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"in the future..."

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INTRODUCTION

The increased intensity of global competition in the higher education "market-place" of today is forcing all Australian universities to think more strategically about how to position themselves in the new educational environment of tomorrow. An integral component of university life and certainly a key factor in how universities promote themselves, particularly internationally, is the provision of student academic support.

Most Australian universities take an institutional responsibility to provide academic support for all their students, but this essential academic development is most often viewed as being 'remedial', in that the perceived role is to assist the 'less able' student (academically speaking), students with English as a second language, students considered 'at risk' or students in need of some form of academic counselling.
The tertiary higher education sector as a whole has not yet adjusted its collective thinking on student academic support for the new higher education environment, in that increasingly a more important facet of the function of student academic support is in the development of the key academic skills and strategies, which are the cornerstone of higher education, namely, those graduate attributes that are a prerequisite to life-long learning. These include:

- Literacy and numeracy
- The capacity for critical thinking and analytical thinking, including problem solving
- Information literacy and appropriate research skills
- Written and oral communication in a professional context
- Self-management of time, resources and tasks
- The ability to engage in independent and reflective learning

With the internationalisation of the university curriculum and an ever increasing enrolment of international students at all Australian universities, student academic support centres may and perhaps should have a key role in actualizing our universities' goals of providing an academic environment conducive to all students attaining their academic potential. This requires an integrated approach in the commitment to equity, diversity and cultural inclusivity, where all stakeholders play an equally important role. Through the provision of a comprehensive range of academic support for all students, such academic support centres enhance the possibility that all universities are able to realize their academic mission statements.

The major aim of the LAS 2003 Conference was to provide a forum to bring together staff who support student learning in higher education and academic staff from the disciplines concerned with improving their practice. The title of this conference,
"In the future..." was intended to help focus our common concerns about our roles in an uncertain future. It is an opportunity to discuss: how research informs our practice; what research is being done to evaluate or test existing theories on student learning; transition programs; English language support; and current best practice. It is also an opportunity to discuss new or emerging

educational ideas and theories that might spring from practical experience. The conference was also an opportunity for staff in the "inter-discipline" of student academic support to discuss future directions for LAS staff and centres, in terms of the four broad themes of the conference:

- Challenges
- Initiatives
- Evaluations
- Consequences

The 2003 LAS conference attracted over 100 delegates from across the higher education sectors of Australia and New Zealand, with 80 conference presentations over the two days. The conference organizing committee received 33 manuscripts to be considered for publication, each of which was reviewed by two independent reviewers. This volume represents those manuscripts considered by the reviewers and the editors to be of sufficient academic merit to warrant publication.

The three keynote presentations each focused on one of the key challenges facing LAS centres specifically and all Australian universities in general. Simone Volet began the conference with an address that focused on the challenges of internationalization of Australian higher education, in particular aspects of the curriculum and the development of the skills of critical reflection. Mike Lawson addressed the issue of what students really know about their own learning and how to maximize their learning potential. Finally, Peter Zeegers looked at the challenges facing student academic support centres in terms of their role and status, both now and in the future.

The theme of the future role of LAS centres was a topic covered by a number of the conference presentations as exemplified by the first 5 papers published here, which cover concepts ranging from teaching partnerships, learning engagement, staff classification to the development of the genealogy of knowledge for the recognition of student academic support as a 'discipline' or perhaps more correctly a 'multi-discipline' centre.
The transition of students into higher education, particularly international students and 'non-traditional' students was a theme covered by a number of presentations.
The failure or inability of commencing students to adjust to the new academic, social and other requirements of them as independent learners can lead to serious study problems, which may affect the student, the institution and society as a whole. This then leads into the study of student attrition and the factors that determine whether or not students consider withdrawing from their studies, and ultimately to the decision to do so. The development of more effective means of supporting students in their academic pursuits was a theme explored by a number of authors with the papers included in this volume covering such diverse fields as mentoring systems, on-line learning, the support of students with maths anxiousness and the use of the Vygotsky theory of the 'zone of proximal development' (ZPD) to define the difference between activities that students can accomplish on their own and what they are able to accomplish with the help of expert others.

LAS 2003: PEER REVIEWERS

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Challenges of internationalisation: Enhancing intercultural competence and skills for critical reflection on the situated and non-neutral nature of knowledge

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ABSTRACT This paper examines the overall educational, social and cultural aims of internationalisation and internationalised curricula. Two specific goals expected to enrich graduates' generic attributes are identified: Intercultural competence and skills for critical reflection on the situated and non-neutral nature of knowledge. The challenges of fostering intercultural competence embedded within the curriculum are discussed first, with reference to research on group work in culturally diverse groups. The issues of cultural-emotional connectedness and language proficiency are identified as major inhibiting factors for the success of such activities. Enhancing students' skills for critical reflection on the situated and non-neutral nature of knowledge is discussed next. A set of learning objectives and principles for designing internationalised curricula that promote such skills is outlined. The significance of utilising internationalisation to enhance the quality of higher education is stressed.

Keywords: Internationalisation, curriculum design, knowledge, graduate attributes

In view of the recent explosion of initiatives for internationalising higher education curricula around the world, it has become critical for researchers in education to develop an interest and commitment to issues related to university teaching, learning and curriculum development in an international perspective. A commitment is necessary to ensure that the educational and cultural objectives of internationalisation are included alongside professional, customer-oriented and political agendas. The history of internationalisation has shown that policy decisions regarding the internationalisation process cannot be left solely in the hands of administrators seeking financial returns from international activities. As cogently argued by Kagitcibasi (1996), "when social scientists do not get involved, policies are made by others, such as politicians; and when not informed by scientific knowledge, they turn out to be less than adequate" (p.185). What is urgently needed within the current Australian context, is to generate specific goals for internationalisation that have the potential to enhance the overall quality of higher education and then to pursue actively their achievement.

This presentation will focus on two specific goals that are expected to enhance graduates' generic attributes and thus the quality of higher education. The first is to promote students' intercultural competence, skills and confidence to interact productively in culturally diverse groups. The second is to foster students' skills for critical reflection on the cultural basis and non-neutral nature of knowledge. It is concerned with increasing their capacity and

commitment to analyse the tensions between different agendas when applying their knowledge in local and global environments. Each goal will be discussed in turn. But first, the overall aims of internationalisation and internationalised curricula are reviewed.

Internationalization of higher education curricula

According to Knight and de Wit (1995), "the primary reason for internationalising universities is to increase international and intercultural knowledge and skills of students and to promote research which addresses interdependence (cultural, economic, environmental, political) among nations". They claim that "an international approach attempts to avoid parochialism in scholarship and research and to stimulate critical thinking and inquiry about the complexity of issues and interests that bear on the relations among nations, regions and interest groups" (p.13). Their concerns about parochialism are echoed in Picht's (1996) and Spizzica's (1997) criticisms of academic ethnocentrism, a characteristic of many programmes offered to international students. Similarly, but with regard to cultural objectives, Mayor (1989) argues that the development of "an awareness of the interdependence of peoples and of societies in today's world must be one of the basic functions of the universities". But awareness may not be sufficient. For the advocates of engaged liberal education, the usefulness of universities as "cultural centres or 'think-tanks', offering a forum for learning, research and social debate" (European Commission, 1992) should be extended to enhancing students' understanding of the significance of societal values, and their capacity to engage in reformist critique of the *status quo* (Hill, 1996).

Designing and implementing curricula which aim at achieving the educational, social and cultural objectives of internationalisation for mobile and non-mobile students, and for local and international students, is a critical task. Most Australian universities have taken up the challenge of internationalisation and incorporated the term in their mission statement and strategic plans. This important development is captured in the introduction statement for this Conference,

> *The increased intensity of global competition in the higher education market-place is forcing all Australian universities to think more strategically about how to position themselves in the new international educational environment. This is particularly the case with respect to increasing numbers of international students and the internationalisation of course curricula.*

The internationalisation of higher education within the Australian context has evolved dramatically since the late 80s. From an exclusive and narrow focus on the commercialisation of education sold as a commodity to international students, many universities have broadened their international education activities. Internationalised curricula are being developed as a way of responding to global changes emerging from a knowledge economy. But what are internationalised curricula according to the literature on international education? And how would the specific goals of promoting intercultural competence and skills for critical reflection on the sources and use of knowledge fit in with these overall aims?

One of the earliest definitions of internationalised curricula was generated by the Centre for Educational Research and Innovation (CERI) of the Organisation for Economic Cooperation and Development (OECD) in 1994 to assist their investigation of how six countries, including Australia, had internationalised their higher education curricula at the time (OECD, 1995).

Curricula with an international orientation in content, aimed at preparing students for performing (professionally and socially) in an international and multi-cultural context, and designed for domestic students as well as foreign students.

This working definition stresses that the purpose of such curricula can be professional or social and that they can target domestic as well as international students. The definition also makes reference to international and multicultural contexts, thus implicitly acknowledging the significance of intercultural dimensions.

Further information on the objectives that internationalised curricula may try to achieve can be inferred from Knigh's (1994) three main motives for internationalising higher education curricula. The first is to serve international competitiveness and trade, in other words the economic agenda. The idea is that curricula with an international content will make graduates more competitive in the global community, capable to meet world standards, able to work in cross cultural contexts, and sensitive to the needs of foreign customers and partners. Knight's second motive is to promote self-development in a changing world. It is concerned with enhancing human relations and world citizenship in order to reduce social prejudice, and to promote mutual understanding and cooperation as a basis for the solution of global problems. Her third motive refers to social transformation, and a deeper understanding of international and intercultural issues related to equity and social justice. These last two motives explicitly refer to educational, social and cultural objectives but what types of internationalised curricula would facilitate their achievement?

The OECD/CERI survey of initiatives for the internationalisation of the curriculum does not provide any answers to this question, since the survey conducted at the time was mainly a categorisation exercise. As far as Australia was concerned, the survey revealed 1011 Australian initiatives, which fell mainly into five categories: the introduction of an international subject in a curriculum (243), curricula in which the traditional subject area was broadened by an internationally comparative approach (186), interdisciplinary programs, such as region and area studies, covering more than one country (156), curricula that prepare students for defined international professions (115) and curricula in foreign languages or linguistics which address explicitly cross-communication issues and which provide training in intercultural skills (101).

In the absence of information on the specific learning outcomes that were targeted as part of each initiative, it is difficult to determine the exact nature of the enrichment provided by such curricula. Completing a unit with an international component, or learning another language, or undertaking an interdisciplinary case study of a region may be useful preparation for working in a foreign country. But it all depends on the activities that students are required to engage in. There is no guarantee that the completion of a language-learning unit would have enhanced students' personal attributes for productive intercultural encounters. Similarly, there is no guarantee that when they apply their knowledge, students who completed a unit with an international component would necessarily know how to question the sources of knowledge made available to them, take into account the possibility of unequal distribution of resources, and "read" situations in their multidimensional contexts, politically, socially and culturally. I would argue that promoting students' development of these attributes, embedded within their program of study, is one the most important educational, social and cultural goals of internationalisation. The development of such attributes can be embedded within curricula that have an international perspective but they may also be developed within units that do not have an international component. The presence of diverse student populations (even a locally diverse student population) provides unique opportunities to foster the development of these attributes but likewise, these could

also be enhanced within less diverse student populations or via cross-national online learning activities (Volet & Wosnitza, in press).

Enhancing intercultural competence

Let's take the first goal: Enhancing students' intercultural competence, skills and confidence to interact productively in culturally diverse groups. Pursuing this goal is critical in Australia's current political, social and cultural context. Diverse university student populations provide unique social forums to foster intercultural development (Volet, 1999), reciprocal tolerance (Horne, 2003) and the development of multicultural individuals (Adler, 1974). But how can this be achieved? Collaborative and student-centred pedagogical practices provide useful instructional vehicles to pursue this goal since they bring students together in social learning environments. The value of social forms of learning, such as problem-based learning, project-based learning, collaborative learning, shared problem-solving is strongly supported by research (Salomon & Perkins, 1998; Joiner et al, 2000). Some universities are even re-designing their physical teaching environments to accommodate these new pedagogical practices (Blunden, 2003). Furthermore, employers have been complaining for years that university graduates were not sufficiently prepared for the social aspects of working in their profession. Inter-personal skills, communication skills, qualities to work in teams, negotiation skills are now formally recognized as desirable attributes of university graduates.

Yet, fostering the development of skills to work in teams - notwithstanding the development of skills to work in culturally diverse teams - requires substantial changes to traditional university teaching practices. Skills to work in groups are not only hard to foster but also hard to assess in a university context. Problem-based learning, for example, has become increasingly popular as a method of educating students in the health professions, yet the social dynamics of groups remains a challenge. More has been written on how to design and implement problem-based learning and what are its benefits in comparison to traditional education, than on understanding actual group dynamics, for example, how members negotiate disagreements and how they regulate their emotions when difficulties emerge. In a recent Canadian survey of 160 graduates who had participated in a problem-based learning program, 32% of the respondents made explicit reference to negative emotional aspects of the PBL experience (Fenwick, 2002). According to students, these negative emotions were related, among other things, to struggles with personality conflicts and emotional intensity amidst the groups that were difficult to manage internally.

Group dynamics are even more challenging when the groups are diverse and members unprepared to engage in situations where participatory rules may be unfamiliar (Volet & Ang, 1998; Volet, 2001). Even though intercultural learning is an explicit aim of internationalisation, the resource potential of international, multicultural groups for fostering intercultural competence is not always capitalised upon. If students declare that they prefer to stay with their own groups and if teachers believe that students perform better in self-generated groups, then students will continue to study in parallel and opportunities for intercultural learning will be missed. Australian research on the topic of group work in culturally diverse groups has highlighted these challenges. A few examples illustrate this point.

A study of local and international students' perceptions of the nature of barriers preventing social interactions during study (Volet & Ang, 1998) revealed five types of barriers: cultural-emotional connectedness; language, pragmatism; prejudice or apathy; and contextual factors. The most frequently mentioned barriers were those grouped under the

label of cultural-emotional connectedness. It referred to cultural bonding and emotional connectedness in everyday communication and group interactions, such as "thinking along the same wave-length and sharing a similar communication style and sense of humour" (p.10). Both local and international students declared that interacting with people they knew well was much easier since they could anticipate their reactions and would know how to tell them if they disagreed with their ideas. The significance of cultural dimensions as inhibiting factors in the interactions of small groups of local and international students was also highlighted in a recent study by Wright and Lander (2003). They found significant differences in the rates of verbal interaction in bi-ethnic groups in comparison to mono-ethnic groups. Their findings could not be attributed to language since this was controlled for in the design of the study.

One may argue that diverse groups simply need encouragement and extra time to accommodate their diversity. Our own research (Volet & Ang, 1998) revealed few instances of spontaneous mixing but when it did happen - usually accidentally according to students - they admitted that the experience made them change their perceptions. Some students seemed to realise that harmony and performance within a group may be more affected by personality dimensions than by the cultural background of members. Yet, even after a positive experience in a mixed group, students said that, if given the choice, they would still prefer to complete an assignment in a group of peers from the same cultural background.

The relationship between cross-cultural experience and attitude towards completing group assignments in mixed groups is supported by empirical research. In a large scale study of over 600 students, we found that students with substantial intercultural experience - most of them bi or multi-lingual - had significantly more positive attitudes towards group work in general and group work in mixed groups of local and international students, than students from mono-cultural backgrounds (Volet, 1999). The group of students who were mono-lingual and from monocultural background had the least positive attitude. The group of students with marginal intercultural experience fell in the middle. Interestingly, the relationship between magnitude of cross-cultural experience and attitude towards assignments in culturally diverse groups was mirrored in students' appraisals of respectively, the motivational and emotional aspects of group work. Further support for the significance of personal intercultural experience, was provided by independent analyses of "self-selected" group composition of another large class of students. We found that two-thirds of the Australian students who were members of mixed groups had a bi-cultural background while the percentage was only 8% in the Australian-only groups. Overall, these findings stress the view that motivational and socio-emotional connectedness dimensions are important inhibiting factors towards mixing across cultures.

From a self-regulation perspective, one would expect that unless the benefits of mixing are perceived as outweighing any potential drawbacks, both local and international students will continue to choose the less emotionally demanding option of forming teams of peers from the same background. This clearly defeats the major aims of internationalisation and calls for carefully designed and monitored social engineering. All the local and international students interviewed by Smart, Volet and Ang (2000) agreed that universities had a responsibility to be pro-active in fostering social cohesion and intercultural learning as part of "what is ethically proper for a university or place of this nature to promote" (p.33). But how could it be done? A few Australian initiatives for internationalisation of the curriculum have addressed this issue, some with great success according to staff and students involved in these initiatives. Overall, however, these attempts have remained fragmented and their evaluation anecdotal. What is missing is an overall conceptual framework to guide the design of initiatives that promote intercultural competence, skills and confidence for productive cross-cultural interactions embedded within regular instruction.

The extent to which beneficial change can occur over a relatively short period of time was investigated in some longitudinal studies with business students (Watson, Kumar & Michaelsen, 1993; Watson, Kumar & Critelli, 1998; Watson, Johnson & Zgourides, 2002). Watson and colleagues found that early on diverse teams tended to show less team orientation and more individual orientation than non-diverse teams. This is consistent with the challenges reported in our own research. However, after a period of time working together, and frequent feedback on task and interpersonal processing, the diverse teams appeared to gradually catch up and demonstrated high team orientation. Interestingly, the diverse teams were also found to allow a reasonable extent of individual orientation. The authors argued that these teams were beginning to utilise diversity to their advantage. They also found that ethnically diverse teams performed higher on team project tasks. The authors stressed the importance of interpersonal and task leadership activities in the life cycle of learning teams (Watson et al 2002).

But there is more than just commitment to promote intercultural competence in higher education. Language proficiency is a critical factor in the success of such initiatives. Having an accent, making occasional grammatical errors, using awkward sentence structures, taking a bit longer to express one's thoughts or being unfamiliar with colloquialisms are not serious handicaps for productive interactions. It is imperative that all students embrace the notion of reciprocal tolerance with regard to language. Group interactions at university present an unique opportunity to practice interacting and working in multi-lingual and culturally diverse groups. However, there are degrees in language proficiency. When students have difficulties understanding and discussing conceptual issues, productive learning cannot take place. Lack of fluency in the language of instruction restricts and slows down processing of information. Second language speakers who are not sufficiently fluent in the language of instruction are inhibited in their capacity to grasp concepts quickly, read complex materials, think analytically and engage in argumentative discussions. Their capacity to adjust to new styles of learning is also affected. Students who struggle with their academic study due to language difficulties will not perform according to their expectations. In my view, letting students start their program of academic study before they have attained a sufficient level of competency in the language of instruction is educationally irresponsible.

Fostering intercultural competence as an integral part of studying in international, multicultural environments and regardless of program of study is a major challenge of internationalisation. For this goal to be achieved, it will have to become a priority of both higher education research and higher education practice. Given the complexity of the issue, intercultural competence would be best conceptualised and researched from multicultural perspectives, multiple conceptual frameworks and in its multi-faceted dimensions (Garcia-Prieto, Bellard & Schneider, 2003). The commitment of both educators and researchers is critical since partnerships in design experiments (Cobb, Confrey, DiSessa, Lehrer & Schauble, 2003) may be the most promising way of implementing and researching the value of intercultural competence concurrently. Overall, valuable intercultural learning can and should be actively promoted as part of university study since multicultural communities and the workplace badly require graduates who have a capacity and commitment to accommodate differences and capitalise upon diversity.

Fostering skills for critical reflection

I will now discuss the second and probably most challenging goal for internationalisation: Fostering students' appreciation of the culturally situated and non-value free nature of knowledge, and in particular fostering their capacity to critically analyse the tensions between

different agendas when applying knowledge in local and global environments. Limiting the added value of internationalisation to the development of intercultural competence, would not do justice to universities' fundamental role in generating social debate and enhancing students' capacity for critical thinking. In their critique of the "new work order", Gee and Lankshear (1995) argue that "different constructions of learning and knowledge produce different outcomes in terms of who benefits from or is disadvantaged by them, and in what ways" (p.15). In the context of the internationalisation of higher education, critical awareness takes even greater significance given the goal of opening the diverse nature of knowledge to alternative perspectives and far transfer. This development provides enhanced opportunities for fostering students' critical reflection on the non-neutral and powerful nature of knowledge.

Mobilising students' critical reflection on the plurality of sources of knowledge and its distribution across groups with unequal power, for example, agrees with the basic principles and objectives of metacognitive, process-oriented forms of instruction, since critical reflection is embedded within the teaching of domain-specific knowledge. Combining the educational goals of internationalisation with socio-cognitive theories of learning makes it possible to outline a set of learning objectives and principles for designing internationalised curricula that would provide added value to student subject matter learning.

First, students should develop a well-organised, flexible and meaningful domain-specific knowledge base that incorporates a realisation that knowledge is culturally based and not value free. In an international perspective, this knowledge base would include a metaconceptual awareness of how societal value and belief systems impact on the development, meaning and application of knowledge. Students would be encouraged to reflect collectively on the historically, culturally, and socially situated nature of their subject matter knowledge, whether this is education, economic theory, medical practice, environmental science or other disciplines. The aim is to generate their critical awareness that even abstract theoretical frameworks are advantageous to some and disadvantageous to others once applied. It would also target the realisation of tensions between political and economic agendas on the one hand, and social, ethical and moral concerns on the other hand, with regard to knowledge development and transfer. Students would be given some experience of looking out for such tensions as part of their education, since these tensions can be - sometimes deliberately - hidden in real-life situations.

Next is students' development of flexible, metacognitive knowledge and skills necessary to identify, analyze and understand local and global issues in their multi-dimensional contexts. Both mobile and non-mobile students need to learn to tolerate multiple frames of reference and to remain critical of their own belief system, assumptions and biases. Metacognitive skills are critical for 'reading' socially and culturally diverse situations, and for understanding how conflicting interests impact on problem identification, problem analysis and the socio-cultural 'appropriateness' of solutions. When far transfer is the target, as is often the case in international education, there is a need to foster greater levels of mindfulness and high road learning (Salomon & Globerson, 1987). Generating high-level metacognitive reflection should not be restricted to international students or those preparing themselves for international assignments. All students are concerned when it comes to the development of critical thinking skills for questioning and using knowledge responsibly. This is why the development of metacognitive knowledge and skills for critically analysing local and global issues in their multi-dimensional contexts has to be embedded within curricula and has to be identified as a core learning objective. Even if these knowledge and skills are not assessable in the traditional way, universities should pursue them vigorously since they are fundamental to university education.

Last is the development of the mental abilities and attitudes necessary to live and work

productively, harmoniously and responsibly in a global interdependent world. Generic knowledge incorporates a range of cognitive aptitudes, such as a capacity for critical thinking, an enquiring mind and positive attitudes to lifelong learning. It also targets the development of culturally sensitive emotional intelligence for building and cultivating positive relationships with diverse social groups. The value component of generic knowledge and skills is critical for understanding the significance of personal and collective attitudes in responsible decision-making, in particular ethical, moral and social responsibility *vis-a-vis* humanity and the natural world. Graduates will make their own decisions in due time but providing opportunities for social debate on these issues has its place in university education.

These objectives can only be achieved in learning environments that are based on educationally sound principles. There is a need to develop and validate a comprehensive conceptual framework to assist with the design of such environments in higher education. Communities of learners which activate and capitalise upon prior knowledge, experience, beliefs and expectations, and which de-emphasise individualistic agendas would contribute to promote such 'enabling' learning cultures. De Corte's (1992) suggestion to introduce the global before the local aspects of learning is also relevant in the context of internationalisation. Assisting students to develop broad, multi-dimensional and international conceptual 'maps' of their field of study before moving into the specifics may provide valuable cognitive and motivational anchors or macro-contexts, as proposed by the Vanderbilt Cognition & Technology Group (1993). The construction of such maps would be even more powerful if integrated with the expectations and learning agendas that students from diverse backgrounds bring with them to their study.

The importance of designing instruction around authentic learning tasks has been stressed from a number of theoretical perspectives. But what are authentic tasks in an international perspective? By nature, authentic tasks are situated within a specific socio-cultural context. The challenge is to design tasks that reflect the increased diversity and complexity of the domains of application of knowledge. Genuine academic collaboration across borders can assist in the development of such tasks. The OECD survey of internationalised curricula revealed cross-national collaboration in a number of European universities. Grounding the development of new initiatives in sound principles of learning would enhance their quality. But such initiatives can also be developed at home. Some Australian institutions have already designed curricula that have the potential to achieve at the same time intercultural competence and critical reflection on the situated nature of knowledge. I will briefly describe one as an illustration.

In 2000, the Faculty of Medicine at the University of New South Wales unveiled its comprehensive plan to integrate a multicultural perspective into the medical curriculum. They argued that there was an imperative within Australian health education to train future health professionals to provide culturally relevant health care. The initiative was clearly aimed at enriching the overall quality of medical education. "The need is to add evidence based multicultural health to the mission of the Faculty of Medicine, all the while retaining the scientific integrity of clinical training and practice". A key component was to ensure that every medical graduate has achieved a defined level of cultural competence. Students will be sensitised to community issues through involvement in the activities of a local ethnic or cultural group and by spending time in community internships. Their cultural sensitivity will be further enhanced by a reflection on their own prejudices and fears of cultural health beliefs unfamiliar to them. Students will be invited to explore the day-to-day experiences of culturally diverse patients and their encounters (good or bad) with health systems. By stressing the cultural basis of knowledge, such a curriculum should significantly enhance students' generic knowledge and skills for practicing medicine in multicultural communities. And it is not be too hard to imagine how multicultural curricula could be designed in other

fields of study.

To conclude, achieving the educational, social and cultural aims of internationalisation depends on academic staff interest and commitment to use internationalisation for enhancing the quality of higher education. Fostering students' intercultural competence and thinking skills for reflection on the cultural basis, non neutral and situated nature of knowledge is a useful start since these aim to provide graduates with "skills of inquiry and analysis rather than a set of facts about globalization" (Rizvi, 2001) and constitute valuable graduate attributes.

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What students know about making good use of learning and teaching situations

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ABSTRACT The issues I address in this paper are not novel for people who teach or advise students about study. Lecturers and study advisors both confront the problem of how to help students develop knowledge that can later be used to solve the problems they face in their academic and work lives. We know that many students construct knowledge that sets them up well for such problem solving and we meet others who do not. It is students in the latter group who will often seek our advice about how they might prepare themselves more effectively for, say, their geography or biology assignments or exams. My concern here is not directly with what the students know about their geography or biology, but with what they know about how to act when they are in their geography or biology classes, or when they are studying outside of class time. In particular I want to discuss both what students know about what to do in these teaching-learning situations and how good is the quality of that knowledge. In doing this I will draw upon some of the research my colleagues and I have been undertaking with students in schools and in a range of university programs, both in Australia and in Vietnam.

Learning through writing: Cathy's case

In a recent project we asked a group of final year teacher-education students to tell us what had helped them to learn in their university classes. We then probed their understandings of how these things helped their learning. We were interested in the views of this group of students because, like us, they have a professional interest in learning and study. Once they leave the university they will be immersed in the problems of how to help their own students develop knowledge that will support effective problem solving. Cathy was one of those students and her interview is representative of those held with an important sub-group of the teacher education students. We asked Cathy to select what she regarded as the most effective procedure for helping her learning. The following excerpt is taken from the transcript of her interview:

Cathy:

> *I really think that writing assignments and writing essays and stuff, as much as people complain about them, I think they helped me grasp and get a better understanding of things.*

Interviewer:

> *When you're working on essays or assignments, what part of the learning process is affected? Where do you see the essays and assignments affecting your learning process?*

Cathy

> *I think, for me, learning is um ... when I ... I know that I've really learnt something if I ... can sort of take it on board and then express it myself so that I know that I've understood it if it's sort of become a part of me and then I can explain it to somebody else.*

In this interchange, and throughout the interview, Cathy found it difficult to give a description of learning processes. The answer she gave here did not directly address the question put by the interviewer: It was an answer about how she recognised that learning had occurred. In Table 1 I have listed the descriptions of learning processes that Cathy gave in her discussion of how writing assignments helped her to learn. These descriptions were given in response to probing of her understanding by the interviewer.

Table 1. Cathy's descriptions of learning processes

I read all around	*I understand it as a concept*	*My brain doesn't hold onto things; I remember*
I pull those bits all together	*I take it on board,*	*I apply it to all sorts of things*
I make connections between different things	*I can express it, it's become part of me*	*I draw on things that I didn't realise were there*
I work out that bits fit into that part	*I pick up stuff*	*I learn well just by reading*
I'd just read and I'd absorb it	*I put it into my own words*	

A technical vocabulary for learning?

It is striking that the descriptions of learning processes generated by Cathy, and by many of her fellow students, are common language, rather than technical, descriptions. When she is learning Cathy reads, understands, applies, draws upon, picks up, pulls together and absorbs. These descriptions would not qualify as examples of what Elen and Lowyck (1999) referred to as 'systematic vocabulary about learning'. The descriptions are general rather than specific in nature and do not depend upon the technical terminology associated with learning processes. Upon probing in the interview, the meanings of the common language expressions could not be elaborated upon. Nor were the different descriptions explicitly inter-related to any significant degree and there was no articulation of a broad model that showed how different processes could be placed within an organising framework.

It is also interesting that the general, common language nature of these descriptions of learning stands in contrast to the descriptions that students such as Cathy give when describing the knowledge they have in the domains of their major programs of study at university, such as geography and biology. Descriptions generated using this latter domain of knowledge are replete with technical vocabulary and my secondary school teacher-education students use this detailed technical language in their own teaching as a matter of course. Yet, in our interviews with a wide range of students it is rare to find that students use a similarly technical vocabulary that is available for describing learning, a vocabulary that, for teacher-education students, is used in texts prescribed as part of their program of studies (e.g. Barry & King, 1998).

The domain of knowledge about learning (and teaching)

Why is the lack of technical vocabulary about learning processes of concern? My first concern is that students like Cathy are being held back in their study, and in their teaching, by a poorly developed knowledge about learning.

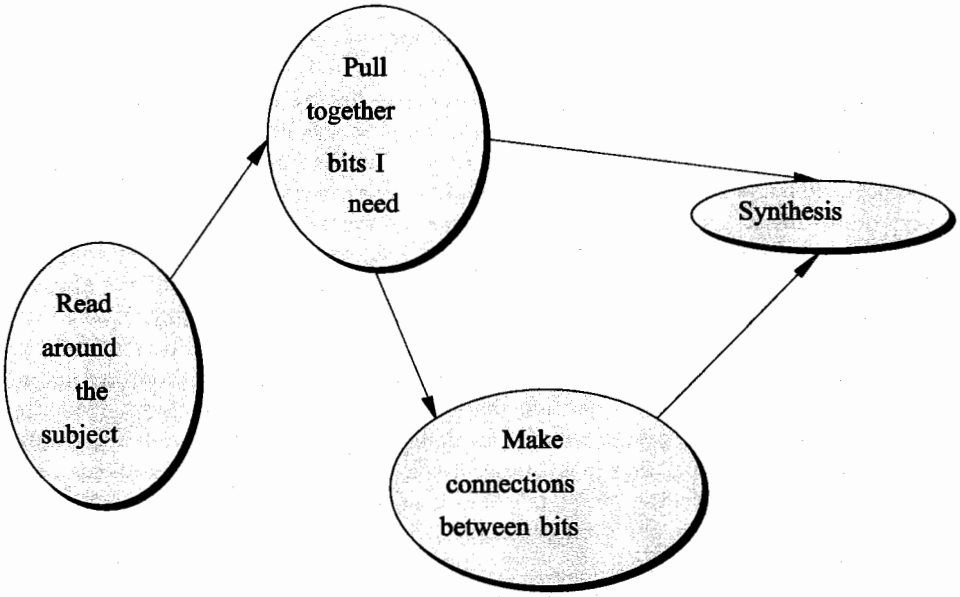
When we mandate that students must attend school we are asking them to develop knowledge in at least two domains. One set of knowledge is the content knowledge associated with a discipline like geography or biology. But the second domain, which is of substantial importance for the development of knowledge in the first, is knowledge about learning (and about teaching). Often we seem to forget that the knowledge in this second domain also needs to be discussed and developed. Knowledge of how to go about learning, of how to carry out different learning activities, is not an automatic outcome of experience in learning. Our involvement in learning needs to be accompanied by reflection, by metacognitive activity, and for a long time we have known that some students do not always reflect effectively on their learning experiences (e.g., Brown, Campione & Day, 1981). For these students development of their knowledge about learning will need to be fostered by explicit instruction by teachers (Bransford, Brown & Cocking, 2000). Furthermore, we know from the results of a large body of research that if students develop greater procedural knowledge about learning processes the benefits for their learning about task-related domains can be considerable (e.g. Hattie, Purdie & Biggs, 1996; Mayer, 2002). So if students like Cathy have not carefully reflected about the nature of their learning, or have not been prompted to do so by their teachers and lecturers, they will not have developed their knowledge in the domain of learning to the extent that they might. Although, like Cathy, they might have useful beginning understandings about learning, these understandings will not be as generative as they could be. For this reason I suggest that Cathy will not be able to develop her understanding about a topic through writing of assignments as effectively as she could if she had a more sophisticated understanding of the learning processes that operate during the process of writing, as explicated in work such as that of Flower (1984) and Bereiter and Scardamalia (1987).

In arguing in this way I do not want to imply that Cathy has not reflected at all upon the nature of learning. She is a serious student sufficiently interested in learning to engage in discussion with us about the topic, so it seems hard to dismiss her as having only a surface interest in this area. Rather she seems to have a curiosity about learning but her motivation to explore this domain of knowledge is not strong. I suggest that the lack of strength of motivation derives from her lack of knowledge about how to use and modify her subject-matter knowledge during the writing of an assignment.

Even though Cathy's vocabulary about learning is not technical it has the potential to be developed through discussion and exploration of the beginning models she has articulated. In a section of her interview Cathy argued that it was in the process of writing of an assignment that she 'synthesised' her ideas. When probed about how this occurred she did produce a series of ideas that could be seen as a beginning model or 'theory' of the process of synthesis. This has been represented, using her language, in Figure 1. Further examination of processes involved in 'reading around' and 'making connections' could fruitfully be linked to the processes of content generation and knowledge transformation.

I have given emphasis to students' models of learning processes, such as Cathy's model of synthesis, because I believe that it is through exploration of these models with students that we will build up better quality knowledge about learning. Further exploration of the detail of knowledge in this area will enable us to assist these students to develop more effective procedures for, say, learning through writing of assignments, or acting effectively in a class discussion.

Figure 1. Cathy's 'model' of synthesis



For us as teachers, and for students like Cathy, such exploration will have a greater impact on problem solving than simply classifying students as surface or deep learners (e.g. Entwistle, 1995). Such classifications are appropriate for certain purposes but do not necessarily provide directions for future learning action. I suggest that it is time for us to look beyond classifications such as surface/deep, and beyond classification of students as having different conceptions of learning (e.g. Marton & Booth, 1997) so that we can provide students with more detailed, better quality knowledge that will be effective during study.

Commitments to develop knowledge about learning

A second, related reason for being concerned about the lack of development of a technical language about learning is that at this university, and at most others, we publicly commit ourselves to help students develop knowledge about learning, as can be confirmed by examining local university websites. The Flinders University policy on teaching (Flinders University, 2003) states that our teaching

> *Will engage students as active participants in the learning process* ... [and] *will engage students in discussion of ways in which study tasks can be undertaken*

At the University of Wollongong (University of Wollongong, 2003) students will:

> *understand the nature of the learning task and become actively engaged in identifying their own learning needs and in the task of learning;*

In the Nine Principles of Learning and Teaching espoused by the University of Melbourne (University of Melbourne, 2003) it is noted that:

A body of research has established the efficacy of assisting students to be aware of how they learn. This involves an attention to the processes of learning in the context of clearly articulated goals, and self-evaluation of the effectiveness of learning strategies,

while the University of Queensland (2003 website notes that the university will "*provide students with skills and knowledge for independent learning*". Across the continent students at the University of Western Australia (University of Western Australia) are encouraged and facilitated to develop the ability and desire:

to acquire the skills required to learn, and to continue through life to learn, from a variety of sources and experiences;

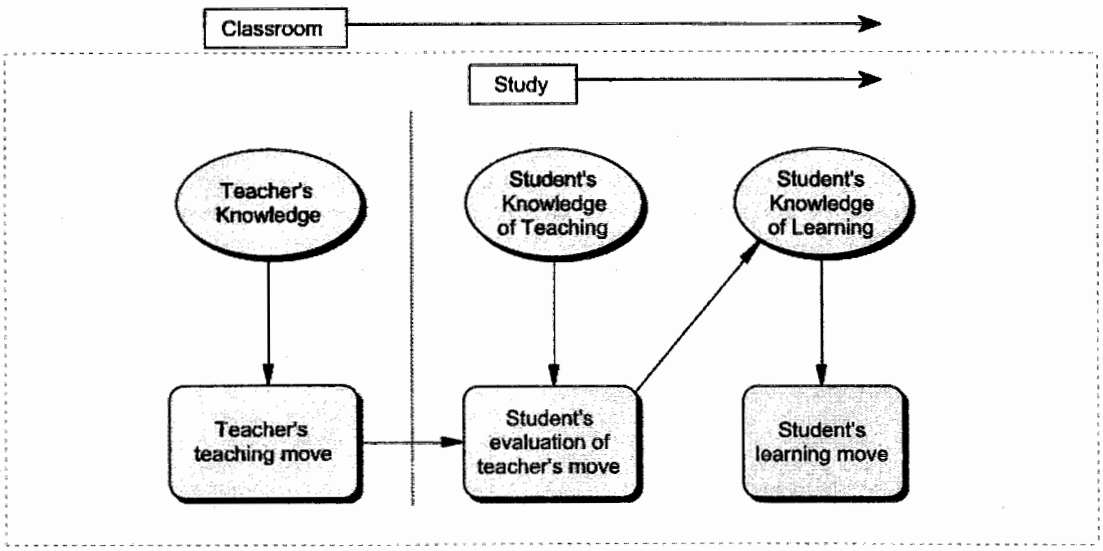
In each of these cases, quite properly in my view, we commit ourselves, as a group of staff, to help students develop knowledge in the domain of learning. One implication of the commitments made in our policy documents, and the view of learning that underlies them, is that we should teach in ways that increase the students' knowledge of learning so that they can properly exert the regulation of their own learning. Given that, in our teaching and learning policy statements, we are espousing a view of learning as a self-regulated activity it behoves us to set students up so that they can exercise the regulatory processes as effectively as possible. We need to teach in a way that allows them to be knowledgeable about how to act appropriately as learners in our classes.

Knowledge of teaching?

In an earlier parenthetical comment, I suggested that students need to know about both learning *and* teaching. It is important to recognise that students need to have a well developed knowledge about teaching because it is this knowledge that will interact with knowledge about learning in important ways in both classroom and study situations. I have represented my thinking on this point in a simple diagram in Figure 2. If we describe the activities of teachers and learners in a classroom as sets of moves, from Figure 2 it is apparent that a student must be attuned to the moves that are being made by the teacher and must make decisions about the significance of such moves. The evaluation the student makes at that point is argued to have an impact on the subsequent learning moves that will be made by the student. In a study situation, where the students must act as their own teachers, knowledge about teaching is also required. In a study situation there are still teaching moves being presented to the student, moves that might be embedded in a text, in a diagram, in a software package, or in the student's own lecture notes. The knowledge students have of the intentions behind such teaching moves will act as a mediating influence during both classroom and private study.

If we return to Cathy's situation for a moment, we can now describe her argument about the writing of assignments as a case where she would be teaching herself to construct knowledge as she prepared for and completed the assignment writing task. As argued earlier, if she had well-developed knowledge about learning through writing the outcome of this episode of self-teaching could be quite powerful. Without labouring this point, I want to suggest that we expand our perspectives to consider that in addition to discussing with students the nature of learning, we should also increase their knowledge and awareness of the moves being made by a range of teaching agents. To put this argument in another way, students also need the pedagogical knowledge found to be important for teachers (Mundby *et al.* 2001; Shulman, 1986).

Figure 2. Relating knowledge of teaching and knowledge of learning



What do students know about learning and teaching?

Up until this point I have focussed my analysis on the descriptions provided by only one student. In the next section of the paper I will draw on results of analysis of students' knowledge about learning and teaching using a larger sample of 78 final-year teacher-education students. The details of this research are presented in Lawson, Askell-Williams and Murray-Harvey (2003). I will draw on findings in three areas: descriptions of knowledge students have about learning and teaching; students' mapping of this knowledge; and analysis of the quality of students' knowledge about the procedure that they nominated most frequently as being helpful for their learning at university, class discussions.

In these studies we have asked students to write about the activities or procedures that they have found to be most helpful for their learning. We have then coded and categorised these nominations and asked the students to group representative category statements into groups that go together. Students have also ranked their groupings in terms of the degree to which the groups helped their learning. The grouped and ranked data has been subjected to cluster analysis and multidimensional scaling procedures. As noted earlier, we have also interviewed groups of students in order to probe their understandings about how specific procedures helped them to learn. In the interviews we made it clear to students that we were keen to uncover their 'theories' of learning.

I have emphasised the notion of students' 'theories', or models, of learning because I believe that these theories are of real practical significance. My understanding of memory leads me to believe that the knowledge that we access most easily, the knowledge that is either most readily activated or is most strongly represented, is the knowledge that we use. If this is so then the models that the students produced in their written responses and in

interviews are likely to be good guides to the way that they will act in learning, and in teaching, situations. Using Cathy's example again, I suggest that the activities that she is likely to engage in while writing, or the things that she will talk about with her own students, are those things she discussed in her interview.

What facilitates learning?

The frequencies of the statement categories made by the large group of students in answer to the question '*What facilitates learning in my university classes*?' are shown in Table 2. In their responses these students did identify many of the important issues raised in contemporary literature on learning and teaching. For example, they suggested that the features of the class atmosphere, learning resources (e.g., visual aids, readings, handouts), the personal qualities of teachers (e.g. approachable teachers, humour), the procedures used in teaching (e.g., hands-on and practical activities, demonstration lessons), and the characteristics of the teaching presentations (e.g., clarity, relevance, topic integration) all facilitated learning. The students also noted the influence of their own personal qualities as students (e.g., time management, self-direction), their habits of mind (e.g., personal reflection), and motivation, though these latter nominations were less frequent. The most frequent nomination for facilitating learning was discussions. Sixty-nine of the 78 participants referred explicitly to class discussions and/or group work in their written responses. Of the remaining nine participants, four made implicit reference with words such as "interactive" and "social interaction." Only five participants made no reference to the facilitative effects of discussions or group work.

Students' schemas about learning

The wide range of knowledge students held about learning and teaching was shown in other analyses. We asked the final year teacher-education students to sort the statements related to 40 of the categories shown in Table 2 and then looked for patterns in their sorting using a cluster analysis procedure. In this analysis, statements that were seen to be closely associated by students appear in subgroups, or clusters, while those that were not closely related appear in different clusters. The results of this analysis based on the dendrogram produced by the analysis are in Figure 3. The labels in the two right hand columns refer to the clusters that emerged from the analysis. The patterns of sorting used by these students supported three large clusters focussing on teacher qualities, effective pedagogy and student engagement. The lower level clusters, shown in the middle column, cover a wide range of issues relevant to teaching and learning. These clusters might be seen to represent a type of group associative map of the statements, with the clusters representing schemas within that map. For these students these schemas focus on: what their lecturers are like as people; the lectures' styles of presentation; how clear and relevant is the lecture material; how effectively student ideas and involvement is allowed for; the critical reflection of the students; the use of meaningful tasks; and the degree of connectedness of the ideas being discussed. As a group these schemas cover key issues related to the social and personal features of teaching. They also pick up on elements of teaching skill.

Table 2. Frequency of student nominations of what helps them to learn

Category	Frequency	Category	Frequency
Discussions	81	Lectures	4
Teachers	26	My point of view	4
Assignments	16	Real life	4
Visual aids	16	Attendance	3
Clarity	15	Facts	3
Readings	15	Feedback	3
Hands-on	14	Prior knowledge	3
Practical applications	13	Practicum	3
Personal reflection	10	Self direction	3
Relevance	10	Ideas	2
Active involvement	9	Individual	2
Groups	9	Negative examples	2
Interest	9	Problem solving	2
Atmosphere	8	Social interaction	2
Demonstration lessons	8	Freedom	1
Topic integration	7	Flexibility	1
Humour	7	Field trips	1
Questioning	7	Listening	1
Time management	7	Learning partnerships	1
Communication with tutor	6	Note taking	1
Examples	6	Own way	1
Handouts	5	Revision	1
Interactive	5	Role plays	1
Journals	4	Scaffolded learning	1
		Workshops	1

Although there is less attention to the cognitive actions of students than to the actions of the teacher there is some explicit concern with the habits of mind of the student. The outcomes of these descriptive analyses suggest to me that these students are aware of key issues related to learning and teaching, even if their views seem to be weighted toward assigning most of the responsibility for generation of effective learning to the teacher. What such descriptions do not tell us is how good is this knowledge of teaching and learning. It is important for us to know if the students, especially final year teacher-education students, are merely familiar with these ideas or whether they have developed well elaborated knowledge about how specific procedures and activities help them to learn. In the last section of this talk I will outline how we have tried to seek information about the quality of the students' knowledge about learning.

