WaiBoost: An intensive cohort programme for developing tertiary-level academic skills

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Abstract

During 2011 an intensive (four-day) academic upskilling programme (WaiBoost) was trialled at the University of Waikato for students whose Faculties deemed them to be under-achieving during their first or second year of undergraduate study. The first trial ran in one Faculty before the beginning of ‘A’ semester, while the second was offered later in the year to Maori students in a different Faculty. WaiBoost’s design was informed by research into cohort learning, the nature of academic literacy, and student engagement. In addition, its delivery was characterized by team teaching, practical tasks, student reflection, and group discussion of concepts. Regular follow-up was conducted after completion of the programme. Students’ affective response to WaiBoost was extremely positive, but perhaps more interesting were the successful academic outcomes. This paper describes the overall successes and challenges of the WaiBoost approach and concludes with recommendations for intensive upskilling programmes of a similar nature.

Background

In November 2010 a “whole of institution” audit was conducted at the University of Waikato by the New Zealand Universities Academic Audit Unit (NZUAAU) as part of its regular five-year cycle of university audits. One of the panel’s recommendations was that “the University develops a student transition programme that extends beyond orientation and includes, in particular, a comprehensive institution-wide students-at-risk programme to close the loop between enrolment and completion” (New Zealand Universities Academic Audit Unit, November 2010, p. 29).

In 2011, in response to the recommendation and to learning development needs already identified at the University, staff in Student Learning, in collaboration with colleagues in the central Library, designed and trialed an intensive academic up-
skilling programme for students (WaiBoost). The programme was intended to address the academic literacy and learning skills needs of undergraduate degree students whose Faculties deemed them to be under-achieving during their first or second year of undergraduate study. The overall goal of WaiBoost was to help these students develop the independent, meta-cognitive thinking and academic literacy skills, motivations, and attitudes that they would need for successful tertiary study.

Two WaiBoost trials were run in 2011 with different cohorts, with the overall purpose being to evaluate the content, pacing, and overall academic effectiveness of the new approach to helping students develop academic literacy skills. Although student numbers were small, they were sufficient for Student Learning staff to evaluate the overall programme design. Both trials achieved excellent success as measured by increased student completion of papers and lifting of their final grades. This paper will describe the two trials, illustrate similarities and differences between them, and discuss overall findings. Implications for intensive academic up-skilling programmes (including specific consideration of resourcing) will be provided.

**General features and structure of WaiBoost**

The design of the trials was guided and shaped by ‘best-practice’ pedagogy, including peer-support, cooperative (cohort) learning, eLearning, and formative evaluation leading to continuous improvement of learning processes. It is also important to understand that WaiBoost was designed as one of many learning development approaches that ran throughout the academic year at the university, including (for example) on-going workshops, embedded literacy within courses, and online
interactive tutorials. Participants were guided through a range of student-focused activities designed to help them reflect on past academic experiences, build new strategies for successful learning, and become part of a peer-support cohort during the teaching term. WaiBoost participants were assisted in their development of academic reading and writing skills, referencing (including how to avoid plagiarism), and library skills, such as searching online databases. The aim was for the participants to develop an enhanced sense of academic self-confidence and success and a greater awareness of when and where to seek help if they encountered learning problems. All sessions were team taught by Student Learning tutors or librarians.

The first trial was conducted in one academic faculty in February 2011 (the week prior to the beginning of ‘A’ semester) and ran from 9-3:30 pm across four consecutive days. The total number of in-class teaching hours was 26. The second trial, with a Maori cohort, was conducted at approximately the halfway point of ‘B’ semester (August 2011) in one academic faculty. The duration of the second trial was the same as the first – 26 in-class teaching hours across four consecutive days. The February trial will be referred to as Trial 1, while the August trial will be referred to as Trial 2 throughout the remainder of this paper.

During the in-class sessions, both groups participated in a range of academic skills workshops, practical tasks, reflections, and discussions about how to become a successful student. The groups also received about 3 hours tuition in the Library where they were shown how to locate and access resources. It is also worth noting that
the structure of Trial 2 and its instructional approaches were identical to those in Trial 1. The major change was that Māori protocols and some use of te Reo had been added, thus creating a learning environment in which students clearly felt comfortable.

