

Nurturing Supportive Learning Environments in Higher Education Through the Teaching of Study Skills: To Embed or Not to Embed?

Jo Allan and Karen Clarke
University of Wolverhampton

The transnational widening of participation in higher education (HE) and the concomitant emphasis on promoting successful progression and high retention are focusing attention on how best to create supportive learning environments in HE. Using a phenomenographic approach, we explore variance in how first year undergraduate students experience the learning of generic, subject-related and metacognitive skills within a study skills module integrated into education programs. The findings suggest responses ranging from a lack of engagement in the module to evidence of increased confidence, criticality, self-reflection and change as a learner. The conclusion posits alternative ways of promoting the learning of study skills, which, whilst potentially including all learners, bring significant ramifications for the professional development of university lecturers.

The renewed impetus for supporting the development of students' learning in higher education (HE) comes as a result of the impact of a range of factors affecting the profile of undergraduate students. In the United Kingdom (UK) the widening participation agenda is a key driver that is predicated on the premise that "we cannot afford to waste talent simply because of a reluctance to foster it" (HEFCE, 2006, p. 9). In seeking to address the discrepancies in the participation rates between different social classes, universities in the UK are offering fair access to disabled students, mature students and men and women from all ethnic backgrounds, who wish to participate in HE. This, coupled with the exigencies of the information revolution and demands from employers for autonomous learners, requires greater flexibility and innovation in learning and teaching in order to maximize the retention and successful completion of those who progress into HE.

As Hartley, Woods and Pill (2005, p. xiii) point out, recent HE initiatives in the UK have aimed at improving the quality of learning and teaching. At the sectoral level, the HE Academy, established in 2004, focuses on students and improving their learning. At the institutional level, the Higher Education Council for England (HEFCE) has invested £315 million to establish 74 Centres for Excellence in Teaching and Learning, "to recognise and reward specific areas of excellence in higher education institutions and to promote its further development to benefit students, teachers and universities and colleges (HEFCE, 2006, p. 18). At an individual level, the national teaching fellowship scheme was expanded in 2004 to provide rewards for excellence in promoting learning to 50 HE lecturers. This strong interventionist stance is serving to harness significant resources to enhance student learning and to promote and provide the opportunity for successful participation in HE to everyone who can benefit from it. This article reports on research

designed to explore the efficacy of teaching study skills to students in a modern university which boasts a strong widening participation ethos.

Supporting Learning

An important facet of the emerging notions of excellence in promoting learning is the reopening of the issue of how best to provide appropriate support, especially for non-traditional entrants, such as mature learners and those with vocational rather than traditional academic qualifications. Cotterell (2001, p. 6) argues that, "changes in the student body go hand in hand with the need for different kinds of teaching and with increased emphasis on skills development." Over the last 30 years a substantial literature has been developing related to skill acquisition. In the 1980s and 90s the emphasis was on specifying the nature and range of skills which were variously labeled study skills, transferable skills, key skills and personal skills, and on debating the assumption that strategies, though developed independent of context, are transferable across tasks (Anderson, 1990; Nickerson, 1988; Ramsden, Beswick & Bowden, 1986; Weinstein & Mayer, 1986). The Dearing report (1997), by advocating that all graduates should 'learn how to learn', shifted the research emphasis in the UK back to the importance of developing strategies to learn effectively, otherwise known as metacognitive skill. Far from being novel, the importance of metacognition had been promulgated widely in the 1980s, for example by Martin and Ramsden (1987), Cloete and Shocet (1986), and Habeshaw, Habeshaw and Gibbs (1989). The core assumption underlying the resurgence of learning to learn is that an ability to take responsibility for directing and improving one's own learning, to becoming an independent learner, is a requisite for success in HE, and, by implication, for future employment.

This represents the antithesis of a narrow emphasis on the acquisition of knowledge by learners and on subject coverage by lecturers which research (Gibbs, 1992; Ramsden, 1992) has shown unequivocally pushes students towards a surface approach to learning. In the rapidly changing environment of the 21st century, where subject knowledge risks becoming defunct, it makes sense to promote the learning of reflective strategies to give students the confidence to become independent and life-long learners. Crucially this new drive to support student learning seeks to create a developmental and student-centered approach associated with promoting a deep approach to learning (Marton & Säljö, 1976).

Creating Supporting Learning Environments

Issues relating to the nature of the learning environments that are most conducive to effective support of learning, center on three facets:

- the type of skill-oriented outcomes which students are expected to learn;
- the kind of learning activities which are most likely to result in these desired outcomes being achieved, including who students learn with, and where students best learn; and
- the curriculum design structures at a program or modular level which offer the most effective environments.

Skill-Oriented Outcomes

Biggs (2003) posits three levels of skills that are required for students to become independent learners: generic study skills, study skills related to specific content, and metacognitive learning skills. He defines generic study skills as “ways of managing time and space” (2003, p. 93). These skills may be construed as including time-management, keeping track of deadlines, prioritizing, taking notes, developing effective presentation skills, referencing correctly, and the skills for effective e-learning. Study skills that relate to particular content include reading for meaning, not detail, underlining key words in passages, taking notes properly by capturing the main idea of several sentences in one’s own words, using concept maps to derive a major structure, composing essays according to preplanned structures, and using review and revisions. Metacognitive skills include “those self-management skills that are focused on what the learner does in new contexts” (Biggs, 2003, p. 94), and the development of strategies to solve problems, learn from experience, learn independently of a lecturer, self-evaluate and self-monitor. Developing the capability to learn from both

peer feedback and self-assessment are key components of metacognition.

