Graduates for the 21st Century -
Classroom-based response to student needs

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Responding to Student Needs - background

Over the last two decades higher education institutions (HEIs) have faced increasing challenges in developing and adapting their provision to support mass higher education in such a way that it will provide for 21st century learners. As student numbers increase and the diversity of learners grows these challenges continue and in response to this changing environment the higher education sector has become increasingly aware of the need for a change in the ways in which they engage with students. More diverse and, in many instances, more complex students with a varied range of needs require a learner-centred approach to learning, not only in terms of teaching, but in terms of the variety of support and administrative systems which underpin delivery. Consequently, Responding to Student Needs was identified as an early priority for the Enhancement Themes work in Scotland and in autumn 2003, a steering committee was established in order to respond to this. Between November 2003 and February 2004, a project interview team, including administrative staff and educational developers, held a series of focus groups involving staff and students to investigate this area.

After analysis of the information from these groups, carried out by the Centre for Higher Education Research and Information (CHERI), and as the topic of Responding to Student Needs encompassed a wide range of issues, the steering committee opted to focus upon two specific areas for investigation:

- student needs in the first year of study including:
    - induction
    - personal tutor systems
    - approaches to integrating student support
    - the first-year learning experience
- student evaluation of, and feedback on, their learning experience.

The key outcomes from the projects were:

- the need to disseminate existing good practice
- the need to reflect upon, and consider ways of, enhancing practice
- the lessons to be learned from international experiences and approaches to student induction, academic and pastoral support, and the organisation and support of the first-year learning experience
- the arguments for more strategic, coherent and coordinated ways of responding to student needs

- the need to consider ways of addressing both the quality assurance and enhancement purposes of student evaluation of, and feedback on, their learning experience
- the importance of preparing students for entry to higher education, engaging them quickly and effectively into the learning community of the institution, smoothing the transition and process of acculturation, and providing timely and relevant academic, pastoral and professional support (QAA, 2005a).

Most HEIs have responded in some way to these outcomes.

The Graduates for the 21st Century Enhancement Theme

The Graduates for the 21st Century Enhancement Theme, which began in 2009, is bringing together the six previous Enhancement Themes to find out how, and if, these are working to ensure that all graduates from Scottish HEIs develop, or are given the opportunity to develop, the appropriate and/or essential skills required to undertake life's activities with particular emphasis on employability. This Enhancement Theme is unfolding through a steering committee consisting of representatives from all 20 HEIs in Scotland, in an attempt to discover what is currently going on in the sector and, probably more importantly, to discover what the emerging issues are which need to be dealt with or emphasised in future work.

The Responding to Student Needs element of this Enhancement Theme is endeavouring to share the good practice currently ongoing in the sector but also, importantly, wants to examine what the lecturer or other classroom-based staff can do to assist in developing graduate attributes in students by responding to their needs in the classroom and/or from a wider academic perspective.

Graduate attributes and student needs

According to Barrie (2004) graduate attributes are described as '...the skills, knowledge and abilities of university graduates, beyond disciplinary content knowledge, which are applicable to a range of contexts…' (p 262). At Strathclyde University, Scotland, Woolmer (2009) describes these attributes as:

- being enquiry-focused
- being innovative in the approach to knowledge and understanding
- being confident and self aware
- being collaborative as well as an independent learner
- being international in outlook
- operating with personal and professional integrity.

At Oxford Brookes University, England, Benfield and Francis (2008) advise that although their university does not have an explicit range of graduate attributes it does have a set of transferable skills for all students, and they comment on the need for graduate attributes in an age of digital technology. The six skill areas mentioned by them are:

- self management: ability to manage own learning development
- learning skills: ability to learn effectively and be aware of own learning strategies
- communication: ability to express ideas and opinions with confidence and clarity to a variety of audiences for a variety of purposes
- teamwork: ability to work productively in different kinds of teams
- problem solving: ability to identify the main features of a given problem and to develop strategies for its resolution
- IT: ability to use IT appropriately for their learning and employability.

The main difference in the two approaches appears to be the difference between a skills-based outlook to attributes and an attitude-based outlook to attributes, but one suspects that neither of the two would mutually exclude the other. In the first, the skills-based need is probably implicit within it, and in the second, the requirement to have the correct attitude and outlook is probably necessary to enable the skills to be developed.

