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***Using different methods of delivering peer tutoring
to meet the diverse learning needs of students
at The Waikato Polytechnic, New Zealand***

by

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The peer tutoring programme at The Waikato Polytechnic originally focussed on providing individual, out-of-class assistance for students who were experiencing course content related difficulties. This method of providing peer tutoring was very successful. However, in order to better meet the learning assistance needs of students, it was necessary to pro-actively initiate new and varying methods of peer tutoring delivery. The changing student profile, the need to assist students quickly, the ever increasing number of requests and the continual budget constraints necessitated this flexibility.

This presentation paper discusses these methods of delivery, which focus on 'at risk courses' rather than 'at risk students'.

Background

The Waikato Polytechnic was traditionally similar to a Technical and Further Education (TAFE) college, offering vocational undergraduate programmes. In recent years the institution has provided programmes ranging from bridging certificates to post-graduate vocational qualifications. Part-time students are dominant with the total student numbers in 1998 being 13,656, representing only 4,922 equivalent full time students.

The student profile varies considerably. There is a significant number of mature students without formal qualifications or with minimal qualifications. Formal qualifications from the 1998 first year intake included: 4% - Bursary (Year 13); 29% - Sixth Form Certificate/University Entrance (Year 12); 19% - School Certificate (Year 11); 12% - no school qualifications. The profile indicates a reasonable gender balance but, surprisingly, only 22% of the 1998 full-time students were school leavers. Thirty-five percent of the remaining were previously wage/salary earners. There is a growing number of Maori students (13%), and also students for whom English is not their first language.

The Peer Tutoring Programme

The programme, which was established in 1992 after a successful pilot, is facilitated from the Tertiary Studies Skills Centre (TSSC). Primarily, the reason for developing the peer tutoring programme was to support students who, struggling with the content of their programmes, were at-risk of withdrawing from their courses. The programme is intended to supplement scheduled lectures and tutorials. Peer tutoring supports students with diverse needs. Varying levels of prior knowledge, difficulties experienced by first generation tertiary students and the transition from their previous environment to the new learning situation are the reasons many students have learning problems. First-generation tertiary students who, with their families, have a limited concept and awareness of what is involved in tertiary education are generally at-risk.

Peer tutors who are students with appropriate academic and excellent communication skills support the students. Trained and suitably skilled peer tutors can become positive role models and mentors. At a recent International Adult Learners' Week function two local professionals, a Judge of Maori ethnicity, and the Deputy Mayor of the city, addressed the audience. Both men came from educationally-disadvantaged backgrounds. They initially struggled with their higher education, resulting in working in labour-intensive industries as young adults. Both attributed their eventual success to the belief significant people had in their ability to succeed. Their mentors continued to encourage them to strive towards attaining their goals.

Peer tutoring can give students confidence in their learning ability. The learning situation, either individual or in small groups, can better meet the students' learning styles. They have the opportunity to have concepts explained from a student's perspective and in plain English. The programme provides a safe situation where students can ask questions without fear of judgement which otherwise could effect their assessment outcomes.

From 1992 until 1998 the peer tutoring programme developed significantly with 79 students receiving assistance in 1992, to 386 students in 1998. The 386 students received 482 separate learning programmes.

Pro-active not Reactive

Increasing numbers meant the programme was being primarily reactive to meet the needs as they presented. However, as a result of budget constraints and the need to provide assistance within short time-frames before students failed, it became necessary to develop a pro-active approach. The collated statistical data identified courses for which frequent requests were received. Courses in the Polytechnic where requests for assistance were lower than one may have expected were also noted. The information identified 'at-risk' courses, rather than 'at-risk' students.

These courses included:

Computing; Computing for nurses; Landscape Design; Shorthand; Te Reo Maori (Language); Nursing Science; Computer Programming; Business Maths; Accounting Fundamentals; Accounting Systems; Engineering.

Peer tutoring had not developed at either the Polytechnic's Waitomo or Avalon campuses.

Importance of Staff Liaising

In order for the academic staff to understand the benefits and philosophy of peer tutoring, a deliberate policy was implemented to liaise more closely with staff in all departments, in particular from those identified. From past experiences, it was apparent that informal contacts with individual staff were key factors in whether the programme was promoted and valued by the department.