The Trial 1 group then attended monthly follow-up meetings throughout ‘A’ semester to discuss their progress, challenges, and strategies for success. The timing and format of follow-up for the Trial 2 group was necessarily different, as WaiBoost had been offered much later in the academic year and several students were studying at a distance. The Trial 2 group met face-to-face on a weekly or bi-weekly basis (depending on students’ availability), online via Skype conversations with a Student Learning tutor, and also interacted in Moodle (the university’s learning management system (LMS)).

During both trials we conducted workshop appraisal surveys (facilitated by the university’s appraisal office) and collected students’ daily written reflections about what they were learning. At the conclusion of the trials, we examined students’ overall academic achievement and compared it to their pre-WaiBoost grades.

**Conceptual framework**

WaiBoost was designed as a coherent program to recognize and explicitly include key concepts related to group cooperative (cohort) learning, academic literacy development, and student engagement. We were particularly interested in cohort learning as it provides multiple opportunities for individual participants to share
understandings, seek clarification of new concepts with their peers, support one another emotionally in the “ups and downs” of their intellectual journeys, and importantly, it contributes to the learning of both student and teacher participants (Lawrence, 2002). In addition, there is research evidence that tailored cohort initiatives contribute to long-term academic success (Whitebook, Sakai, Kipnis, Bellm, & Almaraz, 2009).

As regards academic literacy, Leki (2000) and Braine (2002) state that it is more than just knowledge of discrete language skills or appropriate language use ‘in context’. Academic literacy needs to be understood holistically and includes, for example, competence in reading, writing, critical thinking, knowledge of independent learning processes, tolerance of ambiguity, effective practice of good judgment, and development of a deeper sense of personal identity. The development of academic literacy must be seen as a long-term endeavour, requiring practice and refinement of knowledge and the awareness that meta-cognitive learning processes and strategies are transferable across a variety of tasks. What is abundantly clear is that students will not acquire higher-level thinking and other academic literacy skills simply by enrolling at university (Chanock, 2001) but that learning processes can (and we would argue, should) be explicitly taught (Hammer & Green, 2011).

Finally, research into student engagement in higher education has found that although most students do need help at some point during their university studies to develop academic literacy skills, they tend not to actively seek assistance (Christie, Munro, &
Fisher, 2004). Multiple, and often interrelated factors, such as poorly articulated orientation programmes, students’ own inability to self-assess their learning needs, disappointment with performance in courses, and a lack of awareness of what help is available or how to access it can contribute to retention problems at university (Kift, 2009; Trotter & Roberts, 2006). Cohesive approaches to learning development, and particularly ones in which supportive learning tutors and appropriate study materials are included, are key in helping students bridge learning gaps and complete their studies (Brew & Ginns, 2008; Chanock, 2007); developing multiple and various support structures through which students can be reached is critical for their academic achievement.

**Overall description of the trials**

*Curriculum content, timing, and follow-up*

Trials 1 and 2 contained equivalent content, but feedback from Trial 1 influenced pacing and sequencing in Trial 2. The programme was designed to be interactive and involved sharing of insights into learning failures and successes. Although there was teaching input from staff, there were also a variety of practice-based, interactive tasks to develop students’ academic skills. Students were encouraged during each session to think about what they were doing, why they were doing it, what they were learning, and then voice (and pen) their thoughts. All materials used during the week were developed by staff in Student Learning and the Library. An example of the WaiBoost programme (Trial 2) is referenced in Appendix A.
As stated earlier, Trial 1 was offered within one academic faculty during the on-campus enrolment week (immediately prior to the commencement of ‘A’ semester). Student Learning and Library staff discussed the issue of timing at length and agreed that there was probably no “good” time to run WaiBoost. The constraints of students’ external commitments (including employment), other teaching commitments within Student Learning and the Library, and availability of classroom space existed throughout the year. In fact, post-WaiBoost student feedback was positive about the timing, as students reported it had prepared them mentally, emotionally, and strategically for the semester. Trial 2 was offered at approximately the halfway point of ‘B’ semester (August 2011) with a Maori cohort, within one academic faculty. Although it was late in the year, we obtained a special funding allocation for Maori student support and believed that WaiBoost could still be of value to students. The only time possible to run Trial 2 was the mid-semester break with the main problem being student recruitment at short notice.