A third look at graduate attributes from London Metropolitan University, England, (2009) suggests that graduate attributes are linked to:

- self awareness: knowing and able to critique oneself; capable of developing criteria for judgement and evaluation of strengths, weaknesses and personal development even against the criteria of others; challenge appropriately and effectively received opinion and action; confidence and self esteem; use of appropriate communications media
- performance in a variety of idioms and contexts: understanding limits and applicability of subject discipline and having an awareness of the wider picture; ability to communicate effectively even within a team or professional group; recognising, supporting or being pro-active in leadership; ability to negotiation, manage conflict, effectively debate and produce detailed and coherent reports
- creative and ethical: make creative and purposeful change and adaptation with an awareness of ethical and moral codes, demonstrating integrity of conduct; apply knowledge, tools and methods appropriately, aware of personal responsibility and professional codes of conduct; incorporate critical ethical dimensions in complex and unpredictable contexts, recognising cultural diversity.

This selection appears to be a mix of the preceding two but does clearly highlight the need for both attitude and skills attributes.

The way that graduate attributes is worded may, one suspects, have a bearing on the type of institution involved, for example, research-based or vocational-based, ancient or modern, but one wonders whether the distinction is appropriate or indeed required? Certainly, it could probably not be disputed that the level of understanding of or the ability to apply the attributes in individual graduates will differ from student to student and whilst we may have a vision of the ideal graduate with a wide and diverse attribute arsenal, it is perhaps optimistic to even endeavour to fulfil these attribute requirements in them all, as their individual aspirations post-university will also differ. Our endeavours though as educators, academics, teachers, lectures, facilitators or support staff should not be diminished by this. Rather, we should acknowledge this and strive to allow students to develop appropriate attributes for them, whilst perhaps instilling in them, at least, a basic understanding of them all.

Student needs

So if we are prepared to accept that we need to understand and acknowledge the fact that we need to develop our graduates from whatever background or academic institution they come, or indeed from the vision that each may have, what are the needs of the students? If we reconsider the outcomes from the original Responding to Students Needs Enhancement Theme (featured earlier in this paper), we can see clearly that these all relate in general to what institutions can do to improve our response to student needs and, as has been acknowledged, this has been tackled in many different ways, for example, the introduction of better induction courses, the introduction of better monitoring systems for students as they progress through the first year and in some cases subsequent years, the introduction of support departments/tutors to assist students, the introduction of transition teams and schemes, the introduction of technology, and a renewed awareness of the importance of feedback. These are all admirable initiatives and indeed are improvements in many cases to where we were. Whilst the First Year Enhancement Theme dealt with issues of what students need in the first year, a recognisable and very important year, less attention was given to what students' needs are as they progress through subsequent years nor of what happens in the classroom or lecture theatre. In this paper I want to look

briefly at the needs of students in the classroom, which may take the form of 'academic, pastoral or developmental' support (QAA, 2005b, p 45)

So what are student needs? A difficult question and a question that one may consider has not been answered effectively. It is interesting that in the Responding to Student Needs Enhancement Theme there is little attention given to discussing what the needs of students actually are - there appears to be an assumption that we know. Even during discussions in the Student evaluation and feedback section (pp 155-184) where the purpose of feedback and evaluation is considered, the purpose of such feedback systems from students does not appear to include an explicit section on discovering what the student needs are. Instead the categories refer to:

- internal information to guide improvement
- external information for potential students and stakeholders
- enhancing the students' experience of learning and teaching
- contributing to monitoring and review of quality and standards
- monitoring the quality of teaching and learning
- improving the quality of teaching and learning
- advice for potential students about the quality of teaching and learning to ascertain how well a course/programme is doing and thus how well it meets its aims and objectives
- to identify the course/programmes strengths and weaknesses.

There is nothing explicit in here relating to finding out what the students' needs are.

On the same basis, that there is nothing explicit relating to finding out what the students' needs are, the use that feedback is put to related to:

- course development
- teaching evaluation
- staff development
- student involvement (pp 159-160).

And, in a list on page 168, it would appear that in the use being made of feedback, only 29 per cent of all universities used it to enhance lectures.