Models of Learning Activities

Both Peters (2000) and Biggs (2003) posit learning activities that constitute an effective learning environment. Both suggest that self-study, which might be guided or self-directed, is a key component. Biggs also makes a distinction between teaching and learning activities that are *lecturer*-directed and those that are *peer*-directed, while Peters emphasizes the importance of taking part in teaching events at traditional universities. The latter are not just traditional lecturing and learning about subjects in depth, but include social intercourse, discussions in groups and classes, free academic discourse and informal talks with other students. While this group of activities includes interaction with peers, Peters’ analysis differs from Biggs in that the former does not prescribe activities that are directed by peers. The importance of peer/colleague interaction is widely recognized as an effective process focusing specifically on learning and reflection that happens when working on real problems (McGill & Brookbank, 2004). This is an emphasis that underpins various adaptations of action learning. According to Dewar and Sharp (2006) *action learning* takes place when a group of four to eight people share a problem or issues related to their professional practice. Generally used to foster professional development (Rayner, Chisholm, & Appelby, 2002; Stark, 2006), this is a cyclical process in which group members help others to raise questions, to reflect on new understanding, to take responsibility for their own learning, and to learn from the experience. While there is limited literature relating to the efficacy of this approach in full-time undergraduate programs, there is evidence to suggest (Wilson & Fowler, 2005) that the strategy has the potential to enhance critical thinking, to increase self-confidence and to develop communication skills, as well as to offer an effective process to solve problems encountered in the work place (Booth, Sutton, & Falzon, 2003; Johnson, 1998). Interestingly, action learning encompasses and combines both lecturer and peer directed learning in an iterative process where the sharing and critical review of experiences and solutions leads to the learner learning “new skills and attitudes by being steeped in the active involvement of the learning process” (Stark, 2006, p. 24).

Peters’ (2000) third category, studying in a digital environment, may include lecturer, peer and self-directed tasks including using networks for communication and for gleaning information, selecting and evaluating, and joint action learning in small and larger groups where problems that students have

devised are solved. Biggs (2003) thus focuses on *who* directs the learning while Peters is more concerned with the *location* and the *mode* of learning. The latter also highlights the importance of e-learning. None of the categories is mutually exclusive and each learning activity elicits a different kind of engagement from a learner (Biggs, 2003). Thus, it would seem that each should be incorporated into the curriculum of a modern university.

Finally, in drawing this discussion to a close, it is important to allude briefly to the role of self-regulated learning because a strong resonance exists between self-regulation theory and the findings of this study. In the last two decades considerable research has been undertaken, particularly in the US, on self-regulated learning (see Boekaerts & Niemivirta 2000). According to Zimmerman (1994), self-regulation refers to the extent to which students are metacognitively, motivationally and behaviorally active participants in their own learning. It is exemplified by effective time-management, orientation towards specific goals, mastery of learning materials and a sense of self-efficacy. A link has also been established between self-regulation and academic success (Deci, Ryan, & Williams, 1996), with self-regulated learners being found to demonstrate an ability to assess their own abilities and to be receptive and responsive to feedback on their own performance.

Curriculum Design Structures

A significant development in the structure of HE skills curricula is the introduction of 'blended' learning solutions to issues of design. Coined by Rosenberg (2001), blended learning has a range of different interpretations but constitutes a combination of: face-to-face sessions + e-learning + text-based learning materials. The mix can be in different proportions and both text-based and digital learning may occur within face-to-face interactions. Kaye (1992, p. 1) claims that a digital learning environment offers opportunities for "learning together apart", and Keegan (1995, p. 108) that it facilitates "teaching face-to-face at a distance." However the use of blended learning assumes that e-learning cannot replace face-to-face encounters fully because communication through the medium of technology is reduced and altered. It offers a compromise that some see as a stepping stone to the pre-eminence of e-learning as it "allows organizations to gradually move learners from traditional classrooms to e-learning in small steps, making change easier to accept" (Smedley, 2005, p. 81). Others perceive blended learning as offering the potential to overcome the limitations of both face-to-face and e-learning (Cotterell, 2001).

The introduction of blended learning is resulting in a reconceptualization of module design because "it is insufficient to merely modify traditional delivery methods to accommodate this new learning approach" (Smedley, 2005, p. 81). A prime focus of this rethinking is a return to former debates about the effectiveness of free standing and integrated approaches to supporting learning. Cotterell (2001, p. 41) argues that in "trying to address the study needs of students, universities have tended to move towards establishing either specialist centres for study support outside of the department, or, increasingly, skills modules within the curriculum." The provision of learning support located outside formal teaching and to which students who are deemed to require additional support are directed by university lecturers, smacks of a deficit model that runs counter to the tenets of the widening participation agenda and fails to recognize that all students have learning needs. This model has been superseded by an inclusive, developmental approach, akin to the social model of disability, which recognizes that within the academic environment, learners face barriers, behaviors, and attitudes which inhibit their learning and that need to be addressed. Cotterell (2001, p. 43) posits a model where "additional support, skills modules or peer support are part of a multifaceted and integrated approach." The key features of this developmental model are that:

- all students can improve their learning (supportive learning environments thus need to be positive and inclusive);
- skills are not regarded as discrete entities but are developed over time as part of a broader process of personal and academic development;
- students become increasingly responsible for their own learning within an environment of constructive feedback and guidance;
- delivery is student-focused;
- teaching contexts adapt to learner intakes; and
- there is dispersed responsibility such that learning development and skills enhancement are the responsibility of all teaching staff, although there will be different scales of involvement (Cotterell, 2001, p. 45).

