In 1995 many rural areas of New Zealand, especially on the North Island, faced significant teacher shortages. In response, the University of Waikato developed a program of primary teacher education designed to serve students in remote areas. Program features include recruitment and selection of rural students who will work in their home districts and a "mixed-media" approach involving a range of types of teacher-student communication. Students are typically nontraditional students with work and family commitments; many are Maori. Students are required to attend three 3-week "block courses" on campus each year, work 1 day each week in a local primary school, and use information technology to interact with faculty and colleagues. Forms of communication include individual telephone contact, audioconferencing with small groups, asynchronous computer conferencing, and E-mail. A Web-based interface houses coursework and provides access to discussion forums and library databases. This mixed, low-tech approach accommodates students in areas with poor-quality telephone transmission. Student support is provided through the practice of selecting students in geographic groups, regular visits from faculty to remote areas, and electronically-based peer support. Program successes include high rates of student retention and completion, high academic achievement, and high satisfaction of rural schools with program graduates hired. (SV)
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Abstract

New Zealand rural schools have frequently faced the issue of attracting and retaining experienced teachers. In 1995 many rural areas in New Zealand, especially some areas of the North Island faced an even more significant teacher shortage. This paper reports on a project developed by the University of Waikato to address the shortage using flexible learning as the means of providing quality teacher education to students who live in the more remote parts of New Zealand. Now in its fifth year, the Mixed Media Programme has provided flexible learning opportunities for mature students, who cannot attend campus-based courses to obtain teacher education through a range of media. This includes limited campus attendance, work in local schools and access to course material through the Internet. The paper suggests that significant effects of this flexible learning programme on rural communities have become evident. These effects include the provision of a greater pool of teachers in many rural areas, the provision of teachers who have knowledge of, and commitment to, their local communities and access to higher education for more people.

Introduction

In 1997 The University of Waikato, began teaching a programme of primary teacher education designed for students who live in more remote areas of the region served by the university. This was in response to a continuing shortage of teachers for a significant number of schools, in the mainly rural areas. The approach has been to recruit and select students, who, when qualified, will live and work in their home districts. It is expected that this will provide teachers with a strong commitment to their own communities. This assumption is based on previous experience of teaching other students in some of these districts in the early 1990s, many of whom have continued to teach in their home area.

Those former programmes relied on face to face contact on a regular basis. The demands on staff in terms of travel and time made this an unattractive option for a new programme. The decision was made to use information technology to reduce the need to travel.
The programme developed is a mixed media approach, one not uncommon amongst a number of other open and flexible learning programmes. Rumble (1997, p. 107) refers to the range of communication technologies used by teachers and students to interact with each other. From that list, the programme offered by the University of Waikato makes use of:

- face to face interaction during on-campus periods;
- individual telephone contact;
- audio-conferences with small groups;
- asynchronous computer conferencing; and
- electronic mail (email) systems.

To participate in the programme students are required to attend three ‘block courses’ on-campus each year; work approximately one day each week in a local primary school, known as their base school, and use information technology to interact with course material, staff and colleagues.

Computer communication has been the main means of interaction. In the initial stages telephone conferences were used, but the use of this diminished, mainly because of the high cost. Personal computers and the Internet have been the main means of interaction. Email is used for contact on an individual basis. Initially, ‘TopClass’, a web-based interface developed in Ireland, housed the coursework and also provides access to discussion forums and the library databases. The interface has been further developed and is now housed in ‘Class Forum’. This is based on Web Crossing and has been very successful as a means of presenting coursework and as a forum for discussion. Students are able to present their written assignments within individual portfolios. The ability to provide individual feedback in this way has been a very significant feature and has led to the quality of teaching improving markedly. It is likely to have even greater impact as university staff become more familiar with this aspect and become more innovative in their teaching.

This ‘low’ technology approach to a teacher education programme has been successful to date and meets the needs of students in remote districts where with poorer quality telephone line transmission limits the use of more sophisticated online
technology. Using a 'low-tech' approach is certainly proving its worth and may be even more necessary, given that access to Information Communication Technology could be limited in some areas of New Zealand. It was recently reported that some telephone customers are being connected only on the basis that they will agree not to connect to the Internet.

