

Developing Classroom Practices to Support NESB Students in Information Systems Courses: Some Preliminary Findings

Tracey Bretag

University of South Australia Tracey.bretag@unisa.edu.au

Sam Horrocks

University of South Australia Sam.horrocks@unisa.edu.au

Jeff Smith

University of South Australia Jeff.smith@unisa.edu.au

The number of international Non-English Speaking Background (NESB) students undertaking Information Systems (IS) courses at the University of South Australia has significantly increased in recent years. These students consistently achieve lower average grades than local students. This paper outlines the first cycle of an action research project which aims to facilitate improved learning outcomes for NESB students. The basic premise of the research is that international NESB students' academic performance is affected by socio-cultural and linguistic factors and that educational institutions have a responsibility to provide support to these students as they negotiate their new academic environment. Features of the project included training for IS tutors in English as a Second Language (ESL) teaching strategies, and a weekly support tutorial for students identified as needing assistance.

Information Systems, international students, Non-English Speaking Background (NESB),
teaching strategies, action research

BACKGROUND

The number of international students (most of whom are of Non-English Speaking Background [NESB], and of Confucian Heritage Culture [CHC]) enrolled in University of South Australia (UniSA) programs of study has risen dramatically during the last decade, particularly in the Division of Business and Enterprise. Enrolment data shows that in two courses, Database Design (DD) and Business Systems Analysis (BSA), the number of international students has risen from 20 per cent of the student body in 2000 to 34 per cent in 2002.

Analysis of course results in Database Design and Business Systems Analysis show that as a group, international students are less likely to withdraw, but more likely to fail, and less likely to get a higher grade, than local students. DD results show a difference between local and international students' performance. Locals have a higher average mark and the gap between the two groups is getting wider (1.6 per cent in 2000, 5.3 per cent in 2001, and 5.8 per cent in 2002). BSA results show a difference between local and international students' performance, with locals again having a higher average mark (7.5 per cent, 13.5 per cent, and 8.4 per cent higher in the past three years).

The current research project was undertaken by Division of Business and Enterprise staff in two schools: Accounting and Information Systems, and International Business.

Sam Horrocks is the Program Director for Business Systems Analysis (BSA), and Jeff Smith is a lecturer in Database Design (DD); both teach in the School of Accounting and Information Systems. Tracey Bretag is a lecturer in Business Communication for Non-English Speaking Background (NESB) students in the School of International Business.

Despite perceived wisdom that Information Technology courses require less fluent English than other “language-rich” courses, Sam Horrocks intuitively felt that subjects such as Business Systems Analysis and Database Design do, in fact, require advanced levels of English. In addition to the difference in grades mentioned above, NESB students are often reluctant (or unable) to contribute to tutorial discussions. Furthermore, the written work submitted by NESB students for assessment is often difficult to read and mark, largely due to poor grammar.

Using Sam Horrocks’ intuitive assumption (and the comparison of international and local students’ results) as a basis, the research team asked the following questions:

- “What are the learning issues for NESB students in BSA and DD?”
- “What do linguists and other English as Second Language (ESL) educators have to say about these issues?”
- “Is there a particular methodology or methodologies which we might be able to adapt to meet the needs of our NESB students in Information Systems courses?”

The overarching question for the project was: “What specific teaching strategies could be used to assist NESB students to reach their academic potential in information systems courses?”

LITERATURE REVIEW

The research process began in late 2001 with a comprehensive literature review. We wanted to find out what other practitioners do/have done to assist NESB students undertaking business studies (specifically in information systems courses) in an Australian (or western) tertiary education institution.

Very little research has been done which specifically addresses the needs of students in information technology or information systems. Most of the literature focuses on students undertaking general business courses. The research tends to fall into three broad areas: 1) authors that argue that cultural difference is the primary factor influencing International (NESB/CHC) students’ academic success in Western institutions; 2) those that suggest that language is just one factor, among many (including cultural and social isolation) that needs to be addressed; and 3) researchers that demonstrate that English language competence is the main factor affecting academic performance. All three positions maintain that there is a responsibility to provide wide-ranging institutional support to international (NESB) students to ensure that they reach their academic potential.

Cultural difference is the primary factor influencing international students’ academic success.