This improved communication with staff has led to some very positive action, with some departments redressing difficult areas themselves by providing extra tutorials and 1:1 drop-in times, while others began working collaboratively with the TSSC staff and the peer tutoring programme. Two departments are now sharing the costs of the programme in two specific areas.

Computer Drop-In

The first significant change involved supporting a Computer Drop-in facility with peer tutors. To meet the computing support need, individual peer tutors and often TSSC staff assisted students with their basic computing and document-processing needs. As the need for computer-processed assignments grew, a pool of appropriately-skilled peer tutors were employed to assist in a computer drop-in centre. Today the peer tutors staff the centre from 10am - 4pm daily and are available for one-off assistance, including some minor technical help. It is very successful and struggling students can still be referred for 1:1 peer tutoring.

Group tutoring – Tried and Tested

While 1:1 tutoring remains the primary method of delivering peer tutoring, the increased student numbers and the differing student profile has necessitated the use of group tutoring.

Computing for nurses

In order to meet new national requirements many practising nurses are upskilling their qualifications to degree level. Included in their degree programme is a compulsory computing module which, due to minimal prior knowledge, has caused stress for many. Initially, the course tutors had no understanding of the basic level many students were operating at, which resulted in course withdrawals. Liaising with those involved resulted in a review of the content and delivery of the programme, which is now being continually monitored and re-evaluated.

Landscape Design

Evening group provision was established for students experiencing difficulty with the design aspects of this Horticulture course. Many had limited drawing experience, had no concepts of 3D drawing and had not studied graphics at school. These sessions have been most successful and the students have met the design requirements of the course with confidence. The peer tutor continues to provide this assistance to both Horticulture students and to students from the Civil Engineering and Media Arts areas.

Shorthand

As many students in this department had after-school care commitments, lunch time peer tutor groups were established to assist the students involved.

Te Reo Maori

The 1997 peer tutoring report revealed that Maori students from the Maori Department were not using the TSSC or the peer tutoring service. While Maori participation in peer tutoring had increased from 14% in 1995 to 23% in 1998 only one student from the Maori Department received peer tutoring. After consultation with the Department, the Maori academic staff member in the TSSC commenced in-class study skills programmes in the Maori Department.

It was decided to trial a new model for peer tutoring to meet the Department's particular needs. Recommended students who were studying to be teachers of the Maori language were employed as peer tutors to work in class alongside the academic staff for three hours each week. They also facilitated group Te Reo workshops in the evening. In addition to assisting the struggling Maori language students, it also gave the peer tutors the opportunity to meet some of their own teaching practicum requirements.

The preferred learning style for Maori students tends to be group learning. However, 1:1 provision is still available for those who request it. The current peer tutors feel they are able to provide a safe environment for learning and the students are becoming more confident with their language and assignment writing. The students are primarily first-generation tertiary students, mature-aged and generally have not had successful formal learning experiences in the past. The Maori students despair at the different levels of language-acquisition ability in their classes. This frequently brings old fears of failure to the surface. The group learning and subsequent group trust helps to alleviate these issues. Feedback from the class tutor reports that the Te Reo Maori students receiving peer tutoring assistance are managing well, are focused and more confident in their ability.

Nursing Science

A group of Maori students and a Maori peer tutor met for weekend or evening retreats to study together. This informal, rather unorthodox approach, which sometimes took place in a student's home and included the sharing of a meal, was very successful.

Business Maths and Computer Programming

The improved communication with departments has had positive results for both Business Maths and Computer Programming students. Traditionally, there were continuous requests from both areas. After perusing collated data of the need, it was agreed the departments would jointly fund scheduled peer tutoring Drop-in Workshops for both areas. Both workshops were widely advertised and promoted by the relevant course tutors.

Many students struggle with computer programming and, unless they can relax and work with it, they inevitably give up too soon. In 1999, the weekly two-hour workshops were established and all those who regularly attended have successfully completed their course. Retention rates have improved. Previously, due to a lack of experienced and appropriate peer tutors in programming, it was difficult to arrange support within a reasonable timeframe. The delays caused more anxiety and often resulted in students withdrawing as their skills got further behind. A positive outcome for the programming peer tutor, who has graduated with a Bachelor in Information Technology degree, is that he is now employed by the department to teach mainstream courses.