The quality of students' knowledge about learning

We have asked several cohorts of teacher-education students to reflect on what helps them to learn and in every case the most frequent nomination has been class discussion, an example being the findings shown in Table 2. Students have a strong belief that discussion helps them to learn and in interviews they were able to specify different ways in which discussions could facilitate learning. For example, the advantage of interaction with peers for 'picking up' new ideas was identified by most of the students. They also described how discussion encouraged a process of reflection upon their current state of knowledge. Discussion was seen to help with further exploration of a topic, or with development of an argument, or with clarification of points made in lectures. Reorganisation of ideas and expansion of knowledge on a topic

Figure 3. Cluster analysis solution for grouping of statements

Statements	Clusters	
Passionate, enthusiastic & inspiring staff/teachers	Teacher personality	Teacher qualities
Teachers that are approachable		
Feedback from tutors		
Support from lecturers in and outside of specific class times		
Staff treating me as a valued individual		
Comfortable & inclusive work environment		
When the lecturer includes humour in lectures/workshops etc.	Effective presentation	
Interesting/creative approaches to lecturing and tutorials		
Detailed information given by the lecturer, oral & written		
Lecturers and tutors who understand & can communicate the topic		
When lecturers don't assume knowledge		
Doing hands-on activities has helped me to grasp important concepts	Explicit teaching	Effective pedagogy
Using real-life examples to illustrate points		
Visual aids that demonstrate concepts		
Making connections, reinforcing information, bringing it all together		
When content is presented through simple terminology		
Clear expectations, outcomes - What am I MEANT to be learning?	Clarity	
Clear explanations and well articulated lecture presentations		
Provided readings & discussions about them to clarify concepts		
If I am interested in the topic I am much more likely to learn	Student-centred	
When what is being discussed is relevant and comparable to my life		
Student-centred conversation based on issues generated by students		
Other students giving demonstration lessons		
Authentic assessment or projects that allow hands-on activities		
Including student voice/ideas in assessment, teaching practice, etc		
Experience - the practicums built practical learning skills		
My ideas & interpretations are allowed to be expressed fully, being placed against those of researchers, lecturers & fellow students	Critical reflection	Student engagement
I know that I am responsible for my own actions - I 'own' my learning		
I have learnt to critically reflect on things, including teaching practice		
Interconnected subjects where issues are highlighted from different viewpoints	Connectedness	
When topics in workshops correspond with the materials in lectures		
Focus on collaboration, - the ideas of other students have played a huge role in extending and developing my own ideas		
Being engaged through questions		
Writing assignments helps me to synthesise ideas and turn the concepts into my own	Meaningful tasks	
Journaling has been another important part of helping me to learn		
Specific tasks to be completed before a tutorial, relevant to that week's work		
Having notes that I can add to during the lecture,		
Summaries of lectures/tutorials were helpful		
Essays/assignments that are flexible, that allow the choice of content		
A reasonable workload		

were also identified as cognitive benefits. There were also a group of statements indicating that, collectively, these students recognised the role of affective and motivational elements in

facilitating learning in a class discussion. Four students emphasised the importance of feeling comfortable with the group and with having certain types of students in their groups (for example, mature age students). Problematic features of discussions were also recognized, such as the possibility that through contributing to a discussion there was a risk that some other students would steal your ideas. Among the students' descriptions there were some well-developed models of knowledge structure, as indicated in the following description by one student about the effect of the introduction of new material during a discussion.

> *... if it can connect somehow to what I'm thinking then I'll connect it. If it doesn't, well then... I guess it's always there. I guess it stays there as well but it gets incorporated into my thinking, into my knowledge... It must compare with my beliefs, my morals, my ethics. So, it may be incorporated and discarded later...into my belief system. But... I guess the knowledge is always there... Some of your knowledge will agree with your belief system and some of it doesn't, but you've got to have, I feel I've got to have both sides of the arguments.*

The range and detail of these statements about class discussion reinforce a point I made earlier in this paper: Students' views would provide fertile ground upon which to develop instructional discourse about a number of important features of learning. For example, the quotation referring to knowledge that 'connects' or 'doesn't [connect]' might be used to stimulate consideration of the existence of contrasting views or conceptions about a topic that might be the subject of a class lesson developed by one of these student teachers.

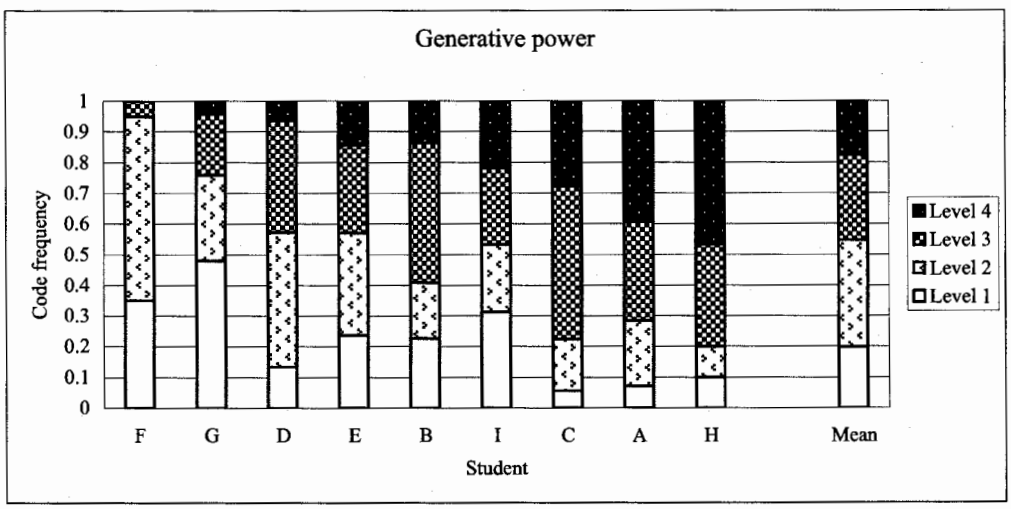
In the group of 10 final year students interviewed nine made substantial comment on the facilitative effect of class discussion. We analysed the arguments they made in these comments for what we have termed the generative power of the argument. Wittrock (1989) described text comprehension as a generative activity involving the "active construction of relations" (p. 349), and generative teaching as "knowing how and when to facilitate the learner's construction of relations" (p. 353). In Wittrock's analysis, a teacher needs to have access to strategies that will mediate such facilitation of students' generative processing. Implicit in Wittrock's analysis is that the accessed knowledge should have what Bruner (1966) referred to as power. For Bruner, a more powerful form of representation is one that enables a learner to generate solutions to a wider range of problems, so that a powerful knowledge representation will allow "a learner, to connect matters, that on the surface, seem quite separate" (p. 48). Use of the term generative power provides a way to establish a qualitative dimension in the facilitative actions described by Wittrock. It also represents a way of describing an important set of expectations that we hold for our teacher-education students, namely, the potential of their knowledge bases to generate actions that facilitate their own and their students' learning.

The section in each participant's transcript concerned with class discussion was segmented into statements. The statements were treated as propositions expressed by participants about ways that class discussions facilitate learning. Each statement was coded using a four-level scheme intended to represent the extent to which a student has developed a connected structure of knowledge related to how class discussion affects learning. The levels move from (1) mere statement of an effect, to (2) elaboration of that effect, to (3) recognition of an implication of the effect for an affective or cognitive component of learning, and finally to (4) a more abstract level where the effect is explained with reference to a model or construct that can be related to a component of contemporary theory of learning. Level 4 statements are argued to have the greatest potential to, in Wittrock's (1989) terms, generate further "*constructions of relations*" that will result in a more powerful knowledge construction associated with the topic of the discussion. The results of the generative power coding of students' responses about class discussion are shown in Figure 4. For each of the nine students the bar graph shows the proportion of the response that was coded in each of the levels. The range in generative power is considerable, with three sub-groups being

apparent. In the case of Student F no responses were coded as Level 4 and this student, along with Student G, could identify relatively few implications of the class discussion for her own learning activity. A second group of students, D, E, B, and I, had more strongly generative profiles, while for Students C, A and H over 70% of their responses were coded as Levels 3 or 4. The high level of Level 3 and 4 codes in the responses of the latter three students might be surprising, though it should be remembered that the format of the interview was one that invited, or required, students to provide increasingly complex explanations, if they could do so.

The pattern of results in Figure 4 suggests that students' knowledge about the ways in which class discussions can be used to facilitate learning, which is a component of what we labelled earlier as knowledge in the domain of learning, constitutes a variable in which substantial individual differences among students universities is likely to exist. On the basis of our analysis, students F, G, A and H have quite different potential to profit from a typical class discussion. If the former two students were members of a group of students with similar profiles, then the level of elaboration or depth of the knowledge they would construct seems likely to be quite different from that of a group involving Students A and H. The latter two students would bring more powerful resources of knowledge about learning to such a discussion.

Figure 4. Generative power analysis



Issues and possibilities

As a group of university teachers we commit ourselves to help our students develop powerful knowledge bases, ones that will enable them to solve the varied problems they will face in their study and their work. I think we need to give further consideration to the question of how well-prepared our students are to profit from both our teaching and from their own study. The results of the research we have done on students' knowledge of learning and teaching suggests that across different sites and different types of programs there is wide variation in the extent to which students are well placed to exploit their learning situations. There is substantial variation both in what they know about learning processes and in the

quality of that knowledge. I suspect that there are many more Cathys who could develop a more effective integration of their discipline related knowledge and their knowledge of learning through writing. I think that there are many more students that will have profiles of generative power just like the ones on the left side of Figure 4. For these students we need to engage more directly in discussions of learning processes.

Our analysis suggests that many students have built potentially useful models of learning but have not developed these in a way that would increase their learning power. In our student groups much of the language that students use has remained at a non-technical level and their models of learning have not been elaborated. We could do a much better job of helping students to develop explicit awareness of learning processes involved in key tasks such as writing of assignments. The students' existing theories and models provide us with a beginning point for developing discussions about learning that will help them to develop more sophisticated and powerful models.

I am also aware that we do need to consider how this might be done in universities. I think it is unlikely that we will see time being allocated to this task in all lectures. More likely is that the significant work in this area will be undertaken in learning skills centres in universities. Given that this is the likely outcome, it challenges us to consider how the task might be undertaken cooperatively across our universities. We already have a substantial body of knowledge that will help many students act more effectively in their classes and study times. We should now be able to develop strategies that will help us share this knowledge across universities.

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Where do we come from? What are we? Where are we going?

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ABSTRACT Of Australia's 39 publicly funded universities, 36 institutions have demonstrated through publication on their web sites, that they take an institutional responsibility to provide academic support for all their students. Student academic support centres are located in various parts of the university structures including counselling services, some are part of the generalised student support services, some co-exist within other sections of the university, such as the library and some lucky few have been created ab-initio as stand-alone centres. This diversity of 'location' within the university structure and culture has often led to a marginalization of the academic role that such centres play, a lack of proper career structure for the staff and an over-emphasis on teaching, particularly English language teaching and 'remedial' teaching at the expense of other scholarly activities, such as research. This paper will examine the role of the centres and the staff who provide student academic support in Australian universities in terms of three key questions: Where do we come from? Who are we? Where are we going? In addition, the paper will also examine our present situations within the academy and our collective futures in terms of the four broad themes of the conference. Some questions for securing our long-term academic future are posed.

Keywords: Student academic support, LAS centres, graduate attributes

Introduction

In 1897 an alcoholic and syphilitic Frenchman living in abject poverty on the islands of French Polynesia decided to end his miserable existence by taking his own life. Before accepting his own ultimate fate, Paul Gauguin decided that in order to complete his artistic career he needed one final work for which he would be remembered. By the end of that year, Gauguin had completed his largest and most ambitious canvas, his personal statement on humanity. He called this work *"D'ou venons nous? Que sommes nous? Ou allons Nous?"* Where do we come from? What are we? Where are we going? After completing this masterpiece Gauguin failed in his attempt to kill himself and continued to paint for another six years. The three questions posed by Gauguin over a hundred years ago are still valid today, both in the context of the human spirit for which they were intended, but also on a microcosmic scale such as the world of student academic support in the Australian higher education sector. What I hope to do in this brief paper is to give a personal overview of the role of academic advisers in Australian universities, in terms of the three questions posed by

Gauguin, and in terms of the four broad themes of the Language and Academic Skills (LAS) 2003 national conference, that is: challenges, evaluations, initiatives and consequences.

Background

The higher education sector in Australia, like that in many developed countries, is being reshaped by ideologies of globalisation, massification, corporatisation, financial accountability, user pays and internationalisation. Most Australian universities want to be seen as an 'active-player' in the international education marketplace. To explore possible future directions for higher education, many developed countries have commissioned comprehensive government funded reports. Examples include the National Committee of Inquiry into Higher Education in the UK (Dearing, 1997), Higher Education in Hong Kong (Sutherland, 2002), Education Statistics Digest (Ministry of Education Singapore, 2002). In Australia we have had two such recent reports, firstly the Learning for Life: Higher Education Review (West, 1998) and more recently Higher Education at the Crossroads, (Department of Education, Science and Training, 2002). A common feature in all these reports is an emphasis on the increasing dependence of national economies on education to foster a culture of life-long learning and the promotion of a well-educated workforce.

Dearing (1997) remarks that comparability of standards in an enlarged higher education sector cannot be ensured under the present arrangements for quality assurance. In response to this, Dearing recommended the establishment of a professional Institute for Learning and Teaching in Higher Education, with the purpose of establishing higher education teaching as a profession in its own right and placing students at the centre of the learning and teaching process. In that light, Dearing made a number of detailed recommendations for the enhancement and support of learning, which included an emphasis on promoting and valuing the key skills of communication, numeracy, information technology and "learning how to learn". West (1998) explicitly states that the needs of *all* students must be addressed and concludes by stating that "the challenge now is to learn to do things differently. Universities will need to review continuously the way in which they go about their business" (p. 27).

How then do recent national policy changes in higher education manifest themselves at a local level and in particular, on the role of those who provide student academic support? At most universities these changes have led to: a greater student enrolment; a more diverse student body; a greater range of study options; an increase in pressure for courses to be based on sound pedagogical and educational principles; a more diverse means of content delivery, particularly online delivery; a need to be seen to adhere to quality assurance measures in terms of quality teaching and learning; a higher level of public accountability; and an increasing diversity of academic roles and responsibilities. These changes need to be accommodated in an educational climate with an increase in the student to staff ratio, greater casualisation of teaching staff, ageing facilities and an avalanche of spending on information technology at the expense of face-to-face teaching.

In his preface to Higher Education at the Crossroads (Department of Education, Science and Technology, 2002), the Minister for Education, in reference to the changing nature of higher education, commented that "our success in no small way will determine the kind of country in which Australians will be living twenty-five years from now". Though not specifically referred to in the DEST document, one of the indirect benefits of the current review process in Australia is the establishment of a National Institute of Learning and Teaching (NILT), which will come in to being in 2004 and be fully operational by 2006. With the setting up of such an institute, it would appear that the present is an ideal time to review the whole approach to the provision of student academic support and the future directions of the centres and staff who work in this field.

Where do we come from?

Most Australian universities take an institutional responsibility to provide academic support for all their students, but the form that this support takes is perhaps most politely described as being *ad hoc*. This is exemplified by the diversity of origins for student academic support centres. Some centres have evolved from existing university departments (e.g. English or Linguistics), some have their genesis within university counselling services, some are part of the generalised student support services, some coexist within other sections of the university, such as the library and some lucky few have been created *ab initio* as stand-alone centres. This diversity of 'location' within the university structure and culture has often led to a marginalisation of the academic role that such centres play (Samuelowicz, 1990), a lack of proper career structure for the staff and an over-emphasis on teaching, particularly English language teaching and 'remedial' teaching at the expense of other scholarly activities, such as research.

While most universities willingly utilise student academic support centres as an important component of their marketing, particularly internationally, they are much more reticent to acknowledge the pivotal role such centres play in the broader context of student competencies. The fact is, that the principal role of student academic support is developmental, that is, the development of the key skills of litercacy and numeracy, critical analysis and professional communication, which are the cornerstones of higher education, as well as for successful life-long learning.

The question of where staff who provide student academic support come from, in terms of our backgrounds, is really then only a minor issue, as it is very likely that we are no different to staff in any academic department or faculty. What may differentiate us is that we may have initially received our academic training in any one of a diverse range of disciplines, from humanities to social sciences to the physical sciences and medical sciences. Those of us who specialise in the teaching of English to students from non-English speaking backgrounds will undoubtedly also have specialised qualifications in that area. This may be in the form of completion of an intensive short course on ESL teaching to a research higher degree in applied linguistics. It is also likely that many of us have formal teaching qualifications and that we may have taught in teaching and learning environments other than the higher education sector. Finally, it may also be that some staff have qualifications, experiences and expertise in several of the options listed above.

What are we?

In order to answer this question it may be informative to view our role from the perspective of others, namely our students and our institutions.

Student view

We are viewed by many undergraduate students first and foremost as a 'fixer of problems', specifically academic problems. We are often perceived as guides whose role it is to help students understand the complexities of the academic maze and make sense of the content-context-learning continuum. We may also be seen as translators of everyday English into *'Academish'*. For many of our younger students who have recently completed secondary schooling, we may also be seen as a substitute for a parent, a teacher or we may simply represent an adult. We are certainly frequently called upon to be a corrector/editor/proof-reader for assignments and even to estimate the likely grade for a student assignment.

From a postgraduate student perspective, a very similar list of views would apply, though with some necessary modifications. A research postgraduate student is likely to see us as an independent voice, someone who can be a motivator, a listener, a critic, a mentor and a role model. We are also viewed as someone who assists students in the development of general research skills and strategies and the construction of a research dissertation. In each of these capacities, our role is not too dissimilar from that of a supervisor. Our role also requires us to be a translator for postgraduate students, only in this instance we are translating from everyday English to the more specialized language of *'Thesius Academish'*.

Institutional view

Our institutions see us in many of the same ways as detailed under the student views above, in that our primary role is viewed as a remedial one, this being to "fix academic problems" and secondly, to work with students identified as being "at risk". In a broader sense, we are used to sell the quality of the education available at our individual institutions and in particular the quality of the student support. In this sense, we may be seen as part of the 'competitive edge' that one institution may have over its rivals. Unfortunately, few if any institutions would see us as an integral component of the learning process for *all* students.

Our own view

All of the roles alluded to above are valid and reasonable interpretations from a student and institutional perspective. However, though we are likely to accept some, if not all, of these interpretations, we would like to be seen in a broader sense as being a facilitator in the process of change and a conduit for intellectual growth.

Our role is integral to the educational process in that our primary objective is to assist students in the enhancement of their academic and intellectual capacity, the development of appropriate academic strategies and skills and the literacy and numeracy competence to enable students to be successful independent learners. That is, the development of the prerequisite skills for successful lifelong learning, which are often referred to as 'graduate attributes' or 'generic capabilities'. These skills have been described as "the qualities, skills, and understandings a university community agrees its students should develop during their time with the institution" (Bowden, Hart, King, Trigwell & Watts, 2002). The graduate qualities cited by most Australian universities which list their graduate attributes online, can be summarized by the following (incomplete) list of skills:

- Literacy and numeracy
- The capacity for critical thinking and analytical thinking, including problem solving
- Information literacy and appropriate research skills
- Written and oral communication in a professional context
- Self-management of time, resources and tasks
- The ability to engage in independent and reflective learning

In addition to these fairly specific skills, Nunan (1999) has argued for a much broader set of graduate attributes, which includes: dimensions of citizenship; service and leadership in the community; the capacity for employment; and personal growth. Bowden *et al.* (2002) infer that graduate attributes are inextricably linked to the context and content of the discipline in which they are taught and that the teaching of these skills should be explicit and not rely on some form of osmotic absorption process. If this view is accepted, then LAS staff are ideally situated to work in close collaboration with faculty staff in the process of teaching students these requisite skills through appropriate teaching and learning tasks.

Where are we going?

As indicated earlier, the whole concept of higher education is in a process of such fundamental change that the paradigm itself is under review, as indicated by the use of the terminologies in the introductory paragraph. The general reform objectives in higher education in Australia can also be more specific at an institutional level and include: institutional differentiation and/or specialisation; financial diversification; increased efficacy and efficiency; and accountability (educational, financial, social and political). How these objectives are to be achieved is up to each individual institution. In most universities, the formal decision-making machinery is dictated to by faculties, elected governing bodies and probably most importantly, individual vice-chancellors. At the same time, given that most student academic support services are in marginalized positions, they have few opportunities, if any, to have direct input into the formulation of policies and procedures that impact on the quality of the education in their institutions.

As a consequence, where we are going is perhaps a moot point, in that it may be out of our hands. A contrary view may be, that given the enormous drive for change in higher education from a top-down perspective, that is from federal funding bodies, then it may also be the ideal opportunity to instigate change from the bottom-up, that is, from the stake holders at the coal-face of teaching and learning; students and teaching staff.

Challenges

The impact of current higher education reform agendas may vary at the institutional level from one institution to another, but there are a number of issues that are common to all of us. These may include:

- More students and a higher student to staff ratio (AVCC, 2001b; AVCC, 2002)
- More students from diverse cultures, languages & previous experiences (ABS, 2003)
- More pressure to adopt/integrate "new" teaching methodologies, including IT
- An increased range of study options
- The competing issues of efficiency versus efficacy (Karmel, 2000; Long, 2000)
- Resource and infrastructure implications (AVCC, 2001a).

In addition to the common challenges facing all universities, there are additional specific challenges facing staff who provide student academic support. Firstly, as mentioned earlier, there is the continuing challenge of the lack of input into the mainstream decision-making and governance of our institutions. What can we do to ensure greater participation in these processes? An obvious answer may be through representation on faculty teaching and learning committees and similar committees that have university wide application. At a higher level still, is representation on senior management committees such as the academic senate or university council.

Secondly, there is the continuing problem of academic marginalisation. What is our real status within the academy? What must we do to ensure parity with discipline staff in terms of the academic importance of our roles, equal opportunity for promotion and leadership roles, equal access to research funding and recognition of our true value to the university?

It may be informative here to compare the Australian higher education system with systems in other countries. In terms of an OECD nation with a similar population to Australia (20 million), a similar GDP and a Western culture, one possibility for comparative purpose is

the Netherlands. Where Australia has 39 publicly funded universities, the Netherlands has 18 universities plus several other institutions of higher education not classified as universities. Closer to our own region there are two other former British colonies with higher education sectors similar to our own, these being Singapore and Hong Kong. With a population of some 7 million, Hong Kong has 7 publicly funded universities and 4 other institutes of higher learning. Singapore, with a population of some 3.5 million has 3 publicly funded universities and 3 other higher education institutes. If we are to use these three higher education systems as a comparison to our own, a common feature is that each has approximately one million head of population per university, compared to Australia where this ratio is more like 500,000 people per university. Though this may appear at first to be advantageous, from a financial perspective it means that the federal bodies that supply educational funding need to 'spread' limited taxpayer-dollars over more institutions, resulting ultimately in under resourced institutions, particularly those that are in lower population areas or those in regional areas.

The comparison of the higher education systems of these nations to our own system may in itself not be directly applicable for a number of reasons, but, if this comparison was valid, then perhaps this could raise some very different reform agendas. For example, one contentious issue could be the continuing existence of some institutions. This could lead to the possible amalgamation of smaller institutions, or perhaps even the closure of those institutions that fail to attract a minimum student enrolment or sufficient research funding to justify their continued status as a university.

Evaluations

One of the means by which each university monitors its own level of 'success' is through evaluation procedures against a set of quality assurance indicators. Due to the diversity in the 'location' of LAS centres within each university, the variable staffing formulae and the breadth of the roles of LAS centres within their individual institutions, perhaps we also need to have a common set of evaluation procedures. This may enable us to compare ourselves to faculty-based academic staff intra-institutionally and with other LAS staff inter-institutionally. The following are some suggestions for common forms of evaluation.

Most, if not all, Australian universities have a recognised student evaluation of teaching (SET) that is used as a matter of course at the end of each teaching unit to enable students to give feedback on teaching topics and on individual teachers. This form of evaluation is recognised by the university as an integral component of the promotional procedure for teaching staff. Many institutions also have available a standard form of peer evaluation of teaching (PET), which may similarly be used for academic staff promotion. I believe it imperative that LAS staff use the same standardized formats to evaluate their teaching, or at the very least, a SET and PET form adapted to the specific teaching role of LAS staff, but which the institution will formally recognize as being the equivalent to the standard SET and PET forms of evaluation.

A means of ensuring a more uniform role and value of LAS staff and centres inter-institutionally may be to have more standardized policies and procedures for staff appointment and classification. For example, in 31 universities in Australia where this information is readily available, LAS staff are classified as academic staff in 19 institutions, in 9 institutions they are employed under a general staff classification, and in 3 institutions there is a mixture of both academic and general staff. Associated with staff classification is the question of 'location' within the university. Current figures available from 35 Australian universities shows that LAS services are located within a faculty or department (3 universities), in a language support service (8), within student services section of central

administration (18), in a teaching and learning centre (3), and one each in a career centre, a postgraduate school and a centre for preparatory studies.

As with the location of LAS centres, there is also a disparity between staff appointments, in terms of requisite qualifications and level of appointment. For example, at Flinders University LAS staff are most often initially appointed at lecturer level A, whether or not the candidate has a research higher degree (masters or doctoral level). In comparison, at another university in the same state, the University of South Australia, LAS staff are initially appointed at lecturer level B without the necessary requisite of a research higher degree.

One of *the* most important evaluations required by LAS centres at all institutions in Australia is to determine the 'value' of LAS services. This evaluation needs to be done on two levels. Firstly, there is a monetary value associate with research publications in terms of the DEST funding this research brings into each university's research budget. To what extend do LAS staff contribute to this research quantum, and more importantly, to what extent do LAS staff have access to these research monies in a manner that is equitable with faculty based academic staff?

On a second and more difficult level to determine, what value are LAS centres to the educational output of a university? The bulk of the funding for any university is based on the number of students enrolled, with some courses attracting higher 'fees' or government grants than others. Concomitantly, any university's 'success' is judged by the quantity and quality of its graduates. What part then do LAS centres play in this output and can this contribution be quantified? Simply determining the number of students who attend at LAS centres or who attend LAS courses is no measure of the effectiveness of the service provided. Similarly, positive student testimonials, though reassuring, even flattering, may tell us nothing of the effectiveness of the LAS role on students' academic success. What is needed is a measure of the impact of LAS services at the student level both in terms of keeping students in their courses and ultimately assisting them to develop the requisite skills for academic success. It has been estimated that the annual cost to the university sector of student failure and withdrawal from courses is in the order of $400 million (ABS, 2001). Using a very conservative estimate, LAS centres may assist 10% of these 'at risk' students, who may otherwise end up failing courses or leaving study altogether. This amounts to an annual saving of $40 million, no small amount in any Federal budget.

Initiatives

There are a number of initiatives that the LAS community should consider to ensure our long-term futures. Some of these are not new and have been mentioned at previous LAS conferences (Craswell & Bartlett, 2001) through the *Unilearn* network or in conversations with colleagues. First and foremost, to be seen as an academic discipline and to have a national profile, LAS staff need a national professional association. Such an association acts as the public and professional face of the LAS community, it is able to have a collective input into public policy on educational issues, it would be able to forge links to similar professional bodies both nationally and internationally and it may attract research funding for collaborative projects. Part of any professional association is the production of a scholarly journal with an elected editor and editorial team. The journal should have a minimum of two numbers per volume and consist only of manuscripts that are peer reviewed and deemed to be of sufficient quality to be published for an international audience.

With the proposed instigation of the new NILT in higher education set to commence in 2004, it is important that LAS centres, either individually, but preferably collectively, have an input into the future directions of this institute. This would seem to be an ideal opportunity to

compile a comprehensive national report on the roles and activities of LAS services and for this report to be sent to the organizing committee of this new institute. Ideally, it would also be highly desirous for the LAS professional association to have representation on the committee that oversees the running of the NILT.

Ultimately all academic staff are judged for promotion on the basis of only a few essential criteria, the two most important of which are the quality of their teaching and their research output. With this in mind it is incumbent on LAS staff to be published authors in recognised international journals. Fortunately, this is one of the areas where LAS staff have made great progress over the past few years. The establishment of a professional association with an associated national journal can only help to further lift our profile in the crucial area of research.

A final and personal perspective revolves around the naming of student academic support centres and the way in which we advertise our services. Thus a final initiative for consideration is a unified approach to the naming of LAS centres in universities Australia wide. Most of us are familiar with and have a general understanding of the role of a university chemistry department, psychology department or medical school, though we may not know exactly what or how these academic centres teach their courses, nor do we have an in depth understanding of the nature of their research activities. LAS centres on the other hand have a role in higher education that can be both confusing and inaccurate or simply not well understood by students, academic staff and university management. LAS centres are mostly viewed as having a remedial role and existing in the main for the benefit of a minority of students, these being students at risk, those who need extra tutoring in English language or those who require academic "counselling".

At least part of the problem stems from the use of the Language and Academic Skills title and its emphasis on the term 'language'. The inclusion of the term language is often used in a manner that underestimates the importance of the teaching of graduate attributes or generic skills and the importance that LAS centres can play in the academic and intellectual development of all students. The use of 'language' may also confuse many students and staff into thinking that LAS centres exist primarily for international or ESL students, or that they are language-teaching centres. Most Australian universities have an English department, which often incorporates the teaching of courses such as 'Professional English'. In addition, most Australian universities have departments that specialise in the teaching of other languages, such as French, Indonesian or Japanese, just to name three. The teaching of these 'foreign' languages may be part of a broader academic unit, such as a Faculty of Linguistics. Thirdly, many universities today have departments or faculties that specialize in the teaching of communication topics, such as Media Studies. The common feature of all these departments is the use of English as the *lingua franca* of teaching and learning. Hence the existence of yet another separate academic unit or department specialising in the teaching of English language is rather superfluous and certainly difficult to justify in a current higher education climate seeking efficiency and value for money.

In an effort to further illustrate this point, let us look at the data displayed in Table 1. Over a number of years the Student Learning Centre, like most LAS centres in Australia, evaluates its services by analyzing student demographic data and seeking student views through the use of comprehensive questionnaires.

Table 1: Academic advice sought by a cross-section of students during 2003 at the Student Learning Centre at Flinders University (N=166 students, N=460 responses)

Academic skill	Proportion of responses	Combined academic skill	Proportion of responses
1. MANAGEMENT (of self, time, resources, tasks & metacognitive skills)	18.3%	HIGHER LEARNING SKILLS (sum of skills 1,2 and 3)	45.9%
2. CRITICAL ANALYSIS (critical thinking, problem solving, data analysis, literature critique)	20.4%		
3. QUANITITATIVE (maths skills, I/T skills, statistics)	7.2%		
4. WRITING (assignments, theses, essays, structure, argument)	30.9%	PROFESSIONAL COMMUNICATION (sum of skills 4, 5 and 6)	54.1%
5. ENGLISH LANGUAGE (grammar, sentence structure)	12.2%		
6.CITATIONS (referencing systems)	11.0%		

For the current year, 330 students who attended the centre for academic advice were asked to complete a questionnaire sent to them my mail. We received 166 completed forms, a return rate of 50%. These students represent a snap-shot of the services provided by the centre. The students who returned the questionnaire consisted of: 69% undergraduate students; 33% international students; 70% females; and 75% mature-entry students. These figures are fairly representative of the cross-section of students generally seen by the Centre. The nature of the academic problem for which the students had sought assistance was recorded. The table shows that with 460 responses, many students, probably most, presented with more than a single agenda. Of the responses, only 12.2% were directly related to English language problems. The largest single category was for writing problems (30.9%), which though obviously a language issue, often has more to do with the interpretation of assignment or thesis requirements, writing structure, discipline conventions and the development of a succinct argument. The aspect of citations (11%) is also related to language and writing, but here the problem is very much a mechanical one, dealing with the use of an unfamiliar (to the student) academic convention.

A factor-analysis of the 6 categories of academic skills depicted in table 1, results in two broad groupings. I have assigned to these the labels of Professional Communication (54.1%) and Higher Learning Skills (45.9%). It is not unreasonable then to suggest that perhaps these two terms may be a useful starting point for consideration of a suitable name for our academic role. With the acceptance in the university community of the importance of graduate attributes and with the added influence of federal funding bodies and employer groups, the timing would seem opportune to change the emphasis of LAS services from one seen as a service which primarily remedial, English language teaching or for students at risk of failure, to one that embraces a more developmental role in all students' acquisition of the academic and intellectual skills for lifelong learning.

Consequences

The higher education climate in Australia today is in a period of unprecedented change, from funding sources, modes of course delivery and e-learning to a re-conceptualization of the very meaning of higher education in a global marketplace. In such a climate, it would seem to be the ideal opportunity to instigate fundamental changes in the role of, and more importantly, the perception of student academic support centres. Failure to grasp this opportunity may result in the continuation of the ambiguity of the role that such centres play in student development; a continuing increase in workloads; greater diversity in student demand; erosion of our current and future 'status'; further loss of our academic classification; less opportunity for other scholarly activities and; continued marginalisation, which may ultimately end in the absorption of such centres into a service industry culture.

If change is to occur it must come from a number of concurrent directions. Firstly, it must come from above, from senior university management, who must be made to recognise the true value of LAS services to their individual university. Secondly, it must come through national bodies such as the proposed National Institute for Learning and Teaching, which must be made aware of our roles through informed discussions and documentation that gives an accurate national overview of LAS services. Lastly, it must come from within, for it is we who determine our own *modus operandi*. We must do all we can to engage with the broader academic community and to be seen as professionals with an equal role in the development of all students. In the words of the Hindu proverb: "If you expect the world to change, you will be disappointed. But if you change, then the world has changed already".

Finally, in the words of Groucho Marx, a statement that in some way expresses my own view of the state of higher education in Australia today, and perhaps even more so of those individuals who run our universities, "The secret of life is honesty and fair dealing. If you can fake that, you've got it made".

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The Language and Academic Skills Advisor in the teaching partnership: What should be our role?

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ABSTRACT One of the greatest challenges facing LAS advisors in the current tertiary environment involves decisions about our legitimate roles. Teaching partnerships with faculty-based academics are one way of embedding academic literacy into the mainstream curriculum. But what are the roles played by the LAS advisor in these partnerships and do they represent a legitimate use of scarce resources? This paper refers to case studies that have involved collaborative teaching and examines theoretical perspectives that impact on the role of LAS advisors in teaching partnerships. Of particular significance for the partnerships in these case studies has been the notion of 'pedagogical solitude' (Shulman, 1993) and related work on the scholarship of teaching (Benjamin, 2000). The framework adapted by McAlpine and Harris (1998) in order to conceptualise communication between academic developers and subject lecturers also provides useful insights.

Keywords: Teaching partnerships, collaborative teaching, innovation.

Introduction

Over a number of years collaborative partnerships between subject specialists and teaching and learning staff have become an increasingly common means of embedding communication skills and attributes into mainstream curricula (Chanock, 1995; Catterall & Martins, 2002). In these partnerships learning advisors play surprisingly diverse roles that extend beyond traditional patterns of direct support to students. This paper will draw upon the early findings of interviews, conducted with partners in collaborative teaching projects, to reflect upon and evaluate some of these diverse roles. These include that of LAS advisor as 'sounding board', as 'collaborator' in improving student learning, as 'learning expert' and as 'outside expert'. Since any one of these roles can involve a considerable investment of time, it is important to consider the value of these roles in improving teaching and learning outcomes. The interviews were conducted with subject specialists and LAS advisors working in four different partnerships in the fields of nursing, business and education. One partnership, known as Nursing Project 1, will be used to exemplify some of the common themes that have emerged from these interviews. Nursing Project 1 is an ongoing partnership between a first year nursing lecturer and a LAS advisor. The aim of the partnership has been to improve student learning by making the largely scientific content more accessible to students and more relevant to their own experiences.

The teaching partnerships examined in this study were the consequence of attempts to improve student learning by embedding more explicit learning strategies into the curriculum. Gordon and Lee (1998, p.5) have noted that there seems to be "an ongoing need" to justify developments that situate support for the teaching of academic writing within the contexts of

particular disciplines. Broadly the theoretical foundation for the partnerships in this study was one that viewed the development of writing, not as "homogenous and transferable" but tied to knowledge (Lea & Stierer, 2000, p. 6). This view of writing, as a contextualised social practice, is becoming more widespread in higher education institutions today (Lea & Stierer, 2000) and with this, a greater acknowledgement of the need to integrate writing within the context of the particular discipline. Thus the work of these partnerships could not have been accomplished in generic workshops where writing and its components can only be presented in a way that is separate from the knowledge of the discipline and where students are expected to be able to transfer the skills acquired across a range of subject areas.

The increased importance of collaborative teaching has also been acknowledged by Benjamin (2000), who links the need for learning to be discipline specific and student focused with the need for teachers to work in teams. It is possible that the use of a teaching team may result in changes to teaching and learning practices that are more long lasting and have a greater impact on student learning. There is evidence to suggest that the processes involved in teamwork often lend themselves to scholarly teaching practices. Benjamin (2000) points in particular to the sharing of untried ideas, the need to refer to literature to justify pedagogical practices and the ongoing need for joint reflection and evaluation. Similarly, Shulman (cited in Benjamin 2000, p.193) has implored teachers to "put an end to pedagogical solitude". Shulman (1993) describes teaching as being a more isolated pursuit than that of research. He tells of two visions he had of what it would mean to join the academic community. The first was the solitary researcher in the library stacks and the second was of how that lone scholar would then enter the social world of teaching. Shulman recounts, "What I didn't understand as a new PhD was that I had it backwards! We experience isolation not in the stacks but in the classroom" (p.6). While all levels of education have teachers that find ways to engage colleagues in their pedagogy and practice, the realities of timetables and the constraints of time, can mean that there are those who find little opportunity. The teaching partnership, whether it be interdisciplinary or cross-disciplinary, can be one means of combating this isolation.

LAS Advisor as 'sounding board'

The existence of teachers who find the teaching experience in a tertiary institution relatively solitary means that it is probably not surprising that one recurring theme in interviews with both subject specialists and learning advisors was the description of the learning advisor role as that of 'sounding board'. In Nursing Project 1 an important aim of the partnership was to make the scientific vocabulary more accessible to students. The subject lecturer had initiated the project and had well-developed ideas about how the work could be accomplished. The learning advisor met frequently with the subject lecturer and much of her meeting time was devoted to listening and learning about the content and providing feedback to the lecturer's ideas about how to make the teaching more student centred. In the words of the LAS advisor the role was that of 'sounding board'. The learning advisor commented that it seemed that it was difficult for other subject staff to fulfil this role because of different teaching commitments, the geographic isolation of a multi-campus university and lack of time. In other partnerships the role of 'sounding board' was also either prominent from the start or developed as the initial working group became depleted. In more than one partnership the employment of casual staff was a factor. It was not unusual for one permanent lecturer to be coordinator of a subject that was staffed almost entirely by casual lecturers. In those cases meetings had to be kept to a minimum for budgetary reasons and there was certainly no extended time to 'try out' new ideas with fellow content teachers.

While some would question the legitimacy of a role that seems at least partially to emerge from institutional shortcomings, there do appear to be positive outcomes that can be identified from the 'sounding board' role. These relate to notions of ownership and power. The 'sounding board' role developed in those partnerships where the subject specialist initiated the contact and had already formulated some goals and strategies. There was a strong sense of ownership of the innovation. According to Quinlan (2000) in her study of department-based academic development, it was vital to success that subject academics 'owned' the project and took a primary responsibility for organising and facilitating meetings. This was certainly the case in Nursing Project 1, where the meetings were organised by the subject specialist and were scheduled usually weekly throughout the semester that preceded the teaching of the subject. With the subject specialist driving the project there seems a greater chance that the innovation will be sustained beyond the life of the involvement of the learning advisor and will lead to lasting curriculum change.

The issue of power within the partnership can also be linked to the degree the project is 'owned' by the subject specialist. Curiously this seems to be an inverse relationship. That is, the less the project is owned by the college or faculty the less power the learning advisor seems to have to facilitate long-term curriculum change. For example, if a subject specialist sees academic literacy as separate to content and therefore outside their realm of responsibility, then it is unlikely that they will devote time to arranging or attending meetings or to reflecting upon the teaching and learning process as it relates to academic literacy. In fact, the subject specialist may merely see their role as a referral one and expect that struggling students will be 'fixed up' by attending generically-based workshops outside their timetabled classes. This is an extreme example but it is unfortunately reasonable common in the anecdotal experiences of Learning Centre staff. Gordon and Lee (1998, p.8) report that, in their experience, literacy experts were traditionally allocated positions of 'low power' by virtue of their role as service providers to faculties. This resulted in their location at maximum distance from the concerns of the discipline and often subject specialists had been accessed only via student demand. Conversely, the role of 'sounding board', by virtue of strong subject ownership of the innovation, brings with it a need for the Learning Advisor to understand and be connected with the subject and its concerns which in turn facilitates a sense of collegiality that is often missing in the 'service provider' role.

LAS Advisor as 'collaborator' in improving student learning

The greater centrality of the Learning Advisor role, as well as sustainability of curriculum change that may result from subject ownership of the project may in themselves justify time spent in the 'sounding board' role. However it is probably rare that the role of the Learning Advisor in a partnership is limited to this alone. The isolated nature of teaching can mean that while it may be difficult to share disciplinary knowledge it can be even more difficult to find someone who shares a passion for pedagogy. Andresen (1995) describes this dearth in the following manner.

> *Institutional teaching tends to be a private affair, the practice of teaching rarely observed by colleagues; theories of teaching rarely discussed at depth in the staffroom; teacher's reasons for action and outcomes of action typically undisclosed, undiscussed and unreflected upon within a supportive community of shared practice (p.81).*

It is hardly surprising, therefore, that another role often demanded of the Learning Advisor is that of 'collaborator' in innovations aimed at improving student learning. While this can

incorporate the sounding board role, it extends beyond this to include the exchange of shared knowledge about learning and in many cases the expert input of the Learning Advisor. In Nursing Project 1, for example, both partners agreed that student learning was the central concern of the teaching process. The subject lecturer saw her desire to start 'from where the students are' as a new approach to the teaching of this subject. Students were invited to discuss examples of disease from their own experience, using their own vocabulary and from there to adopt a more scientific vocabulary. The learning advisor commented that it was clear at initial meetings that both participants shared a common vision of student-centred learning. Both participants agreed that it is essential that students had the opportunity to engage in the complex scientific content through discussion and writing. They decided to do this through ongoing small group discussions and journal writing.

The role played by the Learning Advisor can be complex. At a fairly simple level the agreement and enthusiasm of the Learning Advisor can give confidence to a subject specialist who may feel that they are moving 'out of their territory'. In the case of Nursing Project 1, the subject specialist could not identify the source of her instincts about student learning, saying that she had not really kept up with educational literature since completing her degree. Yet her ideas about how students learn are based on frameworks similar to Shulman (1999, p.12) who explains that for successful teaching it is necessary to understand that learners "construct meaning out of their prior understanding and that new learning "must connect with what learners already know". This is the kind of expert input that can be provided by the Learning Advisor and can serve as both reassurance and justification.

A communication model adapted by McAlpine and Harris (1998) can be used to conceptualise this exchange. The subject lecturer in Nursing Project 1 would have explicit subject matter knowledge but tacit pedagogical content knowledge. That is, the knowledge she has about teaching and learning theory as it can be applied to her discipline comes from her experience of what she thinks may work for her students but it can be difficult to articulate, justify or critique. Yet in the case of Nursing Project 1, as well as many other teaching partnerships, it is necessary to convince other staff involved in the subject that the innovation is worthy. According to McAlpine and Harris (1998) discussion and successful exchange of ideas around teaching and learning issues is only possible if tacit pedagogical subject knowledge can be transformed into explicit knowledge. The Learning Advisor can contribute explicit pedagogical knowledge so that in partnership with the subject specialist a strong explicit pedagogical subject knowledge can be formulated. The learning specialist has then contributed to a kind of knowledge that can be easily communicated and defended in a variety of forums including meetings and funding submissions, thus increasing the chances that curriculum innovation will be successful and sustainable. This role has been invaluable in the progress thus far, of Nursing Project 1.