Volet (1999) convincingly argues that, contrary to many educators’ assumptions, Confucian Heritage Culture (CHC) students are not “spoon fed”; nor do they rely on a surface learning approach. She concludes that “The negative picture of Asian learners in Australian universities contrasts sharply with evidence from university statistics, that when English language proficiency is not an issue, Asian undergraduate students tend to perform better in their academic study than local students” (Volet 1999, p. 628).

The Chinese Learner: Cultural, Psychological and Contextual Influences (1996), edited by Watkins and Biggs, is a collection of articles which use a variety of methodologies to investigate the factors influencing CHC students in western learning environments. It is the variety of methods and perspectives offered by this book that makes it such an important contribution to the field, and which also challenge stereotypes of CHC learners as somehow “less able” than Australian students. A number of authors in this collection offer very practical classroom strategies to support CHC students, many of which deal specifically with developing English language competence:

1. Use an interactive, student-centred approach in tutorials (Tang 1996, p. 199)
2. Provide explicit expectations about assessment (Tang 1996, p. 199)
3. Provide the opportunity for collaborative learning, in particular for peer group discussion and peer tutoring (Tang 1996, p. 199 & Winter 1996, p. 221-122)
4. Provide opportunities for international students to work with Australian students (Biggs & Watkins 1996, p. 281)
5. Develop strategies to compensate for students’ lack of English language fluency (Kirby, Woodhouse & Ma 1996, p. 155)
6. Facilitate students’ access to the information in the text.
7. Elaborate discourse patterns, structures and rhetorical devices
8. Inculcate students into Australian academic culture (eg. Referencing, plagiarism, academic voice and register (Kirby, Woodhouse & Ma 1996, p. 143)
9. Provide assistance with discipline-specific vocabulary, and when necessary, Australian idioms, slang and cultural expressions (Kirby, Woodhouse & Ma 1996, p. 143).
10. Provide opportunities for students to use their English writing skills for tasks which are not for assessment (Tang & Biggs 1996, p. 170)

Weiland (1999) argues that “stress, language and general adjustment are not great problems. However, cultural differences do have a considerable impact” (p. 3). The author suggests that while students have the personal attributes that indicate that they will be successful academically (motivation, self evaluation, p. 2), the greatest impact on student learning is the new style of communication (in the Australian setting). Weiland concludes that academic skills preparation is essential to academic success for international students (p. 5).

Language is just one factor, among many to be addressed.

Batorowicz (1999), as part of a research project at the University of Southern Queensland, analysed the needs of two groups – Australian NESB and International students. The main issues that emerged were language difficulties, culture shock, homesickness and social difficulties. Batorowicz concluded that “...the process of internationalisation of Australian universities still faces many obstacles and...a formal policy on internationalisation or multiculturalism would benefit students from different cultures – and ourselves as well” (1999, p. 1).

Using survey data from 408 international undergraduate students and 121 staff, Robertson, Lane, Jones and Thomas (2000) concluded that international students experienced a range of challenges including social, administrative and linguistic.

Stoyhoff (1996) conducted interviews with 27 international students at an American university and concluded that a strong support person is vital to the academic success of international students. Stoyhoff’s later (1997) research showed that “the vast majority of international students, even those with lower language proficiency, appear to succeed at

university. Therefore it is not as much a matter of whether international students will succeed but rather how successful they will be and at what personal cost” (p. 5).

Wicks (1996) compared the grades of 832 Australian students and 719 international students in both a mathematics and a language-rich course. The results of this research demonstrated that English competency is a not ultimately a problem for international students studying on campus in Australia, although offshore international students are significantly affected by lack of English language proficiency.

Using surveys, interviews and focus groups, Tompson and Tompson (1996) tabled the main issues faced by international students in two American business schools. These include: loneliness and fear; language; norms; rules and conventions; and cultural and academic environments.

Angelova and Riazantseva (1999) used participant and faculty interviews, observations, analysis of written samples and reflective journals kept by participants. Based on the various data, the authors concluded that international students need specific assistance to understand and adapt to the requirements of a western tertiary education environment.