We believed that regular follow-up meetings were essential to maintain group cohesion and to ascertain if additional academic assistance was needed. Trial 1 students met monthly, face-to-face throughout the term although some were unable to attend any sessions due to their timetable. For Trial 2 students, we opened a Moodle “course” and posted weekly questions to stimulate reflection and discussion. Students also met (face-to-face) individually or in small groups, or they conversed (individually) in Skype with a Student Learning tutor.
**Student recruitment – both trials**

The recruitment for Trial 1 began in early January 2011 and was managed by Faculty administrative staff who checked first year students’ academic achievement in 2010. The students selected were admissible without appeal, which means that they had passed (most if not all of) their courses. However, as evidenced by the number of “incomplete” and low grades (in the C range), their Faculties deemed that they had struggled and that their chances for academic success in 2011 were not encouraging. Letters of invitation were sent to each student, with staff advisors available to answer questions and register the respondents.

This method of recruitment proved to be less than satisfactory, as the response rate was extremely low. As a result, we extended the invitation to second year students entering third year. From nearly 120 invitations, 17 students enrolled in WaiBoost, but only 9 attended all sessions.

For Trial 2, recruitment of students was constrained by the timing of when WaiBoost could be offered. Given that funding for the project began after the ‘B’ semester had started, the only viable time for WaiBoost was during the mid-semester break (end of August), which meant that logistical decisions, curriculum planning, and student recruitment had to be coordinated very quickly. In Trial 2, students were identified by teaching staff who knew them personally and contacted them quickly. Turn-around time from initial contact to enrolment was around two weeks. This method differed considerably from Trial 1 where students were selected on the basis of grades (only).
and by people who did not know them. Although the overall number of participants was not large (16 students), it was similar to Trial 1 where we had spent many weeks trying to recruit. Of the Trial 2 students who agreed to attend WaiBoost, 8 completed all sessions.

**Thematic analysis of the data**

The participant numbers were adequate for the trials and contributed valuable information about the programme content and teaching approach. In both trials, qualitative data were collected through students’ open-ended responses on the university evaluation form, their daily reflection sheets, and (Trial 2) reflective prompts in Moodle. Questions related to setting goals, general study strategies, managing time, academic writing, reading strategies, and becoming part of a larger academic community.

While the text-based reflections were being collected within the individual trials, the authors read and re-read students’ comments. Through a process of inductive reasoning, emergent themes within cases were identified (Braun & Clarke, 2006) and then reported and discussed by the teaching team and with the librarian participants. Such discussion facilitated understanding of both particular (“within trial”) and generic (“across trial”) themes. Finally, at the end of each trial a full report was prepared and submitted to faculty advisors and to the main university-level committee responsible for teaching and learning. Key themes that emerged from both trials have been consolidated and relate to making (implicit) academic literacy skills explicit,
developing skills and confidence as learners, and increasing awareness of the importance of community. However, in some cases the cohorts’ characteristics were different and the groups will be described separately.

**Findings and discussion**

Overall, students from both trials reported that the combination of interactive teaching style, practical activities, and opportunities to reflect contributed positively to their self-understanding. We believe that participants completed the WaiBoost trials with an enhanced sense of personal identity as university students. From the evaluation data and reflections it was also clear that the WaiBoost intensive teaching and follow-up approaches were pedagogically effective.

*Making the implicit explicit through teaching and reflection*

There is research evidence that explicit and early teaching of academic literacy skills can improve tertiary student outcomes (Kift, 2009; Whitehead, 2012). Comments from students in both trials strongly supported the value of having implicit knowledge about academic skills and learning strategies made explicit. Students commented positively about strategies they had learned for academic reading, writing, setting goals and achieving them, and time management.

WaiBoost helped in being able to understand what studying in University context is all about. [student quote].

I didn't know how to structure a paragraph let alone an essay. Having learnt a technique to get through the readings was also vital to me [student quote].
It opened my eyes up about where I can get help; strategies to be successful; came in to the programme with low confidence in my ability to understand/gave me answers to use the tools within myself and feel more confident in being successful [student quote].