LAS Advisor as 'learning expert'

In other partnerships the subject specialist may be inexperienced and have insufficient pedagogical knowledge or may be implementing common sense notions that are not supported by current teaching learning literature. In these circumstances the teaching partners have more diverse interests and specialities and the role played by the learning advisor is more one of 'expert' in teaching and learning. This role can be more difficult especially if there is need to disagree. Benjamin (2000) refers to a deeper understanding that can arise out of cooperation and confrontation but in diverse teaching partnerships it can be tempting to value harmony above other considerations. Gordon and Lee (1998, p. 21) found that in their collaborative project the outwardly positive interpersonal relationship among participants led them to

ignore rather than address differences, resulting in a glossing over "of the differences that needed to be articulated for genuine co-production of a new, third knowledge to occur". Examination of other past projects would support the notion that differences are sometimes not articulated in order to maintain harmony (Catterall & Martins, 2002).

In Nursing Project 1, however, both participants reported excellent rapport at meetings and a shared vision for the success of the project. The subject specialist was happy to depend on the Learning Advisor for more specialised knowledge relating to teaching and learning, mentioning for example, evaluation as an area in which she was hoping for input. The Learning Skills lecturer did not always need to voice reservations, about for example, content overload, in the knowledge that these issues would arise more naturally in the evaluation process. The project did in fact go on to develop and implement a new and much more comprehensive system of program evaluation, early results of which seem to be overwhelmingly positive. The comparative success of the 'learning expert' role in this partnership may be a result of the considerable time devoted to regular fairly lengthy meetings.

The Learning Advisor as 'learning expert' can effect large-scale positive change in the learning experiences of students. Nursing Project 1 reaches approximately 600 students each year and is taught exclusively by subject specialists with the aid of student and teacher resource books. The learning advisor had input into the preparation of these resources and once or twice a semester runs hour-long adjunct tutorials for students who may still be struggling with the laboratory report genre. An appropriate balance between cooperation and confrontation is not easily achieved and needs to be accompanied by the realisation that sufficient time in workloads must to be allocated for ongoing discussion and meetings.

LAS advisor as 'outside expert'

Another role commonly played by the Learning Advisor is that of 'outsider' and therefore influential expert. This seems to occur in the dissemination stages of projects, either as ideas and resources are shared with other subject specialists or when the team decide to publish to a wider community. Dissemination of project outcomes is critical to success and sustainability. Literature on the scholarship of teaching points to the importance of inviting critical comment and discussion thorough the dissemination of scholarly work. Glassick (2002) refers to the work of Shulman.

> *A scholarship of teaching will entail a public account of some or all of the full act of teaching vision, design, enactment, outcomes and analysis in a manner susceptible to critical review by the teacher... professional peers and amenable to productive employment in future work by members of the same community (p. 3).*

In Nursing Project 1 dissemination of the initiative had an urgent organisational goal. The subject specialist was the subject coordinator and had the role of 'selling' her approach to approximately twelve permanent and casual staff who would be teaching the subject. The implementation was discussed by the two lecturers involved in the teaching partnership in their regular meetings, tutorial guides prepared for both tutors and students and a number of meetings organised that were attended by most but not all of the subject teaching staff. The Learning Advisor attended the meetings of subject staff offering moral and practical support to the subject co-ordinator. In this case the teaching partnership team felt that the presence of an 'outside expert' could lend credibility to changes suggested in the teaching program.

Collaboration between subject specialists and learning advisors can also lead to joint publications related to field specific teaching and learning as both partners contribute to a new shared knowledge that encompasses both their areas.

Conclusion

The roles of the Learning Advisor in the teaching partnership can be complex and varied. Those identified in this paper, that of 'sounding board', 'collaborator in student learning' 'learning expert' and 'outside expert' do not occur in isolation in each different partnership. Rather each teaching partnership will involve each partner simultaneously in a number of overlapping roles, each of which can be time consuming and difficult. Yet the rewards in terms of project success bring with them the promise of long term and large-scale improvements in student learning. For many learning advisors such roles are and should be an invaluable part of their practice.

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Academic and/or general? How the classification of LAS advisors affects us and our institutions

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ABSTRACT Most Australian universities employ Language and Academic Skills advisors, either in academic units or located with student services. For many, the academic role is problematic in that the teaching load allows little time for research and scholarship, and promotion is difficult when our institutions cannot see us as belonging to any single discipline. Nonetheless, the efforts of LAS advisors to draw on, and contribute to, a range of disciplines including linguistics, education, English, communication, and philosophy demonstrates the intellectual interest that LAS work holds for many of us, and the importance we attach to carrying out research and professional collaborations that can inform our work. Recent moves to reclassify LAS practitioners as non-academic have, therefore, generated urgent discussions in our field about what we are; what we're seen to be; why it matters – what is enabled and what is constrained by different professional classifications; and how we can get our institutions to better understand the work we do. This paper examines the participation of LAS advisors in academic work. It looks at the contradictions and opportunities in our position, and sets out grounds on which we might engage with our universities to clarify the nature of our work.

Keywords: LAS advisors, academic role, professional classification

Introduction

The context for this paper is the experience of a number of Language and Academic Skills (LAS) professionals whose institutions have proposed, in the last few years, to reclassify their positions from academic to general staff. People wanting to resist this have appealed to colleagues around the region, via the Unilearn discussion list, for ideas and information that might help convince their institutions that what they do is academic work. We think it timely to bring together the concerns of LAS colleagues about this trend; the issues that it raises; available data relating to the question of whether we do academic work; and our reflections on the matter. Essentially, we maintain that what we do is - demonstrably - academic work; and that, if this is recognised, our students and our institutions, as well as we ourselves, will benefit.

When Samuelowicz (1990) surveyed 57 LAS advisors at 33 institutions in 1990, they voiced many of the same concerns we hear from colleagues today. These included low status, low pay, heavy teaching loads, lack of recognition by discipline teaching staff, isolation from LAS colleagues, and poor prospects for promotion, despite the fact that 86% of those

responding held postgraduate qualifications. Among concerns expressed, Samuelowicz noted, "lack of opportunities for our professional development was the most important" (p. 99). Samuelowicz recommended that LAS advisors should work to increase our numbers; to increase staff awareness of our role; to improve our communication amongst ourselves; and to establish a career path (p. 109). By 2003, we have in fact made considerable progress towards the first three goals; but our prospects of a rewarding trajectory along a recognised career path are uneven, often not encouraging, and in some places we are actually losing ground as our institutions seek to withdraw our academic status.

While many of us work on casual or short-term contracts, at the lowest levels of the career structure, we have up to now been classified as academic more often than general. Out of 33 Australian LAS units that responded to a Unilearn email list request by Barthel (University of Technology, Sydney) for information on their classification, 27% reported being classified as general staff, 55% as Academic, and 18% as mixed (Barthel, 2003). Those on non-academic appointments are all at either HEW 7 or HEW 8. While we might expect that more established universities would classify their staff as academic, this is not necessarily so: at the Australian National University (ANU) and the University of Melbourne, many of the LAS advisors are general staff. Our conditions, like our positions, have evolved in an ad hoc fashion in recent decades as the increasing diversity of students has impelled universities to offer support to the academically less-prepared. The fact that nearly every university in the country employs LAS advisors shows our value to our institutions. With worsening budget constraints, however, some universities have sought to economise by reclassifying LAS staff into cheaper categories.

The experience of Morris (2002) at Edith Cowan University was a trigger for much discussion on this issue. Morris reported last year that his university had revised its Academic Skills Advisors' position description, without consultation, from academic to HEW: the position no longer required a higher degree, and would no longer include conference leave or a research component. At the same time, the advisors (whose new title, 'Learning Advisor' no longer included the word 'Academic') were dispersed to the faculties, with the paradoxical result that resources and support for their work, and opportunities to be heard by academic staff, increased. Although as general staff, they are better paid and have ongoing rather than fixed term positions, this does not allow the full range of academic pursuits granted to those on academic awards. Morris reflects that "opportunities will always exist" – however, the opportunity to be a co-author of this paper, as he should have been, was not among them.

A number of LAS advisors elsewhere reported similar attempts to reclassify their positions. Zeegers (2002) at Flinders University reported that "In 1997 we took the University to the Industrial Commission when they tried to make us general staff and we won the case, retaining our academic status". At the Royal Melbourne Institute of Technology (RMIT), the LAS advisors have resisted pressure to merge the Learning Skills Unit with the Disability Liaison Unit and the Transition Office, or with Student Services, because, although at present on a TAFE award with its limited career path, they see their work as academic and feel that they benefit from this identification (Maxwell 2002). Others, in previous years and at various institutions, have been faced with the same kinds of pressures and varying degrees of choice.

What IS academic work?

To understand how this sort of restructuring gets proposed, and why it is (or is not) resisted, we need to clarify what *is* academic work? The briefest answer might be that it is teaching informed by research and scholarship. We could add to this the social/institutional context usually provided by a discipline. Academics are people who make knowledge within an

academic community, through scholarship and publication of research. They design educational experiences for students both to learn subject content and, more fundamentally, to learn how knowledge is made. The definition that Kogan, Moses and El-Khawas (1994) have settled on is slightly broader and encompasses the four criteria that universities use in evaluating the performance of academic staff for annual review and promotions purposes: "the core functions of academic staff are teaching and research, complemented by service to the institution, to the professions, and to society" (p. 70).

Teaching, obviously, is our area of strength. And it is difficult to envisage anyone disputing that LAS advisors perform a service to their institution, while, more broadly, we serve the society by helping its sons and daughters to do their best, and by enabling non-traditional students to succeed at higher education. Where LAS advisors have experienced problems in establishing their academic standing is in the area of research performance.

Reasons for perceptions that our work is not academic

Even when we are on academic appointments, in which a third of our time is supposed to be spent in research and scholarship, the nature of our work makes it very difficult to set this time aside. As well as conducting orientations, offering lectures and workshops, contributing to teaching of subjects in the disciplines, managing all or much of the administration of our areas, and serving on university committees, we spend many hours in one-to-one teaching, which many of us feel is the most effective mode of working with our students (see, for example, contributions to Chanock, Burley & Davies 1997). To give examples from our immediate situations, La Trobe LAS advisors report a range of contact hours (that is, hours spent with students individually or in groups), from 16-20 hours, and in the case of one half-time appointment, 8-20 contact hours per week. Indeed, the fewer hours we are employed to work, the more likely those are to be contact hours, and mainly one-to-one teaching. LAS advisors at RMIT University teach under the Technical and Further Education (TAFE) award, and for most staff, this means 21 hours face-to-face teaching, with no allocated research time. Although many LAS advisors have Masters degrees and some have PhDs, others are working towards these qualifications outside their working hours. Because of conditions like these, some LAS advisors studying for higher degrees have, paradoxically, had to accept general staff appointments (May, personal communication, March 19, 2003), or else take time off work (Al-Mahmood, personal communication, March 20, 2003), simply in order to do the research that academic work entails.

If we *are* on academic appointments, and can find the time to do research, we can still face difficulties in establishing its value because we do not belong to any widely recognised discipline; our research community is real, but it is not based in our institution but dispersed more widely around the region and the world. The question of whether we belong to a discipline is perhaps less important conceptually than pragmatically. Moore (2002) points out that, while LAS could be considered an 'inter-discipline' (like Cultural Studies, for example), we are disadvantaged by not fitting snugly into the work of any of the disciplines with which we intersect.

Our work is clearly linguistic and educational at least, but most of us do not belong to departments of Linguistics and Education. We belong to units that are widely perceived (until we dislodge that perception by our particular performances) as offering 'support' to the real business of academic learning. While knowledge about language is seen as academic, knowledge about how to use it is not – which is odd, considering that the study of Rhetoric was the central business of Oxford and Cambridge for centuries. Much of what we know about – grammar, punctuation, forms and conventions of both language use and scholarly apparatus – is regarded as technical knowledge on a lower plane than the 'higher order'

learning that takes place in disciplines; a service, therefore, to the university, but not an intellectual contribution to its work. This makes it difficult for us to get ARC funding that is available for research in the disciplines. It is also difficult to secure promotion up the academic ladder, as committees seek endorsements from colleagues in one's discipline to guide their decisions. While colleagues around the country report appointments at levels from A to C, few of us are employed at level C, in contrast to the higher levels found in academic development units. This may be partly because their staff are employed to work with lecturers, while LAS advisors live down in the leaf litter of the groves of academe, with the students.

Indeed, one of the difficulties we face is the false distinction that university management often makes between teaching and learning. Academic developers are likely to be able to help tutors develop their teaching much more effectively if they have ongoing experience with helping students with learning at the same time. Similarly, LAS advisors have much to offer tutors, because of our intensive contact with students. We have more time than their tutors to examine students' texts, and to talk to them about why they approach their learning in the ways they do; and they often confide in us more readily than in their tutors, because we do not award marks to the assignments they write for their subjects in the disciplines. Nonetheless, our functions are often perceived by management as entirely different. For example, the LAS advisors at James Cook University have recently been told to devote themselves to staff development and publication, "turning students away if necessary to get these important things done" (Hanley 2003). What should be an opportunity for LAS advisors to offer their insights in both directions – to students *and* to tutors – is instead being experienced as a conflict. "Is that the choice we have," Hanley asks, "a student service, or being subsumed into an academically-oriented staff development unit? Or is there a third way?" Perhaps the third way is for institutions to recognize the dual nature of our work – that it is about teaching *and* learning – and to merge these functions and resource and reward both aspects of the job adequately. Where this results in opportunities to collaborate with discipline staff in teaching, there are benefits to them, to their students, and to us. Grierson (2003) of the University of Western Sydney writes,

> We try to work with academics as well as working directly with students in the more traditional ways. Fostering greater collaboration with faculties is an important part of our strategic planning because without this we would miss a lot of students ... The issue for us is one of balance, rather than either/or. As for research, most of us are glad to have this as part of our workload because it is applied research.

Grierson's last point is important, for it is in our work with students that our potential to publish is grounded. In reporting our activities, we are wise to make this link between teaching and research quite clear: much of what we know about teaching and learning comes to us through our sessions with students, and we then develop research projects, teaching initiatives, and reflections on theory and practice, about which we subsequently publish.

How can we tell that our work is academic?

To dispel this belief that our work is not of intellectual value, it is instructive to look at the record of LAS professionals' publications in refereed academic journals and conference proceedings, as well as other venues where academics generally publish. A recent Unilearn request by Chanock (2003) for details of LAS publications resulted in a publication list of 128 research papers published in academic journals, 170 papers published in conference proceedings, 48 book chapters and 6 scholarly books, as well as book and software reviews and contributions to curricula, over the past ten years. This list, of course, is not exhaustive

given that not all LAS advisors subscribe to Unilearn, and of those who do, some did not respond. However, given the general lack of research time, this is a substantial list and points to a strong desire for LAS advisors to build on our discipline knowledge by conducting research and scholarship.

That our work is clearly academic can be seen in the types and venues of our publications and in the academic nature of our topics and forms of research. For instance, the majority of papers have been published in refereed journals or conference proceedings, a testament to the intellectual rigour of LAS publications. The venues for our research include the primary academic journals and conferences for Higher Education, TESL, and general education. When we analysed the list of publications Chanock had collected, we found that the refereed articles were distributed across 14 journals of higher education, 23 journals of TESOL or applied linguistics, 8 general education journals, 7 journals of specific academic disciplines, 2 general English language or literacy journals, and 1 journal of career development: 60 journals in all. In categorizing the types of conferences in whose proceedings LAS advisors publish, we found 45 different organizations hosting 5 conferences specific to the work of LAS advisors, 21 higher education conferences, 3 general English or literacy conferences, 4 TESOL or applied linguistics conference, 8 general education conferences, 3 discipline-specific conferences, and 1 conference on "thinking".

It is clear that the audience for LAS publications is not limited to LAS advisors. For example, LAS papers have been presented at HERDSA conferences for at least the past nine years, and in the conference proceedings these papers sit alongside those from discipline academics and academic development unit staff. Similarly, a number of papers documenting research into learning in specific academic disciplines have been written by LAS lecturers in collaboration with other discipline lecturers, and have been published in academic journals and conferences of those disciplines. Our research comes in all the forms traditionally associated with other academic disciplines: some research is practice-based, some seeks to link theory to practice, while other research seeks to build on the theoretical understanding of what we do.

Similarly, the topics of LAS papers are clearly of an academic nature, concerned with the core business of universities: teaching and learning. The references we collected dealt with a wide range of topics, most of which could be categorized under one or other of the following headings: tertiary literacy practices, student learning support, applied linguistics/TESL issues, student diversity and equity issues, tertiary orientation, assessment methods, metacognitive reflection, collaboration with discipline academics, or professional development for content lecturers.

LAS practice draws on and contributes to a range of disciplines, which include applied linguistics, education, educational psychology, philosophy, and intercultural studies, and this is reflected in the diverse academic venues for our publications. Further, LAS research from within other disciplines is truly 'interdisciplinary', rather than 'multidisciplinary' in that the focus is generally to apply the theories and methods of other disciplines in order to inform the LAS discipline.

While we publish in so many different venues, contributing to several different disciplines, there is no journal in Australia devoted to the work of LAS professionals (as there are in the United States). Here, as in Britain, we can find space in journals shared with others concerned with teaching and learning – for example, *HERD, ultiBase*, or *Teaching in Higher Education* – but sporadic attempts to found a LAS-specific journal have foundered because of the heavy loads that we already carry. Nonetheless, national conferences have been held annually or biennially, under the auspices of the Australasian Annual Study Skills Conference and the Australasian Language and Learning Skills Conferences in the 1980s and the Language and Academic Skills Conferences and the Communication Skills in Higher

Education Conferences commencing in the mid-1990s. Victoria University of Technology also held a National Conference on Tertiary Literacy in 1996. In recent years these conferences have produced refereed volumes of proceedings. At the state level, active Language and Learning Special Interest Groups of HERDSA meet to hear papers and exchange news, as does the Victorian Language and Learning Network (VLLN). The VLLN, moreover, has published two themed volumes of its members' work: first *Academic Skills Advising: Towards a Discipline* (Garner, Chanock & Clerehan, 1995), then *Academic Skills Advising: Evaluating for Program Improvement and Accountability* (Webb & McLean, 2002).

At the national conferences, participants have discovered how numerous and widespread we are throughout Australia, and have developed both confidence and self-consciousness as an academic community. In 1995, colleagues meeting at La Trobe University in Bendigo began work on a project to define our role and identify the nature of our work. The product of their discussions was a policy statement, *The Position of Academic Skills Lecturers in Australian Universities*, which

> outlines the perspective of academic skills advisors from 19 institutions in Australia on how universities can minimise inequitable employment arrangements, and can benefit optimally from the knowledge, professional insights, and expertise of academic skills advisors in centralised services (Van der Wal, Hicks, McGowan & Carmichael, 1998).

In describing the role of LAS advisors, the paper states that

> Effective work with undergraduate and postgraduate students and academic staff requires that academic skills lecturers are personally engaged in academic work, both to advance the theoretical basis of their field and to have advisory credibility within an academic environment" (Van der Wal et al.,1998, p.1).

It recommends that universities should provide ongoing contracts and secure funding to enable this, and should

> recognise the academic nature of the position... encourage [LAS] staff to engage in active research in relation to tertiary student learning, literacy, and numeracy; [and] develop appropriate mechanisms for performance appraisal... that reflect the unique nature of the work... and that are fair and equivalent in nature to the appraisal of other staff in the institution (Van der Wal et al., 1998, p. 2).

The paper also lists the values that LAS professionals share, the core objectives of our work, and the qualities and qualifications we should possess in order to be considered for appointments in our field. In all these ways, the Position Paper endeavours to establish a foundation for LAS professionals' presentation of ourselves, and to improve institutional understandings of our work.

It can be seen, from the above, that LAS advisors have a track record of research and scholarship, and professional consciousness, all of which characterise an academic community. If, notwithstanding all of this, it is asked whether the substance justifies the self-promotion, the answer must be found in the intellectual nature of what we do. If this is invisible to colleagues in the disciplines, it may well be because, for them, their discourse is so deeply internalised as to have become transparent (Russell, 1991, pp.3-34; also Langer 1992, p.72; McCarthy 1987, p.234; MacDonald, 1990, p.315; Chanock, 1995, *Introduction*).

To people whose concept of writing is monolithic, helping students to write

'academically' would seem a mechanical matter of giving them rules and showing them models. In working with our students, however, we are drawn, through the forms and language they are expected to produce, into a metacognitive analysis of the culture of each discipline they write in: its assumptions, the questions it generates, the kinds of data it regards as evidence, and the interpretations that may be made of these. Thus, as well as making knowledge, we study and teach our students about the making of knowledge. While much of what we teach is technical (and the same is true of teaching in any discipline), we also help students to understand *that* knowledge is made, *how* it is made, and the *implications* of this for their own work (e.g. contributions to Taylor et al., 1988). We engage, in other words, in '– ographies' of the disciplines, the same pursuit that occupies academics at the top of their profession. Moreover, we often work at a further level of meta-metacognitive reflection, when we compare the cultures of a range of disciplines (Chanock, 1995, 1997, 1998, 2000; Moore, in press; Pittman, 2000; Craswell, 2000; Gordon et al., 1996). (And if, with this idea, we have reached the sunny uplands of self-congratulation, the view is worth the climb!)

Why does it matter?

Self-congratulation, however, is not enough. We also need to be employed at levels that match our qualifications. We need continuity of employment so that we can invest our efforts in educational projects with confidence that they can go on from year to year. And we need a career structure in which such efforts are rewarded with the possibility of promotion. Finally, we need the conditions that will allow us to carry out research and scholarship from which our students benefit as we use what we learn to design more effective learning experiences for them.

In introducing this paper we suggested that if our academic standing is recognised, our students and our institutions, as well as we ourselves, can benefit. This is underlined by the Position Paper quoted above, which cites as one of our 'professional values' that "the dual nature of our role enables us to work with students and staff in improving the teaching and learning culture within tertiary institutions ... [for which we should] collaborate with faculty staff on curriculum, teaching and assessment issues" (Van der Wal et al.. 1998, p. 3).

Any of us in the LAS field will know of ways in which advisors work to improve and change the teaching and learning in their university, and the examples that follow are just a few of many. At RMIT advisors have begun to work with the Directors of Teaching Quality in faculties to embed learning and language elements into curricula. In some cases working within a faculty is an advantage, because when we have a common ground of shared knowledge with our colleagues, we are in a better position to have input into what is taught and how it is assessed. Helen Fraser, who is the language and learning coordinator based in the Medical Education Unit at University of Adelaide, opens up her research for discussion with her unit colleagues. She is also involved in training tutors, writing the student handbook and working on exam questions for subjects. Of course such work also feeds into her other work with students (Fraser, personal communication, March 19, 2003). At La Trobe, in the Humanities faculty, Kate Chanock has also shared papers with her colleagues, which stimulates a greater awareness of her work as an advisor. When she proposed integrating a focus on academic discourse into subjects in the disciplines at first year, colleagues across a range of disciplines were ready to adopt her model and the materials she provided for its implementation. (This model and the materials will soon be available in a HERDSA Guide by Chanock, *Introducing Students to the Culture of Inquiry in an Arts Degree.*)

We can collaborate with colleagues on projects within disciplines in all sorts of ways. At Monash, advisors worked with lecturers in Business to create a website that provided students with good writing models and feedback. Similarly, advisors at RMIT have

collaborated with Faculty of Business lecturers to produce assessable projects for Business Online in the School of Accounting and Law. These are good examples of where our expertise in academic skills is vital for task and writing analysis. However, we might need academic standing, as well as technical know-how, if we want to be heard in the university. Tim Moore (personal communication, March 19, 2003), also from Monash, experienced a useful discussion following his researched paper delivered in the Linguistics Department. Moore realised that the language of research is "really the only language they speak, and respond to, ultimately".

While we might need to use the language of research, we can still use this with the understandings we gain in our professional practice as LAS advisors to underpin developments and changes in the attitudes to learning and the teaching and assessment practices in our universities. For example, Marion May, a PhD Student Advisor in the Research School of Social Sciences, The Australian National University has influenced change in a number of ways. These include: establishing continued appointments of discipline-based academic skills staff; implementation of a discipline-based entry test (for demography students), rather than a language based test such as IELTS or TOEFL; improvements in the use of terminology; integration of academic skills into teaching practices; and raising staff awareness that academic skills provide benefit in a discipline based approach (May, personal communication, March 19, 2003).

Scoufis and Carmichael's 'Critical Thinking' project is another example of how change can happen. This project at the University of Western Sydney, which was developed through a collaborative research group made up of Learning Assistance Centre advisors and different faculty members, considered cross faculty critical skills practices from both the teaching and learning perspectives. Out of this project came a book *Critical Analysis - What is it?* and perhaps more exciting, much debate and reflection about the definition, nature and function of critical thinking. It is this debate that Scoufis and Carmichael point out has "acted as a change agent and encouraged reflection on teaching learning practices" (1996, p.3).

If, on the other hand, we are perceived as support staff, we function merely to maintain and accept a predetermined way of teaching, learning and assessment. Accepting such a position would certainly limit our educational role and would limit our opportunity to use what we know to bring about improvements. Collaborating with faculty staff on issues of what they teach, how they teach and how learning is assessed involves more than supporting a predetermined way of teaching and learning. As Freire argues, when educators perpetuate what is given and merely provide service we do not teach how to analyse in a critical way and so the possibilities to change education are reduced (interview in Hall & Kidd, 1978, p. 273). As academics, LAS advisors could have more impact by providing and encouraging a critical approach which, it is asserted by Benesch (1993), could lead to questioning of the current power relations so that students and their lecturers are encouraged to think critically rather than just be expected to adapt to what is given.

Conclusion

We hope we have made the case that LAS work is academic, and that the interests of our institutions will be best served by recognising this. We acknowledge that academic status, too, creates some difficulties for LAS practitioners; however, these need to be addressed not by foregoing the contributions that LAS advisors can make if properly resourced, but by looking at ways of enabling LAS advisors to participate, as fully as we wish to, in the academic project.

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Coming of Age: Developing a genealogy of knowledge in the LAS field

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ABSTRACT Quality teaching and learning in higher education has become a mantra in the rhetoric of university policies, and, increasingly, assuring successful student learning is seen as the core business of the modern university. Ironically, this comes at a time when academic staff are faced with unprecedented demands on their teaching repertoire while being expected to function with fewer resources. Not surprisingly then, many LAS staff find themselves, their knowledge and their skills central to ensuring the university's aspirations, yet in many ways still under threat of intellectual erasure. A contributing factor to this 'threat', it is argued, is the lack of a clear articulation of the knowledge and skills on which our discipline is based, and therefore, the intellectual contribution that we make to the wider university. This paper suggests that the LAS field, in order to come of age as a discipline, needs to conduct a genealogy of knowledge. It also goes so far as to suggest a basis for discussion in what is an ongoing dialogue about LAS identity.

Keywords: Genealogy, pedagogy, supplement

Introduction

In a plenary address to delegates attending the *Changing Identities* conference held at Wollongong University in 2001, Carolyn Webb suggested as one of the areas for future research in the field of Language and Academic Skills (LAS) a need to develop "enduring theories and concepts to explain LAS knowledge" (Webb, 2001, p.13). A newcomer to this field of scholarship and teaching might well respond to Webb's recommendation with a yearning and heartfelt 'yes, please'. While experienced LAS staff seem to draw on a range of systematic approaches to practice, as well as theoretical frameworks to shape that practice, the foundational principles and theories informing LAS expertise are by no means apparent to a newcomer to the field. Indeed, they may be utterly mysterious to the newcomer from a non-educational background. Webb's meditation on the professional 'ontogenesis' of Language and Academic Skills Advisors marks a productive point of intervention for a paper that strives to identify and engage with some of the more urgent challenges facing LAS staff in the current university climate. The mumbled mantra of the neophyte LAS lecturer, "exactly what is it we do and why?" (Garner, Chanock & Clerehan, 1995, p. 5), is used to problematise the nature and positioning of LAS practice and the way that this practice is communicated to lecturers / advisors new to the field and to potential academic collaborators in other disciplines. Dialogic[1] in structure, the paper revisits a recurring theme in LAS

[1] Justification for the valuing of this approach to an academic paper can be found in Kate Chanock's (2000, p.8) Preface to the Sources of Confusion Conference Proceedings where she cites Zamel & Spack (1998) arguing

discussions and is a version of the outsider / insider narrative. Like all compelling narratives it has drama, tension, humour, a touch of pathos, and an occasional flash of identity crisis for one of the protagonists. Show tunes are optional. In essence, it is a dialogue between an experienced LAS lecturer (the insider) and a relatively new LAS lecturer (the outsider) who persists with the age-old and often existential question "Who am I and why am I here?"

Dialogue: Who am I and why am I here?

Imagine a lecturer with extensive research and teaching experience in the Humanities, a background in Nursing, Biomedical Ethics, Post-colonial Literature, Cultural Studies, and absolutely no background at all in Education. Imagine this mutant creature of interdisciplinary explorations and multiple border crossings wandering into the realm of LAS looking for a place to put down pedagogical roots and ply her craft. Momentarily disorientated, she turns to the friendly folk of this new, and for her, unchartered terrain and asks for assistance. "This feels like an interesting place to be" she observes. "What must I do to become one of you? What are the founding principles of your community? What are appropriate ways of being and where are your boundaries? I must know these things if I am to belong and contribute." At first the inhabitants of this new realm look at their most recent interloper with some confusion. Eventually, however, the response comes. "We are a community of practice" (Webb, 2001, p. 10) they say, "through our practice we share knowledge and expertise with the other communities of Academe". "What is this practice?" asks the newcomer. "How might I work towards developing this knowledge and expertise for myself so that I can become part of your community?" "Well ... that's kind of hard to explain". "Then how do your neighbours understand and value your practice?" the newcomer persists, "Does it bring you respect? Admiration? Wealth? Prestige?"
"Ummmm".

After a prolonged period of contemplation and many tentative attempts to solve the pedagogical perplexities of her new life, the LAS neophyte again approaches those wise in the ways of Language and Academic Skills advising.

"I understand that there is a richness and complexity to your practice. What is this special LAS knowledge?"

I wish there was an easy answer to this question. In responding, I might be able to begin to pin this down to some extent, yet I expect I will not be able to satisfy everyone's understanding of what constitutes LAS knowledge. Perhaps to avoid answering the question directly, I might explain that each of us enters this practice in a unique way from various backgrounds, and with specific knowledge and experience that is in no way homogeneous. The diversity of our knowledge and the variety in our practice is what gives us our richness. We arrive here from a range of disciplines, some with specific knowledge about language and literacy, others with knowledge about learning and pedagogy, many with a combination of both. But within each of these broad categories, there are particular areas of knowledge and skills in which we might specialise. With language, one might be an applied linguist, another might specialise in systemic functional linguistics, while another might focus on critical discourse. Being able to articulate a particular set of knowledges is virtually impossible, or at the very least, an inexhaustive task. What could be said, however, is that we all have a level of expertise in understanding and developing pedagogy based on these knowledges. Having

'that the personal voice, the well-crafted story, exploratory and introspective pieces, not only can but do play a critical role in how knowledge is made in a discipline'.

some foundation in language, literacy, learning and pedagogical theory provides us with the tools to negotiate and 'unpack' the variety of discourses and teaching practices that we are expected to deal with on a daily basis. And on this basis, we are central to the goals and core business of the university.

"Will I have acquired this knowledge as part of my experiences as an academic and teacher in Humanities?"

It depends. Expecting an academic from the disciplines to have a developed understanding of what constitutes good pedagogical practice is one thing. To expect the average academic (not saying you are average) to have a conscious understanding and be able to articulate for teaching and learning purposes the discourse and conventions of their discipline, or to teach students how to learn and/or communicate effectively, is quite another. If acquiring a post-graduate degree and having teaching experience in higher education (see ANU 1996, job advertisement in Craswell & Bartlett, 2001) did provide an academic with the language and knowledge to do what LAS staff know and do, then we simply wouldn't exist: there would be no reason for the contribution we make to teaching and learning in higher education. But this is not the case.

"How then does one acquire this knowledge?"

For those who enter the LAS field via degrees that deal with language, literacy, learning and/or pedagogy, the foundations for practice in the LAS field are fairly well established. Most of us then broaden our knowledge and practice through experience and research. Coming from a non-Educational background, I can see that what we do might seem a bit mysterious to you given that we appear to act on implicit knowledge and understanding that is rarely expressed in theoretical terms on a day-to-day basis. To get an overview of our knowledge and practice, I would suggest you read proceedings from our various LAS conferences. Reading these will achieve several things: it will highlight the major issues concerning us as a discipline; it will give you some idea of the diversity of practice in the LAS field and suggest strategies that you might apply in your own work; and it will direct you to the theory that underpins our practice. It will also provide you with an overview of how we have developed as a discipline.

What I would like to emphasise, however, is the need for you to value the theory and knowledge that you have already gained from your experience as an academic in the Humanities. Just as LAS staff have a valuable contribution to make to teaching and learning practice in the disciplines because of our positioning as 'outsider', and therefore, our ability to see things a little differently, so too do you come to LAS as an outsider with that 'lens' and a contribution that is invaluable to our evolution both as a unit and as members of a broader discipline. Using your own knowledge and experience as a base point is essential in developing your own understanding of how you function in the LAS field: there isn't a particular canon of knowledge that you should necessarily be looking to in order to renew yourself as a 'Learning Developer'; however, there are a range of readings that might help you to acquire the tools you need to be part of our community.

Reflection

As an insider, the above dialogue was confronting in that I was challenged to articulate the range of knowledge that represents our field. The challenges I found were threefold: firstly, the knowledge and practice in our field is so varied and complex that articulation is an in-

exhaustive task and not possible from a single point of view; secondly, there is not a set of knowledges *per se* that constitutes 'LAS knowledge' that can be acquired in order to 'become' a LAS practitioner; finally, the LAS field is so practice-based that the bodies of knowledge on which we draw to inform our practice often tend to become invisible, even to ourselves. This is problematic because it means we may have difficulty explaining what we do and why, not only to the 'newby', but also to the discipline staff we work with. This has implications for how we are perceived and how we are able to evolve as a discipline.

As an outsider, I am reminded by the 'newby' confusion that we have just performed - and please know that this is a performance that faithfully mirrors a personal professional identity crisis - of the epistemological struggles that marked the early days of Cultural Studies as a new and discrete discipline within Australian universities. Very basically, the early Cultural Studies debates organised around what, precisely, this new discipline sought to know that was not already available through research in literature and / or film studies or already being examined within the disciplinary frameworks of History, Philosophy or the Political Sciences. While many were arguing for the positivity of the 'free trade' environment that marked those early days - that is, an environment where those who identified as Cultural Studies scholars were free to move across disciplinary boundaries as necessary and utilise whatever was valuable to the varied projects being undertaken at that time - at a conference in Melbourne in 1997, Frow argued that if those of us working in this new field were going to be able to effectively communicate our growing range of research and practice, we had to develop a repertoire of shared theoretical perspectives and practices. The discipline had to get a handle on what represented the core of its knowledge base. These early Cultural Studies debates have, we think, relevance for the conversations currently engaging the LAS community. For example, what is it that we know that is not readily available via training in English literature, Communication and Cultural Studies, or indeed, many of the other disciplines that comprise the tertiary system? Furthermore, how does this LAS knowledge figure in the intellectual landscape of academe? The precedence for and merits of an engagement of this type of professional introspection is also suggested by Webb's observations about recent positive changes to the institutional status of academic development and instructional design units (Webb, 2001, pp. 6-7).

Discussion

So how do we proceed from Webb's (2001) advice, and Craswell and Bartlett's (2001) call for a LAS pedagogy? Furthermore, how do we begin to develop ways to effectively communicate the specificities of LAS knowledge to the non-initiated? Craswell and Bartlett (2001) offer a useful pedagogy of practice for LAS by exploring concepts of multi-literacies. They argue that the academic diversity many bring to their work in the LAS field lends itself to an enriching cross-pollination of ideas and practices that will, in the best of all possible futures, translate into a "multi-disciplinary research base that is academically coherent" (Craswell & Bartlett, 2001, p.11). This argument is not dissimilar to the Cultural Studies debate referred to above. Exploring ways of achieving this next step in our development towards a discipline is one of the tasks of this paper. We seek to explore the 'specialist knowledge and skills' that are so often referred to, but rarely unpacked. Specifically, we aim to begin an analysis of "the distinctive nature of LAS pedagogical knowledge" (Webb, 2001, p.13).

Foucault's work suggests a way forward here. He has cogently argued for the value of epistemological genealogy. That is, the value of delving into the history of a knowledge system in order to better understand its genesis and evolution. This genealogy, he argues, unites "erudite knowledge and local memories which allows us to establish a historical

knowledge of struggles and to make use of this knowledge tactically" (1980, p.83). A genealogy allows one to 'recall' how and why various ways of knowing unite to form a discrete and coherent system. The genealogical work on LAS development as a unit within the university environment is already in progress (for example, see Craswell & Bartlett, 2001; Webb, 2001). Craswell, Bartlett and others have argued that the time is now ripe to extend our explorations to identify and examine the shape and form of LAS knowledge, to understand (again, borrowing from Foucault here) the archaeology of that knowledge. To begin this process, a preliminary and incomplete attempt has been made to 'map' the variety of theoretical knowledge that underpins our practice, as can be seen in Figure 1.

Figure 1 places pedagogy at the centre of LAS knowledge with language, literacy and learning (and the various theories encompassed within these) as core aspects of that knowledge. The second concentric circle represents theory that is peripheral to the core knowledge, and the final concentric circle represents our research methodologies. Elementary in nature and by no means complete or accurate, we decided to include the 'map' in Figure 1 in this paper to act as a basis for discussion about what exactly constitutes our collective knowledges and how they can be represented. Developing such a map might prove useful not only as a guide to the LAS field of knowledge[2], but also as a tracking device for our development and expansion as a discipline. Dynamic in nature, the map can develop as we as a discipline evolve.

What it fails to do, however, is explain the complexity of how these theories interweave in our practice. Perhaps this is where LAS practice extends into the 'arts of the contact zone' (see Pratt cited in Skillen et al.., 2003), that conceptual space where the real mystery is said to begin. Or perhaps this is where the pedagogy of practice, such as that proposed by Craswell and Bartlett (2001) comes into play. Clearly, this is where further research and writing needs to occur.

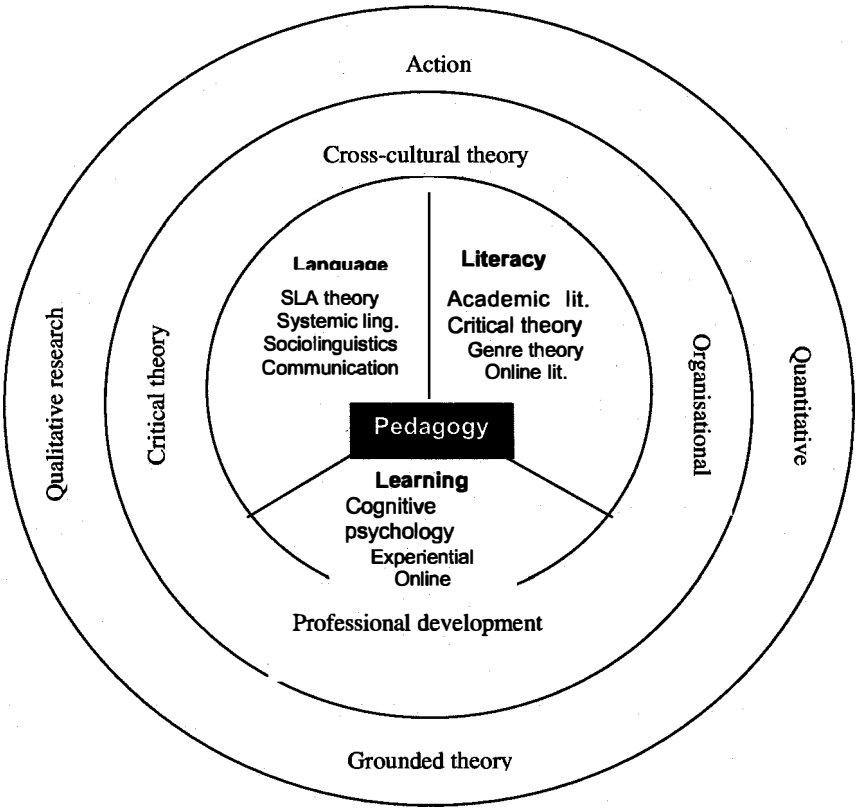
The crucial point arising from the work done to date, however, is that if we are going to continue to evolve as a discipline and continue to 'tactically' secure our place within the university, we have to develop a shared base of reference. Developing our pedagogy via a genealogical delving into the knowledge that does circulate through our community, albeit in tacit or partially articulated ways, is essential to managing our role as we continue to slough off the 'remedial tag' (Craswell & Bartlett, 2001). This is particularly important if we are to have our intellectual contribution valued and recognised by the wider university community.

The role and positioning of LAS: the outsider looking in

There can be no doubt that in today's economic and pedagogical climate within most Australian universities, LAS staff are not only valuable but, we would argue, absolutely essential to a successful realisation of current institutional aspirations to standards of excellence in relation to tertiary literacies and graduate attributes. Moreover, this value is exponential to a university's competitive success in the global market place to attract full fee paying students (usually international) and offer as part of the corporate package, guaranteed language and academic skills support of a professional standard (Kennedy, 1995; Leask, 1999). However, the necessary and valuable contribution that LAS units make to the culture of most universities is, at least potentially, always under the threat of intellectual erasure. There is still too often a troubling and systemic disavowal of the key part our practice plays in the quality of undergraduate and postgraduate student learning and academic skill acquisition.

[2] One example of how it might function as a tool for LAS is by using a developed version of Figure 1 as an interface (html) that links to a 'traveller's guide' to each particular theory with further links to seminal and associated readings.

Figure 1: Draft framework of knowledge and theory informing LAS practice



LAS units are still largely viewed as ancillary, or an optional supplement, to the 'real' business of academia, despite the fact that in the university culture of the new millennium, at least rhetorically, we play an increasingly centralised role (e.g. Candy et al., 1994). As Professor Julius Sumner Miller asked: "Why is it so?" The answers to this question are complex, multi-faceted, and, to a larger degree, beyond the scope of this paper. Nevertheless, we will begin an examination of some of the symbolic conditions that have brought about this state of conceptualised marginalisation. For a comprehensive discussion of the historical

conditions that have shaped LAS experience in the academy to date, see Craswell and Bartlett (2001, pp. 2-5).

Symbolic history and contested curriculum

As imagined spaces, universities have traditionally viewed themselves as cultures concerned with 'higher learning'. The phrase 'higher learning' suggests an intellectual environment that has evolved beyond the need to grapple with the nitty gritty of language and writing skills – tertiary literacies – the assumption being that all students will have somehow become proficient in these areas as a prerequisite for academic study. That this idea still holds many discipline academics in thrall despite the daily realities of having to address student learning needs in these areas became evident at a recent curriculum planning day at the University of Wollongong. The LAS advisor at this meeting was invited by the Head of the Department to work with discipline academics to develop subject-embedded strategies to support student learning and skill acquisition. All lecturers and subject designers at the meeting were in complete accord about the necessity of proactively addressing what has become an increasing problem in the department. The majority of these lecturers were very receptive to LAS collaboration, seeing this integration work as enriching their own subject delivery and teaching practice. However, some lecturers found the need to specifically address this aspect of their pedagogical practice threatening in the extreme and argued that teaching tertiary literacy and academic skills was 'not their job' (AEC Planning Symposium, June 2003). This anecdote demonstrates a core issue for LAS staff: on the one hand what we do (and it will serve us to be able to articulate that in precise terms[3]) has become increasingly essential to effective academic teaching and learning in today's university; on the other hand, there is still that residual impulse to maintain the myth of our marginality.

Despite the symbolic residues of the 'ivory tower' days of higher learning, universities are inexorably moving towards evermore-corporate models of tertiary education. Just as the university is in transition from its traditional imaginary of institutional identity, so too are LAS units at a crucial point in their own transition from the remedial models identified by Craswell and Bartlett (2001), Webb (2001), and others, to a developmental and richly defined LAS pedagogy. As we have already suggested, LAS units and LAS staff have been viewed in the symbolic university as being somehow supplemental, surplus in the 'real' business of academia, only tolerated because they deal with those aspects of learning disavowed by the dominant symbolic model which privileges content over skills. We have also argued that despite this traditional marginalisation, LAS units are becoming increasingly important in the day-to-day teaching and learning environment of the 21st century university with its corporate overtones and fiscally-driven pedagogies. Our 'stock' is on the rise. Understanding this, the problem for us is how to rethink the conditions of LAS existence, how to begin the work of negotiating, at least theoretically, a more strategically productive position. Jacques Derrida's notion of the supplement is a useful place to begin. Very simply, the logic of the supplement, as he develops the notion, contends that the supplement – something added to the whole from beyond its boundaries – can only be successfully accommodated where there is already and necessarily a deficiency. To take this idea a little further, the successful accommodation of the supplement must indicate that the whole has somehow been lacking something integral to its holistic function. Following on from this logic, it is possible to argue that LAS presence in the university of the 21st century is not a luxury, an afterthought, or a pedagogical indulgence. It is absolutely essential to the function of the academy.