Ballard and Clanchy (1997) provide some very useful advice in relation to facilitating students’ learning in their book *Teaching international students. A brief guide for lecturers and supervisors*. These strategies include:

1. Establish names (including pronunciation) early in the semester (p. 38-39; see also Hellmundt, Rifkin & Fox 1998, p. 337)
2. Elicit responses, rather than just wait for a volunteer (p. 39)
3. Provide opportunities for success (Eg. Allow students time to discuss issues in pairs or small groups before speaking before the whole group).
4. Provide clear instructions for oral presentations (detailed information is provided on p. 40)
5. Use a “staged” assessment schedule to enable students to build skills (p. 58).
6. Encourage students to take advantage of support services offered on campus.
7. Provide “model” answers that are easily accessible to all students (p. 62).

English language competence is the fundamental issue

Ruth Wajnryb, in her 2000 *Report of the English Language Services (ELS) Scoping Project* at the University of South Australia, consulted with a variety of staff, students and other stakeholders to provide an overview of the university’s provision for NESB students. One key finding of the report is that an IELTS (International English Language Test System) score of 6.00 (the minimum standard accepted by the University of South Australia) is “barely adequate” for academic success.

Tracey Bretag uses the “Content-based ESL” in the development of her courses for NESB students in the School of International Business. This approach is based on collaborative curriculum development and teaching by a Language and Academic Skills (LAS) lecturer and a subject specialist. One advocate of the content-based model, Pantelides, argues in her 1999 article, “Meeting the needs of tertiary NESB students” that it is a university’s responsibility to support students’ language needs, and that an ESL specialist should teach in-faculty, where that faculty has a large proportion of NESB students.

Many researchers use practitioner research to provide a description and analysis of a course that they have developed and taught themselves (Allen & Rooney 1998; Beasley 1990 & 1997; Bretag & Scobie 2002; Chappel 1998; Chandrasegaran 1994; and Clerehan &

Crosling 1994). Without exception, each of the case studies concludes that English proficiency is the dominant issue faced by international students, in combination with socio-cultural factors.

Pearson (1999) and Beasley and Pearson (1999) have written numerous articles based on a longitudinal study from 1991-1997 at Murdoch University of two second-year business courses (with a high proportion of international students). The data included a comparison of average grades from 1992-1997, and also a comparison of grades for those who took an optional extra support tutorial and those who didn't. Results showed that students' grades improved significantly (from a 13 per cent failure rate in 1992 to a 1.5 per cent failure rate in 1997) due to a combination of improvements instigated by the authors. These changes included: an additional, voluntary learning support tutorial, team-taught by an LAS lecturer and subject specialist; a student centred approach; multiple, appropriate forms of assessment; timely and relevant feedback; and a focus on experiential activities.

Some specific strategies (in addition to a range of strategies similar to those by Ballard and Clanchy 1997, and Hellmundt, Rifkin & Fox 1998) suggested by Pearson and Beasley (1999) are to integrate the teaching and developing of skills "in the context of the students' program of study rather than teach academic skills in isolation" (p. 308)

International students themselves have identified English proficiency as the key to academic success. Gatfield, Barker and Graham (1999) showed that of 26 variables, students are most concerned about academic instruction (in English).

Hellmundt, Rifkin and Fox (1998) provide practical classroom strategies based on research using an open-ended questionnaire, observation of students, informal and unstructured discussions and students' reflective journals. In addition to those suggested by Ballard and Clanchy 1997, Hellmundt, et al (1998) posits the following strategies:

1. Provide opportunities for students to speak as an "expert" (eg. About their own culture or personal experiences) (p. 336)
2. Allow students enough time to answer questions (p. 337)
3. Provide opportunities for international students to find out about Australian culture (p. 338).

From this perusal of the literature, it is clear that research in this field is premised on a number of key understandings. While some researchers focus on language competence, others are more concerned about cultural issues, and different learning backgrounds. All of the research, however, recognises that international (NESB) students require a range of institutional support arrangements; and that those responsible for teaching international students need to be cognisant of the myriad learning issues facing international students. Of significance to this project is the fact that there appears to be little or no literature addressing the particular needs of NESB students undertaking courses in information systems, or in courses generally perceived not to require high levels of English language competence.

Having looked at what other practitioners are doing to support their international (NESB) students, we decided to synthesise the key strategies, particularly those that were reported to have had a demonstrable impact on student learning outcomes.