The programme has now been presented for five years and some features are becoming apparent. These features are:

- the flexible teacher education programme that provides teachers for remote areas;
- the way that teachers are provided for their 'home' areas;
- the high success rate of students in the mixed media programme; and
- expressed satisfaction by schools with graduates of the mixed media programme.

**Provision to remote areas**

As was outlined earlier, the mixed media teacher education programme was specifically designed to meet the needs of remote rural areas. In its five years of existence it has demonstrated the ability to meet that need. Students need to have computer access to be selected and enrol in the programme. In the early stages of the programme, and while a teacher shortage was the main driving factor, local schools made their computer facilities available to some students. However, the majority of the students at that time had their own computers or quickly purchased their own. The current situation is that all students have their own computers. They have been encouraged to do this and it has proven to be helpful in students being able to manage their time effectively and to gain the real benefits of studying at a distance in a flexible way.

The flexibility of learning has been important in enabling students from remote rural areas to become teachers. The do have computer access in the programme but there is also telephone access to the university and to their fellow students. When the programme commenced efforts were made to select groups of students rather than 'isolates'. The intention was to ensure that collegial support was available. This decision has been vindicated in that a number of students fro the initial years found it very difficult to sustain study on their own. Since that time, the university has been
even more pro-active in enhancing systems so the students, who are on their own, feel supported.

Even though the programme is for remote areas it has been important to provide strong students support systems. The selection of groups of students has been discussed earlier but other support approaches have been used. These include visits by university staff to the remote areas twice each year to work with the students and with the schools they are based in. This approach has had clear benefits for all in that there is regular contact but the university gains from its presence through the associated publicity. This has been important in the competitive university environment that has existed in New Zealand for some years now. In addition having a single contact person for all administrative contact has been useful. Students in the programme are able to contact one person for all initial inquiries. This provides the students with security but also keeps the administrators of the programme in tune with student concerns.

The final, and probably the most powerful form of support, is between the students themselves. Each year all students in the mixed media programme attend three one week block courses on campus. This is a requirement and is a time when papers are introduced or completed. Students meet their tutors and fellow students and form associations. These associations have been critical in assisting students to pursue their studies when the ‘going gets tough’. They have other students to talk with either through electronic means or through the telephone. At no time have the university organised study groups for the students. They do this themselves either on a geographical or friendship basis. It has been most successful and allows students to work with others of similar approaches.

The presentation of the mixed media programme to students in remote areas has been successfully implemented using a range of media approaches and by ensuring that appropriate and accessible support is available to them.

**Teachers for ‘home areas’**

One of the strengths of the mixed media programme has been its ability to provide for students to train as teachers for their ‘home areas’. Very often, schools in remote rural
areas say that the younger students from their areas attend university campuses but do not return to the 'home area'. The mixed media programme has addressed that issue to a significant extent. It has allowed more mature students who cannot attend on campus classes to become teachers. Most of these people would have previously not had the opportunity to become teachers and enabling them to do so has meant changes for many of them. The students have made frequent comment on the way that the programme has given them the opportunity to study. Some examples are:

I would have done this programme years ago if I had lived close to a university. The programme gives you an opportunity to study at home and still work part time.

If you live where we live, this is the only possible way you could do a degree.

My family commitments prevent me from attending university full time.