Some enrolled students on Business Studies degree programmes, especially mature students, had difficulty with mathematics at school. To meet this need scheduled peer tutoring workshops were established in Semester 2, 1998 for this very 'at-risk' course. The students in the Business Maths class typically have a wide range of abilities, with 25% having only very basic maths skills. This year's first semester Business Maths students, all women, had great anxiety and fears about their maths ability and started meeting weekly after the dismal results of their first test. The group bonded so well that they additionally met regularly to work through problem sheets and assignments independent of the peer tutor.

Their final results were exceptional. They had all experienced failure in the first assessment but the final results ranged from B+ to A+. The course tutor was delighted, as were the students. The peer tutor involved chose to be assessed formally using the Polytechnic academic assessment survey. The responses were extremely positive and affirming of her teaching skills.

Comments included:

- These workshops have been invaluable; I could not have mastered maths without them.
- All the tutor's work has been excellent; she has explained things clearly and concisely.
- The tutor has helped out in all subject matter; she has been very helpful and can explain things a lot more clearly in language we all understand, unlike some other tutors.
- Genuine desire to help teach maths.
- Clear instructions given always; makes sure all in class understand; is happy to give extra help when needed.
- Goes beyond duty and gives hours of help when needs
- I am an older woman and have done this workshop all semester. I am now confident that I understand this subject and feel that without the tutor's assistance I may not have had the confidence or the knowledge to do well in the exam.
- A pleasure to attend her workshops and have learnt so much.
- Excellent support and teaching.

The only negative

- More tutoring time needed to cover more of the work.

Accounting Fundamentals and Accounting Systems

The programme receives on-going requests for assistance in all areas of accounting especially in the first year programmes. Scheduled peer tutoring workshops were well attended for both Accounting Fundamentals and Accounting Systems.

The closer communication resulted in active feedback from a Business Studies staff member. In order to improve support for the Business Studies students, the department tutors instigated drop-in times for students, but these were poorly utilised. An explanation given for this was that students are very reluctant to reveal their ignorance to the person who assesses their work. This opinion has been supported by others, which is possibly another reason peer tutoring can be so successful for many students. It was evident that there was a marked improvement in the retention rate, particularly for Business Maths. In some instances the peer tutors have fulfilled a student advocacy role which has led to staff re-appraising their course delivery. The course tutor reaffirmed that the groups provided a safe learning environment where the peer tutor could encourage discussion and debate. Peer tutors can be effective mentors and role models and they provide the opportunity for difficult concepts to be explained in a different way.

Engineering

In 1999, another successful group met weekly in the TSSC to work through course-related mathematics and physics

Waitomo rural outreach campus

As students at this rural outreach campus are not available to receive peer tutoring outside course hours, in-class peer tutoring was established to support computing courses. The Polytechnic tutor directly monitors the programme.

The majority of students attending this course have no prior knowledge of computer use so the peer tutoring is invaluable for students and tutor alike.

Areas yet to develop - the Avalon Campus

The trades division of the Polytechnic is another area where the need for learning assistance is apparent, but is not favoured by the particular student culture. The student timetable and Avalon campus location are other explanations for the non-acceptance and use of learning assistance. Students start class at 8.00am and finish at 4.00pm which leaves little time for learning assistance. The new campus is located on the city boundary and many students either share transport or use the irregular public transport system.

Conclusion

The establishment of peer tutor groups has alleviated the difficulty of being able to provide immediate support to the student. Frequently it is very late in the course or close to assessment deadlines when students ask for assistance. This makes them very vulnerable and some just give up. With scheduled group times a clear arrangement for support is immediately available and if the student is still struggling, 1:1 assistance can be arranged. Students give each other tremendous support in the small group environment and collectively they learn from each other's input. The improved liaison with department staff is invaluable to ensure the peer tutoring programmes established will operate effectively. From an administrative perspective, group tutoring is clearly more cost effective which in effect means more students can receive the peer tutoring assistance. Finally, it is imperative that the Peer Tutoring Programme coordinator supports flexible delivery.

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