METHODOLOGY

Dadds (1998, 41) suggests that:

...practitioner research [refers] to forms of enquiry which people undertake in their own working contexts and, usually, on their professional work, in whatever sphere they practice. The main

purpose of the enquiry is to shed light on aspects of that work with a view to bringing about some benevolent change.

Using Dadds' definition¹ as the basis for the project, the research team set out to instigate and/or adapt classroom practices and teaching strategies suggested by the literature, with the purpose of improving learning outcomes for NESB students in DD and BSA.

Fraser (1997, p. 169) argues "action research can be the most appropriate, most effective and least threatening strategy when evaluating curriculum innovations". Furthermore, Moller (1998, p. 71) suggests that genuine action research breaks down the binary between research and practice, and that useful action research is documented, published and scrutinised by peers. With this advice in mind, the research team has endeavoured to document the practice/research process, beginning with the first "cycle" of the project in Semester 1, 2002. As each "cycle" (semester) is completed, further reflection, documentation and peer review will take place.

Putting theory into practice

The strategic direction chosen by the research team is premised on the literature review, with specific attention given to a number of key texts, including Watkins and Biggs 1996 (including chapters by Tang; Kirby, Woodhouse & Ma; and Tang & Biggs), Hellmundt, Rifkin and Fox (1998) and Pearson and Beasley (1999). The following summarises the approach adopted in 2002:

1. Training in classroom teaching strategies for NESB students to lecturers and tutors in Business Systems Analysis and Database Design (the two courses under the direction of Sam Horrocks and Jeff Smith). This training took the form of a two-hour interactive workshop at the beginning of Semester 1, 2002. Teaching staff were asked to identify three strategies that they intended to use throughout the coming semester, and to be prepared to report back on if/how these strategies impacted on classroom participation
2. A team-taught support tutorial run on a weekly basis for students identified in the first tutorial as needing assistance with language and literacy. Students were asked to complete a short summary exercise of an IS-appropriate article.
3. Ongoing reflective journals to be kept by key participants (Sam, Jeff and Tracey) to be used as the basis for improving practise in the future, and for other research papers.
4. End of semester evaluation questionnaires to be distributed to participants of the support tutorial.
5. End of semester evaluation questionnaires to be distributed to tutors who had undergone the NESB teaching strategies workshop
6. Quantitative analysis in the form of a comparison between the final grades achieved by those who attended the support tutorials, and those who were invited to attend, but didn't.
7. A commitment to continue to provide tutor training and a weekly support tutorial for NESB students for at least four cycles (semesters) to ascertain the effectiveness of these strategies.

¹ Please note: In this paper, the terms "practitioner research" and "action research" are used interchangeably

THE TEAM-TAUGHT SUPPORT TUTORIAL

The tutorial is held once a week, with Sam Horrocks providing course content and Tracey Bretag providing “back-up support” in the form of language advice, information on how to go about assignments, prepare for examinations, etc. After a few weeks, the pattern of content settled into a rhythm of course content one week, followed by language and academic issues the following week.

The first time the support tutorial was offered (Semester 1, 2002), only a handful of students turned up (although 17 had been invited). This was due to a number of factors, including timetabling, mid-semester breaks, and a late start (week 3). We are now in the process of running the tutorials for a second time, and are currently adapting the process based on the lessons learned in the first cycle (eg. changes to the timing of tutorials and the introduction of “rewards” for attendance has increased attendance to 90 per cent of the students invited).

Qualitative Analysis: Student Evaluations

Who responded to the feedback survey?

All of the respondents had attended some of the workshops. Four of the respondents were regular attendees, one attended half the sessions and one responded who had dropped out of the workshops early in the semester. There were no responses from students who did not attend any of the support tutorials.

Without non-attendee feedback, the team had to develop on its own conclusions as to why the attendance was so low. The team concluded that students did not have enough incentive to attend. NESB students were already under pressure to complete the compulsory, assessable deliverables for their course and this was a purely voluntary tutorial.

Q. How did you feel when you received an invitation to attend the workshop?

In their first tutorial all students in the BSA course were asked to summarise a one-page article, which was then evaluated by Tracey Bretag. Those who were identified as having language and literacy difficulties (regardless of their linguistic background) were invited to attend the support tutorial.