Cotterell's (2001) approach suggests that all skills learning should be delivered within subjects. In this way learners can relate strategies to the program outcomes and to specific subject learning tasks. This is a perspective that is reflected widely in extant literature (Chalmers & Fuller, 1996; Hadwin & Winne, 1996; Norton & Crowley, 1995; Ramsden, 2003; Ramsden, Beswick & Bowden, 1986; Wade & Reynolds, 1989).

Within-subject skill development has been interpreted variously as incorporating study skills as a discrete module into a subject program, integrating them loosely within subject modules, and embedding skills fully into modules to the extent that all lecturers in HE accept and exercise a responsibility to help students to improve their learning. It would seem that these different orientations can be positioned along a continuum ranging from a reductionist-oriented pole, where study skills are taught in free standing modules, to an embedded-oriented pole where learning is fully integrated, supported and fully permeates a program of study. While there is a dearth of empirical research on embedding learning support in HE, recent research at the National Research and Development Centre for Adult Literacy and Basic Skills shows that literacy skills are more readily achieved in fully embedded courses (Casey, 2006).

This literature on the definitions of study skills, the learning activities which best support the teaching of skills and the models of curriculum design deserve further investigation and form the point of departure for this article. The context of this study is part of a Centre for Excellence in Teaching and Learning (CETL) in the School of Education of a post-1992 university. Learning for Success (LFS), the focus of the study, is a study skills module which is integrated into the programs of students studying for first degrees (a bachelor's degree is awarded after three successful years of full-time study) in early childhood studies, education studies, conductive education and special needs and inclusion studies, and for foundation degrees (vocational-oriented awards that are equivalent to two thirds of a bachelor's degree) in early childhood studies. The module seeks to promote learning in three categories of study skills that align with those posited by Biggs (2003). The outcomes and the context of study for each of these categories (see Appendix A) provide the framework for learning over the 26 weeks of the module.

For the past five years the pass rate in this module has been very high, a trend which has been maintained, since 2003/4, through the widening of participation to include foundation degree students. The government funding for the CETL afforded university lecturers the opportunity to explore the efficacy of this year long module which forms 25% of the total study in the first year of the degree program. The research sought to elicit students' perceptions in relation to the following question:

To what extent do the module outcomes enhance or develop students' generic study skills, study skills related to their course, and metacognitive skills?

Method

This case study was undertaken from a phenomenographic perspective (Marton, 1981; Marton, 1986; Marton & Booth 1997; Marton, Hounsell, & Entwistle, 1984) of students' perceptions of their experience on the Learning for Success module. Phenomenography explores how concepts, principles and phenomena are perceived, experienced and understood in specific contexts and is thus concerned with the direct exploration of experiences (Marton, Hounsell, & Entwistle, 1984). It is an approach which is used to tackle "questions of relevance to learning and understanding in an educational setting" (Marton & Booth, 1997, p. 111) and to describe "the limited number of qualitatively different ways in ways in which we experience phenomena and present this variation in terms of logically related categories of description" (Martin, Trigwell, Prosser, & Ramsden, 2003, p. 249). In this study this means identifying the qualitative *variation* in the experience of learning study skills by first year undergraduate students and describing this variation in terms of categories. This is a second order perspective in which the world is described by individual learners through reflective accounts of their learning on the module.

In total, 205 students studied this module in the academic year 2005–2006. All students were asked if they wished to take part in the study; this was a self-selection method whereby students were asked to sign a statement agreeing to participate. There were no penalties for non-participation and 73 students initially agreed to take part. Of this group 62 students submitted reflective logs, 18 of which were also respondents in one of three focus groups.

The principle data collection instruments were: (a) a SWOT (strengths, weaknesses, opportunities and threats) analysis of the students in terms of the skills to be developed in the module; (b) a written reflective account of students' personal development throughout the 26 weeks of the module based on the original SWOT analysis; and (c) end of module written student evaluations. In order to provide some direction to students, tutors modelled a section of how a reflective account might be written and also provided examples of completed reflective accounts from previous student cohorts.

The reflective accounts provided an appraisal of students' perceptions of their achievement of the learning outcomes of the module (see Appendix A). In addition, students also considered how the skills acquired on the module enabled them to continue with their studies in a more effective way. In the reflective account, students were invited to discuss in a constructive and analytical manner, any areas that they

felt were not beneficial to their learning. This research study also used focus groups to bring together participants who shared the same experience, but not necessarily the same interpretation and perspective, to provide a source of data to validate the findings from the reflective accounts. Three focus group interviews were conducted; two comprised mature students on a part-time foundation degree and the third comprised five first year undergraduate students on specialist degree programs. The group facilitator for all three groups was an academic who did not teach on the module but who was familiar with first year HE work.

The authors of the article and the research assistant arrived at the categories of responses to the experience of the module independently. Initially the principle researcher and the research assistant analyzed the data independently and identified variation in the categories relating to the learning of each type of skill. The two researchers and the assistant then shared their analyses and consensus was reached. Verbatim quotations were then selected to describe the essence of the variation in each category rather than a rich description of students' experience. Respondents cited from the reflective accounts are identified by their initials and those from the focus groups alphabetically from A-X.