[3] This is now partly being addressed at UOW by Skillen et al.., 2003.

The need for us to claim this notion as a strategic position was recently graphically illustrated by a question Bartlett posed to the LAS community attending the last SIG meeting at ANU (2003). At this meeting she asked us "How low will you go?" in relation to working with students who had language proficiencies incompatible with successful progression in an Australian university degree. The round-table discussion arising from the question reminded all of us at that meeting of our professional vulnerability to current university recruitment practices. It is only by systematically articulating the value of our work, and by drawing on a reviewed perception of our role in the university, that we can begin to move, if only by increments, towards deeper involvement in policy. An important step in this process is the development of the proposed geneaolgy, through which a shared understanding of our core knowledges and practices can begin to provide us with a subtle way of articulating to ourselves and our institutions the intellectual contribution we make. It is, after all, our knowledges and services to academia that allow universities to, at least notionally, live with their current policies of massification, internationalisation and rationalisation.

Conclusion

In summary, we argue that two issues arising from this paper require our future attention. These issues are intimately entwined. On one level, we need to continue to work towards developing a repertoire of shared theoretical perspectives and practices in order to foster our place within the university and our future research; and on the other level, we need to develop a strategic awareness of the pedagogical and corporate politics that drive Australian university cultures into the future. One example of this latter type of work is Jones' (2001) paper, *Graduate Attributes: An agenda for reform or control.* By developing strategic awareness of the theoretical and pedagogical bases of our practice as well as the agendas that impact upon us, LAS staff will be better placed to renegotiate their professional and intellectual status in tomorrow's academic environment.

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Meeting the challenges of learning support for on-campus, off-campus and offshore students in a multi-campus university

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ABSTRACT Understanding and meeting academic expectations is a challenge for most students at university, particularly early in their programs. Assessment tasks are the point where students experience these challenges most frequently. Supporting students to meet these challenges is particularly difficult in a large, multi-campus university where students study on-campus, off-campus and offshore. Given the brief of providing learning support for all students, Learning Advisors at the University of South Australia have developed a model of support using online workshops and downloadable print resource. These workshops and printable resources are both generic and course specific. The online workshops were recognized as an innovative and practical approach to the provision of learning support services through an Australian Universities Teaching Committee (AUTC) award in 2002. This paper focuses on two of these workshops and shows the variety that is possible in this medium.

Keywords: Online learning, student support, higher education

Introduction

Supporting students who are undertaking academic activities is the brief of learning advisors at the University of South Australia (UniSA). As in most Australian universities, learning support is aimed at making academic expectations explicit and developing academic skills and is provided as workshops for groups and sessions for individual students as well as resources. The biggest challenge that faces the nine learning advisors at UniSA is how to provide effective language and learning services for the large numbers of on-campus, off-campus and offshore students enrolled in the multi-campus university. This paper discusses issues around student learning services at UniSA and reports on a model of support and issues surrounding the use of online workshops and downloadable resources developed to address the needs of students from diverse backgrounds.

The increasing diversity among students at UniSA, as for most Australian and international institutions, is a product of national and international, economic and social trends (Coaldrake & Stedman, 1998). Of the 30,000 students at UniSA, 19,000 are onshore students studying on-campus, by distance and mixed mode, including online (Table 1). There are a large number of international students who, in 2003 comprised 30 per cent of the

student population compared to the national average of 21 per cent. Among the 11,000 offshore students the diversity of student learning needs is intensified by the varying contractual arrangements between UniSA and the different partner institutions.

Table 1. Statistical data for 2001 at UniSA indicating diversity

Semester 1 2001	Number	Proportion of total (%)
Males	11,071	40.6
Females	16,192	59.4
Internal	23,069	84.6
External	4194	15.4
Full time	18,486	67.8
Part time	8,777	32.2
International (onshore)	5,763	21.1
Aged over 24 years	13,266	48.7
In equity group	8994	33.0
Low socio-economic status	4,894	18.0
Rural	3,059	11.2
Isolated	268	1.0
Aboriginal/TSI	290	1.1
With a disability	657	2.4
Total students	*27,263*	*100.0*

Online initiatives

Given the diversity of academic, socio-economic, cultural and language backgrounds of its students, UniSA has attempted to provide flexible program arrangements and has identified itself as a 'clicks and mortar' university rather than a 'bricks and mortar' university. In keeping with this vision, the University established a sophisticated online platform known as UniSAnet (Hicks, Reid & George, 1999). This facility, accessed via the World Wide Web, provides home pages for all academic staff, links to all courses on offer, gives access to course content and related study resources; it also provides access to administrative services related to teaching and learning, and enables interactive communication between lecturers and students and among students.

UniSA's online focus is not dissimilar to many other universities in Australia which are driven by the same student diversity and economic imperatives to move online as an efficient means of meeting a wide range of student needs. Monash University, for example, has developed an academic writing site (Clerehan et al., 2003). Other learning-support in universities across Australia are investigating software such as concordancing packages and computer aided language learning software. However, in most cases, the development of online resources in other universities has been accomplished through grants – in some cases sizeable funding was used whereas at the University of South Australia the online resources have been developed as part of the core business of the learning advisor team.

Challenges

The learning advisors used UniSAnet to make a range of learning support resources available to students. In view of the diverse needs of students, one of the challenges has been to develop resources that did not become so generalised that they came to be seen by students as apart from their area of study and irrelevant (Ramsden, 1992). Providing choice among types of resources was another challenge in supporting students with diverse needs. In addition, there was the risk of a lack of integrity and cohesion amongst the resources, of unnecessary

duplication and of giving mixed messages to students if learning advisors developed resources independently.

Further challenges resulted from pressure by management to establish an online presence as quickly as possible. In the early stages of the development of the resources little was written on the pedagogical issues involved in translating face-to-face and print-based materials into online learning resources. As well, the learning advisors needed to rapidly update their Information Technology skills by learning several new applications available through the UniSA online network with little training and as part of their normal workload.

Another challenge, which remains in part unresolved, was the issue of the ownership of resources written by the group. Acknowledgement of individual ownership was complicated by the team approach adopted to writing the resources and further complicated by changes to the team and by the need to update the resources. Ironically, the issue of ownership became further complicated with the success of the resources as they were increasingly used them by academic staff across the university in their own course materials or in collations of administrative and academic guides for offshore students, at times without acknowledgment.

Integrity of approach and pedagogy

Discussion of issues around the integrity and cohesion of the resources and the pedagogical issues of writing in a new medium led to two main features in the model that the learning advisors adopted for the learning resources. The first feature was a set of four operational dimensions that exist across the range of resources. These four dimensions involve: the specificity of the resources; the mode of delivery of the resources; the focus of the resources and the theoretical framework. The second feature was that the resources were developed using a team approach.

The specificity of the resources refers to whether the resources are at a generic or discourse specific level. An example of a generic resource is the online essay-writing workshop that will be discussed later. An example of a discourse specific resource is a workshop for ESL students on the language of Law or an online workshop on a particular assignment in a course. The course-specific workshops are developed by learning advisors in close collaboration with lecturers and based on the known needs of students. In some cases, as well as guiding students through the process of engaging with the academic task, the workshops provide the opportunity for students to interact with each other and with staff through asynchronous online discussions. The course-specific resources are effective means of supporting students in their move towards membership of the discipline area. They make explicit the academic literacies of the discipline and aim to develop "an awareness of the functions of texts and how these functions are conventionally accomplished" (Hyland, 2002, p. 393).

The mode of delivery of the resources refers to whether the resource is written as an online workshop (generic and course-specific), as an online printable resource, (generic and specific), or as a face-to-face workshop. As the model developed, the team was able to identify different pedagogies required for each mode.

The focus of the resources refers to whether they target written genres like article reviews, essays, reports, or processes like reading and making oral presentations, or instructions like referencing, avoiding plagiarism and pronunciation.

The theoretical framework adopted for resources on writing was broadly functional. Initially it was based on Systemic Functional Linguistic theory as articulated for example, in work by Martin et al.. (1983), Drury and Gollin (1986) and Martin (1997). This approach was also the basis of materials produced for student writers by Peters (1985) and Kalantzis and Wignell (1988). The approach was used to begin categorising the relevant written genres (see

Appendix 1) It was also chosen to facilitate the development of an awareness in student writers of how texts alter according to their social function and how, when texts are functionally different they are schematically and linguistically different. Over the years the team has also drawn on the genre analysis of Swales (1990) and Bhatia (1993). So for example, a recent course specific printable resource on writing an exegesis makes use of model exegeses and includes some analysis of the moves that the authors have used in developing their text (Dudley-Evans, 1994).

These operational dimensions and the development of the resources using a team approach evolved over a period of about 2 years. A team approach to the writing and reviewing of the resources involved a move away from the individualistic nature of academic culture to a collaborative one. This shift brought some discomfort and even angst for all members of the learning advisor team (O'Regan, 2001). The process that ultimately evolved for writing the materials is as follows:

- A taxonomy of target academic linguistic behaviours is developed based on a needs analysis involving students and lecturers (Johns, 1991 cited in Benesch, 1996).
- Collaboration is negotiated with course coordinators where relevant.
- Priority is given to resources needed or requiring revision based on urgency of need or service agreements with Divisions.
- Team members are directly involved on the campus or interested in the topic draft the resource.
- The learning advisor team critiques the draft of the resource ensuring that innovation and quality are directly linked.
- A final draft (which can involve significant input from other team members) is produced.
- Ownership of the resource is acknowledged (largely as a team).
- Where the resource is new and generic, it is also submitted to a Resources Review Committee within Learning Connection that oversees consistency of quality of all Learning Connection materials.

The resources

Over the past four years the learning advisors have develop 10 generic online workshops, around 43 specific online workshops and 26 printable learning guides. Two examples serve to illustrate the main features of the resources. The first is a course specific online workshop on report writing and the second is a course specific online workshop on pronunciation for pharmacy students.

Evaluation

Responses to the body of resources have been favourable. At an institutional level the University of South Australia recognised them by awarding the ViceChancellor's Award for *Innovation Product Improvement and Process Improvement* in 2001. In 2002 the learning advisors won an *Australian Award for University Teaching* for "excellence in the provision of the support services that assist the learning of students".

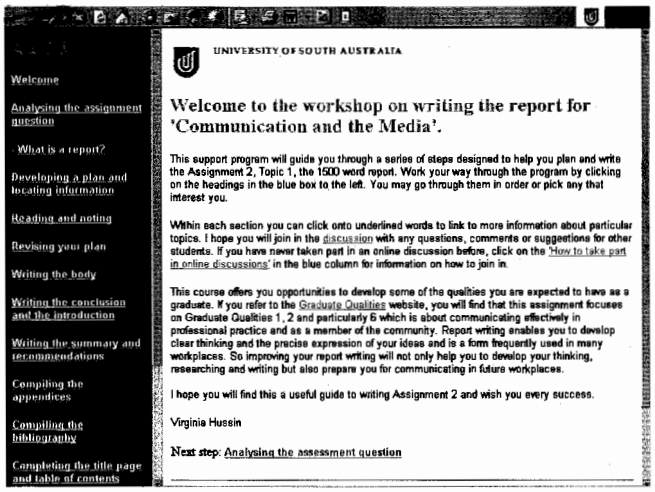
In 2003 a consultant was employed to undertake an evaluation of the online resources and the findings indicated that they were highly valued by both staff and students (Ingleton, 2003). From the point of view of academic staff, course coordinators who collaborated in the development of the workshops were enthusiastic about being able to make explicit many of the implied academic expectations in their assessment tasks. They stated that their students

Figure 1. Examples of online resources

Welcome page for report writing workshops for the course 'Communication and the Media'.

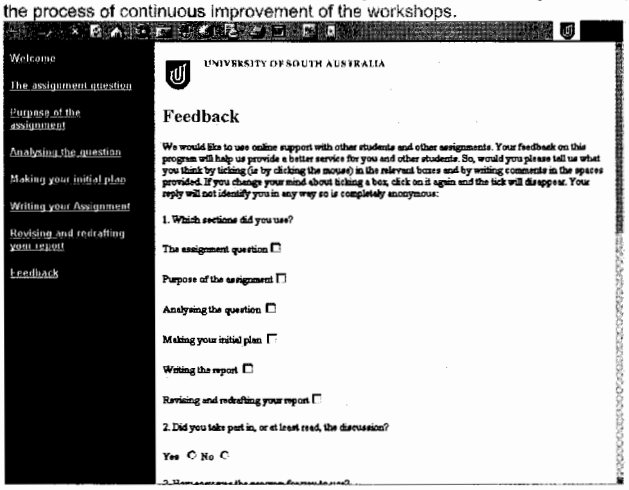
This is a core first year course for Business students with relatively large (>900) enrolments.

Hit counter—indicating high levels of use.
Navigation bar—students can sample and focus on areas of interest
How to use the workshop—hints for making the most of the workshop
Interactivity—opportunities for joining in discussion with other students and lecturers
Outcomes—relates the task to the development of particular UniSA graduate qualities. These are set out at http://www.unisanet.unisa.edu.au/gradquals/poster.asp



Feedback page

This is a sample of the online feedback form included with the majority of workshops.
Feedback obtained from these forms, directly from students through emails, phone calls or discussion group interaction (see below) informs the process of continuous improvement of the workshops.



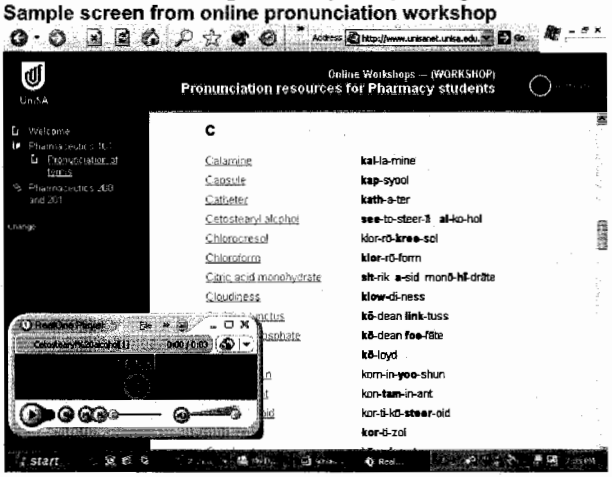
Pronunciation page

The text-based model of online workshops was extended to use audio files in pronunciation guides for pharmacological terms used in two courses in Pharmaceutics.
The online guide combines:

- *simplified written phonetic guidelines*
- *with audio files that play the spoken word.*

Students are able to work through and practise terms they find difficult using any computer with a connection to the internet and sound. Workshops are also available on the Get connected *CD-ROM provided free of charge to all commencing students.*

Sample screen from online pronunciation workshop



appeared to engage more effectively with the tasks, performed better in them and were less reliant on individual assistance and support. From the point of view of students, the course-specific resources were the ones most used and understandings gained of the academic expectations from the resources were most valued. However, students generally only made use of the resources or parts of the resources that they perceived to relate directly to their assessment (Ingleton, 2003). This importance placed on specificity by the students is alluded to by Hyland (2002, p. 389) who promotes more investigation of the practices of different disciplines to "take us to greater specificity".

Ongoing challenges

Continuous evaluation and discussion with students and staff are needed to ensure continued relevance and quality of the online resources. Specific challenges that have been recognised by the learning advisors include adopting a more critical perspective around and within the workshops (Benesch, 2001; Kramer-Dahl, 1995). Although the workshops succeed in guiding students to meet the requirements of the target linguistic situation, they are limited in encouraging students to challenge the requirements and engage critically with them (Benesch,

2001). Other specific challenges include making sure that the online resources conform to the highest standards of accessibility for students with disabilities; reviewing and revising the resources to take into account the advances in technology which occur; and ensuring consistency between the materials continues. The indications that students prefer more specific resources may mean that some of the generic online workshops (particularly those on written genres) remain only as exemplars for learning advisors to ensure consistency when developing assignment specific resources in these genres.

Although there are data on the level of use being made of the resources, they do not indicate which students access the resources. Anecdotally it appears that highly motivated and independent learners make more use of them than other students, but as yet there are no data on this. In addition it is not known whether students for whom English is a second language use the resources as frequently or in similar ways to the native English speaking students. Finally, the learning advisor team needs to find ways to maintain current resources and develop new ones with limited numbers of staff.

Conclusion

Providing learning support for on-campus, off-campus and offshore students in a multi-campus university presents many challenges for the team of nine learning advisors at UniSA. They have attempted to maximise the advantages of being centrally located in the university structure and of the university's sophisticated online network by developing a model for producing online workshops and downloadable print resources that can be accessed anywhere and anytime via the UniSA website. The initial resources developed over the past four years using this model provide a solid foundation for future developments. The process from needs analysis through to quality control ensures consistency and quality and the group writing process has come to be the accepted way to produce high quality resources efficiently. Future development of resources linked to the current model as well as findings of current and on-going evaluations will help to ensure that a wide range of student needs continue to be addressed through online resources.

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Advising for engagement – how do WE engage?

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ABSTRACT Given that both student retention and effective learning outcomes are highly dependant on student 'engagement' during the first year of tertiary study (NSSE 2002), how can LAS advisors contribute to the experience of engagement? This paper draws on case study material in order to identify several issues related to engagement from a student's perspective. The social dimensions of classroom management may have a greater importance than most staff realise; issues of diversity can be paramount; the relevance of teaching strategies and students' perceptions and expectations are also identified as issues. These are part of the challenge facing academic staff seeking to provide quality-learning experiences in an increasingly impoverished environment. As well as making some suggestions for facilitating greater engagement, this paper invites discussion as to how we can contribute to engagement strategies in the wider academic community, given that our activities are often peripheral.

Keywords: Student engagement, learning advisors

Background

Although there is a long tradition of connecting effective learning and engagement, particular references to student engagement can be said to have been an issue of focus since the mid nineties (Butler-Kisber, 2003, p. 2) and there are many research studies that have investigated the phenomenon over the past decade (Bennett, 2001; Butler-Kisber, 2003; Chen & McGrath, 2003; James, 2001; Kuh, 2003; McGinnes & James, 1994; McInnes, 2001; National Survey of Student Engagement, 2002; Pascarella et al., 1996; Strong et al., 1995; Tinto, 1997). At this time of funding cuts to the higher education sector, the relationship of the outcomes of quality audits of universities to the perception of the university experience for students is central. How can the quality of education offered by an institution be comparatively assessed? Universities have not yet developed reliable measures of student learning (Bennett, 2001), although the ways in which students select courses and universities is based on some perception of the quality. The difference the university or college makes in a person's education has many dimensions and a variety of missions depending on the discipline. Assessing outcomes is one strategy that includes measuring retention rates as well as the development and application of a range of skills. In an attempt to measure the quality of colleges in the US, the US News and World Report (USNWR) publishes annual rankings using data about inputs, reputation and outcome. Inputs measure how much an institution spends per student on instruction and on other financially-based resources (Bennett, 2001). Reputation is another measure and very difficult to quantify. If an institution has a large

number of students applying for candidature, it does not necessarily say anything about the institution's learning. Assessing student engagement has become one way of judging quality. In the US, the National Survey of Student Engagement (NSSE) was commenced in 2000, combining a focus on processes and participation rates. Each of the items in the survey is grounded in research evidence that associates it with significant student learning. This large-scale study is ongoing and has generated much debate as well as contributing to the formation of initiatives and strategies by universities and colleges of higher education to improve teaching and learning outcomes. In Australia, the Centre for the Study of Higher Education (CSHE), has been involved in a range of related and longitudinal studies that have led to many publications on higher education policy and practice in relation to the changing student experience, work roles of academics and quality assurance processes. This paper refers to research findings from these two organisations as well as other related studies that connect with issues arising from a case study of an individual student's learning experiences during their degree course. It explores the relationship between student engagement and the role of the Language and Academic Skills (LAS) advisor.

Student engagement

"Student engagement represents the intersection of the time and energy students devote to educationally sound activities and the policies and practices that institutions use to induce students to take part in such activities... the more students do something, the more proficient they become" (NSSE, 2002, p. 1). Engagement has also been described as "success, originality, curiosity, and satisfying relationships" which are the "four goals that energize students who are engaged in their work" (Strong, Harvey & Robinson, 1995, p. 1). Schlecty (1994, cited in Strong *et al.*,1995) describes students who are engaged as exhibiting three characteristics – they are attracted to their work, they persist in their work despite challenges and obstacles and they take visible delight in accomplishing their work. In relation to a study looking at a classroom project in the design of hyper-media documents, Chen and McGrath (2003, p.402) describe "moments of joy" and define the nature of students' engagement as enjoyment, concentration, perceived control, exploration and challenge. These various manifestations of engagement depend also on the nature of the discipline or subject area but all lead to a very simple notion of engagement as described by Kuh (2003, p.25) as "the more students study a subject, the more they learn about it".

Involvement has a positive influence on learning (Pascarelli & Terenzini, 1991, cited in Tinto, 1997) so the more students are involved in academic life at university, the higher levels of knowledge and development of skills are achieved, This also applies to student contact with staff (James, 2001) and to the quality of student effort (Tinto, 1997). In describing the NSSE survey and some of its findings, Kuh (2003) maintains that the more students practise and get feedback on their writing, analysing or problem solving, the more adept they become. "The very act of being engaged also adds to the foundation of skills and dispositions that is essential to live a productive satisfying life after college" (p. 25). In addition, the more students are involved in university life the more they will "persist" (Mallette, Cabrera, Pascarella & Terenzini, 1980, cited in Tinto, 1997). This notion of "persistence" or retention is another aspect of student engagement that universities cannot afford to disregard.

Tinto (1997) discusses student retention, calling it "exploring the educational character of student persistence" (p1). Tinto identifies classroom activities as influencing student persistence by their potential to change the way students and staff interact within and beyond the classroom setting. The classroom may be the only place where staff and students actually meet and therefore if social and academic integration or involvement is to occur, "it must

occur in the classroom". The experience of the classroom has significant effect on retention.

There are many reasons for attrition. Choosing the wrong course (James, 2001) is one reason beyond the scope of LAS advisors' work. However, although the links between involvement in classrooms, student learning and student retention are yet to be made (Tinto, 1997) the classroom environment, particularly a supportive one, is very important (Fassinger, 1995; Nunn, 1996, cited in Tinto, 1997). This is rather an obvious connection, but one that needs to be highlighted if we, as LAS advisors, are in a position to contribute to mainstream classroom activities in any of the roles that we take. Tinto's study looks at altering student experience in the classroom using learning communities and collaborative learning strategies in order to discover to what extent these strategies enhance student learning and persistence.

The NSSE (Kuh, 2003) shows that - in America - engagement patterns are not clear-cut, although some general trends are apparent. Although smaller schools and cohorts are more able to engage students more effectively, most of these students are in full time study or live on campus. Student employment practices in Australia serve to counter strong engagement to a large extent. Most students who come to university expect to be engaged (Kuh, 2003) but they do not spend enough time studying. Paid employment amongst large numbers of full time students has led to an attitude within some cohorts of trying to get away with doing the least amount of study possible. Growing numbers of students come to class unprepared. These disengaged students put very little effort into their studies and report making very little progress toward desired outcomes of 'college' (Kuh, 2003, p. 5). Extra curricula activities initiated by LAS staff in learning and language support are unlikely to be very effective with these students. Programs that include peer-mentoring, and study skills workshops, while very valuable for some, are not necessarily the solution for students who have little time to spend on campus, or are largely disengaged.

One student's perception and engagement

However, being on campus is no longer a focus for many students (McInnis & James, 1994). Even students who are enrolled full-time have far less contact with academic staff or other students than before, partly because so many are in paid employment. Therefore the social dimension of learning becomes even more important because a successful approach to learning and a positive view of the first year experience are less likely to occur in a social vacuum, so have to be incorporated into the learning activities and assessment items which drive the nature of activity.

One student's perspective

In an interview with a final year undergraduate student, several issues of successful student engagement emerged. The student, who will be referred to as Sebastian, was completing a Bachelor of Arts degree in computing and was asked about his experiences during his years of study. Sebastian was very enthusiastic about talking about his university life and could be said to be a strong example of someone who had experienced sustained engagement. He showed great pride in never having missed a single class and expressed a strong sense of responsibility about making the most of the educational opportunity that coming to university offered him. He was the first in his family to go to university. He said, "Even when my house was robbed I came to class. At first I just came, then as time passed it was because I wanted to know more, didn't want to miss anything." Sebastian identified that although he had a strong motivation himself, it was the encouragement of his lecturers that spurred him on. Two lecturers in particular had told him (and others in the class) that he could do better than he thought he could and were always challenging him to go further. He was also advised

to study subjects he really liked, in order to sustain interest throughout the duration of his degree. He says:

> My only regret was that when I got to third year I couldn't do any more subjects. I have a double computing major and a communications major. It was a lot of work. I remember I spent a lot of time on it – I was in the computer labs until about 4 o'clock in the morning and we'd be back there about 10 in the morning. I'd be working all day until 4 for about two weeks. It was a lot of work but it paid off in the end".

Sebastian exemplified the basic tenet of student engagement – the more he participated, the more proficient he became. Also, the more contact he had with staff, the more connected he was to his studies:

> Uni was different from school. I just enjoyed it a lot more. I guess in high school when you do extra work and stuff, you get laughed at but here it's a lot more impressive and I enjoyed that, I'd do extra work, extra assignments, I'd do a lot more. Kay (friend) and I would do twice as much in an assignment because we'd get carried away in it and get good marks. The biggest way I changed, I guess, I sort of became more responsible.

When the prevalent attitude in a group of students is not conducive to the enjoyment of learning, teachers have a far greater battle to fight. Setting up a classroom atmosphere of high expectations and energy, and of high grades being attainable but only if students work hard, is critical in first semester (McInnis & James, 1994). To balance the encouragement of high standards with a supportive climate requires both content and teaching expertise. If LAS advisors are working in collaborative partnerships or team teaching situations with faculty academics, the design of the first tutorials is a very positive place to start.

Social interactions

The social dimensions of university life had a profound effect on Sebastian. He was lost when he first arrived at university and still expresses keenly his sense of shock and isolation at the beginning, but was lucky to be in a tutorial taught by 'Paul', an experienced lecturer in humanities. During the tutorials, the lecturer introduced discussion strategies from the outset, setting up expectations in the class for interactions that were social and academic. Classroom activities relied on participation and collaborative preparation. The lecturer made an effort to get to know his students quickly and to individually engage them in thinking about the subject topics. Sebastian says:

> I made friends quite quickly in Paul's class I still talk to most of the people I met there. He was strong on social support, on people getting to know each other. I didn't feel alone in that class. We all remember each other from that one class. I guess that's where a lot of my friends came from. I used to come into uni just to hang out with them because there was nothing better to do.

When asked later what were the best experiences of all at university, Sebastian returned to the social/academic aspect

> The best was during a six hour break when the class had nothing to do, and at first people would go home and then come back but then they started to hang about and we'd do work and talk and it was the whole class, not just two or three of us, but fifteen

of us and we'd be at the bar or the cafeteria and we'd be working, and that was *The Best*.

Building supportive peer groups is referred to by Tinto (1997, p 605) as having a strong impact on student retention and he describes a study where students participated in a first year learning community, developing a network of supportive peers. This helped them to make the transition to university and the network of peers provided students with a small group of fellow students with whom early friendships were formed. Some friendships lasted longer than others, but students saw those associations as an important and valued part of their first year experience.

"Meeting people and making friends during the first year of college is a major preoccupation of student life especially among younger students who have yet to establish families or acquire significant work obligations" (Tinto, 1997, p.605). But it can be very difficult in large institutions or in courses with large cohorts. Another factor is that sometimes in large first year groups, casual tutors are engaged who are themselves recent graduates, and are not confident in exploring interactive teaching practices to enhance this sort of classroom engagement.

The development of interpersonal relationships is important because it is against a backdrop of a supportive network of peers that academic engagement arises (Tinto, 1997). Tinto reports that in his study, groups that formed inside the classroom often extended beyond the classroom in informal meetings and study groups. Once these were in operation, students were able to turn towards the material presented in class and their assignments. Participation in a shared learning experience enables students to bridge the academic social divide. It allows them "to meet two needs, social and academic, without having to sacrifice one in order to meet the other" (p. 606). In Sebastian's case, work groups and group work with like-minded students are still the highlights of his campus experience.

Therefore, the first priority for students starting university is to make social connections with their peers. (Tinto & Goodsell, 1994 cited in Tinto, 1997). As students progress from first year to later in their degree, their concerns shift toward a greater emphasis on academic issues., and as they progress through their studies, there is a greater focus on educational rather than social concerns (Neumann & Meumann, 1989 cited in Tinto, 1997). It is interesting to note that Sebastian now spends much of his time on campus with a small group of fellow students, and that their conversations appear to be totally dominated by their shared academic interests.

Diversity

Another positive experience Sebastian identified about university life was his exposure to a wider group of diverse people, and that the narrow confines and attitudes at school had become apparent to him:

> Coming to uni there were all sorts of people and so different and they are who they want to be. This is what I have noticed about people who come to uni, they have worked themselves out and are comfortable with who they are.

Kuh (2003) asserts that experience with diversity matters to student engagement. The way in which individuals relate to the external world changes during university attendance beyond what would normally be attributed to the usual maturing process or to changes in society. These changes can be attributed to university attendance itself. Specific 'college' experiences influence changes in values, and attitudes, although most of the university's

impact on students is the " cumulative result of a set of interrelated experiences sustained over an extended period of time" rather than the result of any single experience (Pascarella & Terenzini, 1991, cited in Pascarella, 1996). Sebastian referred to several examples of his change of view after talking to people from backgrounds he had not before been exposed to. He saw it as a welcome part of his education and recognised that he had gained much from it in terms of understanding his world. He saw exposure to and experience of diversity as liberating.

Interactions with staff

Student interactions with staff have already been identified above as important factors in increasing student engagement. Sebastian was grateful that his cohort was small enough to permit an intimacy between staff and students that could not exist in larger cohorts. He talked about his ease of gaining access to his lecturers in comparison with a friend of his at another university who was in a cohort of 400:

> I could see anyone I wanted to whenever I wanted to. She didn't know any of her lecturers or tutors and they didn't know her – even the attendance sheet was marked by numbers. Every tutor I've had would know my name and they bothered to learn the names. For her they call out her number and I thought that was odd, like a military concentration camp.

Occasional contact with faculty staff may be enough in relation to discussing career plans, working with a staff member outside class on a committee or project and doing research with a staff member (Kuh, 2003, p.7). But more frequent contact about feedback, assignments and discussing ideas outside class time leads to greater levels of involvement. Contact with academic staff is also an important factor in counteracting the growing disengagement recognised among undergraduate students (James, 2001, p.6). Working intensively with students in the first few weeks of the first year is one solution. Of course in small cohorts it is much easier to encourage the development of strong interpersonal rapport between staff and students. However, unless LAS advisors are teaching credit subjects, or working closely with faculty colleagues, it is difficult to see how we can contribute to this aspect of student engagement. It must be the faculty lecturer who is in charge of teaching and assessing who takes on this role. But the more students write, the more their teachers have to read and give feedback, the more students are likely to make appointments for consultation to discuss their work. While this leads to greater student engagement, it leads to problems in academics' workloads.

What can LAS advisors do?

There is a multitude of suggestions about how to achieve better learning outcomes, higher levels of student engagement, and retention (see, for example, papers presented at HERDSA conferences, and Effective Teaching and Learning conferences). Most of these are connected with systemic redesign of course offerings, or of teaching strategies that draw heavily on classroom or online interaction. But what part can LAS advisors play in enhancing student engagement? Most of the solutions offered are available only to subject coordinators in colleges/faculties or to academics at management levels in the institution. Most LAS advisors are not currently in a position to effect internal decisions of this nature. It also largely depends on the way in which our particular institutions position us (or how we have positioned ourselves) and the roles that we play within our academic communities. To have

students engaging with us does not increase their interaction with their peers in class or with their lecturers and tutors. Most students who voluntarily come to us for help in their first semester are not those who drop out.

In universities where the functions of teaching and learning development are combined, opportunities abound for working together with faculty staff on developing classroom and other strategies for engagement. For the rest, we need to see how we can contribute within our own sphere to some of the specific areas identified above (social/academic interactions, diversity, classroom dynamism, etc). The literature, especially the reports published in the Australian context of higher education, is not particularly supportive of additional expenditure on support services (see McInnis & James, 1994, p. 13). Curriculum reform is the catchword, so learning support services must look to developing ways in which we can contribute our knowledge and expertise about language and learning in this area. We need to continue to actively foster strong partnerships with college and faculty staff. If we are involved in providing adjunct tutorials in particular subject areas, we can employ strategies to strengthen the academic / social nexus for beginning students.

If, as presented by Strong et al. (1996), criteria for success must be clearly articulated, clear and immediate feedback must be provided to students. Students should be shown that the skills they need to be successful are attainable, and these skills should be clearly and systematically modelled: this is where LAS advisors can be instrumental. University projects to embed graduate attributes into degree programs are also areas where we can work together with our faculty colleagues to enhance student learning. Larger projects within the university community are also opportunities for our involvement. For example, Rensselaer (2001) reports on projects in the US that are the recipients of grants to redesign courses at American colleges using technology. The redesign is expected to improve retention and reduce the costs per student. However, the assertion that the increasing use of technology will improve engagement (Rensselaer, 2001) needs to be debated. There are strong reservations about how 'engaged' students will feel when interactions with the technology replace interactions with staff. If reduced financial resources are a reality and these solutions are tenable, then we must have strong input to make sure the 'solutions' reflect what we know about teaching and learning. We have to work with our faculty colleagues to support our students within the virtual classroom. Some of us are probably already involved in activities like these. However, we need to link them specifically to the notion of student engagement and foreground some of the preoccupations of beginning students.

McInnes and James (1994) believe that too much intervention to bridge the gap between expectation and reality, or lack of preparedness, is not productive. The authors argue that raising students' perceptions of teaching, and improving their levels of satisfaction involves more than "tinkering around the edges" (p.14). A change is needed in the central activities of university learning that result in deeper student engagement. As LAS advisors, we must engage ourselves more pro-actively in supporting academic staff to do this, and must take care not to be positioned at those edges.

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Student perceptions of preparedness for first-year university assignment writing: The discipline of Marketing

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ABSTRACT A major trend of current research into transition to university is to suggest that, for many students – and certainly particular sub-groups - the academic dimension of the experience can be improved by the provision of targeted programs. The development of online learning materials is one way of making such support accessible, flexible and more or less permanently available. But in order to identify and evaluate what the success of such a project might look like, it is important first to establish a picture of the students' beliefs about their own capabilities for academic assignment writing in a given unit. This paper reports on the first stage of a preliminary evaluation of an institutional website project designed to provide writing support to first-year students studying the introductory marketing unit in the Faculty of Business and Economics at Monash University. The size of the response (almost 1,000 students across two years) provides a comprehensive picture of students' perceptions. It was found that a substantial number felt unprepared for the assignment-writing task, with international students generally feeling least well-prepared. Whilst the research was impacted by changes in the Victorian Certificate of Education (VCE) assessment process between the two years the research took place, the overall findings over the two years remain consistent.

Keywords: Academic requirements, first-year, assignment writing

Introduction

The 'transition experience' in higher education continues to receive attention (see, for example, the special issue of *Arts and Humanities in Higher Education,* 2 (1), 2003; the annual Pacific Rim First-Year in Higher Education conferences). The trend of this research is to suggest that, for many students – and certainly particular sub-groups - the academic dimension of the experience of transition to university academic requirements can be improved by the provision of targeted programs (Marland, 2003; Levy & Murray, 2002). The development of online learning materials is one way of making such support accessible, flexible and more or less permanently available (Clerehan, 2003). It is generally accepted that, as well as the "vertical" transition from previous educational experience to university, there is also the potentially problematic "lateral" transition that students must negotiate as they move from one discipline specialisation to the next, each arguably with "variations in knowledge structures and norms of inquiry, different vocabularies, differing standards of rhetorical intimacy" (Bhatia, Candlin & Hyland, 1997). In Peel's (1998) transition research, his student informants express concern about:

- a lack of provision in courses of "a transition stage" in which the development of the skills of independent inquiry, research, writing and analysis might be addressed
- a lack of available advice and assistance in assignments and learning difficulties (due mainly to increasing academic workloads, funding cuts etc.)
- too much "unexplained" assessment of written work, where university teachers fail to explain what is required in a particular assignment and also do not indicate to students how their work could have been more successful (Peel, 1998, p.6).

For many students, including those from overseas, the university experience represents a marked contrast to their secondary school experiences, where institutional practices and their own roles were clearer: expectations were codified in the form of quite specific assessment criteria (Clerehan, Moore & Vance, 2001). Or, in the case of older students, post-school education and the workplace presented them with contexts where objectives were relatively clear and audiences known. At the university, however, these practices and roles are often less clear: even where lecturers give guidelines, for example in the form of unit outlines, these expectations are not always made clear (Clerehan, *et al.*, 2001; Chanock, 2000; Lillis, 1999).

Related to this lack of understanding about expectations and approaches is a lack of knowledge of the nature of university writing, and of the valued textual structures (Candlin, Gollin, Plum, Spinks, & Stuart-Smith, 1998). Students find themselves having to rely on the genres of their secondary education (or of the workplace) over which they have gained some mastery, at the same time as they are assimilating the "expert" genres that make up the reading content of their course. In the case of students also dealing for the first time with large quantities of materials on the internet, in libraries and on electronic databases through which they must sift, it can be difficult to find an appropriate discursive voice, one fashioned by an understanding of the textual structures, discursive processes, and institutional practices of their new writing context (Candlin & Plum, 1999; Hemais, 2001).

Background

This study was concerned with the preparation of students for university assignment writing in an introductory Marketing unit that is a core unit in a business degree. The majority of the students come directly from high school and their level of preparation for university study and, in particular assignment writing, appears to vary considerably.

Marketing Theory and Practice at Monash University consists of three hours of student contact per week for the 13-week semester. These three hours consist of a 2-hour lecture (involving some hundreds of students) and a 1-hour tutorial involving about 20 students for each tutorial. Students are expected to undertake an additional seven hours per week of preparation at least, which includes reading and preparation for lectures and tutorials, assignment work and research. A web site using the WebCT platform was provided for students to give additional support and included information about the unit, assignments and sources of information. Student assessment consisted of a minor assignment worth 15% of their final mark, a major assignment worth 25%, and examinations worth 60%. One examination took place in week six – a 30-question multiple choice test worth 10% covering work done to date - and one end-of-year examination. The major assignment was due in week 11 of semester and by that time students had covered much of the content.

The major assignment has historically required students to synthesise specific areas of the marketing theory they have studied and apply it to a particular industry, and then to a specific organisation, in the form of a business report about which they are given specific

information and requirements (see Appendix A). Typically, the quality of student assignments varies considerably. As a response to this, a project was developed by the University's Language and Learning Unit in cooperation with the Department of Marketing to seek information from students about how prepared they felt for the requirements of this assignment. This was the first stage of a project that would involve the development of an online module, linked to the unit's WebCT site, to support students in their assignment preparation and writing. The investigation was also seen as a guide to how students found the transition to the demands of higher education and, specifically, to the written assessment tasks in a particular discipline: in this case, Marketing.

The project

The research project was designed to understand more clearly first-year student perceptions of how well prepared they were for university assignment writing in a specific discipline area (Hyland, 2000; Devlin, 2002). It was expected that not all students would feel equally well-prepared (Bartlett & Chanock, 2003; Lillis, 2001). This research sought to identify any student sub-groups (eg male/female, local/international, younger/older students) that differed in their sense of preparedness, as a means of facilitating the development of strategies aimed at helping students in their assignment writing specifically for this unit.

In this first stage of the evaluation process, students were asked questions (see attached survey, Appendix B) about their perceptions of how well they understood the specific requirements of the assignment, and how easy they found it to research and write. They were also asked to identify the major sources of help they used, how well their final year of high school prepared them for assignment writing, and whether they used the recommended web module. Two questions were open-ended ones asking if there was advice they felt could be given to new students studying the unit, and if they had any further comment. The questionnaire was developed specially for the ten units involved in the project (for a discussion of the nature and development of these, see Clerehan, et al., 2001); the current paper reports only on responses for the marketing unit. The second stage of the research involved a questionnaire that asked about the web-based module and how helpful it was in the writing of their assignment. This will be reported on in a later paper.

Methodology and results

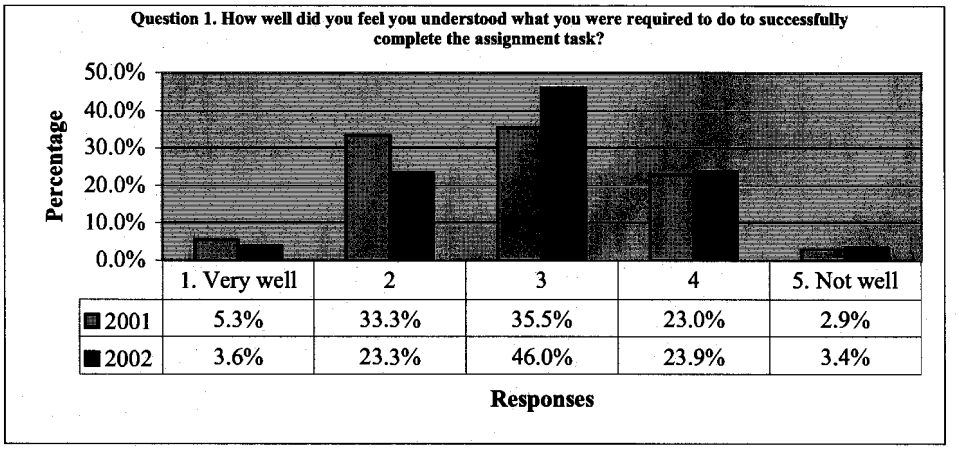
A pilot of the questionnaire was undertaken in semester two, 2000, to identify any problems with the questions and structure of the instrument. The final version was distributed to first-year students studying the unit on the Caulfield, Peninsula and Gippsland campuses of Monash University in 2001 and again in 2002. The students were all studying on-campus and the majority (about 75%) were in their first year of university.

A total of 1500 questionnaires were distributed, with 924 responses being received, 417 from 2001 and 507 from 2002. This represents an overall response rate of 61.6% (comprising a 55.6% response rate for 2001 and a 67.6% response rate for 2002). Thirty percent of respondents were international students, reflecting the diverse linguistic and cultural characteristics of the cohort. Female students comprised the majority (60%) of the respondents. There was a spread of ages: 38% of respondents were under 19 years of age, 22% 19 years of age, 17% 20 years of age and 23 % of respondents 21 or older.

The Questionnaire

Question 1 asked respondents how well they understood what they were required to do to successfully complete the major assignment and to indicate on a Likert-type scale of 1-5, with 1 indicating they understood what was required very well and 5 indicating that they did not understand well at all (see Table 1). Over the two years, 28% of respondents indicated they felt they did not understand the assignment requirements.

Table 1. Student responses to question one



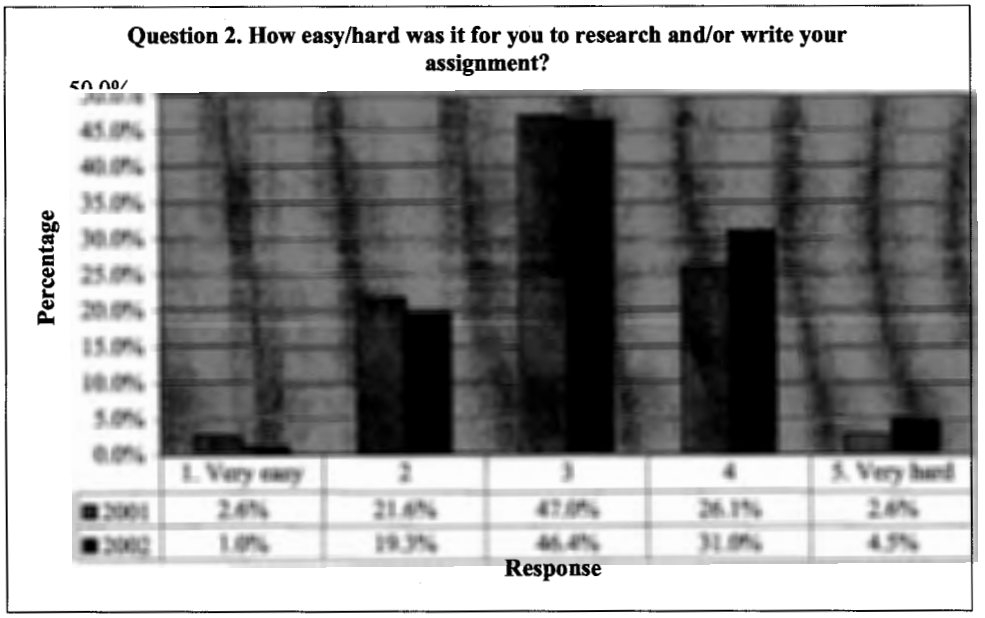
	1. Very well	2	3	4	5. Not well
2001	5.3%	33.3%	35.5%	23.0%	2.9%
2002	3.6%	23.3%	46.0%	23.9%	3.4%

However, when we compared the 2001 respondents to those of 2002, there was a statistically significant shift from the first year to the second, in that the neutral group increased from 35% to 46% and the percentage understanding/understanding well decreased from 38% to 27%.

