School is out: Students' experiences of non-traditional learning

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Introduction

The experience of New Zealand school students is increasingly changing. In addition to their traditional schools students are participating in virtual classrooms and other forms of learning, such as classes through the Correspondence School and vocational programmes. This study aims to extend previous research by looking at the experience of students in one regional cluster of schools who are taking classes in multiple formats, from multiple providers, described here as "blended learning".

Key findings

- Blended learning was very common in this cluster, with most students involved in at least one blended learning class.
- Students appeared to benefit from blended learning, reporting benefits such as choice, independent learning and preparation for the future.
- Participating in blended learning made little difference to the learning and study skills of students.
- Students at different schools appeared to have very different blended learning experiences, particularly in terms of the support received.

Major implications

- The large number of students involved in blended learning highlights the need for schools to understand how to support these students effectively.
- The amount and kind of school support students received varied, and appeared to be crucial to their perceptions of blended learning.
- The support received while undertaking blended learning classes appeared to influence the effect of the classes on students' development of learning and study skills.

The research

Background

Although distance education is increasingly common at the secondary level worldwide (e.g., Davis et al., 2007), and our knowledge of students' experiences in virtual classrooms is increasing (e.g., Bolstad & Lin, 2009), little is known about the effects on students of what we have termed "blended learning". This research addressed this gap by working with a group of schools in one regional cluster whose students participate in blended learning.

Research questions

What are the effects on students of undertaking blended learning? In particular:

1. How is blended learning provided and supported within this regional cluster?

2. What are students' experiences of this blended learning?

3. Does blended learning have an impact on students, their learning or their study skills?

4. Does this form of learning suit some students more than others?

Methodology

A mixed-method approach was employed, with quantitative data collected using surveys and qualitative data collected through interviews and open-ended survey questions. Year 11–13 students at the 10 participating schools were invited to complete two surveys at the beginning and end of 2010. In round one, 571 students returned surveys, a response rate of 89 percent. In round two, 357 students returned surveys, a response rate of 56 percent.

The Learning and Study Skills Inventory (LASSI) – High School Version (Weinstein & Palmer, 1990) was used to measure the general learning and study skills of students. The second questionnaire was developed specifically for this research and was designed to address students' blended learning experiences. In addition, e-teachers (teachers involved in delivering classes via videoconference) and support teachers (teachers responsible for supporting students involved in blending learning) were asked to complete a survey regarding their experience of and beliefs about blended learning.

Interviews were conducted at the beginning, middle and end of the year with three students from each of two rural and two provincial schools, along with one of their teachers. Where students were participating in vocational training, an employer was also interviewed. Students were chosen from those who had indicated they were willing to be interviewed, and to represent the variety of students involved in blended learning.

Findings

1. How is blended learning offered and supported within this regional cluster?

Students were engaged in a range of learning opportunities offered via an assortment of media. These included traditional school-based classes, school-based non-traditional forms of learning, paper-based correspondence, videoconferencing-based classes, work-based programmes, and study offered by tertiary providers. In general, a higher proportion of students was involved in blended learning in smaller schools than in larger schools, with the proportion ranging between 26 and 90 percent of students. Students appeared to find it difficult to classify their classes by form of delivery or provider, instead focusing on how learning occurred within the class. Students involved in blended learning, particularly in schools where this was common, simply saw it as "what is done".

Schools provided a wide variety of support for students. While some students reported they had access to resources such as a quiet space to work (9 percent), an e-learning support teacher (6 percent) or the Internet (19 percent), the majority indicated that these would be useful. In some cases support was available for students but they had not made use of it. At other times the support available was not what the student needed:

> Even though we have a teacher who has been trying to help us she is not actually all that familiar with the course herself so she doesn't know exactly what we need to know. (Student E)

2. What are students' experiences of this blended learning?

In line with previous research on virtual classrooms (Bolstad & Lin, 2009), students had very different experiences of blended learning, with the differences due to the provider, the form of delivery, the subject and teacher involved, and their home school. Overall, though, students' perceptions of the ease of being involved in blended learning, and of issues associated with blended learning, did not change over the year and 62 percent reported they would take the same courses again.

Figure 1 presents students' responses to questions about various issues. Their responses show that although students doing blended learning tended to more often report facing these issues than those in traditional classes, in most cases this happened only occasionally. In some cases blended learning students faced issues less often, as in the case of being absent and an appropriate time allowance. In contrast, access to teachers was more often a problem for blended learning students.