It seems incredible then, that whilst discovering and responding to student needs is no doubt meant to be implicit in our research, we do not actually ask the students what those needs are. There appear to be huge assumptions being made.

What do students want then? For the purposes of this paper here is a list of what students may wish to happen so that their needs are met.

- Systems that work and are accessible when needed.
- Lecturers who listen when students want them to.
- Lecturers who know what they are doing and turn up.
- Lecturers and systems that are fair.
- Lecturers who are engaging and are well prepared.
- Lecturers using language that is appropriate to the student body or with the ability to explain what they mean.
- Lecturers who are interested in their subject and the students.
- Lecturers who can guide and who are willing to talk/debate.
- Being able to get questions answered when students need them answered.
- A learning environment that is engaging, challenging and appropriate.
- Courses that do what they say they will.

- Choice and flexibility - study mode, assessment, attendance.
- Recognition of students' talents, intelligence, knowledge and skills.
- Understanding of my personal circumstances.

So are these needs generally applicable to all students? Although there might be levels of discontinuity, one might suspect that the majority of students would want things along similar lines to this. This of course assumes that the student is on a course of study that they want to be on, and not one which was enforced on them or was a last minute desperate attempt to get into university. Students like this will certainly have a different set of needs, but think for a minute on the first set of students - those who want to be there and consider if we address their needs in the classroom.

What appears to be required are responsive lecturers who can keep students interested and will be there when and if students need them. In the Responding to Student Needs publication, a number of needs were identified which applied to first-year students and students in general. These did resonate with some of the needs indicated in the list above, especially those around distance and flexible learning, but one might consider that they concentrated too much on students who needed high levels of personal support, including the 'at risk' category. Whilst we do have to recognise that some students will have needs that are much more dependent on the tutor than those indicated above, we also need to recognise those who don't. Indeed, in a recent study reported by Harris et al (2008) where very novel student-centred learning was tested, one of the main conclusions was that as students were very different and their needs were diverse, the skills of the facilitator were of the utmost importance in meeting these diverse needs for the success of the student. How much attention is being given to this aspect of the student experience in HEIs?

Another question that we might ask is whose responsibility is it to respond to student needs? This is a question that is not often discussed and much of the emphasis for responding to student needs is placed on the institutions, but we should be mindful of the responsibility that students have for addressing their own needs. This is an area where personal development planning (PDP) could prove useful if it was integrated appropriately. Students could get the opportunity to identify objectives and risk factors to achieving their own objectives and take positive steps to tackle problems identified. The PDP route is well underdeveloped in most HEIs and perhaps we should like to reassess how we use this to respond to the student needs (see Moir, 2010).

Good practice in undergraduate education

Building successful student engagement means building student perspectives into the way your institution organises to meet student needs. The starting point is students rather than institutional structures and procedures (Australasian Survey on Student Engagement (AUSSE), 2009).

The AUSSE goes on to say that, amongst other things, developing responsive strategies will depend on:

- academic and professional staff understanding the student engagement evidence base
- recognition that students are not homogenous
- recognition that institution-wide strategies cannot substitute for student engagement strategies at the discipline level.

In the Responding to Student Needs publication, it is well recognised that academic and support staff have to work together: 'an integrated approach to student support requires an institutional philosophy that embraces a holistic view of student development, in which conditions are established for a seamless learning environment' (QAA, 2005b, p 89). There are few who would disagree with this.

According to Chickering and Gamson (1987) in the USA there are seven principles for good practice in undergraduate education:

- encouragement of student-faculty contact
- encouragement of cooperation amongst students
- encouragement of active learning
- provision of prompt feedback
- emphasis for time on task
- the communication of high expectations
- the respect of diverse talents and ways of learning.

They suggest that to have proper good practice all of the above should be present in the education strategy, as together their effects are multiplied and together they use:

- activity
- diversity
- interaction
- cooperation
- expectations
- responsibility.

They suggest that undergraduate education should prepare students to understand and deal intelligently with modern life and they suggest there is no better place to start than in the classroom and on our campuses, and that there is no better time than now? However, 1987 is long gone and we should consider how far we have actually come.