The dilemma facing the team was that they would offend or upset students by using this process for selection; however, the team needed a mechanism to ensure that students were clearly identified as being in need of the workshop (note, Pearson and Beasley also used a summary exercise for early evaluation).

Bearing in mind that only those who attended responded, any inferences drawn from their response as to the impact of this process on the feelings of students cannot be generalised to the non-attendees. Interestingly, only one of the respondents indicated that they felt it was a reflection on them academically; the rest indicated that they were, in fact, expecting to be invited given their need to improve their language skills.

I felt that perhaps more improvements in my English language have to be made.

Q. Did you find the workshops beneficial? In what ways?

Again, the lack of responses from non-attendees or those who attended once or twice makes it difficult to draw conclusions. All the respondents found the workshops beneficial. The first type of response was from those who felt the workshops provided an opportunity to “safely” explore concepts in more depth than a tutorial would provide.

...the workshops were quite helpful, because it gave me an opportunity to ask questions and get further clarification on concepts I did not fully understand.

The other category of responses revolved around the study techniques aspects of the workshops.

As I got lots of tips and guide not only related to the subject but also how to prepare them.

Q. What did you like about the workshops?

The majority of responses included a comment about the class atmosphere. The students felt that they were in a “safe” environment where they would not be mocked for asking “silly” questions or showing a lack of understanding of the concepts.

I had less reservations about putting my hand up and saying I don’t understand.

Another common and complementary theme was the size of the group. The students responded positively about the small size of the workshop and their subsequent increased ability to gain “attention” from the tutors (“*100 per cent attention*”).

One student specifically addressed the issue of having two tutors in the room; one to provide support with language issues and one who was content focussed.

I also liked how Tracey helped us to better understand what was being asked of us in a question, so that we were able to answer it correctly.

Only one student felt that the language support was not what they needed.

Q. What didn’t you like about the workshops? How would you improve the workshops?

The responses varied enormously but some of the comments raised some interesting issues. Firstly, students would have preferred the support tutorials to be longer. The support tutorials were run for one hour per week, whereas the course tutorials were held every second week for two hours.

I found the workshops to be not long enough, no sooner had we got into the class then we had to leave, I think they should be 2 hour workshops.

Some of the students expressed a desire to be provided with different questions in the support tutorial to allow them to further practice applying the concepts. This would provide them with additional feedback regarding their understanding of the material.

I would prefer if it gives us some extra problems to make sure, the students grasp the concept of it...

Q. Do you feel the workshops had an impact on your ability to learn and succeed in the course?

The majority of students felt that the support tutorials had impacted positively on their ability to learn and succeed in the course in a positive way. Two of the students specifically addressed how it led to an improvement in how they approach tasks.

Yes. I can now better understand what is required of me in the questions put to me by simply highlighting the keywords.

Any other comments

There appeared to be a genuine desire on behalf of the students to express their thanks at having the opportunity for additional support. Some respondents also indicated a desire for similar support workshops to be developed in other courses.

The workshop was very useful and effective. Hopefully, there's going to be one for BSDI as well.

Qualitative Analysis: Tutor Evaluations

We had five casual tutors and two full-time staff respond to the survey. The discussion is divided into three main sections. Firstly, the evaluation of the tutor training workshop; secondly the teaching strategies themselves; and lastly, what tutors would do differently.

Q. Did you find the ESL teaching strategies training workshop useful?

The research team was interested in evaluating the usefulness of the training workshop held for tutors prior to the start of semester. The purpose of this workshop was to introduce the tutors to:

- the research being undertaken;
- the issues both staff and NESB students might face; and
- potential quick and easy strategies for dealing with some of those issues.

It was important that the strategies employed were not labour intensive for the tutor, did not intrude on class content time and would be well received by the students. The aim was to explore whether small changes in class teaching style would result in any benefit. The outcome of the tutor training workshop was for the two teams of tutors to devise a set of strategies they would implement across the course tutorials.

All of the tutors responded favourably to the workshop, with responses ranging from a straight “*yes they were useful*” response to a more detailed analysis of how they could be improved. Staff indicated that the session provided them with insight into the issues facing many NESB students as well as a planned approach for dealing with those issues or problems.

Yes, I did not have prior knowledge or any real experience or appreciation of some of these issues. Good idea that we had a plan for the tutoring group and came up with ideas together.