Results and Discussion

The results are organized into qualitatively distinct categories which describe students' responses to the learning of generic, subject related and metacognitive skills through the experience of the module. The categories are first described, and then verbatim quotations from the focus groups and the reflective accounts which illustrate key aspects of each category are presented. The intention is to provide an account of the essence of each category. Thus no single quotation is intended to describe fully the category, rather quotations which typify a category have been chosen and grouped together. In this way the distinctive differences between categories emerge.

Generic Study Skills (see Appendix A)

Three categories of variation in response in relation to the learning of generic study skills (see Appendix A) were identified, (a) students becoming more *confident* in their ability to perform the skills, (b) students gaining more *expertise* in the range and scope of skills they can readily perform, and (c) students *not engaging* with the learning of generic study skills. The first two categories are interrelated, but the third category is independent.

Growth in Confidence

This category focuses on changes in self-perceptions leading to growth in confidence in students who, prior to the outset of the module, felt inadequate, nervous and isolated or out of their depth in an HE environment. A significant number of students in this category were mature students who had not been in a formal learning environment for some time. Participant C and NH attribute this to being able to make a valued contribution, JR gains confidence from being able to complete tasks successfully, whilst NH comments on her increased ability to communicate. The following quotations illustrate facets of the category:

I'm really quite shy but doing the group work for presentations and in the sessions has given me a lot more confidence...I feel I can say something and not be thought of as...you know...stupid or something (Participant C).

My weakness in this area [IT] had made me feel foolish but I asked for support and guidance. I observed how to complete the task and so was then able to go away and successfully complete it myself...this achievement was a milestone for me (JR).

On many occasions I have had to work as part of a team, often with people I did not know. This, at first, proved difficult to me, as I lack confidence and am a quiet person. As the year progressed, I felt myself becoming more confident, not just at partaking in, but contributing to the presentation. This is also apparent to me out of university. My self-belief has improved greatly and I am able to communicate with people a lot better (NH).

Growth in Expertise.

The reflective accounts provided wide-ranging evidence of expertise in the range of generic study skills outlined in Appendix A that students acquired over the 26 weeks of the module sessions. The accounts suggest that for those who were not computer-literate prior to studying the module the development of information technology (IT) skills, including using PowerPoint and a virtual learning environment, was highly valued.

Among the remaining generic study skills the acquisition of expertise relating to presentation skills, working in teams and time-management was reported by students. LM, SF and Participant C each comment on the IT skills that they have acquired through the module experience. AH comments on the presentation

and communications skills learnt, whereas HD and CC illustrate time-management strategies that they have adopted. JR's comments describe progress in working in teams successfully. There was insufficient evidence to report the development of skills relating to the application of numerical analysis to data. The following quotations illustrate this category:

Many of my weaknesses are now less significant, particularly my IT skills. Before embarking on this course I had very limited computer knowledge and felt this may hinder my progress. Fortunately I am rapidly increasing my ability to use a computer and it has transformed my attitude to the new technology it brings (LM).

I have even been brave enough to deliver sessions in my workplace using an interactive whiteboard, something which would have been unthinkable before I undertook this course (SF).

For me the IT has been the best – I couldn't use a computer before I was... you know a bit scared of them but now I use mine all the time at home and at work I can put some of the children's work (Participant C).

When I have given presentations I have changed from when I first started this module. My body language and voice were poor and I struggled to connect with the audience I was speaking to...when I gave my last presentation I spoke more clearly and kept the right body language and eye contact (AH).

The time-management pack really helped me to organise my time efficiently suggesting what areas I was having problems managing. ... (The) activities helped me to overcome the problems I had with time-management. They allowed me to plan ahead and made me realise that I had a lot of disposable time which I could use to plan extra study time. In my opinion conscientious time-management has been advantageous to my university course and I have also learnt that I cannot plan for unexpected events and must deal with the most important things first allowing me time to relax and study at the same time (HD).

I now try and prioritise my work and no longer consider myself to be a procrastinator as I have set times to do my work and there is no longer a need for me to put things off... I will definitely be using this experience to help me through the rest of my time at university (CC).

In group and team activities I have learnt to participate more this means taking far more risks by voicing my ideas and opinions. I am now more accepting of other students' views and I hope this makes them accept mine more (JR).

Lack of Engagement

The lack of engagement with the module outcomes and learning experience represented by this category was an atypical response to the learning experience of the module. The contributors to this category may be divided into three sub-categories, (a) confident mature students who felt that their life experiences had already provided them with sufficient opportunities to develop the generic study skills, (b) traditional students who had recently left school or a tertiary education institution which had equipped them with a wide range of skills, and (c) students who did not perceive the generic skills teaching as useful/relevant. Participants J and N and Ds all failed to engage with the module as a whole because they perceived that there was nothing new on offer, whilst JGR, AH and LT lacked engagement in learning the specific skills of using web blogs and memory skills, finding them superfluous. To illustrate:

[web blogs] I can't see when I would ever really use them. (JGR).

I don't use web blogs in any my modules or my assignments (AH).

And of memory skills, "I did not feel it was useful at the time of doing it (LT).

For me this module has been a waste of time...I haven't enjoyed it all. I got A level IT so there was nothing there for me...I've been working fulltime for the last five years and had to do presentations...nothing there either...I suppose the referencing might come in handy (Participant J).

It's been alright but we had a lot of study skills at sixth form college so I knew about a lot of it...Harvard referencing is useful but tutors do it differently !! (Participant N).

There are many of us who have just finished secondary and college education and are familiar with the key skills that are taught as part of the curriculum. As a result of this, I personally, found the majority of the Learning for Success lectures, tedious, long-winded, and unchallenging (DS).