Although we did not ask specifically, almost all of the students interviewed volunteered that they would prefer a class where a teacher was present. However, some students indicated through the interviews or in the questionnaires that they preferred the reduction in teacher contact hours in their blended learning classes: "I find [my blended learning class] easier because you are working at your own pace … because I don't have a proper teacher with me" (Student H).

Figure 1. Comparison of students' reports of how frequently they faced issues
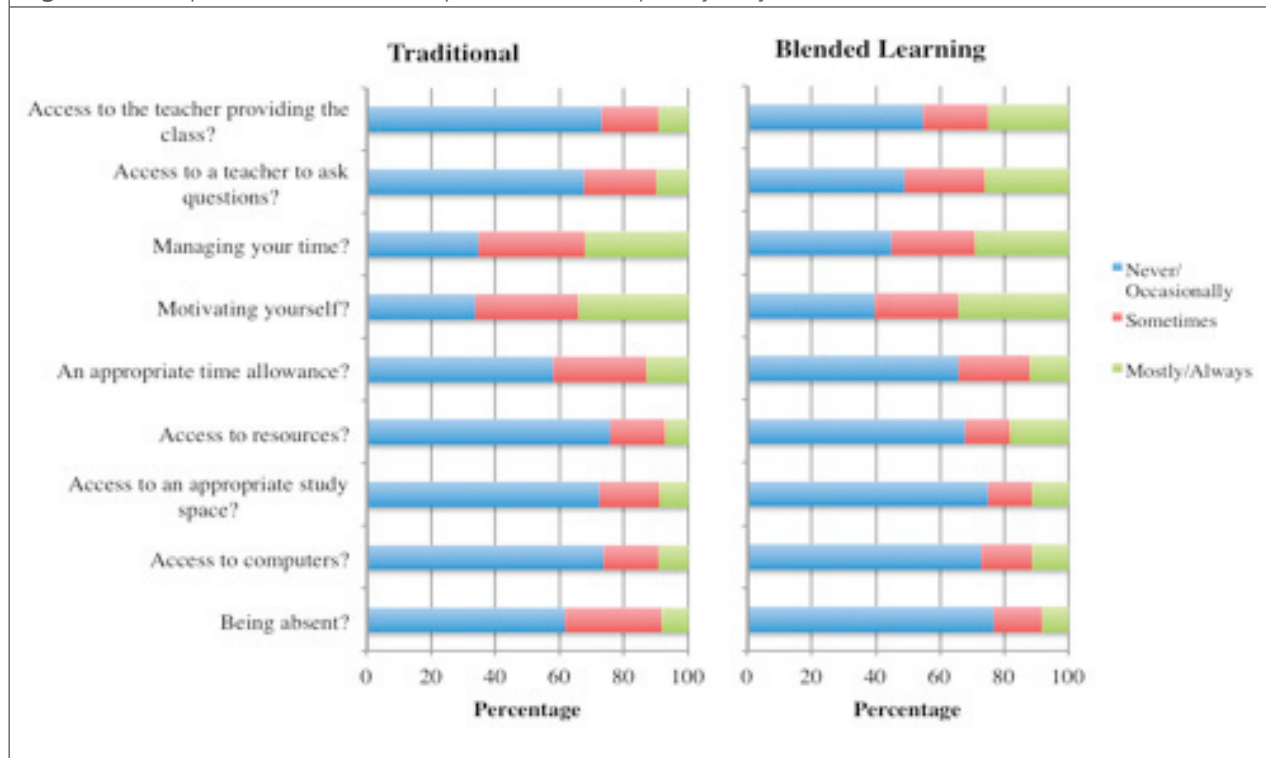
3. Does blended learning have an impact on students, their learning or their study skills?

Based on our understanding of blended learning classes, we expected that at the end of the year students doing blended learning would have better learning and study skills, as measured by the LASSI subscales, compared to when they started. A one-way ANOVA[1] found that students' scores on three subscales (information processing, selecting main ideas, and self testing) had improved. However, this result should be viewed with caution because of the number of comparisons being made.

We also expected that at the end of the year students doing blended learning would show greater gains in their learning and study skills compared to students who did not do blended learning. This was because the blended learning classes required students to have a greater role in managing their own learning. A 2 (time: initial, final) by 2 (learning type: traditional, blended learning) MANOVA[2] on the LASSI subscales found no main effect of learning type, nor an interaction. There was a main effect of time on the three subscales identified in the previous analysis, but again these results should be viewed with caution because of the number of comparisons being made. Interestingly, the majority of students (63 percent) believed they had, as a result of taking blended classes, changed the way they learned, at least to some degree. Nearly 40 percent of students believed the skills they had acquired doing blended learning would definitely (18 percent) or probably (19 percent) help them in the future, with a further 41 percent thinking they might help them. Almost all the students interviewed commented on the independent study skills they felt they had gained.