Q. What ESL teaching strategies did you use in the class?; How do you believe the students responded to the strategies?; Did the strategies help you as a tutor?

Responses to these questions raised some interesting issues for the research team. What became clear was that although the tutors had agreed to implement three strategies, this was not necessarily what they did in class. Indeed, one tutor completely ignored the strategies agreed upon and took a completely different approach.

Most of the tutors employed at least two strategies, including the following:

- Learning names (name-tags or a name memory game).
- Subsequent use of names in class for asking and answering questions.
- Using small groups to check work within class, before whole class discussion.
- Structuring tutorials using an introduction, discussion and summary structure.

Only the first three strategies are discussed as the fourth strategy was not uniformly implemented.

Learning names and their subsequent use in tutorials

One of the easiest strategies involved making an attempt to learn the students’ names. This was done either through taking digital photos of students, giving them name-tags or a “Name Memory Game”. Six tutors utilised this strategy.

Results were mixed. Most tutors found the strategy worked well to increase participation of NESB students in class, provide the NESB students with more confidence in class and to make the class time more “enjoyable” for all students.

I believe the students felt that the tutorials were more personal, less process driven.

Two tutors had difficulty with the implementation of this approach although they still found it a beneficial experience. A complicating factor was student volume. It was much harder to remember the students' names if there were more than 20 students in the class or if a tutor had a number of classes.

I had 30 in one class and we could not even begin to play the game and there were too many students to remember who they were. It was held in a lecture theatre which made things worse as they spread out across the theatre.

The most successful approach was the use of digital photos taken in the first tutorial and then printed out and labelled with the student's name. This sheet was then either referred to before the class or during the class if required.

I would get out the photos and look at them on the bus on the way in, this would help me with those I was having trouble remembering.

Regardless of the way in which they learned or identified names, most tutors found using students' names in class had a positive outcome, particularly in relation to class participation and "positive relationship development.

Very positive. There was an increase of student participation voluntarily.

Using pair work and small groups to check work before whole class discussion

This was the other popular strategy. For most tutors it meant dividing the class into small groups to work on the answers before the wider class discussion ensued. There were multiple purposes to this strategy. Firstly, to give NESB students more confidence in their answers to questions; thus encouraging them to contribute to the wider class discussion. Secondly, to give NESB students an opportunity to discuss any queries or problems they might have in a smaller, less threatening forum. Finally, to allow NESB students to mix with local students with enhanced confidence and thereby develop relationships with other students in their course and program.

An increased contribution by NESB students was one of the key outcomes reported by tutors who used this strategy.

... the main benefit was that they were in essence forced to contribute. And they saw that everyone was and I was not just asking them because they were quiet. It gave them more confidence I felt as they could double check their work with others.... Classes were better run as everyone was involved and I did not get the usual feeling that I was "pulling teeth".

One of the issues raised was that this could discourage students from preparing for class, and the implicit pressure on tutors to cover content.

Many of the class and not just the NESB students had not done the work before hand (this was good and bad as I got the feeling by the end of semester that they then saw no need to do it as we would do it in groups anyway!!)... and I might add that it was very time consuming as the tutorials were two weeks worth [of content] in two hours so sometimes did not get through all the material.

Time also mentioned in a general context.

but there was so much material to get through the students were more focused on the work than the Language exercises. I sensed a bit of frustration if I was off their tutorial material too much.

Overall comments

All the tutors indicated that they personally benefited from employing the strategies in class.

Yes [they helped me as a tutor] – but more the enlightenment that; different cultures respond to lecturers (authority figures) in different manners. I believe the subject that we facilitate requires experience and understanding, it requires issue interpretation rather than textbook knowledge.

The limited class involvement from some international students and the acceptance of the tutors word as gospel, I believe limits the students ability to experience the subject, particularly when the students interpretation may be a viable alternative which could be explored in class.

What would you do differently next time?

Most tutors commented that the strategies were easy to implement and indicated no specific changes they would make.

Quantitative analysis

We investigated the results by dividing the *Business Systems Analysis* class into three groups:

- Identified students that attended (IA);
- Identified students that didn't attend (InA);
- Others (O).