The success of the mixed media programme has meant that the schools in more remote areas have had greater opportunity to appoint teachers who have empathy and an understanding of the needs of students in their 'home areas'. Since the inception of the programme two groups of students have graduated. There were 48 students the first group to graduate. 46 of these students have now won teaching positions, mostly in their local areas. Only one student has moved from a remote area to a less remote area so it can be concluded that the purpose of providing teachers for 'home areas' is being achieved. It is possible that one of the disadvantages of providing teacher education in this way could be that the teachers are less exposed to the wider world. When the programme was instigated this aspect was considered as the likelihood of teachers becoming very insular needed to be avoided. The initial feeling about this aspect is that the fears have not been realised. The students have gained much from on campus block courses and a requirement that students complete at least one practicum outside of their local school or area has been very beneficial. This should not suggest that all applicants from particular areas be selected just because they happen to live in the area. Selection for teacher education in New Zealand must meet the requirements of the New Zealand Teacher Registration Board and the university's selection policy reflects that. As a form of assistance to the selection process potential students are now asked to nominate a likely base school and have the principal indicate willingness to have the student work in the school. That does not remove all pitfalls.
but it does help in establishing a potential student's ability to work harmoniously in the local community.

A further strength of the programme that has been welcomed is the way that selection for the programme has reflected local communities. For example in the far North of the North Island and on the East Coast of the North Island there are communities mostly comprised of Maori. As the programme has developed it has become clear that many Maori, especially women feel comfortable studying in this way. Most have no tertiary education experience and often, limited secondary schooling but have come to the programme with enthusiasm and determination. In 2001, about 30% of the student intake are Maori. While some have not succeeded there have been some outstanding successes for these students and their appointment to positions in local schools has enhanced the learning opportunities in these schools.

**Success rate for students**

One of the significant features of the mixed media teacher education programme has been the high success rate of the students. This is shown in the retention rate of students and in their academic success. High retention rates are found in the first two groups of students. In the first group, 48 of 52 students completed in 1999 and for the second group, 60 of 72 students completed in 2000. While the second group is lower than the first group, the retention rate is still high when compared with many distance education programmes that have experienced high drop out rates. The current retention rates appear to be dropping and although it is not alarming it is marked. The comparison between groups is difficult, as there are suggestions that a number of factors are impacting on the retention rate. One is that the commitment of students in the early years of the programme was higher because of the innovative nature of the programme. It is possible that as the programme becomes more institutionalised, the commitment of students may lessen and lead to higher drop out rates of students. This is an aspect that is being investigated and will be reported on in the future, as will the possible effect of financial difficulty.

Students in the mixed media programme have experienced considerable academic success. This has been shown through consistently high grades in coursework and
evident expertise in practicum experiences. Further evidence of this has come through the number of students eligible to enter the Bachelor of Teaching Honours programme. Of the 1999 graduates 38 of 48 were offered entry while 31 of the 59 students had the opportunity. Because the Honours programme is not offered in an online form no students have yet taken the opportunity to complete an Honours degree although a small number have commenced graduate study.

A number of reasons for the high academic success have been proposed. The first is the level of commitment shown by the students is very high. As was commented previously there could be a lessening of this commitment but the majority of students enter the programme with fierce determination and a will to succeed. The majority are taken their second chance at education. They are generally mature students. They know the cost of their studies and know that their success depends on the efforts they make.

The second reason suggested for high academic success by mixed media students is the life experience they bring to their studies. The students they have life experiences as parents and in other occupations. This gives them rich experiences to draw upon as they complete academic tasks. This balances their lack of success in earlier schooling and allows them to approach teacher education with greater confidence.

School satisfaction with the mixed media programme
With two groups of students having graduated, there has been the opportunity to find out whether the programme meets the needs of schools in remote rural areas. While it must be conceded that there is not still the staffing shortage that drove the programme initially, students from the programme have appointed many graduates. The fact that the potential teachers are local people has an influence on appointment but it is not the only criteria. The schools need to know that the graduates are equipped to be strong classroom teachers. Evidence gained from a recent study indicates that there is general satisfaction with the quality of graduates. Barr (2000), quotes a school principal, who sums up the perceived strength of the programme,

*The whole thing has worked to the advantage of both parties. It has worked for us as a base school and it has worked for the students placed*
here We had good people and the judgements we have made on the programme have been based on success.

The mixed media teacher education programme has provided a successful opportunity for people who live in remote areas to study at home and to become primary teachers. The schools involved are consistent in their acknowledgment of the programme’s quality and the impact it has in alleviating teacher shortage and in providing greater impetus for many small school communities.

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