Classroom-based activity for responding to student needs

In a recent workshop held with the author and some further education lecturers who teach higher level subjects and are students undertaking degree level study themselves (TQFE Group, 2010), we examined aspects of engaging learners. It was agreed that to be able to engage learners, it would seem obvious that their needs must be met in some fashion. Using information from a number of sources, there were a number of issues that this group came up with to keep students interested in their studies:

- Create a good environment - the environment must be fit for purpose, inviting, welcoming, comfortable but challenging. We should think about what the learning environment looks, feels and sounds like.
- Ignite curiosity and learning - provide tasks that are authentic and of interest. Offer encouragement and guidance. Connect with the students by linking the taught material with what the learner needs to do in the real world. Be careful not to enrage. Be prepared, involve learners in learning plan. Make objectives clear, create safe, comfortable environment, build relationships and gain trust, acknowledge experience, show relevance.
- Develop relationships with your learners - a working relationship where trust and mutual respect is included, it allows learners to develop their full potential so that students respond to learning effectively.
- Discover what's already known - students know more than they think. Tutors need to help them discover this so they can build on it and they can find relevance to what they are learning. It will give them confidence. Based on cognitive theories of learning and allows them to transform their existing knowledge and fit the new learning into their existing structures. It gives them ownership of their learning.
- Vary presentation modes - balance of visual, auditory, reading/writing, kinaesthetic, keeping actual lecturing to a minimum. Consider short tasks.

- Broaden perspectives - encourage wider views, bring in wider perspectives. This allows students to see the context. Use group/collaborative approaches to learning. Remember that being in a group has psychological consequences which need to be acknowledged, so consider the task, the group dynamics and personality types. Must remember that approaches with one group may not work with another so you cannot keep it the same.
- Note relevance - tasks given should be relevant and or the relevance/purpose should be explained/discussed. Need practical, challenging, authentic tasks that are multidisciplinary. Allow students to set own learning goals. Use peer observation to assist, relates to constructivist and social learning theories. Interactive and cooperative techniques should be used.
- Invite dialogue - allow students to have a say in class. Opinions can be used as opportunity for discussion, debate, wider perspectives. Allows ownership and provides student with knowledge that what he/she knows is important.
- Engage emotions - allow people to express emotions freely. Engage them in the classroom - allow freedom of expression.
- Use non-linear presentations - use technology to best advantage - find out what's new - relate it to student base - digital natives? It's not about the technology though it's about how you use it to promote interaction, to make materials relevant, to maintain human interaction. Add some humour and shock value.
- Give feedback and celebrate success - feedback and feed forward for learning. A pat on the back is motivating. Gives confidence.

This was an interesting list that showed clearly the need for the lecture/tutor/facilitator to be proactive in the classroom. Perhaps it is an area that all teachers need consider.

One point that this group was very clear on was the use of technology in learning. They suggested asking yourself the question: Did the technology make a tangible difference to your teaching and to the learning experience of the students? They suggested that the current use of IT in the classroom, prolifically PowerPoint or a virtual environment such as WebCT and Blackboard, is too much like conventional approaches. They provided tips for engaging learners including using metaphors, interactivity, challenge, relevance, humour and surprises. They counsel that as IT moves fast, tracking is required to be able to make the best use of it, but the important aspect is to evaluate the technology to select the best tool for your subject and your learners. It requires time to create something engaging rather than simply using IT to present information in a traditional way. It is about using it to engage learners, not enrage them.

Collaborative learning was also a point highlighted by the group to engage learners.

> One motivating factor provided by the interactive teacher is the requirement of a response to a live classroom task.... When teachers ask students to work together in small groups to solve a problem, a discussion ensues that not only serves in itself to build more robust knowledge structures, but also to motivate. (Abrahamson, unknown)

Hart (2010) at the Centre for Learning & Performance Technologies is an advocate of learners engaging with each other by means of 'Social Learning' - learners working collaboratively using social software such as wikis, forums, file sharing, social book marking, shared calendars, blogs and micro feeds.