Subject-Related Skills

Analysis of the module program indicates that the proportion of the module time devoted to the development of subject-related skills (see Appendix A) was less than that for the generic study and metacognitive skills. This is reflected in the responses from students in each of the three focus groups where there was consensus in relation to the need for more contact time devoted to the development of both reading for meaning skills and research skills. Conversely, students expressed a high degree of satisfaction in relation to the use of mind-maps.

Three categories of variation in response in relation to the learning of subject-related skills were identified, (a) students not engaging with the learning to promote subject-related skills; (b) students believing that their ability to be critical had improved through the acquisition of these skills; and (c) students applying the skills to other modules in the program.

The second two categories were interrelated, but the first and third categories were independent. Those who lacked engagement with learning in relation to these skills, failed to comment on their applicability to their subject study. This is not surprising given that those students in this category failed to achieve the module outcomes and in consequence were not in a position to apply these skills to their subject learning.

Lack of Successful Engagement

Those who contributed to this category can be divided into two subcategories, (a) those who had difficulty in engaging with the task at hand, and (b) those who failed to engage with the task successfully because they found it irrelevant to their studies. Participants D and P and AM found reading and note-taking skills difficult to acquire. For participant P and AM this perception was linked to the belief that insufficient expert lecturer time had been devoted to the development of these skills. TS and PW reported that their learning of research skills had been compromised by their belief that it was not relevant at this point in their program. Similarly, the negative attitude towards the use of blogs to develop writing skills illustrated by Participant O, emanated from a belief that the language register developed through the blog did not accord with that which was required in assignments. The following comments exemplify this category:

There was an assumption of certain research skills but in reality there was a gap. For example, what to really look for if you are reading something. (Participant D)

I'm still not always sure what we have to find in the readings.... perhaps we could have had more time to explore this in the lesson? (Participant P)

I found the work on note-taking daunting and don't really think I have made much progress more time on this would have helped because it could be useful (AM).

Questionnaire design- found this not applicable, I didn't know how it was appropriate (TS).

I cannot see the point of learning how to take notes I will learn this when I need to (PW)

I'm not sure if the blogs helped at all with this (academic writing) as the lecturer said we could use the blogs to write how and what we wanted but when it came to the assignments then you have to write differently. (Participant O)

Growth in Reading and Writing Skill

Each respondent in this category engaged successfully with the tasks designed to promote the development of reading and writing skills. SF, ADK and JG linked reading and writing skills and ADK and CB made the connection between writing and thinking critically. To demonstrate:

I think it is a good module that gives an all-round approach to academic reading writing and personal development. It is hard for many students to see its relevance at times but I feel this is becomes more & more apparent as the assignment draws closer (SF).

While I've been reading I've also been taking notes about what the author is saying but writing it down in a way that I understand what is being said...Writing has helped me gain much more knowledge of what I've been reading; it has helped me understand the meaning of an argument and criticism (ADK).

I learnt how to think more critically, so when I have to write essays I now try to think of other perspectives, which means I am developing my critical thinking skills (CB).

For me the reading and writing activities were the most interesting and informative. I enjoyed and learnt the most from listening to other people's ideas and thoughts and learning how they went about using what they read in their essays (JG).

Growth in Skill Transfer

Students in this category reported variously on the applicability of the skills learned in the module to current and future studies. Research skills were widely seen as having relevance in future study in years two and three of the three year program rather than in the first year, whereas mind-maps and the work on planning were believed to have immediate applicability in relation to subject modules; a point of view expressed frequently by students in this category. JG, PB and PW each refer to the potential for transferring what they have learned in the module to work in assignments in their subject studies. To illustrate:

Researching skills such as how to conduct a questionnaire will be useful for future university work especially in year three (CB).

I found that by writing about the experiences I needed to reflect upon, as part of this course, I started to reflect in other areas (JP).

Mind-maps are responsible for revolutionising the way I plan all my assignments (JG).

I have developed as a learner by using this way of note-taking (mind-maps) because it makes me think more about the challenge ahead and what I should put in my assignments (PB).

After reading round the area of improving memory I decided to test it on myself. I used (Buzan's) mind mapping method to plan some of my other assignments and found this method a very productive way of planning my work (PW).

Metacognitive Skills

Two categories have been identified that describe the variation in how the learning of the metacognitive skills detailed in Appendix A were experienced by students on the module, specifically: (a) students believing that their self-reflective capability had improved; and (b) students believing they had changed as a learner. The SWOT analysis at the beginning of the module together with students' end of module reflective accounts based on their original SWOT analysis, and their end of module evaluation each provided a stimulus for critical self-analysis that permeates the module. There is a clear emphasis in this category on the 'how' rather than the 'what' of learning, and on the "connectedness between the action that students undertake in relation to the module outcomes and in response to (a) taught sessions, (b) directed learning, and (c) assessment régimes" Allan, (1997, p. 217). For

example, Participant X stated, "I returned to study as a mature student and my previous experiences of education have been with the emphasis on what I learned rather than how I learned, this module has allowed me to examine the techniques I have used in the past."

These two categories are structurally more complex than the categories relating to the experience of generic and subject-specific skills. They are perceived as being hierarchical because *Changing as a Person* subsumes *Growth in Self-Reflection*; in other words, those who change as learners also report becoming more self-reflective.