When comparing the international and local domestic students, a significantly higher proportion of local students felt they understood the task well: of the local students across the two years, 37% believed they understood well or very well, compared with only 21% of international students. There were some 80% of international students reporting themselves in the overall band covering only "moderately well" to "not understanding well" what was required of them when writing this assignment. While a higher percentage of international students reported themselves as understanding only moderately well compared with local students (50% and 37% respectively), the percentages of the international and local student groups who reported themselves as understanding not well or not well at all was similar: 29% and 27% respectively. Male students appeared more confident that they understood what was required (38%), compared with 28% females. With respect to age differences in responses to this question, while differences were not statistically significant, the older age group (>22) indicated that they felt themselves to have a better understanding of the assignment requirements than their younger peers.

Question 2 asked students how easy or hard it was to research and write the assignment, and invited them to specify particular difficulties they encountered (see Table 2).

Table 2. Student responses to question two



Of the total responses over the two years, 31% indicated it was hard or very hard, and a large proportion, 46.5%, found it moderately easy/hard. The 2002 responses again indicated significantly higher levels of difficulty compared to 2001. Again, consistent with the pattern of responses to question 1, with respect to local domestic students and international students across the two years, 26% of local students found it easy/very easy to research and write compared with only 10% of international students (not one found it 'very' easy). In like manner, only 26% of local students indicated it was hard or very hard, compared with 45% of the international students. No significant gender differences and no clear patterns related to age group differences emerged from the data on difficulty in researching and writing.

In question 3, students were asked which sources of help they consulted and which were most helpful. The most frequently consulted sources were, in order, lecturer/tutor, library, and the internet. The most useful sources of help were identified as being friends (who did not appear as a frequently consulted source of help), library, and then lecturer/tutor.

Students were asked, in question 4, if the writing requirements in their final year of high school prepared them for the writing of the Marketing assignment - and were invited to comment further. Across both the 2001 and 2002 groups, almost half (44.5%) believed Year 12 assignment writing did not prepare them well, with only 25% indicating it prepared them well or very well. In 2002, while not statistically significant, twice as many responses claimed the final year of school was not helpful as those who claimed it was. It should be noted too, though, that because 60% were 19 or over, the change in Year 12 assessment would presumably not be affecting these older students. International and local students responded similarly, following the pattern of the whole group. Males were significantly more likely than females to say they were well prepared. The largest group of written comments

(38%) related to the different structure of the assignments students were used to in high school, compared to the first-year Marketing assignment, a further 28% identifying "format" (i.e. of a business report) as the critical difference.

Students were then asked if they used the Writing in Marketing web module referred to by the lecturer and which had a direct link from the unit website. While one-third of students indicated they had used the website, international students were more likely to use it (43%) than local students (27%). Older students were also considerably more likely to use the resource: 33% of 22-year-olds and 56% of over 22-year-olds, compared with only 20% of those under 19.

The last two questions were open-ended, asking students what advice they would give to new students studying the unit. This yielded a range of responses: the largest group, 48%, identified time management and research as the key aspects for students to focus on; 7% said "know what's required"; and 5% said to ask for help.

Discussion

Many first-year assignment tasks present challenges to students new to university in terms of the length, the complexity of the task and the amount of research required (Street, 1999; Krause, 2001). As can be seen from the assignment task (Appendix A), the major first-year marketing assignment in the form of a business report is one example of this. Part of the reason for developing the online resource was that, from 2000 to 2001 in Victoria, there was a change in the Year 12 assessment requirements from Common Assessment Tasks (CATS) to School Assessed Curriculum Studies (SACS). With the written tasks under the new arrangements being shorter and mostly undertaken in class, it was hypothesised that students exiting this system may be less familiar with some of the skills required for more complex writing and independent research tasks (Clerehan et al., 2001). The responses to question 1, 2 and question 4 provide some evidence that this may be the case. There was a statistically significant decrease in the 2002 cohort's sense of how well they understood the task, and how easy it was to write the assignment when compared to the 2001 group's responses.

Also included with question 1 was an open-ended question that asked respondents to identify any difficulties they had with the assessment task. Of the total number of respondents, 26% made written comments. Of these, 30% claimed the guidelines constituted a difficulty, 22% named research as the problem, 15% the writing process and 13% the wording of the question. A number of other comments focussed on their ability to decode the guidelines, as illustrated below:

- The wording of the question [was a problem].
- Limited guidelines provided.
- Presentation, layout, was a little unclear.
- Also, how much detail should I have gone into?
- If there is no sample, it is difficult to start writing, such as format.
- I was unsure of what to cover and what focus I was supposed to take, i.e. recommend after investigation, or analyse information, or describe.

Smaller numbers of responses identified problems with understanding the standard required, time management and applying the theory. There were also comments about "confusing" instructions and advice from tutors which probably relates also to the response to question 4, where tutors were those consulted most frequently – and who marked the assignment - but were not necessarily found to be the most useful. One can only speculate as to the reasons for this, but the difficulties in mounting a coherent program for a large cohort of students in a

multi-campus setting could be a factor, especially within the context of increasing casualisation of Australian academic staff. Research, both in Australia and the United Kingdom, points to the fact that both written and oral academic comment relating to assignments is not always well-thought through or helpful to students (Lea & Stierer, 2000; Lillis, 1999; Lillis, 2003).

For those students who commented on question 2 with respect to difficulty, some of the categories generated from these responses overlapped with those of the first question. The majority (72%) identified research itself as the major area of difficulty; another 12% indicated a variety of difficulties including understanding what the question meant, the standard required, and language problems; and 11% identified the writing process itself as being the most problematic area. Another group of responses focussed on difficulties in coping with the research:

> Researching the two organisations. Comparing them without repeating too much.
> For research: lack of this skill in home country. For writing: English skill.
> Trying to pin point the key ideas in the research to use in the report. So much information!

It is important to note from the responses to question 4 that almost half the total respondents across both years felt they were not well prepared by Year 12 writing. The main difficulties described related to what we might term the generic features ("structure", "format") (Swales, 1990). A sample of their comments follows:

> Actually I didn't learn everything about referencing in my Year 12 assignment or the university writing skill.
> Year 12 forms the basis for structure but not as in-depth as required for Uni.
> All my assignments were essays, before this I didn't even know what a business report looked like.
> Most assignments last year were very small and not in report form.

International students are the group widely acknowledged as having potentially the greatest difficulties in acculturating rapidly to the demands of the Australian academic culture and to the sub-cultures of the disciplines (Kennedy, 1995; McNamara & Harris, 1997, for a British perspective). The data from the survey reveal a statistically significant difference between international and local students in their feeling that they understood what was required by the assignment. There was no attempt made in this analysis to further differentiate within the group of international students, and there would no doubt be many nuances found therein.

In our data, then, the majority of the international student group (79%) would appear to be characterising themselves as understanding only moderately well or poorly. In response to how easy it was to research and write the assignment, again international students found it considerably more difficult than local students. It is possible that the subject of Marketing is one where in-depth local knowledge confers some advantage: the assignment guidelines require students to "choose a topic for the market sector of the country in which you are studying" (Appendix A). Interestingly, over the two years, the percentage of respondents who felt themselves to be weakest was almost identical when comparing the international and local groups, suggesting that students generally perhaps have a very accurate 'red alert' system, and that institutional support should be provided to target those in both groups who are struggling, not just the international students.

While various aspects of writing constituted a difficulty for many, the most often cited issue in writing the assignment was the research required – in response to question 2, and again in the advice to be offered to new students (question 6). The centrality of research was second only to the importance of time management in students' minds when focusing on what new students need to know. The question arises, then: is an online resource an effective way to begin to address these issues? Certainly, one-third claimed to have used the resource, international students in particular. Students aged 22 and over were over-represented in the group of users of the online resource, even though those over 22 believed they had a better understanding of the assignment requirements than their younger peers. So, students apparently straight from school were less inclined to use the resource than the more mature students, even though they felt themselves to be less confident in their understanding of the assignment requirements. This suggests that whilst students straight from high school recognise their difficulties they are less likely to do anything about them.

Conclusion

Student perceptions indicate that a significant number do not see themselves as being particularly well prepared for the academic assignment writing tasks required at university. Futhermore, a number appear reluctant to take the initiative when they face problems with assignments and it appears that a range of strategies may be required to overcome these issues. Universities need to be more proactive in addressing the transition problems faced by first-year students, including those coming directly from high school, as well as international students. Key issues identified by this work for faculty and language and academic skills staff to address include the helpfulness of assignment guidelines and advice given by tutors; the importance of developing students' conceptions of research in the subject; and the role of time management. The second part of this project, to be reported on in a later paper, will focus on our understanding of how useful first-year students in the different sub-groups found the web resource.

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Appendix A

Guidelines

Marketing Theory and Practice Assignment 2 worth 25%, 3,000 words

- **Select a specific product/target market from within the broad areas identified below under the heading ASSIGNMENT TOPIC AREAS:**

1. **Discuss how the macro environmental variables can, and have, had an impact on this market/market sector (that you have selected) making sure you show that you understand all the macro environmental variables and especially those that are likely to have an impact on the Market/Market sector you have selected. Using relevant examples.**

2. **Select 2 organisations operating in the market/market sector that you have chosen, THEN identify ONE marketing mix (4P's/7P's) from EACH of these <u>two different organisations</u> that target the same segment. Then discuss, compare and contrast the two marketing mixes (ie one complete marketing mix- 4P's/7P's- form each organisation) used.**

    - **eg. FMCG- Breakfast Cereal: Kellogg – Children's breakfast cereal & Sanitarium – Children's breakfast cereal – <u>this is an example from an earlier semester DO NOT USE this topic or example</u>)**

    - **Use examples to support your discussion where appropriate.**

<u>ASSIGNMENT TOPIC AREAS:</u>

You MUST choose ONLY from the specific topics listed below and for the Market/Market sector of the country in which you are studying.

<u>MARKET/MARKET SECTOR:</u>

Services Sector (Education) **Select one from the following:**
Higher Education **OR** Secondary Education **OR** Child Care

Product (Person Marketing) Select one from the following:
Rock Star **OR** Politician **OR** Movie Star

Sports Marketing Select one from the following:
Football **OR** Cricket **OR** Basketball

Start your assignment by selecting a market/market sector that your are most interested in from the above list then do some research:

- **Make sure your tutor has signed off on your topic selection**

- **Checkout the Monash Library Web page for a range of quality resources and library information**
    - o <u>http://www.lib.monash.edu.au/</u>

- **You are to use a range of references including at least 5 academic references (these are academic journals, conference papers, other text books.)**

- **The WWW often has information about the organisations you are researching**

You are expected to develop the information *yourself*, being guided by whatever hard information you *are* able to find. You should read widely in Kotler et al. and other texts about what is required in a theoretical way, and you should observe closely what is actually happening with your chosen product(s) in the marketplace.

UNDER NO CIRCUMSTANCES ARE YOU TO CONTACT COMPANIES IN YOUR CHOSEN INDUSTRY FOR INFORMATION.

CHECK LIST (make sure you understand)

To stay or not to stay: Factors affecting international and Indigenous students' decisions to persist with university study and the implications for support services

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ABSTRACT Given the highly competitive nature of tertiary education, universities are under increasing pressure to provide an academic environment that maximises the chances for student success. In this environment, the interests and well-being of international and Indigenous students are of particular concern, albeit for very different reasons. It is, therefore, important to identify likely inhibiting factors as early as possible, in order to set up intervention strategies to counteract their impact on the success and institutional satisfaction of these two groups of students. This research was conducted to examine factors identified by international and Indigenous students as likely to play a role in their decision to withdraw or continue with tertiary study. A questionnaire was administered to 289 international and 128 Indigenous students in the first semester of their study to ascertain their perceptions and subsequent weighting of factors pertinent to their decision to stay or not to stay at university. The results showed some unexpected similarities between the two groups, i.e. for self-perception and motivation. At the same time, there were marked differences between their academic needs and patterns of behaviour in seeking assistance. The implications of the findings for both academic staff and student support services are discussed, along with possible intervention strategies to address the academic and personal issues identified by international and Indigenous students.

Keywords: *Student satisfaction, retention, intervention*

The traditional ethos of the Australian university has been undergoing a major appraisal for many years, largely triggered by changes to the way that universities receive public funding. A significant decrease in public funding over the last ten years has forced universities to seek alternative sources of income. At the same time, the remaining pool of Government funding is increasingly contingent upon outcomes, leading to greater competition between institutions and a demand for public accountability. Universities now have to comply with designated performance indicators to secure additional funding, particularly for targeted money for specific groups like Indigenous students. The resulting changes to higher education funding policies means universities have had to re-assess their current modes of practice, instigating an important shift in focus - to attract more fee-paying international students and to secure higher retention rates for local and Indigenous students.

However, funding is not only tied to enrolment figures but to evidence of 'quality assurance and enhancement' through the introduction of the institutional quality review and reward system (Tootell, 1999). Ultimately, this cashes out into a need to show innovation and good practice, efficiency, and improvement in the quality of course delivery. A key element of university initiatives in this area is, therefore, measurement of graduate satisfaction and the institutional response to quality indicators. The role of student support services is integral to this process.

DEST have commissioned a number of reports investigating the retention rates of specific groups of students. Of these, indigenous students are of most concern with retention rates well below the national average (59% compared to 83% for non-Indigenous students, DETYA, 1999A). Given that universities receive direct federal funding for their indigenous cohort, it is in their interests to not only increase indigenous numbers but to enable their successful completion. As a consequence, they need to pay particular attention to factors that influence their decision to withdraw or persevere.

Unlike indigenous students, international students are not a designated equity group and their overall retention and success rates are high. However, some institutions do report significant failure rates in some topics (Levy, Osborn & Plunkett, 2003). Given the economic imperative to increase international student enrolments, universities need to ensure that these students are satisfied with the quality of their education and that they are getting the support they need. International students invest a great deal of time and money in their education, often at a high personal cost. At the same time, there is a great deal of pressure on them to succeed, as the personal price of failure can be very high. This dynamic has two implications for universities: 1) the comparatively high retention rates of international students are not necessarily a reflection of the level of support provided by the individual university in which they are enrolled, and 2) international student satisfaction levels and success rates will have an impact on future enrolments. In order to be competitive, universities need to examine ways to improve levels of international student satisfaction and to minimise possible failure.

While Indigenous students are perceived to be different to international students and to have different needs, similarities have been identified between them and certain cohorts of international students. Likewise, similar institutional initiatives have been implemented to support them. Although the main focus for international students has been on issues surrounding English language proficiency, different approaches to knowledge acquisition and learning have been identified as a particular problem for South-east Asian students (Samuelowicz, 1987; Murray-Harvey & Silins, 1997; Johnston, 2001) who represent more than 80% of Australian international students (DETYA, 1999). At the same time, research indicates that Indigenous students also exhibit culturally different approaches to knowledge acquisition and learning (Boulten-Lewis et al., 1997). In fact, it is claimed that both South-east Asian and Indigenous students focus on learning or gaining knowledge, rather than engaging in critical thinking, a style and approach to learning that may conflict with the expectations of Western universities. As a consequence, transition programs have been developed for both international and Indigenous students to address 'differences' in orientation and to acculturate students into the new academic environment (Biggs, 1997; Smith, 2001). In addition, many institutions have established cultural awareness programs and dedicated Indigenous centres, mainly to increase understanding of cultural academic differences and to reduce Indigenous attrition rates (Luck, 1997).

With both international and indigenous students, the institutional response has been to put in place targeted support services as a means of ameliorating transition problems and assisting in academic orientation. To some extent, this approach has been successful. However, it is clear that the rationale for the services is driven by what are perceived to be

academic, personal or cultural differences between the students and the institution. A student's eventual success or failure is, thus, identified as resulting from the characteristics of the student, as mediated by support programs, not as a consequence of institutional practice. There is little institutional acknowledgement that traditional academic practices may play a role and that, given the increasingly diverse learning styles and needs of students, these may need to be adjusted in line with the changing student population. Abbott-Chapman and Edwards (1998, p.8) found that marginal groups, excluding international students, represented 56% of a standard university population. If international students are factored in then, on average, mainstream students represent less than 30% of the total student population.

Although there is an extensive body of literature on both international and indigenous students, little research has been conducted into attrition/retention factors from the students' perspective. Research shows that retention rates for all students are highly dependent on the level at which the student engages with university culture. The more a student feels they 'belong' or becomes enculturated, the less likely they are to think about withdrawing (Kantanis, 1997; Yorke, 2001). According to Abbott-Chapman and Edwards (1998), the degree of 'fit' between an individual's expectations and performance and the institution's expectations and responsiveness 'decides the likelihood of strong student performance and achievement or attrition' (p.2). Hence, achieving a better 'fit' is central to the creation of a positive learning environment. However, the notion of 'fit' needs to go both ways. This is critical if institutions want to increase indigenous retention rates and international student satisfaction. Zepke et al.'s comprehensive review (2003) concluded that retention and success rates were strongly influenced by the level at which the institution accommodated cultural difference and identity.

There is strong evidence that student support services do have an impact on success and retention rates for marginalised groups (Promnitz & Gerrmain, 1996). Nevertheless, increasing the degree of fit of these students may require a broader approach. In line with this, the present study was conducted with commencing international and indigenous students to determine their perceptions of possible inhibiting and enabling factors within the tertiary setting. The general aim was to determine students' self-perception of those factors deemed likely to influence their decision to remain or withdraw from study and the subsequent implications for student support services and possible early intervention strategies.

Methods

In line with the research aims and objectives, the study focused on commencing rather than continuing students at an Australian university in order to identify potential inhibiting factors before students make their final decision to withdraw from or persist with their studies. To that end, the details of all commencing international and Indigenous students were obtained from the Department of Student Records. These records revealed that the majority of the target students were enrolled in the Faculties of Health Sciences and Social Sciences and, therefore, a decision was made to target mainly students in these two faculties.

A questionnaire was developed consisting of five sections dealing with students' demographics, self-perception and motivation, personal and academic factors that may impinge upon students' decisions to continue with their studies or that may dissuade them from the likelihood of dropping out, and the people they resort to or consult in the process of making such a decision. In the main, students were asked to indicate the strength of their agreement with a series of statements under each section, using a five-point Likert scale ranging from very strongly =5 to not at all =1, or from strongly agree =5 to strongly disagree =1.

The questionnaire, including a prepaid envelope together with a covering letter explaining the aims of the study and inviting students to participate, were posted to 289 international students and 128 indigenous students towards the end of Semester 1. A reminder letter was sent after two weeks to those students who had not returned the questionnaire in that time. A hundred and fifty six and 38 usable questionnaires were received from international and Indigenous students respectively, representing a response rate of 54% and 30%. The international student group comprised students from 33 countries covering South-east Asia, the Korean peninsula, the Indian subcontinent, Europe and the Americas. The age distribution revealed 63% of the international group and 41% of the indigenous group were under 26 years. The gender breakdown for international students was 37% males and 63% females. For Indigenous students it was 29% males and 71% females. The samples of both groups are representative of the composition of the international and indigenous student body on campus. The raw data were entered into computer files using SPSS V10 (Statistical Package for the Social Sciences) and descriptive statistics were obtained for all variables. These results were weighted and rank-ordered according to either frequency of response or mean scores.

Results

The following tables represent students' perceptions of their personal abilities and motivation and the factors that may affect their consideration to persist or not with tertiary studies. The majority of students in both groups (greater than 55%) responded 'not at all' when asked to rate their likelihood of dropping out and around 26% rated their likelihood as either moderate or undecided. Thus, only a minority of students from either group thought it likely they would drop out at the time the study was conducted. This highlights the potential usefulness of putting in place early intervention strategies.

Data in Table 1 shows that most international and Indigenous students indicated that they had what it takes to be a really good student. The first four factors were identical with only slight differences between the two groups, with indigenous students a little more likely to consider themselves average students. Similarly, negative perceptions of self was ranked equally low by both groups.

Table 1. Self-perception

	Indigenous			International		
	Mean	SD	R	Mean	SD	R
Bright enough to be a really good student	3.95	0.66	1	3.89	0.81	1
An average student, neither brilliant nor hopeless	3.78	0.92	2	3.42	1.02	4
A really motivated student	3.66	0.91	3	3.72	0.82	3
A good student if I made the effort	3.46	1.22	4	3.86	0.99	2
Work well with abstract and theoretical concepts	3.14	1.00	5	3.33	0.91	7
Could see myself as a career academic	2.84	1.37	6	3.42	0.93	5
A natural scholar	2.83	1.03	7	3.38	0.85	6
Could be a good student if my life wasn't so difficult	2.57	1.24	8	2.63	1.09	8
Don't really fit into university	2.03	0.94	9	1.82	0.92	9
Too old to be a student	1.53	0.80	10	1.63	1.02	10

Table 2. Factors motivating decision to stay

	Indigenous			International		
	Mean	SD	R	Mean	SD	R
I have promised myself I will finish	4.38	1.07	1	4.26	1.03	2
I like to succeed at what I do	4.34	1.12	2	4.33	0.87	1
This qualification will lead to a job	4.18	1.26	3	4.04	1.17	3
Family encouraging me to stay	3.35	1.72	4	3.45	1.40	5
Getting support from study skills centre	3.31	1.31	5	2.61	1.30	12
This qualification will lead to promotion	3.16	1.39	6	3.43	1.25	6
Friends encouraging me to stay	3.10	1.70	7	3.06	1.33	10
Am hoping next year will be better	3.10	1.66	8	3.25	1.33	8
I don't want to disappoint my family	2.94	1.54	9	3.73	1.31	4
Partner encouraging me to stay	2.91	1.74	10	2.52	1.33	14
Like the teaching staff	2.65	1.43	11	3.10	1.12	9
Social life at university is good	2.47	1.37	12	3.33	1.28	7
Getting support from a study advisor	2.28	1.44	13	2.62	1.34	11
Can't think of anything else to do	1.91	1.38	14	2.59	1.41	13

Table 3. Factors contributing to retention

	Indigenous			International		
	Mean	SD	R	Mean	SD	R
Improvement in financial situation	4.03	1.33	1	3.72	1.25	3
Getting better grades	3.52	1.28	2	3.66	1.30	4
More help from Indigenous Support Staff	3.34	1.12	3	N/a		
Increased support from teaching staff	3.32	1.15	4	3.97	1.13	1
Good preparation/orientation program	3.31	1.45	5	3.44	1.28	5
Making friends on campus	3.00	1.35	6	3.80	1.20	2
Doing course over a longer timeframe	2.93	1.22	7	2.54	1.19	7
Increased support domestic/family duties	2.89	1.26	8	2.92	1.29	6
Changes to timetable	2.76	1.17	9	2.84	1.29	8

Table 4. Personal factors contributing to withdrawal

	Indigenous			International		
	Mean	SD	R	Mean	SD	R
Stress	3.44	1.48	1	3.03	1.40	1
Work commitments	2.78	1.68	2	2.20	1.21	7
Critical event	2.75	1.59	3	2.40	1.34	3
Relationship commitments	2.41	1.58	4	2.27	1.18	5
Separation from friends/family	2.28	1.59	5	2.56	1.38	2
Health	2.00	1.48	6	2.29	1.44	4
Loneliness	1.61	0.95	7	2.26	1.27	6
Disability	1.47	1.02	8	1.83	1.28	8

As indicated in Table 2, both groups showed clear goal orientation with similar ranking of items such as *I have promised myself I will finish; I like to succeed at what I do*, and *this qualifications will lead to a job*. Social networks (family and friends) featured prominently in their decisions to persist with their studies. For indigenous students, the Indigenous Centre played a more important role than did the study skills centre for international students.

The rank-ordering of factors in Table 3 indicates that for indigenous students improved financial situations, getting better grades and greater help from indigenous support staff would lessen their likelihood of dropping out of tertiary study. For international students, ranking shows increased support from teaching staff, making friends on campus and improved financial situations as enhancing their likelihood of staying in tertiary study. Again Indigenous students ranked support from Indigenous Centre staff highly.

As indicated in Table 4, both indigenous and International students perceived stress to be the most likely cause for them to consider dropping out of tertiary studies. For indigenous students work commitments were the next most likely cause whereas for International students it was separation from friends and family, with work commitments a less important factor. A critical event was equally influential for both groups.

Table 5. Academic Factors contributing to withdrawal

	Indigenous			International		
	Mean	SD	R	Mean	SD	R
High workload	3.09	1.49	1	2.41	1.32	7
Style of learning	2.41	1.43	2	2.46	1.35	6
Timetable difficulties	2.19	1.42	3	2.78	1.39	1
Poor quality of teaching	2.16	1.39	4	2.76	1.42	2
Difficulty of tasks	2.13	1.13	5	2.51	1.39	5
Negative feedback on work	2.09	1.47	6	2.57	1.33	4
Low grades	2.09	1.28	7	2.69	1.32	3

Table 5 reveals differences between the two groups, with rank-ordering showing heavy workloads as the most likely cause for indigenous students to consider dropping out but the least likely for international students. Timetabling difficulties were considered most relevant for international students followed by poor quality of teaching and achieving low grades. However, the mean was very close between all factors, with no one factor overly dominant.

Table 6. People most likely to be consulted when considering dropping out

	Indigenous			International		
	No.	%	R	No.	%	R
Partner	14	36.8	1	44	28.2	3
Friend	14	36.8	1	65	41.7	1
Parent	13	34.2	2	49	31.4	2
Other family member	11	28.9	3	31	19.9	5
Yunggorendi Support Staff	10	26.3	4	n/a	n/a	n/a
Lecturer	7	18.4	5	40	25.6	4
Student Counsellor	7	18.4	5	27	17.3	6
Study Skills Advisor	1	2.6	6	20	12.8	7

Table 6 clearly indicates that indigenous students are more likely to discuss their options with their partners and friends first, followed closely by parents or other family members. International students are much more likely to discuss their options with friends first, followed by parents, partner and lecturers. The role of student counsellors and study skills advisors were ranked last, with the exception of Yunggorendi staff for indigenous students.

Discussion

Contrary to expectations, both groups not only exhibited a strong commitment to tertiary study (with neither readily contemplating withdrawal and both expressing strong goal-orientation in relation to their decision to persevere with study) but they also exhibited similar patterns of responses for nearly all factors. In contrast to other research findings (Gorinski & Abernethy 2003; Levy et al. 2003), both groups also expressed confidence in their academic potential, signalling high self-esteem. This response can be seen as consistent with the overall low rating given to potential withdrawal. One possible implication of these findings would be that students' eventual decisions to withdraw from study are due to factors other than motivation and self-esteem, as some researchers have already indicated (Bourke, Burden & Moore 1996; Walker 2000). This makes it important to identify what those factors might be, if we are to address them.

In interpreting the data, it is important to look at both the enabling and inhibiting factors. These fall roughly into two categories, personal and academic. In regards to personal factors, it was interesting that both groups overwhelmingly showed that stress was perceived to be the most important factor leading to withdrawal. This may be due to what Zepke et al. (2003) refer to as 'acculturative stress', given that both indigenous and (some) international students are not familiar with Western academic culture. However, although stress was picked out as an independent factor in its own right, the design of this study did not allow investigation of what students felt contributed to it. This obviously needs to be explored in more depth. If stress is a major contributor to withdrawal, ways to reduce student stress should have the biggest positive impact on both student satisfaction and retention.

The study revealed some differences between the two groups in the personal factors likely to influence students' decisions to stay. Similar to other research findings (Kiley, 1998), international students in this study placed making friends very high as a positive factor and also ranked a good university social life much higher than indigenous students. Given that separation from family and friends was an important inhibiting factor, it is likely that social isolation and engagement are an issue for international students. Although loneliness did not emerge as overly important to either group, it is clear that social integration at university is more significant for international students as they want to be included and engaged within the broader university culture (Kiley, 1998). This needs to be taken into account when designing transition programs and ongoing support. For Indigenous students, there is evidence that this role is fulfilled by Indigenous centres which set out to provide a sense of identity, belonging and a ready-made social network for their students (Farrington et al., 1999). The indigenous students' concerns focused more on work commitments and finances as important inhibiting/ enabling factors, areas outside the control of university support systems. However, awareness of these factors and support for flexible modes of study may relieve some of this pressure and reduce attrition rates.

Superficially, more prominent differences emerged in relation to inhibiting academic factors. High workload stood out as the most critical issue for indigenous students, far ahead of any other and much more important than it was for international students where it ranked

last. Again, more flexible modes of study may help to address this. On the other hand, the academic factors were not as clearly differentiated in the case of international students. This suggests that, for this group, the range of academic issues investigated in this study were of almost equal importance in decisions to withdraw. Nevertheless, a recurrent issue for international students was the emphasis placed on teaching and teacher-student interaction that were perceived as both enabling and inhibiting factors, depending on the quality. One possible interpretation is that international students' actual academic experience may not correspond to their expectations, an emerging theme in the relevant literature (Tootell, 1999; Cadman, 2000). In particular, those international students from Asia, tend to see lecturers as authority figures and mentors, and look to them for advice. This is a cultural issue and academic advisors may need to play a role in explicating institutional expectations as well as facilitating cultural understanding between students and staff to minimise potential withdrawals and enhance student satisfaction.

The study showed that there were marked differences in the way Indigenous and international students access available support. Not only do indigenous students more readily access indigenous teaching staff, but support from the Indigenous Centre was perceived to be both a strong motivational factor in decisions to stay and to be an important potential deterrent to dropping out (Farrington et al., 1999; Luck, 1998). In contrast, international students rated the role of study advisors and the study skills centre as having only a minor influence on their decision to stay or likelihood of not dropping out. This may be due to a lack of familiarity with academic support services and the role advisors play within the institution, as these are foreign to many international students. On the other hand, they felt increased support from teaching staff would have the most positive impact on their decision to stay and were more likely to consult a lecturer about their decision to withdraw than they were to approach study skills advisors or counsellors. Indigenous students were more likely to approach Yunggorendi staff before a lecturer or other advisor. The results of this study indicate that indigenous students are aware of the Indigenous Centre and the supporting role it plays, and readily access its services. This enables the Indigenous Centre to act as a cultural broker on behalf of the students. This is not the case for international students, given they are more likely to turn to their lecturers than appropriate support services. Lecturers are not always the most informed and can view requests from international students as unwelcome and inappropriate. This highlights important differences between international and Indigenous students' patterns of behaviour and attitudes towards targeted support services, again an important finding if intervention strategies are to be implemented. Similarly, the study also showed that both Indigenous and international students are more likely to approach friends and family for advice about withdrawal. The concern is that, like lecturers, they are often ill-equipped to deal with these issues. Strategies need to be put in place to counteract this trend, enabling family and friends to refer the student to more appropriate advisors.

Implications

This study was conducted with the aim of identifying early intervention strategies that could enhance international and indigenous students' successful completion of their study. It identifies that student satisfaction and success are enhanced by creating a sense of belonging and by improving the degree of fit between the student and the university. Finding out what the students themselves perceive to be contributing factors to their success or failure is part of that process.

As shown, both groups identified stress as the most critical factor influencing their decision to withdraw. This may be due to the common experience of acculturative stress, or it might result from differing experiences that will require institutions to act in targeted ways to

improve student satisfaction. Either way, this finding indicates a need for further research in this area. The findings also provide reasonable grounds to suggest other implications in relation to support services and intervention. The results give a strong indication of the success of an Indigenous Centre, both in providing support and in enabling students to access that support, leading to the possibility of cultural mediation. Similar access needs to occur with international students. The results suggest there is a need to increase international students' understanding of Australian institutional/academic practices and appropriate support mechanisms, to ameliorate the effects of differing expectations and to maximise the benefits to be gained from accessing available support.

Abbott-Chapman and Edwards (1998) argue that increasing student access requires a shift away from the perception of student support as welfare to one of student rights. To accomplish this, academic advisors need to collaborate with academic staff, faculties and other service providers to change that perception. This is a broad approach and would benefit all students. Additionally, academic advisors need to educate teaching staff in cross-cultural competence and to inform them of the services and people available to assist them in providing the most positive help for the students. This will help teaching staff to respond more appropriately to international and Indigenous students' needs and to direct them to the relevant service provider. Provision also needs to be made to facilitate social supportive networks or activities for international students to facilitate a sense of belonging or engagement with university culture. Establishing positive links between new international and local students through a formal or informal mentoring scheme is one mechanism that could help facilitate social inclusion. There are likely to be others. Likewise, regular communication with indigenous and international students' partners and families through meetings, social occasions or concise written information may allow appropriate intervention at critical times when students consider dropping out of tertiary studies.

Finally, unlike indigenous students, to stay or not to stay is not the question for international students. Nonetheless, the issue for both groups is the success of the university experience as a whole. Targeted changes to current institutional practice and timely intervention strategies in the delivery of student support could improve that experience and increase success and retention rates for both international and Indigenous students.

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The faculty mentor program: An initiative to support the transition to university of on-campus students at a regional university

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ABSTRACT This paper provides a brief overview of the learning needs of first year on-campus students at the University of New England (UNE) and a description of a faculty-based student learning support program which has been piloted for three years (2001-03). The Faculty Mentor Program is an effective amalgamation of a range of learning support approaches. It is student-centred, discipline-specific and is delivered via group work and one-to-one contact. There are four Faculty Mentors, who are placed in each of UNE's four faculties while remaining part of the centrally-based Academic Skills Office of the Teaching and Learning Centre. Although designed primarily to meet the challenges related to tertiary literacy deficit, qualitative evaluation suggests the program also supports students in the more traditional mentoring areas. It has been effective in assisting in the integration and engagement of students in university life in the important first year of tertiary study.

Keywords: Transition, mentoring, discipline-specific

The need for tertiary learning support, particularly in the first year of university study, is well documented. It is now widely accepted that because of the enrolment at university of students from a wider range of backgrounds than previously, there are now larger numbers of students who do not have the skills and background knowledge once considered essential (Baldauf, 1997; Garner, 1997; McInnes & James, 1995; Parker, 1997). It can no longer be assumed that students are ready for specialised, 'academic' study (Johnston, 2001; McInnes & James, 1995). Many first year students are challenged by the expectations of tertiary institutions with respect to thinking and learning and many students struggle with their new role as independent learners and critical thinkers (Beasley, 1997; Johnston, 2001; McInnes & James, 1995). For students from disadvantaged educational backgrounds these difficulties are compounded.

The University of New England (UNE) is a regional university with a very flexible and open-access policy which encourages students from diverse backgrounds to participate in higher education. Of 16,888 enrolled students in 2000, over 42% came from rural backgrounds and more than 3.7% come from isolated backgrounds – these percentages were, and remain, higher than the national average for Australian universities (UNE Planning and Institutional Research, 2003). A large proportion of the first-year on-campus cohort enter via the Schools Recommendation Admission Scheme (SRAS), which offers students a chance to study at university which is not linked to HSC results. This pathway requires participating schools to give an independent assessment of students in particular subject areas and on

general potential for success on personal grounds such as persistence, motivation and capacity for independent work.

It appears that the SRAS has improved access and equity in higher education for prospective students. A higher proportion of rural, isolated and low socio-economic applicants enter UNE through the SRAS than via the UAI pathway (Arnison, 2000, p. 180). In 2000, 51% of our first-year undergraduate intake was through the SRAS. Compared with the 2000 UAI entry group, the SRAS cohort had 18% more rural and isolated students and 10% greater participation of low socio-economic students (Planning and Institutional Research Office, UNE, August 2000). Membership of either or both of these equity groups is often an indicator of disadvantaged educational background resulting from isolation or lack of resources or opportunity (Arnison, 2000, p. 180). This in turn often means lack of preparedness for successful university study. While we know that in the end the SRAS has comparable prognostic value to the UAI (Arnison, 2000, p. 181), in the beginning many of these students need assistance during the transition period (Centre for Higher Education Management and Policy, 1999).

This paper provides an overview of the concerns held in 2000 about the learning needs of first-year on-campus students at UNE and a description of a specific student learning support program targeting this cohort which was established as a three year pilot program in 2001. The Faculty Mentor Program is a student centred approach that is discipline-specific and delivered via group work and one-to-one contact to assist first-year students to meet the challenges of first-year study, particularly those related to tertiary literacy deficit and those that result in student attrition.

The Faculty Mentor Program at UNE

The learning support programs run by the Academic Skills Office (ASO) of the Teaching and Learning Centre comprehensively target all students with centrally-based teaching programs and largely generic resource development. It was envisaged that the Faculty Mentor Program would specifically target internal first year students who are under-prepared for successful university study with faculty-based learning support and discipline-specific resources in an attempt to improve success and retention rates for that cohort.

Seed-funded for three years (2001-03), the Faculty Mentor Program involves the placement of a learning support advisor with a relevant discipline-specific background in each of UNE's four faculties specifically to support first-year on-campus students. The intention was to move learning support for first-year students into the students' own comfort zones so that the assistance was more visible and accessible to both students and academic staff. We hoped that this would also result in heightened awareness within the Faculties of good practice in terms of utilising pedagogies to increase student success and retention rates in the first year. Amongst learning support practitioners there is increasing recognition that discipline or context-specific intervention programs early in a tertiary course can have a lasting positive impact on learning outcomes (Chanock, 1994; Cootes, 1994; Garner & Edwards, 1994; Hicks, Irons, & Zeegers, 1994; Johnson & Hanley, 1994; Zeegers & Martin, 1999). The advantages of group work (Center for Supplemental Instruction, 1992; Goodsell, Maher, & Tinto, 1992; Johnston, 2001; Rubin & Herbert, 1998; Tinto, 1998; Trottier, 1999) and one-to-one learning support (Chanock, 1996) are also well documented. Student mentoring, in its various forms, is an increasingly common approach to supporting the transition to tertiary study (Bond, 1999; Cohen, 1995). This approach combines the known benefits of discipline-specific learning support with the best features of group work and one-to-one strategies. It is an ideal vehicle for not only assisting students to reach their full

potential for tertiary study but also to achieve integration into the learning community and engagement with the institution, acknowledged ingredients in student retention (Tinto, 1998).

Each of the faculties provided office space and equipment for the faculty mentors so that they are housed close to the students and academic staff in each faculty and seen to be part of each faculty, an important feature of the program. The stated duties of the Faculty Mentors are to:

- liaise with relevant faculty staff to identify learning difficulties specific to discipline areas as experienced by at-risk first-year students;
- interview targeted students to ascertain past and present barriers to academic performance and provide individual advice and guidance;
- advise targeted students on specific courses of action which might involve accessing currently offered support programs in the Academic Skills Office or UNE's residential colleges or specifically designed short courses or combinations of both;
- develop and deliver specific learning support short courses for discrete groups of students in faculty groupings; and
- assist academic staff to build these learning support materials into existing course material so that the learning support will be ongoing.

Implementation strategies

A range of means were used by the faculty mentors to establish themselves in the Faculties. Strategies used by the faculty mentors to make contact with academic staff were:

- introductions at faculty meetings followed by short presentation to staff;
- contacting course coordinators, requesting unit outlines and assessment schedules;
- requesting names of students who had performed poorly in assessment tasks and Semester 1 exams;
- consulting with key teaching staff in first year units;
- attending first-year teaching forum;
- providing feedback to staff on individual students;
- consulting with faculty office staff as necessary;
- attending staff functions;
- consulting with staff before and during marking of large assignments;
- emailing staff about students' assignment queries or difficulties;
- collaborating with lecturers in the development of support resource materials; and
- introducing the 'pink slip' to lecturers. The pink slip contains key literacy pointers indicating areas of concern to markers and directing students to contact the faculty mentor for assistance.

Strategies used by the faculty mentors to make contact with students were:

- participating in the student support services fair in Orientation Week;
- assisting at enrolment;
- giving a short presentation as a component of the Dean's Address to first-year students;
- addressing large enrolment groups in introductory lectures or soon after, giving introductory information on study skills and outlining the faculty mentor role;

- promoting and presenting specific workshops and lectures in first-year units (both within and outside normal timetable);
- placing promotional posters in residential colleges, at the library, outside first year lecture theatres and labs and in strategic places around faculty buildings;
- sending individual letters to all students who had failed one or more assessment tasks prior to first semester final exams;
- sending individual letters to all students who on the basis of first semester results looked to be at risk of failing second semester;
- corresponding with heads of residential colleges regarding targeted students;
- corresponding with residential college tutors and seniors re Faculty Mentor Program;
- assisting residential college tutors and seniors with resource materials;
- conducting assignment specific workshops in college for targeted groups;
- participating in a resubmission scheme in conjunction with lecturers whereby students could only resubmit a failed assignment if they could provide evidence of accessing the Faculty Mentor program; and
- being friendly and saying hello to students around campus and elsewhere as appropriate.

Several of the above strategies were employed to address the issue of reluctance by students, particularly those most in need, to self refer. It was encouraging that in the first year of the program, the Faculty Mentors were approached by 15% of all first year students. In the second year of the Program this rose to 21%.

Not all the work of the faculty mentors has been about one-to-one assistance however, so that their real reach has been far in excess of these percentages of first-year students. They have also offered course-based workshops and short courses on the steps in the research and writing process, examination preparation and effective study in many first year units of study. They have worked with senior students in the residential colleges to assist first year students to understand expectations and requirements. They have collaborated with academic staff to embed academic skills into the curriculum; developed feedback and referral mechanisms for markers; and become involved in resubmission processes. A vitally important aspect of the Faculty Mentor role has been developing links with Faculty staff so that ownership of the learning support is shared and the students see that it is considered important by those who are responsible for their assessment.

Evaluation of the Faculty Mentor Program

After the first year of the Program, sixteen student participants in the Program, four from each faculty, were surveyed by phone. When asked what they learned or gained from their visit(s) to their faculty mentor the respondents cited assistance with essay writing, referencing, how to be more 'academic', reassurance about standards and expectations at university and effective study techniques. In response to a question about the resulting impact on their studies the students said improved essays, better results in Semester 2, improved confidence, lessening of pressure and stress and the benefits of having received emotional support. All the students surveyed indicated that interaction with their Faculty Mentor resulted in improved feelings about themselves in relation to university study.

In 2002 a similar survey of 40 student participants was carried out by mail. The results showed that the reason that most (37/40) first visited their faculty mentor was to seek assistance about an assessment task and the remainder to seek help with study skills in

general. More than half of the students surveyed (25) had attended workshops or short courses offered by their Faculty Mentor and all of these either strongly agreed (22) or agreed (3) that the workshops were useful. All students surveyed strongly agreed (23) or agreed (17) that their results improved as a consequence of interactions with their faculty mentor. The majority strongly agreed (22) or agreed (14) that their interaction with their faculty mentor improved their feelings about themselves in relation to university study and their ability to succeed. The majority strongly agreed (23) or agreed (12) that their interaction with their faculty mentor enhanced their ability to complete their Semester 1 studies. Asked what they learned or gained from their faculty mentor, the majority cited an enhanced understanding of the writing process, referencing skills, general study skills and improved confidence after seeking assistance with academic difficulties that they were experiencing.

According to Tinto (1993), academic difficulty is one of the most common causes of attrition and this is confirmed by research carried out at UNE (Centre for Higher Education Management and Policy, 1999) and other Australian studies (Johnston, 2001; Krause, 1998). Part of the problem for many students is having to adjust preconceived expectations and become accustomed to different requirements and approaches to assessment. The Faculty Mentor Program uses early assessment tasks as a vehicle to address these issues and assist in the process of academic integration. Student responses indicate that the program is effective in supporting students to achieve improved learning outcomes. Selected student comments are:

- (I learned or gained) how to structure essays; how to write an essay; improved grammar; punctuation and grammar; proofreading skills; improved written expression; quite a lot about referencing; a better grasp of what is required at uni; good tips about studying; effective study techniques; useful advice; how to be more academic; academic skills info clear and easy to understand; reassurance re standards;
- I can now write a good, structured, logical, emotion-free essay.

The Faculty Mentor Program also builds bridges between all the players in the first year experience – the faculties, the residential colleges (in which approximately 85% of first-year on-campus students live), the student support services and most importantly, the first-year students. It promotes interaction in the learning process which not only enhances the quality of learning but also contributes to students' sense of belonging within the learning community and to their sense of competency. Evidence gained from evaluation of the program shows that it strengthens students' sense of connectedness to the institution. The importance of this in terms of student retention and the value of it occurring very early on in the transition process is huge (Krause, 2001; Levin & Levin, 1991; National Resource Centre for the First Year Experience and Students in Transition, 2001; Tinto, 1993).