Another example of responding to student needs comes from the Department of Academic Success at the University of Maryland, USA (Edgar, 2007). This is in relation to programs and resources such as online student clubs, online mentoring, online tutoring and general study skills assistance. These allow students and tutors to converse with each other and to learn more about academic and professional aspects of their area of study. These are online classrooms and require participation from students, tutors and even guest speakers. There is a joint element with academic and support staff and they

suggest that the 'Department of Academic Success continues to develop new programmes and resources as the needs of...students are brought to the forefront'. Student first, institution second.

A good example of an attempt at blended learning and responding to student needs, is demonstrated by Croft and Mihaly (2005, p 38) where, in a course designed to respond to student needs in its content:

> ...designed to assist first year students from diverse backgrounds and with a range of preparedness for university study, to develop the academic skills required for success in heir courses...demystifying the university environment and introducing a range of skills such as research, information literacy, critical thinking, academic writing, oral presentation, and so on....

The mode of delivery was altered to a system aligned with Biggs' (1999) constructive alignment to design a:

> rich and engaging online learning environment, supplemented with supportive and engaging face-to-face activities, and relevant assessment...which would suit the needs of students and teaching staff (p 39).

The authors admitted that the blended learning approach did not entirely work in the end and there were various problems to be overcome arising from the results of course evaluation. They recognised that where some needs were met some were not and indeed some that had originally been met with the traditional delivery mode were now not. The important thing though, is that this project highlighted the need for both online and face-to-face delivery and the realisation that students do not always want to be independent learners, despite what we might want them to be.

A final example is that by Van den Eynde et al (2007) who in an attempt to address student needs as far as flexibility to undertake work and family commitments are concerned, to take cognisance of the limitations in traditional teaching delivery methods, and to acknowledge the poor impression by employers on the skills of graduates generally, introduced an e-learning element to social science courses in criminology. They recognised the need to take a more student-centred pedagogical approach to altering materials from a traditional course to that for the online environment. One of their main conclusions was the more inexperienced the learners the higher the problem rate with the more student-led type of flexible learning. This ties in with previous research in this area, and indeed with Harris et al (2008).

Conclusions

Much of what was brought out by the TQFE group, and the other examples given, if done properly, will meet many of the classroom course/programme needs that the majority of students have, whether they are originally motivated students or not. The behaviour that we as lectures, facilitators, teachers, support staff, and so on, have whilst teaching or supporting a course of study and what we do in the classroom can have a great effect in responding to student needs and therefore in developing graduate attributes. If we respond to what our students want (largely related to their needs) then our students will be more contented and more liable to engage in the learning and teaching. If we build into our learning and teaching our vision of the attributes that our students need/want then they are more likely to absorb these, develop them and demonstrate them whilst on the course and thereafter in their life and work.

Perhaps what we need to be able to respond to student needs effectively, in addition to institutional support structures, are lecturers, facilitators and tutors who are open to new ideas, new technologies, new ways of working, that is, those who are open to change and will embrace it. Those who recognise that their role is changing in addition to the changes in the types of students we are now teaching.

Those who can engage students enough that they lose track of time due to being fully engaged, characterised by concentration, focus, playfulness, and feeling in control (Csikszentmihalyi, 1996).

> Adopting new strategies necessarily means that existing workloads and priorities may have to be reconsidered to make room.... Sometimes adopting new student engagement strategies will require incremental changes to existing practices. Sometimes new strategies will require more than adaptive change - they will require adoption of new ways of working (AUSSE, 2009).

What is very clear is that we have to be careful that in responding to student needs we do it in a way that is appropriate for all students and acknowledge that in the initial stages we may make the learning for some better and for others worse. It may take a number of iterations of techniques and, indeed, may result in a number of options having to be available for different groups of students but this is where the skill of the teacher, tutor, facilitator, lecturer or support staff will be crucial if we are to respond to student needs effectively and develop in them the appropriate graduate attributes for each. Because it will be difficult though, should not mean that we do not attempt it.

We are surely all agreed that it takes a joined-up approach within institutions to really provide the best student experience, to respond to student needs and to develop graduates for the 21st century, but what we should not do is assume that by getting the support structures correct outside of the classroom that all will be well within it. The actual classroom experience (the formal learning) is vitally important and we should not, if we have already done so, assume that lecturers can do what they like in the classroom and it will satisfy our students - it won't and nor will it satisfy our stakeholders. We need to respond to our students' needs in the classroom as well as in the wider university context.

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