity to make out-of-class learning with peers not only possible but essential. As Anderson and Boud (1996, p 17) put it: 'By managing peer learning we are formalising what would be a highly unpredictable and selective process if left to casual conversation outside the classroom'.

6.2 Appendix 2: Quality Enhancement Themes First Year Experience reports

Sector-wide discussion projects:

Gordon, G (2008) *Sector-wide discussion: the nature and purposes of the first year*

Kochanowska, R and Johnston, W (2008) *Student expectations, experiences and reflections on the first year*

Practice-focused development projects:

Bovill, C, Morss, K and Bulley, C (2008) *Curriculum design for the first year*

Nicol, D (2008) *Transforming assessment and feedback: enhancing integration and empowerment in the first year*

Black, FM and MacKenzie, J (2008) *Peer support in the first year*

Miller, K, Calder, C, Martin, A, McIntyre, M, Pottinger, I and Smyth, G (2008) *Personal Development Planning (PDP) in the first year*

Knox, H and Wyper, J (2008) *Personalisation of the first year*

Alston, F, Gourlay, L, Sutherland, R and Thomson, K (2008) *Introducing scholarship skills: academic writing*

Whittaker, R (2008) *Transition to and during the first year*

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