Student and lecturer comments reflecting the establishment of links are:

- It is my opinion that this is an extremely valuable component of the faculty's offerings to students acting as a bridge between academia and students. *Lecturer in School of Biological, Biomedical and Molecular Sciences.*
- The communication link between lecturer and student is invaluable. *First-year Science student.*
- The Faculty Mentor Program was an invaluable asset for both me and my students this year. The opportunity for students to receive constructive and positive feedback as part of a resubmission process (or otherwise) proved to be a decisive

and important strategy for their learning. The cooperation between faculty mentor, students and myself was an additional feature that in turn gave the students confidence in the learning process and increased their willingness to recognise mistakes as part of the learning process. The role of faculty mentor was fundamental to this. *Lecturer in Science and Technology Education, School of Education.*

- Having a faculty mentor is an invaluable resource. She is a person that students can be sent to for expert guidance and who we, as academics, can turn to for advice on how to improve teaching and learning materials and practices to better support our students. *Senior Lecturer, School of Law.*

These links have also had a positive impact on academic staff workload as expressed in the following comments:

- (The faculty mentor) has made an important contribution to our first year students. I have had many positive comments back from students. Because she is available, it has reduced the work-load of staff in marking - we can refer students to (the Faculty Mentor) for assistance in how to approach assignments, writing techniques, time management and so on. I consistently refer students to (the Faculty Mentor) for help in how to take exams and how to prepare for them. *Associate Dean, Teaching and Learning, in the Faculty of The Sciences.*

- I could not have found the time to help students without the support of the faculty mentor. Many students find it intimidating to go (outside the faculty) for help, particularly in their first year, and instead turn to their lecturers. Having a person within the faculty, who is seen about the corridors and known to the students and staff, allows even the most diffident student to access the help needed. I have no doubt that this kind of program contributes greatly to students' satisfaction with UNE. *Lecturer, School of Education.*

While primarily designed as a mentoring program in the academic advising sense, in practice a proportion of the work of the faculty mentors has been of the traditional mentoring kind: supporting, advising and encouraging students as they adjust not only to a new way of life. We know that not all reasons for student withdrawal are about educational issues (Pitkethly & Prosser, 2001) and this is also supported by a recent survey carried out at UNE which indicates a range of other 'life' issues affecting students' ability to settle in to and persevere with their studies. These include financial worries, (paid) work pressure, time-management difficulties, family and relationship problems and low self-esteem (University of New England, 2002). The faculty mentors themselves have identified, in addition to academic difficulties, the following common problems of first year students: time-management problems; inability to take responsibility for own learning; lack of independent learning skills; motivation issues; difficulty dealing with the system (assignment extensions, approaching lecturers, understanding the handbook, aspects of faculty administration); loneliness, and other personal problems. The faculty mentor clearly plays a role in this regard in terms of offering emotional support and referral to other student support services such as the Counselling and Careers Service. Selected comments from students on the Faculty Mentor Program about emotional support are:

- (The Faculty Mentor Program) took the pressure off, if in doubt I knew she would help; gave me lots of tips and emotional support, even 'life-skills'; settled my

mind to be able to pop in for a talk; was really useful for me especially at the beginning of my first semester, to adapt to university life and with the work load; provided a good sounding board; helped get past 'brick wall'; helped me get a good, well-balanced routine going; made my transition from year 12 to UNE smoother by her encouragement and services she provided; was always comforting - I always felt 10 feet tall when I left her office;

- I have learned how to balance my studies, sport and social life. Consequently, I have enjoyed my time at uni whilst maintaining positive results in my courses thus far;
- (Before seeing my faculty mentor) I was having doubts about self and ability. I felt more relaxed and reassured, more confident afterwards;
- The faculty mentor taught me how to enjoy (uni) by keeping in control of the workload as well as other commitments; and
- Knowing the 'safety net' was there was invaluable.

Conclusion

Supporting students in the first year of university study is crucial for successful transition and learning outcomes, especially for students from disadvantaged educational backgrounds. It is also an important element in retention. Support networks which utilise the known benefits of context-specific learning support while also aiming to achieve academic and social integration appear to achieve these objectives. The Faculty Mentor Program is an effective amalgamation of a range of learning support approaches and underpinned by the literature on student retention. It combines discipline-specific academic skills development and learning support with an appropriate balance of one-to-one counseling and group work. It is a highly student-centred program, which runs parallel with, complements and counterbalances, traditional teaching methods to the benefit for all stakeholders, particularly students. As the program nears the end of its three year seed-funded lifespan, each of the four UNE Faculties are investigating means by which the Faculty Mentor Program, now well-embedded and highly valued in each Faculty, can continue into the future as core faculty programs supporting transition.

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Draw-Talk-Write

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ABSTRACT A consequence of universities enrolling non-traditional students who have not completed secondary (or even primary) schooling is the need to develop strategies to assist rapid attainment of high-level literacy skills. A system is described which assists orally proficient - but literacy inefficient – students to become literate within a short timeframe and within the strict framework of academic disciplines. Within the theoretical framework of Vygotsky's (1978) 'Zone of Proximal Development' (ZPD) and Cambourne's (1987) Conditions for Learning, students utilised their own stories as a basis for the development of meaningful text and, in turn, literacy skills suitable for university study. Results from case studies showing students traversing the ZPD territory from low level literacy and being placed on 'show cause' to obtaining high distinctions in one academic semester, are reported. This paper also describes how this process has led to the development of an automatic word-recognition system, 'draw-talk-write' that enables people with a strong oral tradition to impart their stories directly in text form, without the assistance of a learning facilitator. The system differs from virtually all other speech-to-text recognition systems in that users are not required to interact via written text (e.g. Kohonen, 1988); at the heart of the system is a neural network-based pattern recogniser that translates speech patterns into visual rather than textual cues. The project has potential for benefit to mainstream literacy education at all levels.

Keywords: Literacy, visuals and voice to text, Vygotsky

Introduction

A consequence of universities moving from 'elite' to 'mass' education in the post-Whitlam (1972-1975) era is the emphasis that has been placed on providing equity and access strategies. These strategies operate at two levels: equity of access to entry to the tertiary institution and equity of access to learning. Equity of access for entry purposes has occurred through provision of a diverse array of special entry programs, including entry 'tests' for mature age students, interview and aptitude programs for indigenous applicants and bridging and enabling courses for students who meet one of the six equity categories codified by Dawkins (1990): Aborigines and Torres Strait Islanders; women who wished to study in non-traditional areas (often taken to mean technological, mathematic or scientific disciplines); those with a disability; those from a low socio-economic background; those from a non-English speaking background; and, those over the age of 21 years. Equity of access to learning has occurred through identification of student 'deficits' and the provision of programs, resources and staff to address those identified deficits.

Rather than continue in this orientation, the project described here provides evidence of how the experience of meeting the learning needs of students with perceived 'deficits' provides an opportunity to re-orient our thinking and practice as learning development academics. It has its origins in work by Mindell (1988) and Gluck and Draisma (1997). Mindell (1988) worked with psychiatric patients who were identified as experiencing extreme psychiatric states. He developed the metaphor of 'the city shadows' in which clients considered to be the most difficult cases for social services departments were viewed as a reflection of the sickness of the society of which they were part. In Mindell's shift of focus, "these clients [were] meaningful for the city they live[d] in" (Mindell, 1988, p. xiii). Gluck and Draisma worked with a group of indigenous tertiary students who were 'identified as the most difficult [people] in need of remediation of deficits ... [and similarly to Mindell they] viewed [them] as key indicators of mainstream needs and key resources for improved processes of evaluation and development of quality [services]' (Gluck & Draisma, 1997, p. 9). These students had much to teach about facilitating literacy and acted as a leading-edge resource for the development of learning processes that have the potential to benefit all students.

Theoretical base: Vygotsky's Zone of Proximal Development

This project drew on Vygotsky's (trans. 1978) notion of a learning 'zone' or 'terrain' that the student needs to cross with the help of a more expert 'other' in order to achieve a learning goal. By extension of the metaphor, when the student reaches the 'other side', learning has been acquired and the goal has been reached. Learning may involve acquiring information or developing skills (depending on the situation) but always involves a process of moving from where the student is to where he/she needs to go.

Vygotsky used the 'zone of proximal development' (ZPD) to define the difference between activities that a person was able to accomplish on her/his own and what s/he was able to accomplish with the help of a more expert other. Vygotsky's theoretical understanding of the four stages of learning or ZPD is described as a gradual process through which the learner moves from assisted performance to unassisted and self-regulated performance (Gluck & Draisma, 1997).

Stage I: where performance is assisted by more capable others;

Stage II: where performance is assisted by the self, ... [but where] performance is [not] fully developed [n]or automatised;

Stage III: where performance is developed, automatised, and fossilised; and

Stage IV: where de-automatisation of performance leads to recursion through the zone of proximal and development (Gallimore & Tharp in Moll 1990 pp. 184-186).

Individuals' learning experiences throughout life are made up of ZPD sequences, from other-assistance to self-assistance, in a recursive loop that facilitates the development of new capacities. For every individual, at any point in time, there will be a mix of other-regulation, self-regulation and automatised processes (Gluck & Draisma, 1997; Gallimore & Tharp, 1990 in Moll, 1990).

A Vygotskian approach was used to facilitate the development of literacy in young

people and of learning in the deaf (Neumann & Roskos, 1997; Zaitseva et. al., 1999). It was also used earlier by Draisma et al., (1994) and by Gluck and Draisma (1997) to improve literacy, learning outcomes and the consequential success rate of indigenous students enrolled at the University of Wollongong. In order to act as 'more capable others' in assisting tertiary students to negotiate their own learning 'terrain' Gluck and Draisma in both the 1997 study and here utilised strategies adapted from Cambourne's 'Conditions for Learning (Cambourne & Turbill, 1987); immersion, demonstration, expectations, responsibility, approximations, practise, engagement and response.

Students were *immersed* in the medium of the university culture and in the disciplines in which they were enrolled. This immersion occurred naturally in classroom experiences and through the range of reading and teaching materials to which they were exposed but this was insufficient to enable those with limited literacy skills to participate meaningfully in the class. Thus explicit *demonstrations* were given by the learning developers of how learning and assessment took place in the discipline. *Expectations* were 'given off' that the students would succeed and that they were expected to take *responsibility* for their own learning. A 'safe' environment was created that gave students the freedom to make *approximations* or to 'have a go' at trying out 'drafts' of academic writing (oral, graphic or in writing). Frequent contact with the learning developer provided opportunities to develop and employ academic skills and to *engage* in the process of doing academic tasks and to receive an immediate *response to* (or mutual exchange about) ideas.

University students with low-level literacy proficiency

This current work was undertaken with university students who, for a number of reasons, displayed limited proficiency in literacy – in particular literacy at an academic level – and who found themselves placed on 'show cause/restricted' programs at the University of Wollongong. Some were admitted to the University on affirmative action, equity or alternative admissions programs and in relation to the production of acceptable academic writing were quite clearly at Stage I of the ZPD. They recognised that they required assistance from more capable others in order to write at a level sufficient to meet the requirements of their disciplines, however, each student displayed different kinds of proficiencies. For example, some could write a sentence, some couldn't spell, one cried and fled the room when asked to read or write. All could hold a cogent argument orally and had an expressed desire and willingness to risk undertaking their courses. All were prepared to ask for help and to utilise what was offered. In Vygotskian terms they knew their goal and were prepared to negotiate the learning terrain to get there. Key challenges for us as learning developers were whether we had what it took to tune into the students' processes of making meaning and argument and whether we could identify cues within the students' processes to utilise them to facilitate their own learning and academic literacy acquisition.

When the students first sought help with academic writing, one interesting observation was the proliferation of visual prompts apparent in their first attempt drafts and on their lecture handouts and journal articles: diagrams, symbols, doodles, squiggles, graphs, arrows and other icons. These icons encoded meaning for the author but encoded little or no meaning for any other reader. It was a personal shorthand language to prompt or record their thinking or the thinking of others.

The icons were a private language that at times caused great embarrassment for the students who articulated their meaning-making process by drawing. Some students failed to move beyond the visual representations and perceived themselves as inferior to other students who could 'just sit and write'. Frequently they would self-denegrate and say 'Why can't I do it?' 'Why can't I write like everyone else does?' 'Why can't I write like you?' 'There's

something wrong with me.' 'I'm stupid.' 'I must be retarded'. 'I shouldn't be here. They made a mistake. They shouldn't have let me in.' As learning development academics our role was to assist these students to utilise their visual literacy and private language of symbols to move forward into text literacy and success in tertiary education as they negotiated Stages I to IV of the ZPD (Gallimore & Tharp in Moll 1990, pp. 184-6).

Case Study 1

A third-year Bachelor of Creative Arts student enrolled as a 'mature age' student was 'threatened' with exclusion from the university if she did not meet the academic writing requirements of her discipline, in particular, Art Theory. She had 'fudged' her was through the previous two years by turning each writing assessment task into a visual art project and 'conned' her lecturers into assessing her ideas rather than her writing. These ideas were sometimes presented as an installation, a tapestry or 3-D collage, for example a shoe box containing an eclectic collection of items and poems was handed in – and awarded a credit grade – for an assignment on post-modernism.

The learning developer utilised the Vygotskian process and an understanding of Cambourne's Conditions for Learning to move the student from the visual method of expressing ideas (her ZPD Stage I) to constructing text from oral retellings of the encrypted meanings (ZPD Stage II). Eventually these oral explanations (or first approximations) were transferred to text on the computer – first by the learning developer and then by the student (still Stage II). At the same time the student was immersed in examples of academic writing from her discipline, including examples of her lecturer's own writing, which acted as demonstrations of what was expected. Her printed copy of her draft essay was responded to, added to, tinkered with, and cut and paste with more visuals being inserted to promote the expansion and development of her argument. Throughout the whole process the student was engaged in practising how a successful academic writer goes about the task of developing text (reaching ZPD Stage III).

In many ways the process was equivalent to weaving and sculpting, an adding to and cutting away process that held resonance for the student artist. The essay was awarded a High distinction and the student completed her degree, having demonstrated that she had acquired the relevant 'attributes of a Wollongong graduate'. Because the student graduated without undertaking another written assignment, it was unable to be observed whether she reached Stage IV where she would have traversed the ZPD in another academic writing context.

Case Study 2

An indigenous student enrolled in the second repetition of the first year of a Bachelor of Teaching degree was facing exclusion if she were to fail a third time. In exasperation she slammed her papers on the learning developer's desk and cried, 'I'm about to fail for the third fucking time!' It was noticed that her papers were full of visual images – drawings that appeared alongside and on top of the printed course readings and photocopied journal articles. When questioned about them she said, 'The only way I can understand what the fuck they're talking about is to make a drawing of what they're saying.' The learning developer utilised the student's visual strength (Gardner, 1983) to trigger explanations and connections between the drawings and the texts. As she talked, he recorded her words by typing into the computer, which was then used by the student as a basis for further developing the assignment. Unlike the Creative Arts student cited above, this Education student was observed utilising the Conditions for Learning as a vehicle to move through all stages of the ZPD. Her experience of 'draw-talk-write' within her identified ZPD has assisted her to become a successful facilitator of children's literacy, as demonstrated in her receiving high grades for literacy development among children during her teaching practica.

Case Study 3

Another indigenous student enrolled in a Bachelor of Teaching degree also developed her academic writing by engaging in the draw-talk-write strategy. She was asked to write an essay on her rationale for teaching and it was made clear that she was to draw on her own experience as a student teacher and to relate that to the theories she had been learning. She was unable to write in the form required and instead drew pictures to explain her ideas. In talking with the learning developer she was encouraged to explain how her experiences as a learner and student teacher exemplified the educational theories she was learning. She did so and focussed on the theories. It was clear that she was unable to move directly to the writing phase without extensive experimentation and feedback on her ideas from a more experienced other (Vygotsky, 1978).

Her written assignment connected theory and practice and articulated a rationale for teaching and learning by drawing on her personal experience and including this as a 'dream sequence' that involved the depiction of educational theorists such as Vygotsky (1978), Gardner (1983), Bruner (1987) and Cambourne (1987) in conversation with each other and the student. In her constructed scenario she utilised her own idiom and her own socio-cultural experience to provide the basis for the 'conversation' with the educational theorists. In order to 'engage' with the assignment topic, the student had to 'approximate' what an academic writer does by reference to her own life experience and to 'practise' academic skills by interacting with the learning developer who provided 'responses' to her approximations. This encouraged her to connect practice and theory and assisted her to move through the stages of the ZPD for that assignment.

Her lecturer in the faculty viewed this approach to academic writing as anecdotal and not the required genre. She intimated that the student was 'not up to scratch' while stating, "All I want is a statement of the student's rationale in an essay that explicates the theoretical support for her position". But the student, supported by the learning developer, held firmly to her decision to include in the essay those parts of her experience that elucidated theory and she held firmly to including it in a dream sequence. She refused to be bound to an expected genre. To her the dream sequence was crucial in understanding how she had 'made meaning' and provided a metaphor for the meta-cognitive process she had engaged in. She was fully aware of those parts of the essay that directly addressed the question and those which spoke of her personal experience, but to her all parts were relevant to the assignment and an expression of how she had connected educational theory to personal experience and professional practice.

Draw-Talk-Write process

What both learning developers had facilitated in focusing on students' approximations of ideas through talking and drawing was the beginnings of a 'draw-talk-write' process that opens the door to literacy via four related tasks:

- talking with the learning developer about the assignment topic and relating it to their personal experience;
- utilising that personal experience to draw, decipher and tell a detailed story or create a scenario that can be used to fulfil the requirements of the assignment topic or area of inquiry;
- researching the topic and determining a theoretical perspective that supports the story as an example suitable for the assignment topic; and
- refining the assignment through revisiting steps (i) through (iii).

This four-stage draw-talk-write process has proved successful with Bachelor of Teaching students who had been placed on 'show cause/restricted' enrolment at the University of Wollongong. It was able to facilitate success in 'making meaning' of (and formulating and applying theories for) teaching reading and writing and it also mediated their own learning. They became teachers of literacy via their own rich personal stories. The process has also been successfully employed in enabling PhD and doctoral students to develop their research and write theses in Management and Education disciplines and it is currently being combined with dramaturgical processes to facilitate a formerly literacy-inefficient student to undertake his PhD in English Studies.

Draw-talk-write was also used to enable literacy inefficient students at TAFE to acquire and demonstrate control of the literacy they required to meet the requirements of their Visual Arts courses. By harnessing visual and oral strengths through draw-talk-write all students' literacy improved. A number of students who were very reluctant writers and readers attained sufficient literacy to enable them to enter and be successful at university. A notable student who was unable to write at the level of a mid-primary school student and could not read a short article or the captions to the pictures on the back page (sports page) of the Daily Telegraph newspaper became highly literate.

Learning to become literate was facilitated by visual rather than textual cues. Many of these literacy inefficient TAFE students were accomplished artists, composers and story tellers within an oral tradition and possessed high level visual and pictorial skills that acted as a mediating vehicle to literacy. They began to compose, relate, record and transcribe personal stories then using computer technology learnt to play back, edit, read and become computer literate in the process. It was then recognised that harnessing the students' visual and oral strengths involved functions that could be performed by an automated word recognition system.

Adapting draw-talk-write to voice-recognition software

The preliminary experiences with draw-talk-write using a computer were followed by experimentation with commercial voice recognition software packages – namely IBM's ViaVoice and Dragon's Naturally Speaking. Experiments were conducted into 'fooling' the voice recognition package(s) during the training process, wherein the Learning Developer read what was displayed on the computer screen to the (literacy-inefficient) user then the student repeated these phrases to the system. This manual feedback loop proved extremely time consuming and frustrating from the student's perspective and often led to the student hurling abuse at the machine! Draw-talk-write software that focuses on enabling people to become literate by visual and verbal rather than textual cues is now being developed in a project supported by Apple Computer Australia through their Apple University Development Fund.

A 12-month pilot study developed a rudimentary word recognition system, given the inherent limitations of commercial speech recognition packages for the needs of the populations with whom the authors were working. This system was developed on an Apple Macintosh platform and comprised the following three components:

(i) a voice input pre-processor (consisting of microphone, sound card and noise filter);
(ii) a Fast Fourier Transform package (which converts sampled words into frequencies); and

(iii) an Artificial Neural Network pattern classifier (which takes frequency patterns as input and activates a 1-of-n 'best match' word output). The word vocabulary was kept deliberately small for this exercise, in order to verify the soundness of our approach.

By the end of the 12-month pilot study, some success was obtained with each of three components, however overall system integration and performance required more attention. Work is progressing on this system, building upon the rudimentary building blocks developed during the pilot study.

Conclusion

The draw-talk-write process facilitates students utilising visual and oral strengths in order to learn to write and read. Further, it utilises students' own stories to learn to write, which is then used as a resource for learning to read. Nevertheless, without an understanding of how students learn and of what needs to be done to assist a student to learn – to cross the learning terrain to reach a learning goal – then asking students to draw ideas prior to writing would be purely mechanical and possibly meaningless. Moreover, understanding the connection between Vygotskian theory and Cambourne's Conditions for Learning is important for facilitating literacy at any level.

Further, Vygotskian theory and the Conditions for Learning are intrinsic to the thinking behind the software program draw-talk-write and its utilisation. It will be a useful tool for assisting the acquisition of independence in literacy because it engages learners' strengths within spatial and linguistic intelligences (Gardner, 1993). The success of this work-in-progress has far-reaching potential for any literacy inefficient community worldwide - especially those with strong visual and oral traditions. Moreover, since our system is not linked specifically to the English language, but rather is pattern-based, our approach is globally applicable.

Notes

Attributes of a Wollongong graduate: A commitment to continued and independent learning, intellectual development, critical analysis and creativity; coherent and extensive knowledge in a discipline, appropriate ethical standards and, where appropriate, defined professional skills; self-confidence combined with oral and written skills of a high level.

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From literature to literacy: Some reflections on my personal journey and some thoughts for the future

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ABSTRACT The paper is based on my metamorphosis into a university learning advisor giving academic literacy advice to students, in a language which had been equally foreign to me, or maybe more so as compared to that of many of my students. My initiation into English had come via all manner of poetry from Donne, Eliot and Sarojini Naidu to Michael Jackson and through the novels of Jane Austen, Anita Desai and Jackie Collins and by drama from Shakespeare to Dirty Dancing. The two phases of this metamorphosis, studying at university and then teaching English as a Second language in Australia had already proved to be rather confronting experiences for me. However teaching academic literacy here at university has posed an even greater challenge. As I look through my newly acquired 'glasses' I can see that in my role as a LAS advisor, I am now asking my students to give up what I myself had cherished; a way of thinking, studying and writing, as it is not congruent with the conventions of western academic culture. In a shrinking world where boundaries have blurred, surely the internationalisation of higher education should recognise more than just curries and currencies of the east. Should not there be some confluence of the east and the west forming an academic culture, which recognises the strengths of both? This paper invites colleagues to share many such qualms and challenges of this personal odyssey into the academic world 'downunder'.

Keywords: Internationalisation, NESB students, western universities

Prologue

If reflection brings hope for a better tomorrow then writing of this paper would be one of my most constructive acts. This paper is based upon my reflections on my own experiences of studying in a foreign language, in a foreign country as well as on my experiences as a LAS (Language & Academic Skills) advisor at a university in Australia. The perceptions and the insights I have gained through these reflections have enhanced my understanding of the various academic issues that NESB international students struggle with. According to Brookfield (1995), our experiences as learners form the most significant influences that stay within us forever enlightening our practice. I would therefore entice all teachers to reflect on their own experience of learning, especially what they had found difficult to learn and persuade them to look at some of the issues that especially trouble the NESB international students. I also see a need for reflection at an institutional level, especially regarding the internationalisation of higher education that has fallen from its noble heights of being 'educational aid' into subsisting as 'educational trade' (Tootell, 1999, p.1).

Introduction

This paper is an attempt to discuss the problems and the reason/s for the eastern students' lack of western academic style and critical literacy. It also explores the reasons for international students' lack of active participation and enjoyment in classroom interaction, especially during their transition period. It does not mean to prove that only international students have transition problems, as transition issues can be similar for most people changing jobs, cities or countries. However it wishes to emphasise that NESB international students' inability to gratify the cultural and educational requirements of their host institutes makes their transition especially difficult. The paper does not attempt to provide answers for every malady that internationalisation of higher education system or the university system as such suffers from. Nevertheless by using the example of NESB international students, it attempts to bring into light certain issues that do need to be addressed by western universities to accommodate their diverse student population. Finally it puts forth some suggestions to renew and rejuvenate the western system of higher education to suit the global environment and invites future research into creating ways and means of making higher education international in the real sense.

As I have come from a different education system, I can identify some of the issues faced by NESB international students, moreover these are the very issues that as a university student in Australia I had to face too. Despite my postgraduate study in English literature in my own country, while studying in a university in Australia, I had found classroom interaction difficult and academic writing challenging. Especially in the first few semesters, I had many problems. However, by the time I finished my master's degree, I had managed to overcome some of these problems. The time that I ended up spending at the university, my meaningful learning partnerships with local ESB (English Speaking Background) students and my subject-related job helped me to achieve my goal. However, many other NESB international students are not that fortunate. They do not have unlimited time to learn about the conventions of scholarship in the Australian system neither do they have much support to gain their full potential. Unfortunately, once they are admitted into the system, their host universities ignore their academic and other needs. Many such students end up being discontented with their host institutes as well as with themselves. The challenge for these universities is to make sure that their students not only get opportunities to acquire new knowledge and support to learn new skills, but also get a chance to utilise their existing skills and prior knowledge in a respectful and a supportive environment.

My personal journey & the obstacles faced

Classroom interaction

My introduction to further study in Australia came via TAFE when I started studying for a certificate in Teaching in a Multicultural Classroom. I was one of the very few multicultural people in that class, which was otherwise full of very enthusiastic Australian English-speaking students who were very keen to change the way classes were taught in their respective areas. I did not have much problem about writing at that stage and usually received good marks in my written assignments. However, I found classroom interaction quite difficult to follow and other than being a passive listener hardly participated in it. Often I did not have a clear idea of the things discussed in the class especially if they were out of context from our topic/subject. It was normal for the lecturers or tutors to indulge in impromptu talks with the students but I remained outside their circle, as I did not share the pool of their common knowledge. I was not familiar with the movies they talked about; did not enjoy their favourite

TV serials; was not keen on their kind of sport or extra-curricular activities; neither had I read the contemporary Australian literature. My literary references and my experiences of teaching English literature in my own country were my only assets. I would quote from literature or talk about my experiences but I did not feel as if it made much sense to them. My brief stay of just a year and a half in Australia, and that too spent in an unAustralian way, staying home and missing my country, had not provided me with any profound wisdom that I could display in the class.

Moreover, the way these interactions were conducted was very Australian. Although before I came to Australia I had been speaking in English in my country but the way I had spoken in English with my teachers and class fellows had been very culture-specific. I felt awkward in these new situations. As rules behind such verbal interactions are always culture-specific, people follow them unconsciously (Wolfson, 1983, as cited in Riddell, 2000), hence without being aware of it, my teachers and the local students in the class created an environment, which coming from a different culture and a different education system, I felt uncomfortable with. I tried to make amends by reading our subject-related material diligently, so that I could feel comfortable in class discussions on the subjects at least. I also watched TV programmes that were popular within that group and started to catch up on Australian literature but it was not a gap I could fill overnight or even over a semester. As would be the case for many international teachers having to undergo cultural adjustments while teaching in offshore programmes (Peeler, 2002), the international students in a new country face similar situation of not having equivalent cultural experiences which are shared by the rest of the class. This shortfall can get in the way of an enjoyable, unrestrained classroom interaction for teachers as well as students. Later as an ESOL teacher, I recognised the same discomfort in many of my newly arrived students. I could empathise with their awkwardness in class discussions and their reluctance to share their experiences with people from other countries or cultures. It takes time and sufficient exposure to the new environment for students to gain confidence plus skills to contribute to their classroom discussions.

By the time I started my Graduate Diploma in TESOL, I was already teaching as a part-time teacher at TAFE. Although I had accumulated some relevant, local experiences, still it was not very easy to speak up in the class. For my seminar presentations, I prepared well and did okay, but the problem remained about contributing to the general classroom talk. Especially in an argument, it would be very difficult for me to voice my opinion, as I did not feel confident enough to argue or to butt in when others argued. Therefore a lack of appropriate conversation gambits on my part played a major role in this too (Jones, 1999). Moreover, I did not have a clear understanding of the concepts being argued, as my previous learning experiences had been all to do with literature and not with teaching and learning theories. With no foundations in education subjects, I had difficulty making connections between different concepts and theories. As a result I ended up being one of the 'mute outsiders' to the academic community of that class and though I did not fail in my subjects, I could not participate in the "academic discourse" in the classroom (Wilson, 1999, as cited in Wilson, 2003, p. 25).

I studied hard, spending long hours preparing before the lecture or the tutorials, still I did not feel very confident in the classroom. Again, it was the way the classroom interaction was carried out that I had difficulty in engaging with my subjects. Lecturers discussed complex issues, assuming that most of us had prior knowledge in the subject. Therefore the language used in the class was very subject-specific and the level of discussion in the classroom was usually much higher than my standard. Most local students, especially the most vocal ones, had been teachers in Australia for a number of years. As a result the issues discussed and the examples given were usually very Australian: relating to teaching and education practices in Australia and historical turning points in government policies; alluding

to literature, religion and specific situations that I would have no idea about. Being new in that subject, as well as coming from a different education system, I had not arrived at the appropriate stage of my "cognitive or intellectual development" in that context (Britton, Burgess, Martin, McLeod, & Rosen, 1975; Pennycook, 1996 as cited in Thompson & Tribble, 2001, p.93). It was not easy to ask questions in lectures. In tutorials too, the practice of tutors to throw the question back to the group rather than answer it themselves, caused me difficulty because many times I could not follow the answers. However, I could not say anything and fearful of looking silly or ignorant did not ask many questions. I tried to compensate by reading at home, but the academic texts for the subjects were quite difficult. I found it very hard to follow ideas from different sources as many of them, it seemed to me, said very similar things. To make it even worse even if I knew what the literature were saying my dilemma was what to do with this knowledge. Being unsure of my own understanding, I could not form an opinion about anything and was reluctant to give my opinion or take a clear position whether in speaking or in writing.

Academic Writing

Since I had difficulties in comprehending arguments of expert sources, my writing suffered. Mostly it would echo my confusion as I paraphrased texts and used many quotations from the prescribed books and articles. I did not have the ability to analyse these sources and use them as evidence to make any courageous statements. As a result, my assignments would end up like a patchwork of my 'plagiphrasing' (Whitaker, 1993) and would demonstrate my inability or inadequacy to produce an expert voice. The lecturers would comment on my failure to take a position and on my inability to make use of literature to form a position. Even though I did not plagiarise, my voice in my assignments was either missing or lost in my ramblings. Besides, the way I had enjoyed writing was not the acceptable way to write any more. It did not meet " the cultural situatedness of the criteria for good writing" (Li, 1996, as cited in Calpas et al., 1997, p. 130) in the new context. With no explicit instructions on critical literacy and no models or samples of writing, especially in the context of my subject area, I just managed to write average assignments and received a pass for my efforts, whereas in the past I had always received excellent grades.

I had studied in a different education system where the emphasis had been on exams and although I had written essays and term papers (assignments) in my postgraduate degrees, still the onus had not been on my own thinking, it had been on knowing what others had thought and said. In the absence of clear instructions and guidance, I was quite lost. Unfortunately, I was not referred to the Learning Skills Advisors as from my work my teachers assumed that I was doing okay. In fact, I was doing my best but I could have done much better if I had had some guidance on the acceptable academic style and critical literacy. At that stage even I did not know that I needed help or that the problems I was facing could have been helped, so I too did not seek assistance.

The situation improved when I started my Masters in TESOL. My Diploma in TESOL as well as my TAFE teaching had gradually increased my knowledge and confidence. By then, I was comfortable with the subjects too. Becoming familiar with the style and genre of the academic discourse of my subject, together with the fact that I was a good reader, helped me gain critical reading skills in my subject related material. In addition, teaching almost full time: interviewing students for placements, writing reports, attending meetings, communicating with my colleagues at work etc. gave me matter to relate my practice to theory. I had started teaming up with many local students to prepare group assignments and had formed learning partnerships with a couple of my class fellows. We discussed and explored issues not only relating to our work and our subjects but our personal lives too. As a result, 'an ease' came in my mannerism that helped others to feel comfortable with me too

and in the class; I was not a silent alien any more. All this influenced my writing and my assignments improved. By then I had also learnt to 'read' the assignment questions and I could form my answers properly. Still the subjects that I think I did very well and enjoyed the most were Experience Based Learning, Linguistics and The Theory of Second Language Acquisition. These subjects allowed me to draw on my experiences as well as those of my TAFE students and I could make connections between my reflections and the theories I read. The assignments were reflective and of philosophical nature, furthermore teachers in these subjects sought fresh perspectives and recognised these in my writing.

Reflecting on the experience

Upon reflection, I would say that although my problems at university in Australia had mainly stemmed from my lack of fundamental knowledge in the field of education, my discomfort in the classroom and my inappropriate style of writing, however cultural factors had contributed to my predicament too (Connor, 1996; Fox, 1994 as cited in Thompson & Tribble, 2001). For example, my initial problem in evaluating the concepts and theories in my subject and my inability to take a position in my writing had been caused by my coming from a different culture. Because of my eastern background, the western analytical and objective manner of academic writing had been difficult for me to master. The concept of critical analysis, based on rationality is invaluable for the Eurocentric Enlightenment tradition of the western academic world (Brookfield, 1995, p.89). Therefore according to the western academic conventions, to be a good scholar I had to be 'a rational, autonomous individual', making use of my original 'discourse' (Scollon, 1995, p.1). On the contrary, the concept of "intrinsic learning" and collective knowledge had been the foundation of my personal and philosophical style in writing (Aurobindo, 1956). As a result, even though I did not have the poor language skills usually attributed to a lack of sophistication in academic writing, I could not demonstrate a detached maturity in my style, neither could I form an opinion. Being a new scholar in the western academic world, I had needed time to develop and absorb what I was experiencing. Moreover, I had to get comfortable with the academic discourse of my subject area before I could make use of my "original discourse". This development period had particularly been crucial for me, as I had been taught in a tradition where first you mastered the written word as it is and only then you uttered your say. As our culture, upbringing, prior ideas, means of communication and audiences are instrumental in building our intellectual creativity (Martin, 1994) it was therefore essential for me to adjust to the new culture and new audience. Thus it took me a few semesters to reach that point where I could do justice to my efforts and achieve what I was capable of.

My work as a LAS advisor has repeatedly validated the fact that students coming from a different education system or culture continue to face difficulties in adjusting to western universities. For example students coming from an education system where they have not had opportunities to develop their analytical skills, have trouble in adapting to western academic culture (Ballard & Clanchy, 1991). They usually have difficulties in writing, as they are confused about the use of expert voice and thesis statements and the role of documentation etc. The situation is further complicated in the case of students struggling with English too. In the absence of western academic style as well as not having good language skills, these students depend heavily on literature not only for getting their ideas but also for their language. For these very reasons, sometimes they are categorised as rote learners and many times they are stigmatised as plagiarists (Pennycook, 1995; Ramburuth, 2001).

The insight gained

My own experience during my academic acculturation period could have been very negative. But having good English, forming learning partnerships with local ESB class fellows, having good teachers and then my subject-related job helped me to become an active learner. All this put me on the way to develop my new intellectual creativity, which in turn helped me gain critical literacy in my subject area. Achieving disciplinary literacy especially in a second language (L2) is an interactive social-cognitive process (Riazi, 1997, p. 39). Unfortunately, many NESB international students do not get opportunities to go through this process successfully. Most of them lack interactive relationships inside or outside their classrooms. These relationships are essential for students to gain experience in and exposure to their subject-related environment which in turn can stimulate their critical thinking abilities. However many international students work in their spare time to pay for their board and university fees. This does not leave them with much time or incentive to form any social or learning partnerships with local students. There is also not much contact between local and international students, especially between Non English Speaking international students and local ESB students or even between senior and new students. Not having any local practical experiences in their subject related field further hinders their progress in gaining disciplinary literacy. Many lecturers, in how they teach or set and mark their assignments, do not do any thing to alleviate this situation.

Most academics in their impatience to get on with the 'real teaching stuff' ignore their international students' need for a development period to get over their transitional difficulties. Moreover, the learning environment in the classroom is usually constructed around the dominant cultural literacy and the advantage that 'the dominant cultural literacy groups' (Mackinnon & Manathunga, 2003, p. 131) have over the non-dominant and diverse cultural groups naturally results in generating some disadvantage for the international students. International students therefore struggle with their course contents as well as the cultural and educational requirements of the dominant cultural literacy, and often these requirements are not even talked about in any formal or explicit form in their classes (Mackinnon & Manathunga, 2003). Reasons for NESB international students' alienation are therefore concealed in the way that western academic discourse communities deny admittance to non-members. Unfortunately other than the language deficit and English grammar needs of NESB students, many such factors that also result in overseas students' sluggish acquisition of critical literacy in their subject and their alienation from their learning environment, are ignored.

Although many literacy programmes have been devised and countless books have been written to 'teach' critical literacy to NESB international students, problems persist and there is a growing number of dissatisfied students and unhappy academics. Time and again academics see and bemoan a lack of critical literacy in their NESB international students. They either fail them or send them to the Learning Skills Centre, whereas these students actually need to develop their critical literacy skills in the context of the subject material in the classroom. Many international students lacking western academic writing skills, not clear about plagiarism and related perplexities end up moving in circles. This results in their disengagement with learning as well as in their having feelings of alienation and disenchantment with their host universities. Unfortunately, the host institutes, once the students are admitted into the system, do not make major adjustments to accommodate their needs and it is the students who end up struggling to adapt to the western academic world. This adjustment is usually not very easy, especially without proper training in western

academic conventions and continuous support from their teachers; NESB international students continue to find it testing.

Suggestions

To triumph over many such problems, teachers and tutors can create an interactive environment in their faculties. To achieve this, academics can stimulate interactive relationships between their international students and themselves, as well as between NESB international students and local students. Peer mentoring at school level can also be an effective way of creating an interactive atmosphere in the faculty. This interaction within their academic community can help many students in their crucial adjustments "to the lingual as well as the social milieu" around them (Braine, 2002, p. 60). Once they are immersed in and engaged with their learning environment, students usually advance in critical literacy. International students' learning experience can also be improved by their lecturers by applying inclusive teaching practices, giving transparent instructions; including giving explicit instructions and training in academic writing and in avoiding plagiarism. In addition, contextualised academic support and faculty-based peer mentoring could also improve the situation. All these devices would even aid many local students too, as western universities are no longer a prerogative of white, middle class, young students. Their student population consists of mature age students, low-socio economic backgrounds students, NESB local as well as international students. In individual appointments, I have come across many ESB local students struggling with the complexity of question analysis. Many have difficulties in following the marking criteria and the writing specifications or in understanding the role of references. We can very well imagine the perplexity of students who are struggling with the issue of language as well as the challenge of adapting to a different education culture.

Academic writing is a very complicated task and specific abilities like analytical skills, mastery over vocabulary and discourse are required to accomplish it. Students new at university need sufficient time and experience to master it. For example, to evaluate new concepts in a particular context in their own writing, students need to see how others do it first (Chanock, 2003). Lecturers can provide such models and examples. They can also help build up their students' confidence by giving them opportunities to demonstrate their knowledge and skills in a non-threatening way. This can be achieved by letting students use their existing writing skills, at least in the first couple of assignments, where they can use examples from their prior learning and work related experiences. By getting students to use their own experiences and expressions, especially in the case of their NESB international students, lecturers can even help them avoid plagiarism (Carroll, 1982, as cited in Martin, 1994) as many NESB students tend to use it as a strategy to cover their poor academic writing skills (Wilson, 2003). In addition lecturers should make extra efforts to explain the rules of academic writing as well as to make the implicit expectations explicit to their new students. Expecting them to write academic essays without explicit instructions and training, and when they fail to deliver then sending them to a one off literacy workshop or individual consultation to mend the gaps, is not reasonable. Students' perception of these 'remedial' means as well as the idea of spending that extra hour at university that might cost them an hour's pay at McDonald's can deter them from coming for LAS assistance. Unless these teaching and learning opportunities are embedded into the mainstream courses they remain extraneous in the eyes of many students (Cargill, Percy & Bartlett, 2003, p. 91).

It is time to acknowledge that it is not the students only but the system as a whole that needs to be improved. However, it would be inept to demand that the host universities carry out all the adaptation. Before they venture into the western world, students coming from the eastern countries need to have some knowledge of the western academic conventions and

should certainly have good language skills prior to their commencement of university education in English speaking countries. Many students, with an inadequate level of English, enter universities via "soft entry". In their case it should be the responsibility of the university or the faculty who brings them in to bridge that language deficit. Some institutes already acknowledge this responsibility (HERDSA Special Interest Group, 2003) still there are many who do not. These students usually end up being LAS advisors' liability and their 'problem' and they do not evoke much respect anywhere.

Internationalisation of higher education should have brought respect and equality for all its members but unfortunately it has not done that. Globalisation is founded in inequalities and just like the dominance of western multinational companies in the economic scene; internationalisation of higher education is dominated by English speaking academic superpowers (Abtach, 2002). They have reduced higher education to being a commodity sold in the international market (Dewitt, 2002 & Scott, 1998, as cited in Abtach, 2002), by bringing in NESB international students as 'full fee paying students', and then neglecting them or by not taking their dignity and self-esteem into account. Research has called for investigation into the quality of these students' education experiences; especially the quality of support and assistance they receive needs to be examined (Tootell, 1999). Their education experience needs to be looked at from their point of view, as it is the students who suffer academically and socially. Braine (2002) has acknowledged a gap in the research done in this area and calls for "the authentic voices of NNS (Non native speaking) graduate students"(p.65). Listening to their voices might reconfirm what we already know but it might also give us an insight into how their learning experience can be improved. After exploring NESB international students' situation in western universities in a qualitative manner, some researchers have pointed out cross-cultural training for teachers as a much needed strategy to improve the current teaching practices and have also appealed for changes and reforms in the curriculum (Ramburth, 20001) to make it a fair deal for all students.

Therefore it is important that western universities accepting international students, find ways of creating international curriculum and implementing international teaching practices. Resources are needed to be spent into finding means of doing that and should not only be spent in elaborate overseas recruitment programmes to court and captivate students from non-English speaking, poor, developing nations (Abtach, 2002). Courses should not only be written keeping the supposed graduate attributes of universities as their targets, but also by looking at the capital that many students actually start with. Hence there is a need for research into exploiting their learning styles and strategies, and bringing their strengths into play rather than revisiting their weaknesses. As a need to develop "fair and unbiased" assessments (McLoughlin, 1993, p.3, as cited in Mackinnon & Manathunga, 2003) has been recognised, alternative ways of assessing students' knowledge and their analytical skills that do not require a demonstration of good English language skills and western academic way of writing only, ought to be devised.

The challenge

Most western universities these days claim to be international universities; however just having international students does not make them international. To be international in the real sense, they ought to make major philosophical changes in their character. Ideally, universities involved in international higher education should be international in their philosophy (Welch, 2002). They should endeavour to increase and reflect inter connectedness in the world (Dewitt, 2002) by making sure that internationalisation of higher education, in our multi-lingual and multicultural world, does not divide even the academic world into English and non-English speaking sections. Therefore international higher education should widen its

scope by developing new and revolutionary ways of imparting and creating knowledge that are not completely reliant on western academic writing skills. Academic writing is important but this fixation with how things are or have been done needs to be reviewed. Knowledge is power and as educators, we know that language is the key to that power, as it is through language that knowledge is imparted or expressed. If the students cannot use their own language to express and show their understanding, they may borrow some one else's words to show something they do not even understand (Wilson, 2003). The fear is that in the struggle to master the academic language skills the knowledge part might go missing. Lack of these skills hinders many NESB international students from gaining recognition by their teachers and peers of being intelligent and capable people. Their intuitive learning skills, intrinsic learning style and their prior knowledge are overshadowed by the burden of assessment tasks that they find difficult to handle and they do not have luxury of time to master the skills required in the western academic context.

East is east, west is west, and never shall the twain meet, this adage, especially in the climate of globalisation, has already been defied in many ways. Internationalisation of higher education should also result in some confluence of the east and the west forming an academic culture, which recognises strengths of both. It should create international classrooms and produce an assemblage of lecturers with a drive to improve their practices to teach in them. To brighten up their own practices and to have a sense of the difficulties faced by their students, teachers teaching international students need to reflect on their own learning experiences.

Epilogue

As a university student in Australia, I had gone through a period of difficulties and unhappiness because of my previous learning experiences in a different system. Now as a LAS advisor, I see many students going through similar difficulties and like Tiresias (*Eliot, The Waste Land)*, I feel that I can comment from both sides. It is time that I made a contribution to this academic community which educators as well as students are part of. I am daring to disturb the universe and adding to the ripples that have already been created by all the research carried out in this area and hope that it would bring good tidings for all.