Growth in Self-Reflection

This category is distinguished by a developmental process of self-reflection that is begins with a focus on prior experiences of learning. Both ST and LP utilize this reflection on their past achievement to form the base line for future action planning, whilst JP focuses on the way in which reflection on her previous learning has helped her to develop new thoughts and strategies. Implicit in each of the descriptions is the conception of learning as a cyclical process. The following quotations exhibit this category:

It was helpful to reflect on my past experiences as a learner and to establish what I hoped to achieve during my studies. I have since returned to my analysis to reflect on it and have achieved what I hoped I would (ST).

In order to learn from past experiences we need to remember what has happened previously. The information gained from this reflection encourages new thoughts and helps us to develop different strategies, which result in us adopting a different, more constructive approach the next time. Of course the stages of experiential learning are not linear but are part of a continuing cyclical process that enables us to develop our learning (JP).

Actively and consciously I have found myself using reflection to plan strategies for my future learning and development in other areas of my studies. I believe that reflecting has been a fundamental, positive component of my learning processes and achievements to date...the ability to reflect will continue to inform my future learning in order to achieve my full potential (LP)

Changing as a Person

As with *Growth in Self-Reflection*, the theme of reflection runs through each of the illustrations. But the

essence of this category is the allusion to fundamental change that has taken place within the student. For KW the notion of change is implicit, she refers to the overcoming of barriers that have been impeding her progress, whereas GR refers to how change can be brought about. Participant Q and SF refer to seeing themselves differently or developing as a person. To illustrate:

On reflecting on the LFS module as a whole I must add that I have learnt a variation of things about myself and the subject base. At the onset of the course I did a SWOT analysis. My strengths and opportunities lists were minimal and I have since completed a new analysis which is in fact much wider and more assertive. In my first analysis I identified that I had five considered weaknesses and threats regarding life as a student. I now consider these issues as my inner fears as opposed to genuine barriers to my future. Essentially I may always have inner fears, but it is the way I deal with them that is important (KW).

The process of reflection puts emphasis on the whole HE learning experience and how one can make changes, learn from mistakes and appreciate one's strengths. By continuing to reflect upon my own learning experiences I have a clearer picture of what I can achieve. By using all of the strategies I can continue to learn how to become more successful in academic study (GR).

When you put down the strengths and weaknesses well... it is hard at first but then it helps you see yourself differently (Participant Q).

I think that the main thing that I will take away from this module is not on the programme itself, it is the development of me as a person. Looking back at my SWOT analysis, I had very poor self-esteem. I always thought that others were better than me... If I take nothing else away from this course, the boost to my self-esteem will have made it all worthwhile (SF).

The Relationship Between the Categories of Experience of Learning

Whilst it might be inferred that the acquisition of metacognitive and subject-related skills should result in greater self-confidence, this is not apparent in the data. Students do, however, report a feeling of greater confidence as a result of the successful acquisition of the generic skills taught in the module. Within the category of those who described changing as a person some allude to changes in self-esteem and

assertiveness, both of which may be linked to the development of confidence. Confidence, however, does not derive from changing as a person or from the honing of metacognitive skills; rather, the perception of having changed as a person emanates *from* the development of other skills.

Generic skills are concrete measurable skills which might be described as the 'what' of learning in contrast to metacognitive and subject-related skills which relate to the process or the 'how' of learning. A facet of this is the development of criticality, which is identified directly in relation to subject skills only. However, it appears that learners have applied their increasing ability to thinking critically beyond their subject to critical self-awareness of their ability to learn how to learn.

Growth in skill transfer was identified by respondents in relation only to the development of subject skills. That said, the lack of evidence in respect to the transferability of generic and metacognitive skills does not preclude these skills from being transferable, rather it suggests that the data in relation to the extent of transferability are incomplete.

Variance in the level of engagement was evidenced in relation to both the learning of generic and subject-related skills, but not in relation to the development of metacognition by any of the 62 respondents. A lack of engagement is attributed to three factors (a) perceptions that the skills were too challenging, (b) a perception that the skills were irrelevant to successful study, and (c) a perception that the skills were irrelevant because they had been acquired prior to studying the module. The perception of relevance is thus a key element of engagement.

Conclusion and Recommendations

A strong theme in the different experiences of learning presented here is variance in engagement in learning. The technique of using a SWOT analysis at the start of the module, together with a range of blended activities to promote frequent self-assessment of learning throughout the 26 weeks, were deemed by respondents to be appropriate. Learning in relation to generic and subject related skills and metacognition was lecturer, peer and self-directed and took was in line with both Biggs' (2003) and Peters' (2000) criteria relating to location, mode and the originators of learning. Given that a similar blend of approaches was also used in relation to the teaching of each of the skills; it appears that the method of teaching and learning is not here a decisive factor in explaining inconsistencies between the level of respondents' engagement.

However, the spread in the level of engagement described in this article begs the question as to whether

integrating a skills module into a program study offers the most effective way to create a supportive learning environment. Given that the module constitutes 25% of the year one undergraduate program, any variance in engagement threatens to compromise the achievement of high retention and progression rate for all students. Although the learning of generic and subject skills in an integrated program can be achieved by many students, the findings of this research suggest that the quest to offer and include all students means rethinking the teaching of both generic and subject-related study skills.

The findings in relation to the teaching of subject-related skills in this research suggest that there is insufficient emphasis on skills in the module. In order for all students to achieve a high level of competency there needs to be more opportunities for the development of these skills. The dislocation between the development of these skills and the context in which they are applied appears to preclude their effective development; suggesting that the embedding of these skills within subject modules over a three-year program might be efficacious.