These contrasting findings mean that it is unclear to what extent, if any, taking blended learning classes influences students' learning and study skills. Although students' comments would suggest this was the case, the quantitative comparisons did not support this. Clearly further study is needed to fully understand what effect taking these classes is having.

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1 An analysis of variance, or ANOVA, is a statistical test that tests for significant differences between means using variances.
2 A MANOVA is a multivariate analysis of variance (ANOVA); i.e., an analysis of variance involving multiple variables.

4. Does this form of learning suit some students more than others?

One of the issues raised in the literature is that non-traditional forms of learning are often seen as being suitable only for students with skills in areas such as self-motivation and time management (e.g., see Kapitzke & Pendergast, 2005). However, the teachers involved in this research believed that all students can succeed in and benefit from the variety of learning experiences and subjects available to them through blended learning. We were therefore interested in determining whether this form of learning is effective for all students.

Results from the initial survey indicated that students who were and were not participating in blended learning did not differ in terms of their initial LASSI subscale scores or their self-reported independence as a learner. The student interviews did identify self-motivation and time management as important aspects that enhance the blended learning experience. However, it appeared that all students could succeed, with the level and kind of support provided being the critical factors. It appeared that when they were well supported, students who had previously struggled with traditional school subjects were doing very well at and enjoying blended learning classes in subjects they were interested in. In contrast, students who usually enjoyed and did well at school but who were not well supported in their blended learning were struggling. The latter group tended to blame the medium or themselves, when it appeared to us that there were issues with the support provided.

We also wanted to see whether different groups of students benefited to lesser or greater degrees from participating in blended learning. We conducted MANOVAs to determine whether or not blended and non-blended learning students from different schools or at different year levels, or students who were doing at least one videoconference class, showed changes in their LASSI scores over time. We found differences in students' scores in terms of the school they attended, but none of these different groups of students performed differently on the LASSI subscales over time.

Major implications

These findings highlight the number of students now involved in non-traditional forms of learning. It is therefore important that we understand the needs of these students and how best to support them. Although the findings are generally in line with the research on distance education and virtual classrooms, there are some differences. Previous research suggested that both teachers and students believe that students need to have certain skills to succeed at this form of learning, but our research shows, as Bolstad and Lin (2009) suggest, that students with varied levels of these skills are taking blended learning classes and can be successful, if they are supported.

A wider issue that arose in this study relates to the comparison of traditional and blended learning classes. Students' difficulty in classifying their classes in this way suggests this is a false dichotomy, and that research should focus less on the medium and provider of classes and more on how best to support students, whether or not they are involved in blended learning.

The nature and kind of support students receive appears to be crucial to their positive perceptions. Students in schools with quality support have a much more positive attitude towards learning independently, which is also gained/enhanced over time. Support provided both within the school and within the blended learning class was a factor in this. Determining the type and kind of support students need is complicated by the fact that students do not always ask for help when they need it. This aspect needs to be explored, and may be due to students' view of themselves as dependent learners (Bolstad & Lin, 2009). How students' views of learning can be changed is something that may need to be explored for blended learning to be more effective.

A final issue that needs to be considered is that though, in larger schools especially, only a small group of students and teachers may be involved in blended learning, it affects a much wider group. If other staff are not supportive of blended learning, they may not be prepared to offer students support, such as class material they have missed, or to help with a blended learning question. If other students are not supportive, it may be difficult for the blended learning student to find an appropriate space to work. These findings highlight the importance of taking a holistic approach to this new form of learning. Blended learning classes function within

the wider school context, and so it is important to look further than the students and teachers directly involved in these programmes.

From these findings it would appear that blended learning is not having a negative impact on students' learning. Some students report increased learning and study skills, but the quantitative findings suggest that, overall, participating in blended learning is not enhancing students' skills. However, the wide variability in support available within schools makes it very difficult to make comparisons. In addition, the issues identified regarding the division between traditional and blended learning suggest that a comparison between students who are and are not involved in blended learning is overly simplistic. Further investigation of how the variation in types of learning, and in the support provided by schools, affects students' experiences is needed to fully understand the effects of the overall learning experience for students.

What is clear is that blended learning offers real advantages to at least some students. These advantages include providing opportunities for the students to meet new people, to take on the wider world, and to increase their individual confidence and self-efficacy. This research has highlighted both the need for further research in what appears to be an increasingly common form of learning, and the advantages it can bring in terms of students' individual needs.

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