BSA S1 results show a consistent pattern in the results for these groups with *Others* (generally Australian, local students who were not identified as requiring support) achieving an overall higher result than the students who were invited to attend (generally international, NESB students). Of those invited to attend the support tutorial, those who did attend achieved an overall higher result than those who didn't ($\text{Mark}_O > \text{Mark}_{IA} > \text{Mark}_{InA}$). The overall average mark in the course for the three groups was 64 per cent, 60 per cent and 52 per cent respectively.

Analysing the results

The research team is reluctant to attribute these grades specifically to the strategies employed in just one semester; particularly given the small number of students who attended the support tutorial, and the resultant lack of data. However, the preliminary findings are positive and support the need for further research. It should be noted that the research undertaken by Beasley and Pearson (1999), the results of which provided the basis for this project, was a progressive study over a seven-year period. It would be unreasonable to expect any significant changes to student learning outcomes in just one semester.

To put these results in context, the research team decided to look at these students' entire academic history at UniSA. The average result of all courses studied in their programs by the two groups of identified students indicates that those who *did* attend the support tutorial, achieved a higher average mark (64.9%) than those who were invited but didn't attend (54.3%).

At this stage it is difficult to conclude much from the data, except perhaps to suggest that NESB students who are pro-active about their learning and who take advantage of every support opportunity, may be more likely to succeed than those who do not access support services. However the students' different academic histories (types of courses undertaken, length of study, etc) makes any conclusion purely speculative.

CONCLUSION: IMPLICATIONS FOR THE NEXT RESEARCH CYCLE

Staffing

Commitment to the research is difficult with contract staff. The increasing use of contract staff:

- makes the training of tutors in use of strategies resource intensive;

- does not allow for control over the actual implementation of the strategy, thus making it impossible to ensure conformity across courses;
- does not encourage commitment to this kind of research from tutors; they are paid a relatively small amount of money to do an ever-increasingly time intensive task and this is a further burden on their time; and
- makes the retrieval of feedback difficult (for the reasons given above).

ESL Strategies

Even small changes can have a positive impact. The learning environment has been particularly influenced with NESB students participating more and feeling included and respected. Many tutors may be unaware of the issues and hence unaware of particular strategies they might employ – we should establish tutor training in this area for a wider range of courses.

The support tutorial

Based on the analysis of available data, the research team has concluded that students need an incentive to attend support tutorials, and the small size of the tutorials is a highly beneficial aspect of their design. The results of changes made in the next cycle of activities will address these assumptions and provide more data for analysis.

Resource issues are paramount to the future success of the support tutorials. The team-teaching approach, integrating language/academic skills and content is a well-researched model which students have commented favourably upon. Furthermore, students would like the tutorials to be longer and to be provided with additional material. If we continue the support tutorials, increase their length and prepare additional materials, we will clearly need a substantial source of funding. For this to occur, there needs to be a commitment at all levels of the institution.

REFERENCES

- Allen, R., & Rooney, P. (1998). Designing a problem-based learning environment for ESL students in business communication. *Business Communication Weekly*, 61(2), 48-56.
- Angelova, M., & Riazantseva, A. (1999). 'If you don't tell me, how can I know?' *Written Communication*, 16(4), 491 (435p).
- Ballard, B., & Clanchy, J. (1997). *Teaching International Students: A Brief Guide for Lecturers and Supervisors*. Deakin, ACT: IDP Australia.
- Batorowicz, K. (1999). A fair go? The problems and needs of international and non-English speaking background students at Australian universities. *Youth Studies Australia*, 18(3), 37 (34p).
- Beasley, C. J. (1990). Content-based language instruction: Helping ESL/EFL students with language and study skills at tertiary level. *TESOL in Context*, 1, 10-14.
- Beasley, C. J. (1997). *Students as teachers: The benefits of peer tutoring*. Teaching and Learning Forum.
- Beasley, C. J., & Pearson, C. A. (1999). Facilitating the learning of transitional students: Strategies for success for all students. *Higher Education Research & Development*, 18(3), 303-321.
- Biggs, J. B., & Watkins, D. A. (1996). The Chinese learner in perspective. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese Learner: Cultural, Psychological and Contextual Influences* (pp. 269-281). Hong Kong and Melbourne: CERC & ACER.
- Bookin-Weiner, J. B. (1995). Summary of Group Two: Academic issues. In H. de Wit (Ed.), *Strategies for Internationalisation of Higher Education* (pp. 92-93). Amsterdam: EAIE.
- Bretag, T., & Scobie, S. (2002). *Innovative classroom practice in an offshore environment*. Paper presented at the HERDSA Quality Conversations, Perth, Western Australia, 7-10 July.
- Chandrasegaran, A. (1994, 21-22 November). *Integrating content-course tasks into the teaching of writing skills for academic purposes*. Paper presented at the Integrating the teaching of academic discourse into courses in the discipline, Melbourne.