Conclusions relating to the learning of generic and metacognitive skills are more equivocal. While the findings suggest that a module devoted to generic study skills should not be core for all students, there is ample evidence to suggest that a shorter option module carrying fewer credits might offer a valuable learning experience for some students. The results suggest that the embedding of these skills within subject modules, although possible, might not allow the flexibility of access based on previous experiences, which is required.

In relation to metacognitive skills, notwithstanding evidence suggesting that promoting the learning of these skills in a module integrated into a program is effective, the learning of these skills might be equally effective were they embedded into subject teaching. Given that this research is advocating embedding the teaching of subject-related skills, the development of metacognition within subject modules would offer a supportive context spanning the three years of a degree program.

One caveat remains: the development of sophisticated learning environments at modular level inevitably demands significant commitment from all university lecturers, some of whom may hitherto have regarded their role rather more narrowly as subject lecturer. Inevitably this will require the provision and use of staff development opportunities.

In summary, this article has investigated the range of perceptions of first year students in relation to the acquisition of generic, subject-related and metacognitive study skills. A range of perceptions was found which suggest that the integration of a module

within a program of study is not the most effective way to promote these skills for all students. This raises the possibility that if a more inclusive environment, which engages all learners, is to be created, then the teaching of subject-related and metacognitive skills needs to be embedded in subject teaching and learning. Further research is needed to posit models of acquiring generic study skills and to establish if the embedding of skills into subject modules poses an appropriate solution.

References

- Allan, J. (1999). Learning outcome-led design: A model to promote narrow horizons or to emancipate the learner? In C. Rust (Ed.), *Improving student learning outcomes* (pp. 60-70). Oxford: Oxford Centre for Staff Development.
- Anderson, D. (1990). *The results of a semester of teaching learning skills to tertiary students with low TE scores*. Paper presented to 8th Australasian Learning and Language Conference: Queensland University of Technology, 11-13 July.
- Biggs, J. (2003). *Teaching for quality learning at university*. Maidenhead: SRHE.
- Boekaerts, M., & Niemivirta, M. (2000). Self-regulated learning: Finding a balance between learning goals and ego-protective goals. In M. Boekaerts, P. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 417-450). San Diego: Academic Press.
- Booth, A., Sutton, A., & Falzon, L. (2003). Working together to solve: Supporting projects through action research. *Health Information and Libraries Journal*, 20 (4), 225-231.
- Casey, H. (2006). Teacher collaboration best for embedding. Retrieved August 14, 2006, from the National Research and Development Centre for Adult Literacy and Basic Skills, http://www.nrdc.org.uk/news_details.asp?NewsID=223.
- Chalmers, D., & Fuller, R. (1996). *Teaching for learning at university*. London: Kogan Page.
- Cloete, N., & Shocet, I. (1986). Alternatives to the behaviourist technicist conception of study skills. *Higher Education*, 15, 247-258.
- Cotterell, S. (2001). *Teaching study skills and supporting learning*. Basingstoke: Palgrave.
- Dearing, R. (1997). *Higher education in the learning society. Report of the National Committee of Inquiry into Higher Education*. London: HMSO.
- Deci, E., Ryan, R., & Williams, G. (1996). Need satisfaction and the self-regulation of learning. *Learning and Individual Differences*, 8(3), 165-183.
- Dewar, B., & Sharp, C. (2006). Using evidence: How action learning can support individual and