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From integration to transformation

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ABSTRACT The integration of instruction about academic skills into subject curricula has become widely recognised as an effective means of teaching students about discipline-specific academic skills; however, integration can achieve much more than this. It can involve the learning developers and discipline teaching team in collaborations that lead to such things as a rethinking of assessment types and assignment tasks, staging of assignment tasks, revision of assignment questions, redevelopment of marking criteria, provision of marking workshops for the teaching team, the development of staff marking handbooks and more specific instruction focused on learning strategies. When integration involves this amount of redevelopment, increased student learning about disciplinary writing is only one of many positive outcomes. This paper will report on this kind of collaborative integration at the University of Wollongong, through a number of case studies. The paper will argue that integration at its most collaborative and strategic is not simply integration of skills instruction but is curriculum redevelopment that has the capacity to achieve transformation of teaching and learning.

Keywords: Collaborative integration, transformation, multi-disciplinary knowledge

Introduction

Around Australia, many learning centres have broadened their teaching of academic skills from the typical generic, de-contextualised courses in the centre to discipline-specific, more contextualised, teaching (Hicks & George, 2001). Many have integrated this teaching into the curricula of mainstream subjects, i.e. made the teaching of language and literacy an intrinsic component of a content subject. Such contextualised, integrated teaching is seen as effective and equitable, giving all students within a subject the opportunity to develop skills that are relevant, meaningful and specific to that subject (Reid & Parker 2002; Marello, 1999; Ramsden, 1992) and allowing students to learn, think, write and sound like an engineer, for instance, as they learn about disciplinary concepts. It makes learning about language and writing more central to learning about the substantive content of 'real' subjects and also makes the teaching of writing more central to what is seen as the 'real' work of teaching disciplinary knowledge. Effectively, this kind of integration is bringing us into closer relationships with subject lecturers and disciplinary curricula.

Teaching in this way, in close collaboration with subject lecturers, means we have opportunities not afforded us in teaching in traditional ways in the Centre. Of course, it also

means we lose opportunities, such as those that come with working only with students.[4] But overall, these new opportunities are useful ones that allow us to use our understanding of learning, language and literacy to the fullest. Close collaboration provides opportunities to work on a broad range of tasks related to the development of good curricula; these can include a rethinking of assessment types and assignment tasks, staging of assignment tasks, revision of assignment questions, redevelopment of marking criteria, provision of marking workshops for the teaching team, the development of staff marking handbooks and more specific instruction focussed on learning strategies. This type of intensive collaborative integration becomes, in effect, curriculum development. At an even more strategic level, it can include development objectives across a whole degree program: at each year level in a single discipline or major, or across each of the different disciplines in a first-year degree program (see Percy & Skillen, 2003, for a description of this kind of strategic integration across a firt-year program).

When integration involves this close collaboration that results in curriculum development, increased student learning about disciplinary writing is one positive outcome (Skillen, Trivett, Merten & Percy, 1999). Improved student success generally and higher retention rates are further positive outcomes (Hampton, 2002). We would argue that the sharing of knowledge and understanding between learning development and subject lecturers, not to speak of general feelings of collegiality, is an additional outcome that is of significant value. This paper will describe two integration case studies using dialogues between learning developers and subject lecturers to explore whether and where transformation results from collaboration. It will argue that the transformative processes that result from such collaborations, facilitated by what Pratt has called the 'arts of the contact zone' (cited in Harper, 1988), allow us to become "partners in the transformation of university teaching and learning" (Webb, 2002, p. 12).

Rationale

When we first conceived of this paper, we did so from a number of perspectives. The perspective flagged most explicitly in our abstract deals with the transformational practices which we are suggesting make up a significant part of what we do at the University of Wollongong. The relational aspect of these transformational practices is implied as being between and among the relationships which 'we' in Learning Development form with 'the wider university community'. Before we go into this broader discussion, however, we want to look at a more localised and situated aspect of relational transformation. We want to look first at what we wanted to achieve for 'us' as learning developers working at the University of Wollongong, by working on a paper like this for the LAS conference.

What has become evident for us as group is a need to revisit with each other *how* we work and *why* we work in particular ways[5]. We need to do this as part of our own "phylogenesis[6]" as distinct from Webb's (2002) use of the term 'ontogenesis' [7] to describe the development of the 'the professional body' or organism that is know variously in

[4] These are such things as greater opportunity to see the impact we make on individual students' development and the time to implement innovative mass workshops.

[5] Learning Development at the University of Wollongong has, over the last 12 months, experienced a most welcome increase in staff. Our five full-time academic positions have been expanded to 8. Some of these full time positions are occupied by part - time lecturers, and, at the time of our writing of this paper, these eight positions translate into ten staff.

[6] "...'phylogeny' or evolution of the tribe..." (Webster's Revised Unabridged Dictionary 1996, 1998, MICRA, Inc. http:// dictionary.reference.com

[7] "the history of the individual development of an organism; the history of the evolution of the germ; the development of an individual organism,- in distinction from phylogeny or evolution of the tribe". Ibid.

Australian contexts by names such as Learning Skills Units, Learning Development, Academic Skills Advisors. By using the term phylogenesis, we are trying to capture the notion of the organic and evolving sense of how we, at UoW, might rework or transform our own notion of 'tribe', or "community of practice" (Wenger, 1998, cited in Webb, 2002). This reworking seems to us essential as we expand not only in terms of numbers but also in terms of the diversity of our backgrounds, experiences, and expertise. Because of our diversity, we are indeed richer and also, as Garner, Chanock, and Clerehan (1995, p. 5, cited in Webb, 2002) have suggested, experiencing a time when "each new member of the field is likely to be asking what is it we do and why".

So, part of the motivation for this paper has been our desire to explain for and to each other what we as a group of learning developers are engaged in. By doing this, we want to both give meaning to our practices and so, to negotiate again or transform our own community of practice. Rather than demonstrate 'a how to' template of practice, we hope that this paper will open up our practices to systematic scrutiny both from within our tribe or phylos (i.e. Learning Development at UoW) and also from within our broader professional grouping of Language and Academic Skills Advisors at this conference. One of the references made by Webb at the last LAS conference (2001) to Wenger's (1998, p.229) description of what communities of practice are about seems to provide a useful context for understanding *how* and *why* we work in particular ways:

> Communities of practice are about content - about learning as a living experience of negotiating meaning - not about form. In this sense, they cannot be legislated into existence or defined by decree...

Case Studies

These case studies explore the partnerships and practices that are at the heart of successful collaborative integration and that encourage transformation. One is collaboration in a core 2nd year Commerce subject that deals with Accounting concepts such as consolidation. The collaboration complemented work that had been done previously in the subject[8] and aimed to meet the particular needs of mid-session assessment. These needs were identified as learning strategies suitable for very complex Accounting concepts and the multiple choice assessment task set for mid-semester exams. The other is collaboration in a core subject in a number of undergraduate degree programs offered by the faculty of Informatics and is also offered at post-graduate level. The subject attracts a large number of students, including a large cohort of international students. It is offered on multi-campuses. The subject deals with the information technology industry and issues of citizens' rights in matters of data surveillance, freedom of access to information and ownership of intellectual property. The collaborative partnership between the subject lecturer and learning developer represented in the case study has evolved over almost two years.

To assist in identifying whether transformation took place, how it was facilitated and the nature of transformation, a series of questions (adapted from Lee, 1997 following Yeatman, 1996) to do with relational issues and teaching and learning issues were asked of both the learning development lecturer and the subject lecturer in each of the case studies.

These were:

[8] Collaboration in this subject is the result of a long relationship with both the faculty and the discipline, one that has been fostered over a number of years by Alisa Percy.

Relational	What precisely did you want out of the collaboration? How were you able to negotiate what you wanted to achieve? What has the partnership contributed to each other's knowledges and understandings?
Teaching and Learning	What changes in the curriculum resulted from the collaboration? What were the results of those curriculum changes?

These were interesting and useful questions for both the learning development lecturer and the subject lecturer: they ensured a review of the process of collaboration as well as a review of the outcomes and, unlike some of our previous evaluations following integration, ensured a review of the outcomes for ourselves as well as for student learning. This review of process and outcome brought these issues to a level of consciousness that might not have been achieved without such questioning.

Accounting

The question of what people wanted out of the collaboration elicited responses that showed both the learning development lecturer and the subject lecturer saw student learning as a central goal of the collaboration but neither had very definite ideas at the very beginning of the collaboration about how that might be achieved. Helen's response made it clear that it was the discussion during the initial session that helped clarify aims. She said:

> As Jan and I talked, the conversation moved in such a way that I came up with two very clear aims of what I wanted to achieve: to improve my students' learning of the two topics I had chosen for examination in my mid semester multiple choice exam and to help them develop their skills at doing multiple choice exams.

The responses to the second question about how each person was able to negotiate what they wanted to achieve also showed the value of informal discussion: both talked of conversation helping to clarify the choice of strategies that would achieve the aims they had in mind. The responses also showed that one of the most useful elements of this discussion was the learning developer's use of real examples from other integration projects. Helen pinpointed this when she said:

> ...Through conversation about this, Jan told me what she did with students in another faculty to help them to improve their results, and she mentioned the ideas of both focus groups and concept mapping. The idea of concept mapping interested me, and the conversation moved along those lines, until after a while we came up with a plan.

Responses to the question about what the partnership contributed to each other's knowledge and understandings identified the breadth of the contribution the collaboration made to both people. The learning developer gained a better understanding of the subject and its learning and teaching difficulties and possibilities and of how concept mapping can be used in a discipline that had seemed so 'number-bound' and, even more importantly,

... because of Helen's very clever use of it in her teaching, of how it can be more effectively used as a teaching strategy.

The discipline academic also felt that she had learned a lot from the collaboration that was going to be useful in her teaching. She said:

> ...I am now much more aware of [concept mapping] and see [it] as a valid teaching strategy to help students to learn more deeply the topics I'm introducing them to. I now more consciously build those ideas into my lectures...

The question about what changes in the curriculum resulted from the collaboration highlighted the success of the original discussion and negotiation phase: the responses showed that the interventions that were planned were implemented and successful from a number of perspectives. There was a difference in perception though about what actually constitutes the 'curriculum', with the learning developer feeling that the subject's 'curriculum' had been added to and the discipline academic initially feeling that the 'curriculum' had been not been added to.

Responses to the final question about the results of the curriculum changes suggest that they were successful in terms of student learning as well, with the failure rate dropping from 30 to 20%, an increase in the mean score and a greater number of high passes. The project as a whole was also successful in terms of implementing change beyond this subject, as the learning development/Accounting partnership is planning to:

> ...investigate the high failure rate in second-year, and to try to improve that, using focus groups and possibly other strategies. This will be an ongoing attempt to have an improvement across all accounting subjects in second year.

Informatics

As in the Accounting case study, the question concerning the desired outcomes of the collaboration highlighted improved student learning as a key outcome for both participants. Likewise, discussion was key to each partner's understanding of what was wanted and what was possible. The discipline academic, Holly, for example said:

> Through conversations with Bronwyn, I was able to determine two skills I wanted to focus on in the subject: to develop students' ability to logically analyse issues, evaluate different options and viewpoints and implement decisions, and to find effective ways of assessing this. The second skill was to improve basic literacy skills, including, reading for meaning, sentence and paragraph structure and referencing techniques... I knew I lacked the experience to redesign learning activities completely on my own, but knew that the LD team and their experience would be able to help me achieve change.

The LD academic's response to the question also highlighted the importance of dialogue to gain a full understanding of the desired outcomes:

> What I saw was possible in this new phase of the collaboration with Holly was the opportunity to work with someone who saw learning in a much bigger way than simply being able to deal with the written texts of the subject... I also saw that what Holly was wanting to achieve in this subject was very much linked with how students could use the 'ways of thinking' generated by this subject in the work place. By this I mean that Holly wanted to encourage students to think - not to rote learn. She wanted them to be able to know the facts, but also to be able to use them to negotiate some tricky international trade agreements that required more than just facts. These

negotiations required an understanding of how to analyse and work with cultural differences, cross-national legislation and find enough commonalities to broker trade agreements. So this involved the thinking and conceptual skills of analysis, finding differences and similarities, working out possibilities that would promote the similarities but also deal with the differences - and then communicating about all of this.

The responses to the second question about how the negotiation took place also indicated that the use of real examples from other integration projects assisted the participants' decisions about 'how' to achieve their aims.

> I took some draft ideas I had developed of how to change the existing assessment structure. We used that and my two aims as a starting point and then talked through some of the possibilities. Bronwyn showed me a number of example activities that had been used across campus that had similar aims - collaboration and the idea of scaffolded learning were the two most interesting ideas we discussed. Through the concept of scaffolding, we started to develop the skeleton of a series of tutorial exercises that would frame the learning for a major assessment task. Further development of this idea resulted in the inclusion of online discussions as a forum for student collaboration, contributing to the completion of the final assessment.

The learning developer's response to the question highlighted, in addition, that the collaboration was about a 'co-production of knowledge'

> Holly has the expertise in her subject area - I look to see how and where my understandings of language and learning might support this.

As in the Accountancy case study, the question about how the collaboration had contributed to each other's knowledge identified that each partner's understandings had broadened and, deepened.

> Working with Holly and looking at the whole curriculum gave me [Bronwyn] a better understanding of the bigger discourses of the subject and how students might begin to understand these.

> ...[it] has helped me [Holly] to develop a deeper understanding of how to create learning environments that are conducive to student involvement and acquisition of skills.

Holly's response to the question concerning what changes resulted from the collaboration focused on major curriculum changes.

> The assessment structure for the subject was changed, with the removal of the end of session exam the most significant of those changes. I changed the order of lectures and changed the content of tutorials. Time needed to be set aside for the completion of the scaffolded exercises. To do this, some readings were changed to ones more appropriate for the exercises.

And, finally, the results of the curriculum changes were identified as beneficial to students and encouraging enough to warrant further development, as Holly's comments indicate.

> The result of rearranging lecture, tutorial and assessment was to give the students a more structured approach to the subject. I believe the students benefited from the changes. There was a significant increase in writing ability by the end of semester. The marks across the subject were distributed more evenly than in previous years...The changes that were made this year have formed the basis of a more comprehensive overhaul of the subject for delivery in 2004.

This is part of a four-phase development cycle for the subject. Student response has been excellent, with a number of students volunteering to participate in the development and review of new material.

Discussion

Transformation of the Relational between LD, the disciplines and the wider university

Subject Lecturers and Learning Development lecturers

In terms of relational issues, both of the case studies highlight the importance of negotiation and discussion in determining the aims, parameters and nature of the collaboration. In both case studies, it is *informal* discussion that helps to clarify the aims of the collaboration and establishes the collaborative relationship. Both of the subject lecturers noted both the conversational nature of these discussions as well as their success in determining these issues:

> As Jan and I talked, the conversation moved in such a way that I came up with two very clear aims of what I wanted to achieve in my collaboration with Jan. These were: 1) to improve my students' learning of the two topics I had chosen for examination in my mid semester multiple choice exam; and 2) to help them develop their skills at doing multiple choice exams...

> Bronwyn and I had met previously when I was team-teaching this subject. I took some draft ideas I had developed of how to change the existing assessment structure. We used that and my two aims as a starting point and then talked through some of the possibilities.

The responses from both learning development lecturers also highlighted a lack of prescription about what the collaboration might involve and a readiness to let the ebb and flow of discussion identify what was needed:

> I was expecting to provide teaching or resource development to do with writing – meeting students' learning needs in relation to a written assessment task. Generally, though, I wanted to feel that we were able to make a useful contribution to student learning inside 201 and was ready to be guided by what Helen saw as her and her students' needs...

> Really Holly took the lead here. This is typical of how I work. I see any partnership as just that - it is not about either partner trying to push a particular way of doing things. While I made suggestions about what we might do, what might work etc. in terms of staging of learning, language support materials etc. ultimately Holly had to feel comfortable with what she was doing and how she was doing it.

Both cases also pinpoint the value of exemplification during negotiation. In determining *how* the aims of the collaboration might be met, the subject lecturers indicated that the learning developers helped by giving real examples of possible and previously successful strategies that could be useful in these subjects.

> Through conversation about this, Jan told me what she did with students in another faculty to help them to improve their results, and she mentioned the ideas of both focus groups and concept mapping...

> Bronwyn showed me a number of example activities that had been used across campus that had similar aims - collaboration and the idea of scaffolded learning were the two most interesting ideas we discussed.

Both of these case studies also highlight the 'art' of collaborating in integration projects such as these: informal conversation and discussion and the respect given to each person's ability to bring useful disciplinary knowledge to the collaboration may have been important factors.

The broader university community

Transformation of relational issues across the broader university community is also suggested in the case studies. One of the subject lecturers, for instance, commented that:

> ...our school is now arranging to use the Learning Development team... to investigate the high failure rate in second year, and to try to improve that, using focus groups and possibly other strategies. This will be an ongoing attempt to have an improvement across all accounting subjects in second year.

These comments give some indication that Learning Development is part of a shared broader institutional enterprise that has a focus on student learning and academic literacies. Indeed, Learning Development is seen as one partner in a community of practice where the "practices... [are] the property of a kind of community created over time by the sustained pursuit of a shared enterprise" (Wenger, 1998, p. 45): the community here is subject lecturers and learning developers across UoW, and the broader university community. As Wenger notes, such communities are developed *over time* and through *shared enterprises*, and are "a living experience of negotiating meaning" (p.229). Collaborative integration develops just such communities of practice and, along with involvement in institutional, faculty and disciplinary teaching and learning committees, ensures that the insider/outsider experiences referred to by LAS lecturers, both here and overseas (see Webb, 2002, particularly the reference to Grimm) is a thing of the past.

Transformation of teaching and learning via co-production of knowledge

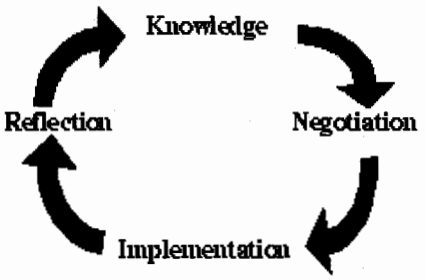
What happens in the process of collaboration and co-production could also be described as the development of trans-disciplinary or multi-disciplinary knowledge, where each person acquires knowledge that belongs neither solely to one discipline nor the other but is an amalgam of both. Lee (1997) has called this activity the 'co-production of knowledges' about "what counts as literacy and learning in specific sites..." (p.67). This leads to a focus on teaching and learning, which includes more than the written texts of the discipline. In these case studies, comments about co-production of knowledge have been made by each of the partners in the collaboration. The subject lecturers use the same words: "I have learned a lot from Jan/Bronwyn" and the learning development lecturers voice similar feelings:

> I feel I have gained a better understanding of what this subject is about, what the learning and teaching difficulties involved in the subject are, and what the learning and teaching possibilities are. I've acquired another disciplinary perspective on multiple-choice assessment that adds to my understanding of MCQ usage across the university. Most importantly, I've extended my understanding of how and why concept mapping works in the specialised type of MCQ questions used in Accounting and, because of Helen's very clever use of it in her teaching, of how it can be more effectively used as a teaching strategy.

> I would never have understood the bigger picture of the subject and what Holly was wanting to achieve if I had only worked with the assessments, and supporting students in these. Working with Holly and looking at the whole curriculum gave me a better understanding of the bigger discourses of the subject and how students might begin to understand these.

As a result of the collaboration, each of the partners has developed new knowledge that was previously outside of the bounds of their own discipline. This development of trans or multi-disciplinary knowledge has been noted by Harper (1998) as occurring in those instances when different disciplinary cultures come into contact and where that contact space allows for reflection and discussion. This idea of contact space is a useful and explanatory one: it names that place where we encourage discussion and reflection, and it becomes a learning space in which this new trans-disciplinary knowledge is created. This knowledge creation or learning is both circular and iterative, with the possibility of deepening learning with each small collaboration (see Figure 1, an adaptation of Kolb's learning circle). The partners in a collaboration begin with their own knowledge and understandings about a particular issue, but the process of negotiation and implementation begins the co production of trans-disciplinary knowledge which is then fully realised if the space allows a reflection phase. Reflection allows for the completion of the learning circle in a disciplined way[9] and is essential to the notion of transformation.

Figure 1. The evolution of knowledge and understanding in a learning circle



That this new knowledge results in a transformation of teaching and learning is also indicated in the case studies. The subject lecturers note changes in their subject's curriculum and changes in their teaching practice within the subject as a result of the collaboration. All of the partners also note broader changes to their teaching practice and their understanding of teaching and learning, as in the following:

> I am now much more aware of [concept mapping] and see [it] as a valid teaching strategy to help students to learn more deeply the topics I'm introducing them to. I now more consciously build those ideas into my lectures.

> Although scaffolding was an idea I had come across, our work together really showed me how to make it work and work effectively.

That the contact space in these case studies has brought about the creation of some kind of trans-disciplinary knowledge and a transformation of practice is testimony to what Pratt

[9]We mean 'disciplined' as in responding in writing to the reflective questions after or during each collaborative venture – and then using the responses for further discussion.

(cited in Harper, 1988) has called the 'arts of the contact zone'. Because these spaces can be sites of "colonialism" as well as "dialogic exchange" (cited in Harper, 1988, p.1), the creation of real dialogue and the development of trans-disciplinary or multi-disciplinary knowledge is something to be valued. It reminds us that the collaboration involved in our work in integration is more than a set of steps to be followed: it's also an art. It's one that is based on respect for the other person and their needs and insight about the issues in which we are involved. It is knowing when it's time to talk or to listen; trusting in the other person's integrity because each is putting him or herself on the line to some extent; and having confidence in each other's ability to come up with solutions.

We would argue that the collaborative process of integration as it occurred in these case studies achieves transformation at a number of levels: transformation of people's knowledges and skills, of their practices and their values. Collaborating in integration can allow learning-developers to learn from other disciplines and to act as "transformers" of curricula (Webb, 2002, p.15) or "change agents" (Skillen & Mahony, 1997) for institutional practice. In fact, working in this way may lead us towards what Webb (2002, p. 18) hoped learning developers might be known as: 'catalysts for systemic change, facilitators of organisational learning, [and]...partners in the transformation of university teaching and learning'.

Conclusion

We would suggest that integration, in the sense that we've been talking about it, i.e. collaborative, involving co-production of knowledge, focused on student learning generally, combined with more traditional LAS practices, such as generic workshops and one-to-one consultations, provides a rich model of practice. But it is the collaborative practice of integration that makes it possible for learning developers to act as "partners in the transformation of university teaching and learning" (Webb, 2002, p.18).

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Evaluating evaluations: A case study in peer mentoring

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ABSTRACT What is the most effective method of evaluating the programs offered to undergraduate and postgraduate students by Language and Academic Skills staff? We know that many students benefit from the diversity of approaches taken in our work, but are we evaluating these such that the funding bodies are convinced? There is no doubt that we need to evaluate programs, but should we be pressured into only using the statistical number-crunching game of quantitative reporting, at the expense of a more in depth understanding of the potential benefits? This is not simply an argument for the superiority of qualitative investigation, but rather a call for the recognition of the value of alternative evaluations, which may not be as measurable in terms of economics. Such is the dilemma for a Student Peer Mentoring program at UWS, which has predominantly relied on analysis of surveys and focus groups over the past six years, with intermittent comparisons of grades. While it is meaningful to compare the grades of students participating in the Peer Mentor program with non-participants from the same cohort, success in the mentored subject is not the only objective of the program at UWS. A degree of adjustment to the university setting, and development of independent learning and collaborative learning skills is also considered important, such that a first year student may for example better cope with a failure in a subject and not automatically 'drop out' because of it. So, can we effectively evaluate the first year experience in other than economic terms?

Keywords: Evaluation, quality, peer-mentoring

In order to examine the evaluation process it is necessary to consider research paradigms. Many researchers and authors of research methodology and pedagogy have distinguished the two main types of research as quantitative and qualitative (Blaxter, Hughes & Tight, 1996; Creswell, 1994; Allen & Skinner, 1991; Denscombe, 1999). Quantitative research can be differentiated from qualitative by the world-view of the researcher (Creswell, 1994), which in turn will influence the methods used. Quantitative researchers usually approach their investigations from a scientific, 'positivist' perspective that lends itself to the more traditional methods of objective experimentation, hypothesis testing and statistical analysis (Denzin & Lincoln, 1998). Qualitative studies, on the other hand, are based on exploration of an issue from the perspective of the participants, are more in depth, and use methods such as interviews, observations, case studies and ethnographic studies (Creswell, 1998; Kvale, 1996). In the latter, the orientation/involvement of the researcher is often made explicit, while in the former the researcher is expected to remain objective and removed from what they are investigating. Both approaches have their place in the social sciences (Allen & Skinner, 1991) and have been used in the LAS related disciplines of Education, Linguistics, Mathematics and

Psychology to research issues and evaluate programs. Furthermore, within the same study both quantitative and qualitative approaches can be used to provide different perspectives (Blaxter, Hughes & Tight, 1996).

According to Miller and Salkind (2002) there are three directions of research: basic, applied and evaluative. They suggest that evaluative research aims to assess the outcomes of treatments in programs. They further indicate that evaluative research involves accurate accounting of treatments, and "making judgement about the value or merit of a program" (p.3). This type of evaluative research of our programs is clearly an important aspect of LAS research.

In making judgements about our programs, LAS advisors are obliged to acknowledge the need for economic accountability to the university as an institution. Furthermore, such accountability may be of benefit to our role. For example, if evaluative research of a program statistically demonstrates that a reasonable number of students are gaining skills and knowledge from that program, and that this is 'cost effective', management of the university may be more inclined to renew funding or even expand the funding of that program. However, a more detailed understanding of how the program benefits students is often of interest to LAS advisors for a number of other reasons, including improvement of a program. Furthermore, such detailed investigation may improve the program through probing and recording strengths and weaknesses in interviews. Information about the quality of student learning is a vital aspect of such evaluation for the LAS advisor and this information cannot be easily measured in economic terms or even in numerical terms.

The student Peer Mentor Program, which is presented here as a case study, is one of the diversity of support initiatives offered by the Office of the Dean of Students at UWS. This program, based on the model of Supplemental Instruction (SI) from the USA, has been operating in various forms since 1995 (Shores & Tiernan, 1996). Since that time the program has grown considerably, especially with the amalgamation of the six university campuses at UWS through a restructure in 2000, though this has not been without problems. The SI model uses a very definite approach to small group mentoring, best described as facilitation of student learning. Some adaptations to the program were made during the amalgamation, with the first semester Acculturation program also including aspects of a 'buddy' program, but the SI model continued to inform the mentor training.

A number of universities in Australia, and overseas, have found that peer student mentoring programs are of benefit to new students (mentees), as well as to the students who mentor them (Dolan & Castley, 1998; Bond, 1999; Shrestha, 1999). Student mentoring schemes can be buddy programs, for example the very successful program at James Cook University (Treston, 1999), or those more focused on the learning process, such as the well-researched SI model. The latter model has been functioning at the University of Missouri-Kansas City and other institutions throughout the world for over twenty five years, and has been found to be effective in improving retention and pass rates for first year students (Martin & Arendale, 1994; Parker and Montgomery, 1998). At UWS one program in the school of Civil Engineering and the Environment (CEE) combined the buddy approach with SI and, in 1998, the failure rate for first-year students who were mentored decreased by 20% compared to the previous year, when no mentoring was available (Shrestha, 1999, p.344). Moreover, 83% of those first year students, 'mentees', agreed that mentoring sessions were useful. This quantitative data has been useful in establishing the relevance of such programs, especially for improving retention rates.

In the current peer mentor programs coordinated by ODS at UWS, the mentors are provided with comprehensive training to prepare them for the peer mentor role. The training and experience of mentoring have been reported to be rewarding for many of the mentors (Armstrong & Carmichael, 2000), and this information has been retrieved qualitatively. The

development of leadership skills is of benefit to the mentors for their future professional careers. In other studies mentors report that they have gained considerable confidence from the experience of peer mentoring (Bond, 1999). Further research could confirm anecdotal evidence that suggests benefits to the workplace (Baird & Fetherston, 1999).

In the ODS programs mentors are trained to be facilitators of group discussion with an emphasis on the processes of learning, for example how to solve a problem rather than providing the answer to the problem. Mentors are trained to avoid the expert role, to redirect questions back to the group and to encourage the development of strategies for finding answers. If the group becomes an ongoing study group without the mentor, after the mentoring sessions are completed, then it may be considered that the mentor has been highly successful! In the UWS program this has occurred several times.

Although the current UWS Peer Mentor program is an adaptation of Supplemental Instruction, it has not always been possible to use the quantitative methods of numerical comparison of grades and attrition of those who participate with those who have not, since smaller numbers can make statistical comparisons difficult. This has been the practice in many other countries using this model. In this case study it has been the incorporation of data from surveys and focus groups that has provided a meaningful picture of the benefits of the program for the respondents, as well as a means of improving training. On the one hand, as qualitative methodology is more time consuming and labour intensive, it would appear to be easier for LAS evaluators if evaluation reports only used the quantitative/numerical approach. On the other hand, it is often the anecdotal comments on student surveys, telephone calls, or emails which overtly demonstrate the value of the program, suggesting that in-depth, qualitative research is important as a rich source of understanding of the processes of student development through their involvement in the program.

Earlier evaluations of the Peer Mentor Program at UWS involved predominantly quantitative approaches where student results were compared and questionnaires were distributed which enabled numerical analysis, with responses based on 0-5 scales, and an opportunity for open ended comments (Tiernan, 1998). After the amalgamation of UWS it was decided to include mentor focus group interviews, to gain further insights into how the group sessions were conducted and to gain perceptions of the success of the sessions for first-year students and the mentors (Carmichael, 2001). Often the process of discussion in a focus group reminds some mentors of points they would like to make. Furthermore, an evaluation of the Peer Mentor program in one discipline area in particular has included individual interviews with the subject lecturer and several mentors in an action research study (Armstrong, 2003). This has provided increased insights into mentor experiences of the program.

The following examination of data is based on the evaluation of the Peer Mentor Program at UWS in 2001, with some comparison with evaluation results from other years. It is relevant to note that the first semester program at UWS is an Acculturation Program, which combines the buddy approach with SI, and that the second semester program is much more closely aligned to SI.

In the 2001 program numerical data was required, for example number of students attending sessions and number of mentors trained, furthermore comparison of grades was carried out in several subjects in collaboration with lecturers. As evidenced on the attendance sheets submitted by peer mentors, there were 155 first year students who had voluntarily attended a mentoring session at least once in 2001, with 45 mentors facilitating these sessions. Attendance at one or more sessions was the desired outcome, since this was an indication that the first year student at least knew how to contact a mentor if they needed one. The program operated in nine subject areas and across UWS 200 students (both mentors and first year students) were involved. There has been a gradual increase in numbers since 2001, in

comparison, in first semester 2003 there were 433 mentees across UWS who participated in a voluntary program over ten subject/discipline areas, with 67 mentors facilitating groups. In total 500 students experienced the program and its potential benefits.

In 2001, grades for mentees in only four of the subjects in the Peer Mentor Program were compared with the remainder of their cohort, due to low numbers in some subjects. These were: Introduction to Legal Principles (ILP), Torts Law, Bioscience and Literacy/Numeracy in Primary Education. Retention rates in ILP, based on the grade of pass or more, indicated that those in the participating group had a slightly higher rate of retention compared with those who did not participate in the peer mentor program (see Table 1).

Table 1. Comparison of retention between the participating group and the non-participating group in ILP.

Grade	Group	Percentage
Pass or more	Non-participants in the peer mentor program (N= 548)	56.7
Pass or more	Participants in the peer mentor program (N= 45)	63.0
Pass or more	Total cohort (N= 593)	57.17

Moreover, it is perhaps the lower percentage of discontinued students (E) in the participant group (18% compared to 29.7%) that is of note for this cohort. This result does indicate that some first year students appeared to benefit from their involvement in the program.

The retention rate of those who participated in the Torts Law program is similar to the rest of the cohort. This reflects the higher percentage of credit grades and the lower percentage of pass grades for the group of mentees, which balances the non-participant group grades. The higher percentage of credits may be a reflection of the more in-depth method of study facilitated by the mentors in group sessions.

The retention rate for those who participated in the Bioscience 1 mentor program is higher than for the rest of the cohort, however small numbers of mentees makes generalisation difficult.

Table 2. Comparison of retention between the participating group and the non-participating group (Torts Law).

Grade	Group	Percentage
Pass or more	Non-participants in the peer mentor program (N= 134)	85.0
Pass or more	Participants in the peer mentor program (N= 29)	83.0
Pass or more	Total cohort (N= 163)	85.0

Table 3. Comparison of retention between the participating group and the non-participating group (Bioscience 1).

Grade	Group	Percentage
Pass or more	Non-participants in the peer mentor program (N= 160)	70.0
Pass or more	Participants in the peer mentor program (N= 16)	81.5
Pass or more	Total cohort (N= 176)	71.0

Table 4. Comparison of retention between the participating group and the non-participating group (Education).

Grade	Group	Percentage
Pass or more	Non-participants in the peer mentor program (N= 206)	74.5
Pass or more	Participants in the peer mentor program (N= 25)	80.0
Pass or more	Total cohort (N= 231)	75.0

Again the retention rate is higher for the group of mentees in Education than that of non-participants, suggesting that the sessions may have provided effective support.

As well as this quantitative information gained from student records, qualitative information was sought from both the first year students and the mentors. Despite a limitation to this qualitative data, that is the small number of responses to surveys, the responses are an in-depth indication of some students' experiences and offer suggestions for improvement of the program.

First year students who participated in the UWS program in 2001 were sent a questionnaire for feedback on their experience. From a total of 151 posted questionnaires only 24 responses were received (16%). Of the respondents most were from the subjects Introduction to Legal Principles and Torts Law (17/24). While the number of responses is too low to be representative of the group there is a clear indication of some of the benefits of the program, especially that 71% of these students found the mentor sessions useful. Many also found that the sessions helped them to understand course content and to work in groups, as well as encouraged them to continue with their studies. Positive responses to questions on the survey were as follows, in Table 5.

In 2001 survey responses were sought from those who attended mentor sessions throughout the year, that is in both first and second semester. Because the programs in first and second semester have a different focus, it may be that combining the survey results is a complicating factor. Thus, by 2003, it was considered important to evaluate the two semester programs separately, and to mail out questionnaires in mid semester breaks to gain more responses.

Table 5. Responses to mentee questionnaires (2001) which indicate benefits to first-year mentees

Question	Essence of answer (combining "agree" and "strongly agree")	Percentage (N=24)
4	Found mentor sessions useful	71.0
6	Helped to continue at uni	54.0
7	Helped understanding of content	62.0
11	Helped group participation	58.0

The open-ended comments on questionnaires in 2001 were coded and analysed according to themes. The positive comments were focused on the program being helpful, increased understanding of coursework and reassurance or motivation from the mentor. The negative comments concerned issues of timetable clashes, inconsistency of first year student attendances and two mentioned the mentor's inability to explain things well. The latter could have arisen from false expectations that mentors are tutors. This echoed a case in Torts Law, where a mentor at the focus group in 2000 had explained that a small number of students appeared to want 'tips' on how to gain an HD. In 2002, in an effort to overcome some of the issues raised, a greater emphasis was placed on providing mentors with activities for encouraging collaborative learning in their subject during training, and time clashes were addressed by provision of first year timetables where possible.

With reference to group sessions one first year-student in 2001 commented: "They were beneficial to my studies, and the peer mentoring made the subject less daunting". Another stated that he/she "found mentoring helpful in allowing me a unique and deeper understanding of my course content". Such comments inform the researcher's understanding of the first year student experience of being peer mentored.

In 2001 a total of 120 mentors were trained, however not all of those trained were able to establish groups, due to timetable clashes and lack of first year student attendances. All trained mentors were sent a questionnaire asking about the benefits of mentoring for themselves and the first year students. Eighty three percent responded that they had enjoyed the experience of mentoring, and felt that they had benefited from it. Comments were grouped into themes such as the following examples.

When asked: "Did you enjoy being a mentor?" students who were involved in this program were found to be caring and altruistic. Of the 24 responses to this question 13 mentioned that they enjoyed being a mentor because they were able to help other students, and 3 enjoyed passing on knowledge to others. Other interesting comments included that they enjoyed the role of mentor: "when the group was functioning as a whole, myself included" and "being able to discuss the issues/ideas not in such a 'learning/teaching' environment". Another student indicated that the training was beneficial because of "learning group interaction, and how to get a valuable group discussion going". These responses indicate that mentors perceived that development of communication skills, which are acknowledged graduate attributes, occurred for them. When mentors were asked: "What was least enjoyable about being a mentor?" they mentioned the time factor, the lack of first year student attendance and one referred to the 'lack of support from faculty'. Another student raised the dilemma many mentors in this program face: "convincing students I wasn't a tutor, only a mentor", supported by another mentor's comment: "confusion from students as to the limits of our role".

In terms of benefits to the group, most of the mentors responded that the group benefited from the experience. The benefits to mentees included "you could see they didn't feel alone in their concerns", "they got to know each other and even without me they helped each other" and "they learned to understand their problems". A concluding comment from one student was very positive: "With further support from academics and enthusiasm from all involved I believe this program has the potential to grow and develop to great heights and benefit a great number of people. I am honoured to be a part of this and hope to continue".

Thus it is important to obtain qualitative data to enable greater understanding of how first-year students benefit from mentor sessions, what occurs in the sessions that may be useful to improvement to training, and to discover what the benefits of the experience are for mentors. In fact, it is only through qualitative investigation that it is possible to discover mentor benefits, as their grades are independent of the program. Furthermore, some of the mentors' concerns became clarified through focus group sessions and these then informed the training and program coordination. Focus groups have become more integral to the program since 2000, and have also been useful for mentors for debriefing at the conclusion of the final mentoring session. Due to feedback from mentors in a focus group, debriefing meetings were established in 2002 during the program to both offer support to mentors and, in one school in particular, to further extend their training. Moreover, an email list was established for those mentors who wished to continue communication with other mentors. This was not as successful as the more recent Web CT bulletin in 2003, in enabling the mentors to communicate with each other. Focus group feedback and use of the site indicated mentor satisfaction with this aspect of the program.

Feedback from trainers is also an important aspect of the qualitative evaluation process, and as one trainer wrote to mentors she had observed at a mentoring session: "a relaxed and friendly group that shared resources and ideas and seemed to be working wonderfully. Thanks for the opportunity to see great mentoring in action". (Power, 2003, personal communication). Regular meetings of trainers ensure that the training is constantly being revised, taking student suggestions into account. Through these meetings trainers have devised a *Student Training Workbook* to be provided to trainee mentors, which is constantly being updated. Feedback from lecturers involved with the program has also been sought through steering committee meetings and email, and has resulted in the production of a *Contact Lecturers' Manual*, which outlines the roles and responsibilities of the various stakeholders in the program. Sharing of different approaches to promotion of the program and timing of sessions has been of benefit to committee members.

The evaluative research that has been conducted in this program over the past four years has involved trainers and the coordinator of the program. Therefore, researcher influence may play a role in the interpretation of qualitative information, however, this influence may also create greater knowledge which, for example, may encourage probing questions at focus group sessions. For instance, in a mentor focus group in 2000, conducted by a trainer, a question about the first session revealed that mentees expected mentors to know how the university worked in terms of changing subjects, HECS, library and computer labs. The interviewer then asked a follow up question about whether the mentors felt that they had to know all the answers. This brought forth varied responses about how the mentors handled the situation, including seeking help or referring first-year students to others, such as lecturers or librarians, or discovering that others in the group could provide answers from the *Green Survival Guide* supplied to Engineering students and similar resources. As a consequence of this, the training since 2001 has included guest speakers from the Student Union and a discussion about the support offered by the Office of the Dean of Students.

In conclusion, it may be that quantitative information is easier to obtain, of more significance to management of the institution, has a greater relevance to economic returns and is of importance with regard to the continuation of a program. It is a necessary component of our evaluative research. However, in order to more fully understand how students have benefited from this particular program (both mentees and, in particular, mentors), to ascertain the quality of their learning and to better understand how to improve the program and training, it is helpful to have qualitative evaluation as well. The greater depth of insight available to LAS evaluators in the qualitative research process is illustrated by the examples provided above. For the Peer Mentor Program, this has assisted in the educational development of the program, in particular the activities for the training of the mentors. One aspect of the training package that has been informed by interviews, for example, is the inclusion of 'modelling' of mentor behaviour by trainers as well as the opportunity for all new mentors to experience facilitating a session (Armstrong, 2003). Qualitative approaches could also provide potential for further research including exploration of the benefits to the workplace of employing graduates with mentoring experience, which may have contributed to the development of their graduate attributes, such as communication skills. This line of research would be more effective if it included questionnaires, focus groups and/or interviews.

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The challenge of developing engaging interactive tertiary online language materials based on instructional design and learning principles.

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ABSTRACT Interactivity, rather than animation has been increasingly credited as being a key factor in engaging online learners and assisting them to learn more effectively. This paper discusses the challenge of designing and developing two interactive online grammar projects (Signal Words and Idioms) for tertiary level NESB students. It will also outline how some of the vital design decisions, based on instructional design and multi-modality principles of learning that cater to diverse learning styles, were implemented. These principles are important because they form the "framework" of any engaging and successful interactive online material. Also, crucial Web usability and accessibility features, such as the incorporation of interactivity with feedback, chunking of instructional content into meaningful sequences to augment learning, and an efficient layout design to improve readability and accessibility, considered when designing and developing the projects, will be discussed. The online projects, developed as self-contained learning objects, can be used independently or with other learning objects, thus improving the flexibility and extensibility of its use in a teaching and learning context. Finally the paper will identify some lessons learnt from the experience.

Keywords: Design and learning principles, online interactivity, engagement

Introduction

Online design and development is a pervasive and inherent part of teaching and learning in schools, tertiary institutions and industry today. The teaching and learning environment is now more learner-centred than in the past. The phenomenal advancement of technology has also contributed in enhancing this learner-centred paradigm. It has allowed for powerful flexibility, interactivity and control to be in the hands of the learner. Interactivity has become ubiquitous in the ever-escalating bid to foster learning and the acquisition of knowledge. There is also an increasing use of online animation that has a high novelty effect and can be very seductive. If used wisely, it can garner attention and offer a certain level of engagement, but overuse of animation can be distracting and confusing to users. Animation's novelty effect often rapidly wears off whereas interactivity is more durable and sustainable because it involves learners in their learning and encourages them to have more responsibility and better control over their learning. Interactivity therefore prompts learners to seek new knowledge actively rather than passively accept instruction (Khoo, 1994).

Interactivity and engagement

Definitions of interactivity abound but all carry common elements such as active response, engagement, feedback and learner control. According to Laurillard, (2002), interactivity in any teaching and learning context involves students responding to information, seeking feedback on their responses, reflecting on the feedback and acting appropriately to tailor their personal learning experiences.

Learning theorists and researchers like Weller (1988), Nielsen (2003), Kettanurak, Ramamurthy and Haseman, (2001), postulate that interactive online learning caters to individuals with different learning styles via multi-modalities (sight, sound and touch) and allows the application of knowledge engineering to learning through the building of a cohesive web of cross-referencing. Not only do the learners engage themselves with learning, they are able to do self-tests/checks as many times as they like. This allows them to challenge themselves and evaluate their own level of content knowledge in their own time and pace. Interactive online learning can also be made into a very personal, private and non-judgmental learning by allowing learners repeated individual access to information and explanations. They decide how much they need to learn about a topic and are spared the frustration of information overload. Thus learners have become active participants making significant decisions and controlling their instructional pace and amount of information they need at any point in time (cited in Kettanurak, Ramamurthy and Haseman, 2001).

Laurel (1986) maintains that learners will be more effectively engaged in online learning when there is a greater frequency and a wider range of choices of interaction. Therefore engagement and interactivity in online learning implies that students do not merely read the online text, they also interact with online resources using different online tools such as the mouse and/or the keyboard and other user interface strategies such as 'clickable' buttons and objects, dragging and dropping text or graphics, inputting text and receiving audio and/or text feedback and navigation prompts and highlights. All these interactive strategies help to foster engagement and maintain learners' motivation in online learning.

Keller's ARCS motivation model (1983), suggests that motivation is generated through Attention, Relevance, Confidence and Satisfaction (ARCS), Keller maintains that if learners are provided with learning situations that encapsulate these four key elements, they will engage in the learning and consequently retain what they have learnt for a longer time period.

Nielsen (2003) lists five quality components of web usability (Learnability, Efficiency, Memorability, Errors and Satisfaction), which are similar to Keller's ARCS motivation model. The usability qualities of Learnability, Memorability and Efficiency are concerned with the ease that allows users to accomplish basic tasks as efficiently and as quickly as possible and relate to Keller's themes of Attention and Relevance. His concept of Errors postulates that learners who are given the opportunity to retry and recover from the errors get a sense of success which then boosts their confidence. This closely matches Keller's notion of Confidence. Aspects of the usability factor of clever design interface were integrated in the two online projects to promote a sense of 'Satisfaction' and 'Success' in learners engaged in their online grammar learning process.