- Chapple, S. (1998). *How do you foster enthusiasm and participation in tutorials particularly by international students?* Teaching and Learning Forum.
- Clerehan, R., & Crosling, G. (1994, 21-22 November). *A case study of an adjunct program: English for first-year engineering students*. Paper presented at the Integrating the Teaching of Academic Discourse into Courses in the Disciplines, Melbourne.
- Gatfield, T., Barker, M., & Graham, P. (1999). Measuring student quality variables and the implications for management practices in higher education institutions: An Australian and international student perspective. *Journal of Higher Education Policy & Management*, 21(2), 239 (216p).
- Hellmundt, S., Rifkin, W., & Fox, C. (1998). Enhancing intercultural communication among business communication students. *Higher Education Research & Development*, 3(3), 333-344.
- Kirby, J. R., Woodhouse, R. A., & Ma, Y. (1996). Studying in a second language: The experiences of Chinese students in Canada. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese Learner: Cultural, Psychological and Contextual Influences* (pp. 141-158). Hong Kong and Melbourne: CERC & ACER.
- Leask, B. (2001). *Teaching NESB and international students at the University of South Australia*. University of South Australia [2001, August].
- Pantelides, U. (1999). Meeting the language needs of tertiary NESB students. *Australian Journal of Language and Literacy*, 22(1), 60-75.
- Pearson, C. A. (1999). *Workshops as stimulating learning environments*. Teaching and Learning Forum [2001, 17 December].
- Robertson, M., Lane, M., Jones, S., & Thomas, S. (2000). International students, learning environments and perceptions: A case study using the Delphi technique. *Higher Education Research & Development*, 19(1), 90-102.
- Scarino, A. (2001). *Internationalisation of the curriculum - structural pathways within and between courses*. University of South Australia [2001, August].
- Stoynoff, S. (1996). Self-regulated learning strategies of international students: A study of high and low achievers. *College Student Journal*, 30(3), 329 (328p).
- Stoynoff, S. (1997). Factors associated with international students' academic achievement. *Journal of Instructional Psychology*, 24(1), 56 (13p).
- Tang, C. (1996). Collaborative learning: The latent dimension in Chinese students' learning. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese Learner: Cultural, Psychological and Contextual Influences* (pp. 197-203). Hong Kong and Melbourne: CERC & ACER.
- Tang, C., & Biggs, J. B. (1996). How Hong Kong students cope with assessment. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese Learner: Cultural, Psychological and Contextual Influences* (pp. 159-182). Hong Kong and Melbourne: CERC & ACER.
- Tompson, H., & Tompson, G. (1996). Confronting diversity issues in the classroom with strategies to improve satisfaction and retention of international students. *Journal of Education for Business*, 72(1), 53 (55p).
- Volet, S. (1999). Learning across cultures: Appropriateness of knowledge transfer. *International Journal of Educational Research*, 31(7), 625-643.
- Wajnryb, R. (2000). *Report of the English Language Services (ELS) Scoping Project*. University of South Australia, Division of Education, Arts & Social Sciences.
- Watkins, D. A., & Biggs, J. B. (1996). *The Chinese Learner: Cultural, Psychological and Contextual Influences*. Melbourne: CERC & ACER.
- Weiland, R., & Nowak, R. (1999). *Academic preparation programs: A schema approach to learning in context*. Teaching and Learning Forum.
- Wicks, R. (1996). Effects of English language proficiency on the academic performance of international students: A US study. *Distance Education*, 17(1), 196-204.
- Winter, S. (1996). Peer tutoring and learning outcomes. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese Learner: Cultural, Psychological and Contextual Influences* (pp. 221-241). Hong Kong and Melbourne: CERC & ACER.