- organisational learning through action research. *Educational Action Research*, 14(2), 219-237.
- Gibbs, G. (1992). *Improving the quality of student learning*. Bristol: Technical Educational Services.
- Habeshaw, T., Habeshaw, S., & Gibbs, G. (1987). *53 interesting ways of helping your students to study*. Bristol: Technical & Educational Services.
- Hadwin, A. F., & Winne, P.H. (1996). Study strategies have meagre support: A review with recommendations for implementation. *Journal of Higher Education*, 67(6), 1-17.
- Hartley, P., Woods, A., & Pill, M. (2005). *Enhancing teaching in higher education*. London: Routledge.
- HEFCE. (2006). *HEFCE strategic plan 2006-2011*. London: HEFCE.
- Honey, P. (n.d.). *A declaration on learning*. Retrieved August 14 2006, from <http://www.peterhoney.com/content/BuyersGuide-TrainerStylesQuestionnaire.html>.
- Johnson, C. (1998). The essential principles of action learning. *Journal of Workplace Learning*, 10(6/7), 296-300.
- Kaye, A. R. (1992). Learning together apart. In A. R. Kaye (Ed.), *Collaborative learning through computer conferencing* (pp.1-24). Berlin: Springer.
- Keegan, D. (1995). Teaching and learning by satellite in European virtual classrooms. In F. Lockwood (Ed.), *Open and distance learning today* (pp.108-118). London: Kogan Page.
- Martin, E., & Ramsden, P. (1987). Learning skills or skills in learning? In T. T. E. Richardson, M.W. Eysenck, & D. W. Piper (Eds.), *Student learning: Research in cognitive psychology*. Milton Keynes: Open University Press.
- Martin, E., Trigwell, K., Prosser, M., & Ramsden, P. (2003). Variation in the experience of leadership of teaching in higher education. *Studies in Higher Education*, 28(3), 247-259.
- Marton, F., & Säljö, R. (1976). On qualitative differences in learning II: Outcome and process. *British Journal of Educational Psychology*, 46, 4-11.
- Marton, F. (1981). Phenomenography – describing conceptions of the world about us. *Instructional Science*, 10, 177-200.
- Marton, F., & Booth, S. (1997). *Learning and Awareness*. New York: Lawrence Erlbaum.
- Marton, F., Hounsell, D., & Entwistle, N. (Eds.). (1984). *The experience of learning*. Edinburgh: Scottish Educational Press.
- Marton, F., Dall'Alba, G., & Beaty, E. (1992). Conceptions of learning. *International Journal of Educational Research*, 19, 277-300.
- McGill, I., & Brookbank, A. (2004). *The action learning handbook*. London: RoutledgeFalmer.
- Nickerson, R. (1988). On improving thinking through instruction. In E. Z. Rothkopf (Ed.), *Review of research in education* (pp. 3-58). Washington: American Educational Association.
- Norton, L.S., & Crowley, C. M. (1995). Can students be helped to learn how to learn? An evaluation of approaches to a learning programme for first year degree students. *Higher Education*, 29, 307-328.
- PebblePAD. (n.d.) Retrieved June 1, 2007, from <http://www.pebblelearning.co.uk/>.
- Peters, O. (2000). The transformation of the university into an institution of independent learning. In T. Evans & D. Nation (Eds.), *Changing university teaching* (pp. 10-23). London: Kogan Page.
- Ramsden, P. (2003). *Learning to teach in higher education*. London: RoutledgeFalmer.
- Ramsden, P., Beswick, D., & Bowden, J. (1986). Effects of learning skills interventions on first year university students' learning. *Human Learning*, 5, 151-164.
- Rayner, D., Chisholm, H., & Appelby, H. (2002). Developing leadership through action learning sets. *Nursing Standard*, 16(29), 37-39.
- Rosenberg, M. (2001). *E-learning strategies for delivering knowledge in the digital age*. New York: McGraw-Hill.
- Smedley, J. (2005). Working with blended learning. In P. Hartley, A. Woods, & M. Pill (Eds.), *Enhancing teaching in higher education* (pp. 80-92). London: Routledge.
- Stark, S. (2006). Using action learning for professional development. *Educational Action Research*. 14(1), 23-43.
- Wade, S. E., & Reynolds, R. E. (1989). Developing metacognitive awareness. *Journal of Reading*, 38(1), 6-14.
- Weinstein, C., & Mayer, R. (1986). The teaching of learning strategies. In M. C. Wintrock (Ed.), *Handbook of research in teaching* (pp. 315-327). New York: Macmillan.
- Wilson, K., & Fowler, J. (2005). Assessing the impact of learning environments on students' approaches to learning: Comparing conventional and action learning designs. *Assessment and Evaluation in Higher Education*, 30(1), 87-101.
- Zimmerman, B. (1994). Dimension of academic self-regulation: A conceptual framework for education. In D. Schunk & B. Zimmermann (Eds.), *Self-regulation of learning and performance: Issues and educational applications*. Hillsdale, NJ: Lawrence Erlbaum.

JO ALLAN is Associate Dean responsible for research, innovation in learning and teaching and postgraduate study at the University of Wolverhampton, UK. Jo's research focuses on improving the quality of learning and teaching in HE. Address for correspondence: Jo Allan, School of Education, Walsall Campus, University of Wolverhampton, UK. Tel: +44 01902 323251; email: j.l.allan@wlv.ac.uk

KAREN CLARKE is Principal Lecturer responsible for curriculum development in the degrees of Early Childhood Studies, Special Needs and Inclusion and

Education Studies at the University of Wolverhampton. Her research interests include different aspects of teaching and learning in higher education and children's language and literacy development. Address for correspondence: Karen Clarke, School of Education, Walsall Campus, University of Wolverhampton, UK. Tel: +44 01902 323023; email: k.clarke@wlv.ac.uk

Acknowledgements

The authors thank Richard Ralph for his research assistance.

Appendix A

The Outcomes and the Context and Scope of the Learning for Success Module

Generic Study Skills	Context and Scope
Communicate effectively.	Formal group presentation using appropriate style and supported with visual aids and handouts.
Apply numerical analysis to data.	Gathering, analyzing and presenting quantitative data. Basic Excel® techniques to assist data analysis and presentation.
Make effective use of information technology to promote own learning.	Use OPAC, BIDS to locate source materials. Use the Wolverhampton On Line Learning Framework (WOLF) to access module materials and take part in on-line discussion forums. Use appropriate software to assist presentation techniques during summative assessment.
Work effectively with others.	Work as an effective member of a co-operative group for the purpose of summative presentations and formative library tasks.
Subject-Related skills	Context and Scope
Apply models for the development of skills of reading, note-taking, writing and planning to their own program in H.E.	Reading for Meaning and Understanding, note-taking, essay planning and writing.
Plan and carry out a small-scale research study using and combining quantitative and qualitative techniques as appropriate.	Quantitative and qualitative research principles. Designing effective data collection instruments. Data collection, analysis and presentation techniques.
Metacognitive Skills	Context and Scope
Improve own learning performance.	Self-motivation and resourcefulness - demonstrate decision-making skills. Assess progress, monitor, review and reflect upon own performance and achievements
Solve problems	Work co-operatively individually and in a small group. Develop problem- solving skills in a variety of contexts and evaluate their effectiveness.
Apply theoretical knowledge and the results of assessment and analysis to planning for the development of own study skills, time-management skills, stress management skills and personal organisation.	Theories of learning: Behaviorist, Cognitivist, Goal setting, objectives and strategies for them, reflective self-analysis.
Assess strengths and weaknesses in relation to learning styles, approaches to study, time-management, stress management and personal organisation.	Study skills, approaches to study, personality inventories and questionnaires, C.V.s, portfolios, time logs.