The two online grammar projects

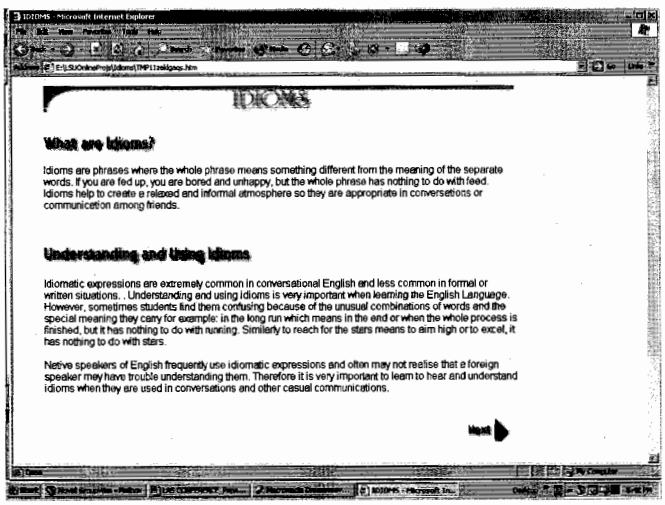
The author's two grammar projects, Idioms and Signal Words, are part of a series of print-based grammar topics that are being converted into interactive online versions for wider student access. Tertiary-level NESB students are constantly bombarded with a bewildering array of idiomatic expressions in their academic and social discourse. The objective of

developing these online versions was to provide tertiary-level NESB students with succinct information and practice exercises that will help them understand what idiomatic expressions are and how to use them effectively. In addition, many students' essays are often incoherent and abrupt because of the absence of transitions and links provided by signal words. Thus it is crucial that they understand the value of using signal words to achieve a high level of coherence and cohesiveness in their writing and oral communication.

In endeavouring to make the online grammar topics more interactive and engaging, the author referred to and utilised many key elements from disciplines such as instructional design, learning theories and web design principles. The two online projects were therefore designed to carry meaningful and attention getting features. Both were deliberately designed to be short, independent learning objects that can be linked with other learning objects when required. Interactive elements in these modules included information presentation, examples and interactive learning activities.

The challenge then was to build interactive learning objects that would integrate the main elements of Nielsen's (2003) usability qualities and Keller's (1983) motivation model to promote learner interest and engagement. Both researchers had stipulated that learners learn most effectively if the material is relevant to them. Thus in the two grammar online projects, relevant key content, presented in attractive and visible text, clear headings in question format and appropriate web safe colours, were employed to grab and hold the attention of learners. In addition, the key content was placed at the beginning of the 'index page' (Figure 1). This was based on Ausubel's (1967) concept of advance organizers and web design principles which advocate placing key information at the top of the hierarchy to attract learners and provide them with some relevant prior information before they proceed with the learning activity.

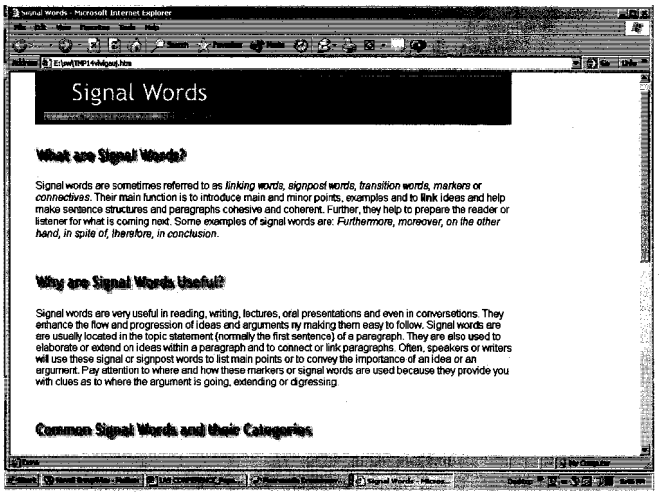
Figure 1. Information presentation and advance organizer in Idioms



In addition, the two projects provide specific, relevant and clear headings to enable learners to quickly identify the topics in question. As shown in Fig. 2, the explanation of form and function of Signal Words are presented at the beginning of the module under 'frequently asked questions' type headings like: *What are Idioms/Signal words? Why are signal words useful?* As small and self-contained learning objects, the two grammar projects can be

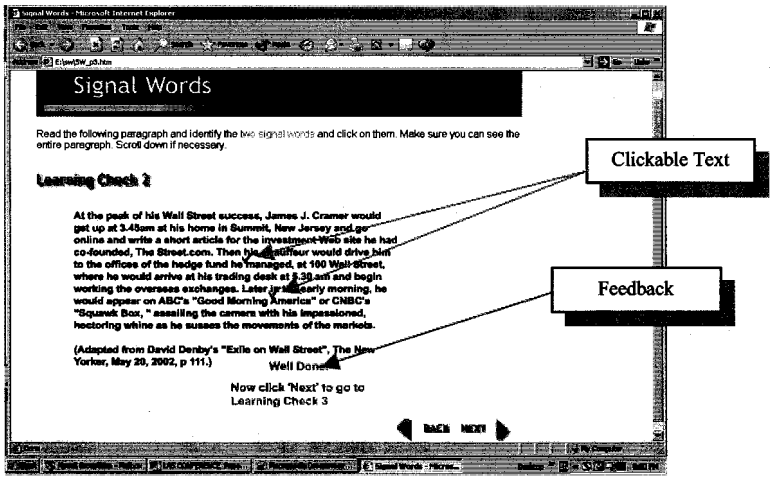
quickly mastered hence giving learners a sense of achievement, satisfaction and confidence.

Figure 2. Clear headings, form and function in Signal Words



Keller (1983) and other learning theorists stipulate that it is crucial to provide learners with a sense of success and achievement when they are involved in the learning process. Kettunurak et al. (2001) suggest that branching back for an immediate review reinforces the learning. The two projects' interactive learning activities allow for self-checking and pacing as well as provide learners some control over their learning. This self-assessment activity is accompanied by positive, motivating and encouraging feedback such as: 'Good', 'Excellent', Try again' as illustrated in Figure 3. Such feedback helps to inform learners of how they are performing and to give them a sense of success that further enhances their confidence level while keeping them engaged to the learning task.

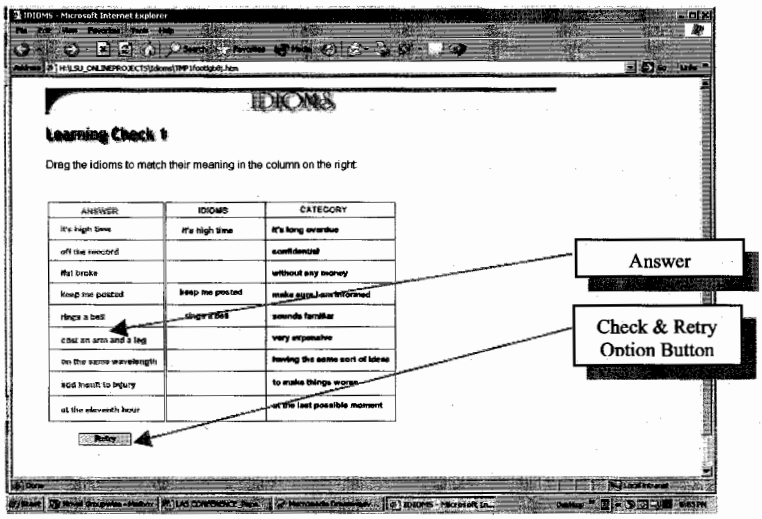
Figure 3. Clickable text and feedback



Satisfaction

A strategy to engage learners and provide satisfaction to their learning experience thereby fostering retention, is to provide them with a range of interactive activities and positive feedback. To help learners engage with the online modules, interactive exercises were developed with checks, feedback, answers and retries as shown in Figures 3 and 4.

Figure 4. Interactive learning activity with Checks, Retry & Answer options



Design Considerations

During the planning and design phase, many questions emerged that helped to shape the design and development of the two projects. The questions focused on the following issues:

- How to make grammar topics like idioms and signal words engaging and interactive?
- What learning theories can be applied to the projects to make them interesting and meaningful to learners?
- What are learning objects?
- How to handle design elements like the look and feel, accessibility, ease of navigation, extensibility and consistency?
- How could interactivity be achieved and integrated?
- What are the necessary software and hardware?
- What online development and scripting knowledge does one need?

After careful consideration it was decided that the main design objective was to develop the online projects as granular, interactive and reusable "learning objects" that augment learning.

This proved to be challenging because in making the learning objects granular and reusable, there had to be a certain degree of 'decontextualisation' of the nodes of information. Wiley (2000) noted that many developers tend to 'decontextualise' their learning objects in order to

maximize their reuse. However too much 'decontextualisation' can minimize or reduce the meaning within the learning objects. Therefore in the two projects, care was taken not to 'over decontextualise' and to preserve sufficient meaning and form in the learning objects.

The design and development plan was based on instructional design principles that focussed on the audience or learners' *just-in-time* and *just-enough* learning needs. According to Novak and Patterson (1998) this teaching approach allows learners to access the amount of information they wished to learn (*just-enough* information) and interact with information anytime they wanted (*just-in-time* learning). For example, to facilitate *just-enough* learning, the two grammar projects focused on the breadth and not the depth of material coverage. However, if there is a need to augment learners' essay writing or grammar skills, the Idiom and Signal Words learning objects can be *'aggregated'* as a transitional device, to promote cohesion and effective flow in essay writing activities. However, for weak students, deficient in idiomatic expression and signal word skills, the learning objects can be quickly *'disaggregated'* or detached and used as independent learning activities.

To enable learners to feel comfortable with a consistent and familiar layout and to know where they are in the program, a simple consistent design layout was adopted to present information systematically throughout the site. The design included the banner, page titles, headers, navigation elements in consistent positions on all pages. White was selected as the background colour as it easily supported coloured text and graphics thus making the display visually pleasing.

The potential users/learners of the two online projects were tertiary level students from non-English speaking background (NESB). It was assumed that there would be different levels of English competency amongst these learners. It was also assumed that there would be different levels of computer literacy amongst them but that most would have keyboard and mouse skills and were familiar with web interfaces such as clicking, dragging, text input, mouse and keyboard manipulation. The instructional aim therefore, was to create simple programs or learning objects that had clear instructions, good examples and meaningful interactivity that will engage them and assist in their language learning.

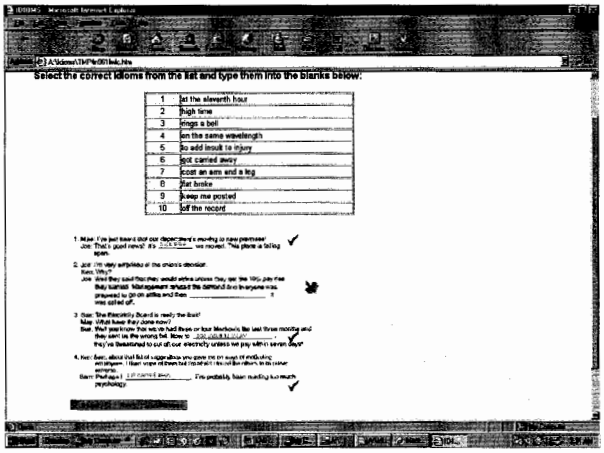
Although there is merit in creating online programs that are extensively hypertexted, crossed referenced, and which contain a mass of graphical images to cater to the different modalities (sight, sound and touch), it was decided that the two online projects, being small, self-sufficient learning objects, should maintain simple linkages but at the same time, be open to the possibility of extending the links, navigation and cross-referencing when required. This decision was based on the fact that the primary purpose of the project was to enable learners to improve their language competency and not to distract them from the learning task by asking them to perform complex and wide-ranging navigation in search of extended information.

In addition, it was recognized that different people have different styles of learning. Some are active learners while others are reflective, visual or kinesthetic. To cater to these diverse learning styles of the learners, the two learning objects incorporated elements that would appeal to, and engage different types of learners. For example, chunking of the information that can be quickly learnt and which allowed for quick assessment and feedback catered to the *active* learners. The *reflective* learners were provided *retry, repeat* and *check* options to allow them multiple attempts to reflect and consolidate their learning. Kinesthetic and tactile operations that included drag and drop functions, clicking on the correct answer and actual text input via typing on the keyboard allowed kinesthetic learners to do something tangible and be rewarded by immediate responses.

Building the interactive learning activities proved to be a big challenge because interactive features such as drag and drop and other interactive and manipulation elements in

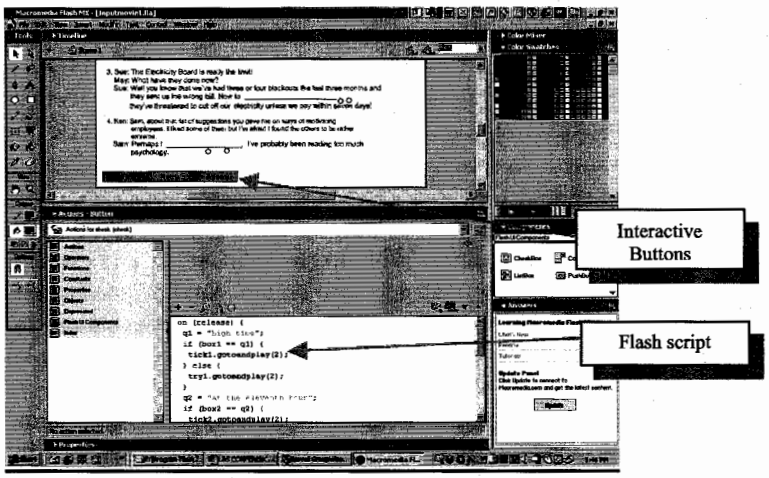
Flash movies had to be designed and developed. Interactivity required scripting for example the text-input interactive exercise and feedback (Check, Retry and Answer) in figure 5.

Figure 5. Interactive learning activity with text input, feedback and retry options



required specific scripting (refer to Figure 6) to control and synchronise the multiple learner interactions of typing in the answers, getting immediate feedback for right or wrong responses and going for multiple retries.

Figure 6. Flash script for interactive activity



The author experienced a rather steep learning curve particularly in the acquisition of scripting skills. The author's experimentation with Flash scripting combined with the advice and scripting solutions from two of her colleagues who had considerable Flash scripting and online development experience, assisted in the prototyping of the projects. The scripting experience enabled the author to select practical and user-friendly interactive activities and

discard interactive concepts that were purely gimmicky and which provided learners with little overall learning benefit.

Development considerations for the two online projects

The development process needed much thought and consideration. It involved understanding the workflow in terms of the selection of development tools, the creation of assets and the scripting of the interactive segments. It also involved deciding how to best package the content using suitable application programs which will seamlessly integrate graphical and interactive elements with content to engage the learners. The decision to develop the projects as small, self-contained learning objects ensured that they are easy to fine-tune and reuse. The Flash movies in the two projects are easily editable, reusable and quickly downloadable. Furthermore, the symbols in the Flash Library (Fig. 7) are reusable thus making the overall file size small thus alleviating the problem of slow up-load.

To address the issue of interoperability and to ensure that the content will work seamlessly and efficiently in the Web environment, it was decided to develop the content using the Macromedia MX suite of applications comprising *DreamWeaver MX* (for fast prototyping of web-pages), *FlashMX* (for creating the required interactivity) and *Fireworks MX* (for generating the graphical elements). An added advantage of using the Macromedia suite of applications is that it streamlined the round-trip development of the programs in that any editing in an area can quickly be up-dated in other sections of the work. For example, if a graphic element needs to be edited in Fireworks, the update button in Fireworks will quickly update all the related files that used this element.

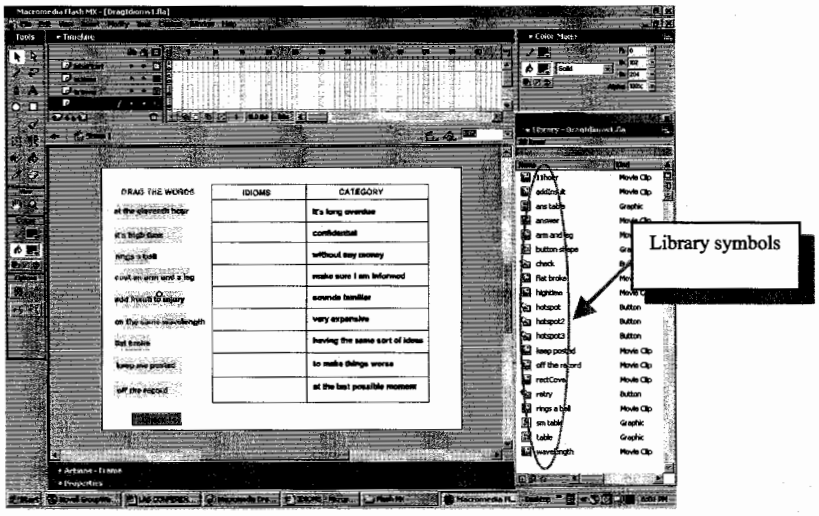
Fireworks and Flash allowed for the effective development of rich, learner-centred learning objects tailored to engage learners in their learning tasks. Interactive movies created in Flash have a library of reusable assets/symbols (Figure 7), which can be deployed in other projects as shared resources. For example, navigation buttons once created and saved as 'symbols' can be used as shared resources with other projects. This reduced asset or graphic development time and at the same time ensured speedy download time by utilizing the recyclable objects. It also provided a consistent look and feel of the project and enables users to quickly familiarize themselves with the user interface and get on with their learning tasks.

Another challenge involved extensive research on World Wide Web Consortium (W3C) accessibility and usability issues. Some of these issues are discussed next.

Online readability and visibility are big issues in online design because they help determine the friendliness and usefulness of a site. Although scrolling has it uses, it can also be a tedious and time-wasting process. With this in mind, effort was made to reduce scrolling in the two projects. Generally, users tend to scan online material, pausing only when they find something interesting or relevant, so it is crucial to enhance scanning by providing clear headings, links, short phrases and sentences, and short paragraphs. Thus both Signal Words and Idioms were designed to minimise scrolling and optimize readability.

In the two projects, graphical elements were kept to a minimum to ensure faster downloads. Attractive headings were created in Fireworks as web-optimised graphics and care was taken to provide a good balance of white space and content to allow for readability. It was easy to synchronise web-safe coloured text with the white background. To achieve readability and visibility, the whole display design is uncluttered and the overall look is consistent and pleasing to the eye. Also, clear headings and instructions in the two projects discourage superficial hyper-surfing and ensure that learners know where they are and what they're doing at any specific time. This is enhanced when, on *mouse-over*, the links icons or text change colour to alert the user that the task has been accomplished.

Figure 7. Flash movie with reusable Library symbols



Although the two learning objects allow for extension, multiple linkages, access to more in-depth information, and can be grafted on to other programs, the author decided not to provide too many features that would distract the learners from the actual task of learning and using idioms and signal words. Thus navigation was kept to a minimum to ensure that learners go through the basic information and focus on the learning activities.

Future enhancements of the projects can include features that allow for collaborative learning. Instead of developing learning objects that are used in isolation or on a one-to-one learner-machine basis, future online development could incorporate collaborative learning elements (Nelson, 1998) such as email, discussion boards etc. that allow for synchronous and asynchronous communication. This will foster motivation and help to create a feeling of community and classroom cohesion through 'telepresence', and rapid feedback that fosters consensus-building in group activities (Bergsma, 2003).

Lessons learnt

The online design and development experience has been enlightening and has provided a platform where lessons learnt can be incorporated into online future projects. Some of these lessons are as follows:

- Use of cascading style sheets (CSS) to maintain consistency of layout.
- Use 'points' for fonts rather than 'pixels' because point sizes are more accurately displayed in both PC and Mac computer environments.
- Plan interactive activities carefully during the design phase as it will save a lot of revision later.
- Reflect on how to make these activities augment learning.
- Keep scripting simple and elegant.
- Create online materials that allow synchronous & asynchronous communication.

Random and informal evaluation has been conducted on the projects. The feedback about the interactivity, the layout design, ease of use and the 'learnability' factors, has been positive and confirms that interactivity in the online programs provide engagement and an enjoyable learning experience for language learners. Formal review and pilot testing will occur in the near future.

Summary

This paper has outlined the challenge of designing and developing two grammar online learning objects for tertiary level NESB students. The projects are based on instructional and online design principles as well as learning theories and styles. The lessons learnt from this project suggest how the design and development of future online projects can be made more efficient and also point to the future where other interactive learning principles and strategies could be grafted to extend these learning objects and make online interactive teaching and learning more engaging and effective.

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Study skills and the maths-anxious: Reflecting on effective academic support in challenging times

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ABSTRACT Massification of higher education, associated with increased diversity of student preparedness, is contextualised specifically in relation to numeracy or maths literacy demands confronting students. In this article, the author reflects on some of the increasingly demanding and challenging aspects of delivering academic skills advice in the areas of math and numeracy. A client-student profile of students who are at most risk of academic failure or withdrawal is identified and issues of mismatch between students and academia, teaching and learning styles, and self-efficacy are discussed in the context of such students. Drawing on the author's professional experience as an academic advisor, strategies for effective practice are suggested, which emphasise the need to gauge self-efficacy beliefs. The connections between mathematics, language and maths anxiety are highlighted. Overall, the aim is to sketch the 'big picture' and then outline academic support strategies to help math-anxious students cope better with non-specialist math content in university teaching.

Keywords: Academic support, maths anxiety, self-efficacy

Introduction

Higher education (HE) in Australia and elsewhere is changing at an unprecedented rate (Zeegers & Klinger, 2003) and government reports on the changing nature of higher education, such as the National Committee of Inquiry into HE in the UK (Dearing, 1997), Learning for Life: HE Review (West, 1998) and H.E. at the Crossroads (Department of Education, Science and Training, 2002) implicitly highlighted increasing accessibility to post-secondary education for school leavers and adults returning to study. With increasing numbers of students – in particular, those from 'non-traditional' backgrounds – the nature and scope of extant knowledge possessed by commencing students must surely become more diverse when compared with the largely homogenous knowledge constructs of the declining 'traditional' cohort. Lake (1998) pointed to the substantial increase in mature-age students, including many for whom normal entry requirements have been waived together with new groups of "disadvantaged" students (citing Richardson, 1994) and the nature and the needs of such students are seen as substantially different to those of the more traditional student body. Both the Dearing and West reports emphasised the issue of quality assurance in higher education: Dearing (1997) made a number of detailed recommendations for the enhancement and support of learning, including emphasis on promoting and valuing key skills of communication, numeracy, information technology, and 'learning how to learn', while West (1998) made it clear that the needs of *all* students must be addressed. Quality assurance in HE inevitably involves the pursuit of excellence, which, it may be argued, is necessarily

predicated on the development of an environment that should, in principle, enable all students to realise their maximum academic potential. A significant part of that environment lies in the provision of support services, particularly language and academic skills advice. Most frequently, attention is directed towards literacy and related issues but, in a climate where graduate skills and generic attributes (Cummings, 1998) are being brought into sharper focus, the definition of literacy needs to be broadened. Croft (2000) reported an increase in the number of employers carrying out pre-employment psychometric testing with such tests often including numerical reasoning, numerical analysis, or simply basic numeracy and it may be inferred that generic attributes necessarily should encompass numeracy. Perhaps a preferable terminology would be *maths literacy*, especially when such support is directed towards assisting students to better cope with non-specialist maths when they have little formal maths background and/or (most notably) they experience maths anxiety.

In what follows, the author draws on more than four years experience as an academic advisor (numeracy, maths, science) at an Australian university and eight years experience as convenor and principal lecturer of the core mathematics topic in that university's special entry program, for which he has received the Chancellor's Equal Opportunity Award for promoting the accessibility of mathematics and science and for guidance and support to students who have been educationally disadvantaged. Some students who seek assistance for maths-related study problems are referred by topic lecturers but the author's experience is that most are self-referred, tending to fall into two broad yet distinct categories:

- effective, generally successful students who want to do even better; or
- students who are struggling to cope with aspects of their topic.

As distinct as these groups may appear, they have much in common and teaching practices and strategies which prove effective with one group can often be applied successfully to the other, or at least may suggest analogous approaches. This would appear to indicate that teaching activities and interactions that promote student development are largely independent of the level and detail of specific content. That is, almost regardless of the subject matter, there are underlying cognitive and emotional factors that primarily determine successful learning experiences. This accords with Bandura's (1986, 1997) social cognitive theory, of which more will be said later. This seems to be particularly well illustrated in the area of maths and numeracy and it becomes even more apparent when advising students who find they have to deal with maths content in non-maths topics – that is, mathematics for non-specialists. The first of the groups comprises 'high-achievers' – students who want to improve their performance by developing or refining specific technical skills. They may have grasped most aspects of some concept but find that the more subtle points elude or confuse them; or perhaps they have found that they know *what* to do (often as a result of rote learning), but they don't fully understand *why* they do it.

The second group comprises students who are concerned about their ability to cope with topic content and may be further divided into two sub-categories:

- students who are generally effective in their particular courses but who need assistance to supplement background knowledge or master new content; or
- students who have varying degrees of distress (which may be extreme) due to their inability to cope with most or all of the topic content relating to maths and numeracy issues. This is so particularly when the difficult material is encountered in what was understood to be a non-maths topic or that supposedly had no prerequisite maths skills. The vast majority of such students experience at least some degree of maths anxiety.

The latter tend to be at greatest risk of failing or withdrawing from a topic, possibly even leaving university. Often, they identify themselves as victims whose maths anxiety was inflicted on them by bad experiences with maths instruction during their school years. Typically, they will report that they "hate maths" or were "never any good at it". Asked to recall their worst maths experiences, essentially the same story is told repeatedly and it invariably involves bullying and humiliation in various guises. A nursing student recently sought advice because she was "terrified" of the drug calculation examination she must pass. In talking about her background she said she had suffered school-phobia, attributed to the impact of a particular maths teacher who, she said, "...was a big man who stood over me with a loud voice and who used maths as a punishment." Given their background, such students present the greatest opportunity to 'make a difference'. However, they also present the greatest challenge to effective teaching practice because the high-achievers are likely to reach successful outcomes with or without extra assistance and 'top-up' students are likewise in a relatively strong position because they are aware, at least, of their own skills and limitations. The aim here is to examine a range of issues associated with the substantial and increasingly demanding task of providing academic advice to members of the 'at-risk' group; that is, to outline academic support strategies to help students to better cope with math content in university teaching when they have little formal maths background, experience maths anxiety, or otherwise find themselves out of their depth.

Rationale and pedagogy

In virtually all institutions surveyed by Lawson, Croft and Halpin (2001), a key component of support is access to one-to-one help. This is the perspective of Dalby's (2001) report (citing also Carroll, 1998), and it is clear, too, from the author's professional practice that one-to-one consultations are the most practicable and efficacious mode of assistance for students with profound difficulties. The remainder of this paper should be read in the context of one-to-one teaching, though much is applicable, also, to small group situations.

Ideally, the mathematics advisor will want to provoke a transformation in students who seek help, assisting them to be increasingly self-sufficient in overcoming future difficulties. Whilst it may be acceptable to provide a competent student with a 'quick fix' to remedy an information deficit, it is neither possible nor desirable to adopt this largely superficial approach with students who are mathematically challenged or anxious. To be successful at a deeper level requires a significant appreciation of a number of factors involving the students themselves, the learning environment, and pedagogical considerations, as well as the ability to empathise with people from diverse backgrounds. Pertinent factors include:

- generic attributes of students seeking assistance
- the nature and needs of students in the dual contexts of their personal development and the criteria by which their academic performance is judged
- how students approach learning (particularly learning in areas where they perceive content to be especially difficult) and derive their learning objectives
- how instructors/advisors approach learning and derive their teaching objectives
- disparities between students' and advisors' perceptions of their respective roles
- the nature of the student/advisor interaction and its effect on student attitudes.

The 'flavour' of these factors underpins the remainder of this paper.

Mismatches

Students entering university with the aim of becoming mathematicians, scientists, engineers and the like do so in the obvious expectation that their courses will encompass substantial mathematical content. But these comprise a relatively small fraction of all students. Many of their peers in other disciplines rightly have no such expectation, yet a very high proportion of them will, nevertheless, encounter components of a mathematical or statistical nature, which they will need to master if they are to succeed in their studies. According to Cox (2001, p. 847), "The problem of transition to university in subjects that make substantial use of mathematics has become increasingly difficult in the last decade or so (The Engineering Council, 2000)". Often, in areas like psychology, social administration, health sciences, commerce, and economics (to name but a few) prior mathematical training is not a prerequisite for acceptance into courses or topics that may, in fact, be of an essentially quantitative nature. It is not unusual for commencing students to interpret the lack of pre-requisite mathematics to mean that a topic will be devoid of mathematical content, whereas the convening lecturer implicitly interprets this to mean there is the *expectation* that, by gaining admission to university, students already possess knowledge, confidence, and expertise sufficient for the mathematical demands of the topic, including the capacity to respond positively to lectures and course materials that purport to review the 'basics'.

Lawson et al. (2001, p. 4) reported that "there is a significant mismatch between the confidence, manipulative skills and knowledge of many students upon entry, and the expectations of those teaching in universities" and that this mismatch arises for a variety of reasons, including inadequate preparation during pre-tertiary education. Sutherland and Dewhurst (1999) investigated the mathematical knowledge expected of higher education entrants across a wide range of disciplines in a number of universities and found that the school mathematics curriculum and examination system do not adequately prepare students for higher education. Moreover, they point out that the situation is exacerbated by ignorance within universities of how *little* mathematics is known by commencing students (implicitly, those who are recent school leavers). As Cox (2001, p. 848) reported, "In recent papers (Clifford, 1994; Adamson, Byrom & Clifford, 1998) it has been shown that in many areas staff expectations are twice that which the students can actually achieve." How much greater, then, is the mismatch for 'non-traditional' entrants because of "widening of access to higher education with the acceptance of students with much more diverse backgrounds and experiences of mathematics than previously" (Lawson et al., 2001, p. 4), and how much greater the need for effective academic support? Lake (1998) considered a lack of alignment between the student's assumptions, motives, intentions and previous knowledge and those of academia as important factors in student withdrawal from university. Identifying significant shifts in the size and nature of university 'clientele' and the qualitative changes occurring in tertiary education, Lake pointed to the substantial increase in mature age students, including many for whom normal entry requirements have been waived together with new groups of "disadvantaged" students (citing Richardson, 1994); the nature and the needs of such students are seen as substantially different to those of the more traditional student body. For students struggling to cope with mathematical content, these mismatches present seemingly insurmountable difficulties and it is crucial that academic advisors address the issues directly. In this, they can do no better than heed the findings of Biggs (1999) and actively pursue the rationale of "aligned teaching systems" i.e. teaching objectives that express the understanding wanted by teachers from students, and teaching contexts that encourage students to undertake learning activities to attain that understanding. In this, advisors need to consider three levels (implicit in 'Strategies for Effective Practice', below):

- what the student is
- what the teacher does
- what the student does

Teaching and learning

Marton, Dall'Alba, & Beaty (1993) identified six qualitatively different conceptions of learning:

- increasing knowledge
- memorising and reproducing
- applying
- understanding
- seeing something in a different way
- changing as a person.

All of these conceptions are relevant, in practice, to the task of the academic advisor because the overarching goal is to educe *transformative* behaviours from an informative process in which each domain is interwoven to form a web of learning. How students approach learning and then derive their learning objectives has provoked a considerable body of research literature. Of particular note is the seminal work of Marton and Saljo (1976) that distinguished between 'surface' and 'deep' approaches. Felder (1993) noted what he called "dimensions of learning style" which can, in part, be defined by answering five questions addressing, respectively:

- the type of information preferentially perceived by the student – sensory v intuitive
- modality of information perception – visual v verbal
- method of information organisation – inductive v deductive
- preferred style of information processing – active v reflective
- progress toward understanding – sequential v global.

Obtaining at least an informal sense of where a student is located in this five-dimensional space should be an essential early objective for the advisor. Mainstream lecturers delivering a topic to a class are necessarily most directed by their own learning style, which may suit individual students to a greater or lesser extent (for a struggling student, most likely the latter) – Felder (1993) advocated a mixture of teaching styles and highlighted mismatches between the teaching styles traditionally prevalent in most science courses and the learning styles of the majority of students; similarly, Taylor, Chou, and Fisher (1999) showed that there are significant discriminators between students' perceptions of their studying/learning approaches and lecturers' perceptions of the studying/learning approaches that they facilitate in their students. The academic advisor, on the other hand, can and should adopt the student's learning style since it affords the means to avoid perpetuating the student/teacher mismatch as well as providing a vehicle for effective communication.

Self-efficacy

Students faced with the dual burdens of intractable mathematics content and maths anxiety *a posteriori* tend to have weak or negative mathematics self-efficacy beliefs. Bandura (1986) defined self-efficacy beliefs as "people's judgements of their capabilities to organise and execute courses of action required to attain designated types of performances" (p. 391). That

is, the beliefs people hold about their abilities dominate the choices they make, the effort they will expend, how long they will persevere to meet a challenge, and their apprehension of the task at hand. Self-efficacy beliefs have been found to be a better predictor of success than an inventory of skills or prior achievements and relationships have been found between self-efficacy for solving math problems and maths anxiety, attitudes toward maths, general mental ability, maths self-concept, and math experience (Finney & Schraw, 2003).

Self-efficacy beliefs are formed, primarily, by interpretation of information from four sources: prior performance, vicarious experience of others' performances, extrinsic social persuasions, and physiological and emotional states. For the mathematically challenged and math anxious, there is often a history of a complex interplay of influences from all four sources – poor or uncertain prior performance contrasted with observations of more successful peers (negative vicarious experience) while disapproving and disparaging feedback from teachers and other significant individuals fuels anxiety and stress, provoking strong emotional reactions to impending tasks of a similar nature. Even in the absence of maths anxiety, a less intense cycle ensures that many young minds 'turn-off and tune-out', resulting in choices to avoid math instruction and practice and perceptions that render mathematics uninspiring, uninteresting, and irrelevant for all but a few practical purposes. However, the same channels that served to forge weak or negative math self-efficacy beliefs are necessarily employed by the academic advisor to supplant them. Effective persuasion by the advisor can challenge the student's self-perceptions, placing prior performance, vicarious experience and criticism in a proper context that makes them relevant to present considerations, while acknowledging the student's affective states as valid and reasonable responses to unpleasant experiences. When combined with demonstrations that there is greater actual ability and capacity than that of which the student is consciously aware, together with illustrations and explanations of a range of strategies, opportunities to experiment and experiences of success, the stresses and anxieties give way to positive emotional states allowing poor math self-efficacy beliefs to be overwritten as new, positive perceptions emerge.

Attention to the theory and practice of self-efficacy may be the most distinguishing characteristic of effective mathematics support. A mainstream topic lecturer might influence a student's self-efficacy beliefs but the influence must pale in comparison with the deconstruction, renovation and reconstruction undertaken by the academic advisor. Practically every other consideration is reduced to mere detail alongside this – there are abundant resources available to students for self-instruction in every conceivable aspect of mathematics and in a plethora of approaches at all levels of aptitude to suit every possible learning style; interactive multimedia materials can be found to instruct, drill, and test students interminably – yet, without the empowerment permitted by positive self-efficacy beliefs, those resources tend to be ineffective and inaccessible, possibly even compounding the student's problems. On the other hand, when self-efficacy is high the necessity for the advisor to address every detail is diminished as students gain the confidence to direct and pursue their own learning.

Profiling (student characteristics)

As a first step towards pursuing Biggs' (1999) aligned teaching systems, it is instructive to construct a profile of client students attending for academic assistance with math-related study problems. Drawing on the author's experience in a learning centre over several years, it is possible to make some general observations from which some common characteristics may be distilled. About two-thirds of the client students are likely to be 'thirty-something' non-school leavers studying within the social sciences, with females exceeding males in number

in the ratio of about 4:3. Non-school leavers are those who have *not* entered tertiary education directly from secondary school; they comprise both those who chose to not attend university immediately after completing their secondary education (though sufficiently qualified to do so) and those who gained entry to university by alternate means, such as mature-entry provisions and special-entry schemes. Although they may be more entrenched in their attitudes, beliefs and behaviours than their younger peers, non school leavers are likely to be more motivated and committed to overcoming their difficulties – in part because of the personal struggle to enter university and consequent desire for success to justify that struggle; in part because of their typically strong sense of direction and purpose. Moreover, they bring to their studies a wealth of prior experience that provides the advisor with a rich source of material to draw upon in looking for analogies to aid understanding and illustrate successful strategies. It is noteworthy that male school leavers are conspicuously under-represented. One conjecture to account for this is the reticence of young males to *seek* help, particularly those who need it the most (Karabenick & Knapp, 1988; also Lake, 1998). Female school-leavers within the social sciences also tend to be under-represented (though to a lesser extent) and a likely conjecture here is, again, reticence to seek help.

Almost exclusively, interviews with, and experience of, 'at risk' students reveal a range of common characteristics that are largely independent of the specific topic-related difficulties that prompt them to seek help and also of their age, gender, area of study, and means of university entry. These are:

Confusion – they are unclear about what is required of them, tending to over- or under-estimate the difficulty of subject material, with little insight about the extent of their relevant prior mathematical and other knowledge and pertinent skills. Perhaps significant as a source of confusion is that, not uncommonly, they do not know what they 'don't know'. They are apt to be poorly organised with their notes and make scant use of text books and other resources.
Lack of confidence – repeated lack of success seems to manifest (understandably) in low self-esteem, which may or may not impact on other endeavours. Often, this is accompanied by strong negative emotions of embarrassment, self-deprecation, and helplessness (reported also by Karabenick and Knapp, 1988). Thus low expectations are common, as are lack of persistence and a temptation to withdraw. Many have delayed seeking help and regard the same as a final attempt before giving up; as such, frequently they have little initial interest in attempting to acquire understanding and express hopes of acquiring a 'magic bullet' to subvert their problems.
Negative perceptions – of themselves and their cognitive competence, of their lecturer(s) and the topic organization. These, too, contribute to low self-esteem and may extend to their perceptions of the reactions of their peers, lecturers and tutors, and family.
Lack of strategies – they are largely devoid of strategies to help them navigate out of their situation. Moreover, though they may be very competent problem solvers in other ways, their confusion and negative perceptions and emotions are too strong an influence in this context – a fact which is often aggravated by a lack of attention to creative thinking and problem-solving skills (Kessell, 1997).
Assessment-driven motivation – either as a feature of their usual approach to learning or as a consequence of unsympathetic or indifferent attitudes toward mathematics, their main concern lies with acquiring the minimum skills necessary to satisfy assessment criteria. This may stem from a lack of belief in their capacity to attain a deeper understanding, at least as an achievable outcome within the constraints imposed by typical undergraduate work loads. In this sense, these students pursue the 'extrinsic goals' described by Ryan and Pintrich (1997), with all the attendant consequences and implications.

Narrow focus – there is a strong tendency to see mathematics as 'different' from other intellectual activities. Consequently, their capacity to generalise is limited, at best, and they display little facility to synthesise knowledge connections to aid their understanding or develop coping strategies.
Little or no appreciation of the concept of mathematics as language – most will readily acknowledge that mathematics abounds with specialised terminology, much of which involves words whose definitions are much narrower than their common, or everyday, usage (thus acquiring the status of jargon). However, rarely will students show an awareness or appreciation that mathematics proper is language. That is, they accept that specialised language describes mathematical concepts but fail to recognise the converse, that mathematics language describes specialised concepts.

It is common within teaching and learning literature to associate these characteristics with shallow, or surface, learning styles. Their presence may indicate a lack of metacognitive skills, avoidance behaviour, and extrinsic goals as discussed by Ryan and Pintrich (1997). They may, of course, be found in students outside the focus group and in such cases it is usually a relatively straightforward matter to give assistance by helping students to identify where, when and why they experienced difficulty and exactly what triggered the problem; often the obstacle can be overcome by introducing alternate strategies. However, taken in conjunction with maths anxiety (or worse still, maths phobia), such characteristics present the advisor with a considerably greater challenge. Typically, the student is overwhelmed by the task at hand: acquiring specific skills; dealing with math content; developing effective learning strategies. The needed insights have to be facilitated from outside but they are blocked by barriers of anxiety, negative beliefs and stereotypes. Many will say at the outset that they "hate maths", either because they are "no good at it and never have been" or because of negative experiences. They tend to be quite entrenched in their views and they may even be hostile and resentful at being confronted with the material since they feel they are being forced to do something they "know" they're "no good at." Often, they are looking for help but, paradoxically, not expecting to change their perceptions of math and of their own ability to do maths.

Strategies for effective practice

This section is derived empirically from the author's professional experience. Before even beginning to address specific content and techniques, it is necessary to uncover the nature, scope, and source of obstacles like those outlined above. The advisor needs to understand the students and what they want and need in the context of their individual problems and so the first task is to adopt an approach that allows them to admit the possibility that their negative views need not be insurmountable; indeed, they may not even be valid. Typically, in an initial session, students should be asked to identify their faculty, year level, means of university entry (school leaver or not), first language, means of referral, and area of study. The advisor then engages the student in discussion to determine the reason for attendance, background (an overview of previous schooling – particularly early maths learning experiences and attitudes to maths, looking for strengths/weaknesses across the curriculum as well as issues relating to family, peer, and teacher interactions), and goals. The aim is to gauge self-efficacy beliefs and obtain a broad diagnostic picture that identifies the student in an educational and social context as well as establishing the style and nature of the student-advisor interaction.

It often helps to ask if the student believes in the concept of a 'mathematical brain' – something you either have or you don't. Usually the response is positive to the concept and reveals the perception that this is what is lacking and thus the source of the problems. The

advisor may then say, "Well, if you don't have a mathematical brain then I don't suppose you could multiply, say, 97 by 98 in your head, could you? What about on paper? Or with a calculator?" Most will opt for the calculator; some will be prepared to try on paper; a very small number will make a mental attempt, with great difficulty and little success. It is straightforward to talk through a simple procedure that quickly leads to the correct result (which they verify with a calculator). The reaction is invariably incredulous and the advisor might say, "But you couldn't do that if you don't have a mathematical brain, could you? In fact, we all have pretty much the same sorts of brain. It's not that yours doesn't work well for mathematics, it's mostly just that you don't have particular strategies. That's probably not your fault – and it's fixable." From that point, the edifice of negative self-efficacy beliefs is weakened, the student's attention is captured, and work can proceed to develop new beliefs through a process of deconstruction.

If necessary, 'rules' of arithmetic are discovered, starting from the declaration that, "Whatever else maths is, it is first and foremost *language* – particularly suited to precise ideas." As William Blake said (quoted in Newman, 1956), "Ideas cannot be Given but in their minutely Appropriate Words". A major stumbling block for the math anxious is the alienating nature of 'foreign' mathematics language, usually experienced without the recognition that much of the difficulties are, in reality, language difficulties. Insisting that students describe and discuss concepts in plain, simple English before and after translation into mathematics formalism reinforces the language aspect and paves the way for finding meaning in algebraic expressions beyond their application as mere recipes. Algebra is introduced as generalized arithmetic with the advice that in learning to talk, write, argue, and do arithmetic we have already mastered harder skills (Selby, 1995). Further work should progressively take on the context of the specific subject material that led to the student seeking assistance in the first place, all the while seeking to promote understanding and the development of modes of thinking and strategies that advance math self-efficacy.

Conclusion

The problems faced by mathematically challenged students in higher education are complex. Here, just a few of the issues have been attended to in an attempt to further the debate (Dalby, 2001) and share some practical experiences. Observations suggest that negative early learning events involving numeracy may signal the beginning of maths anxiety. Increasing lack of confidence may engender avoidance of further learning, cause anxiety, and impede progress in the abstraction of generalized arithmetic (algebra) and other math endeavours. Without such progress there is little scope for positive self-efficacy beliefs to develop and still less opportunity to acquire a mature appreciation of mathematics in any broad sense.

The most effective teaching practice occurs when the teaching style and quality of the student/advisor interaction promote a high degree of mutual respect and trust that moderates the disparities between students' and advisors' perceptions of their roles i.e. the student's desire for 'quick fix' solutions versus the advisor's aspiration to imbue deeper understanding, and the student's extrinsic, assessment-driven goals versus the advisor's goal of promoting intrinsic goals and self-directed learning. Students may or may not admit ownership of their problems but it is essential that they accept their share of responsibility for the problem solving process and claim at least a large portion of ownership of successful outcomes. That is not profound, but merely a reflection of conventional wisdom. The advisor's primary objective must be to address the student's confusion, lack of confidence, and negative perceptions by appropriate guidance. This might be achieved by explaining and demonstrating how the context and methods of mathematics are revealed through their application as *language* and then mapping these onto concepts and language with which the

student is otherwise familiar and confident. Often it is possible to demonstrate that a student already possesses greater abilities than those demanded by the mathematics since, by appreciating the language aspect, each new equation may be seen to communicate new ideas and assist in the construction of knowledge. By actively engaging in this process, the student acquires a much broader range of strategies, may discover a stronger motivation than mere extrinsic goals, and gains a wider focus that permits a better understanding of the value and place of mathematics.

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