In both trials students also openly shared their stories about learning at university and reflected on choices they had made, the consequences of those choices, and how different choices could have facilitated better outcomes. By sharing ideas, forming a cohort, and having an opportunity to be open and forthright in their discussions with academic staff and each other, students obtained insights into their own study behaviours and learned strategies that they could use longer-term. One student remarked that WaiBoost demonstrated that she was more than “just a number” to the university, while others stated that

> When doing the reflection I reviewed what I learned and know how to improve my skill [student quote].
> WaiBoost is helping me know my weaknesses and how to fix those problems. I found especially time management and goal setting helpful and interesting [student quote].
> WaiBoost provided the key skills for study [student quote].

**Becoming part of a learning community / finding help**
A key aim of WaiBoost was to help students realize that there is a range of support structures at the university and that it is important to seek help as and when issues arise. It could be argued that such awareness can help augment students’ engagement
with their learning. Across both groups students reported an enhanced awareness of the available support networks across the university. Feedback from students also emphasized their sense of being part of a wider learning community. In the follow-up meetings for Trial 1, several students reported meeting regularly with their WaiBoost peers and discussing assignments and strategies for learning. This occurred even if students were studying in different courses.

   Networking is important to developing my way of learning and surrounding yourself with the appropriate people. [student quote]

However, with the Trial 2 cohort, there was a key difference. Students often mentioned “whakama”, which they considered highly problematic. They reflected that it could be difficult to convince students that not only do they need academic assistance, but that it is completely “ok” to seek help when they encountered academic problems.

   Whakama (be shameful, shy, embarrassed, bashful) is something students need to be helped to overcome. I don’t want another person to look at me and say “you’re dumb” [student quote].
   Māori gravitate to friends and whanau. We are hesitant to explain our needs and wants to people we don’t know. The University needs to think of ways to get students who need help to ask for help [student quote].
This finding is also different from what is reported in research literature (Christie, Munro, & Fisher, 2004) as was described earlier in the conceptual framework discussion. It could be argued that students’ reluctance to seek help when needed is deeply rooted in culture. The Trial 2 WaiBoost experience created a “safe” and culturally appropriate environment for students to communicate with each other and the Student Learning tutors to deepen friendship relationships around learning. In fact, two of the participants travelled over 100km every second week to visit Student Learning for tutorial assistance. Once they had established friendship relationships with staff in the unit, they felt comfortable seeking assistance from any of them, not just the Maori learning developer.

**Competing demands for time**

There were also key differences between the trial groups around time management. Trial 2 participants were older and more mature than the students in Trial 1. In addition, Trial 2 students were usually balancing complex demands of family, extended family, work, and study. Many had returned to full-time study after a significant gap of time and due to the cost of higher education, almost the entire Trial 2 cohort was in full-time (or almost full-time) employment. As a result they emphasized their need for help with time management strategies.

The time management workshop would be of more benefit at the beginning of the year especially for students that come straight from school [student quote]. The time management workshop would be good for mature students until they get used to the way of things [student quote].
Although Trial 2 students were more likely to be in full-time employment than their younger Trial 1 peers, various recent studies have shown that all students are increasingly dividing their time among many (often competing) demands (ACER, 2010; Radloff, 2010). Nearly all students in both Trial 1 and Trail 2 acknowledged they needed assistance with time management. Therefore, recognizing the changing environment in which students study and then developing targeted strategies (including time management) to promote academic achievement is essential.

**Student achievement**

While we were buoyed by the positive nature of the qualitative feedback, we were also mindful that a key goal of WaiBoost was to help students improve academic achievement. In this regard, there were differences between the outcomes for Trial 1 and Trial 2 participants. With the Trial 1 cohort WaiBoost was successful for most, but not all students and it would be fair to say that some were not well placed in university study. The most notable success was the decline in the number of “incompletes” and “fails” (Ds and Es) that had characterized students’ academic performance previously. For some participants, their academic performance changed from failing or C-range grades to ‘B’ or even ‘A’ grades.

Trial 2 participants also had a very positive response to WaiBoost, but as already noted this group participated quite late in the year. Thus, comparing the impressive achievement improvements of Trial 1 students with that of the Trial 2 cohort is not useful as the two groups were entirely different. Trial 1 participants obtained
preparation for the coming academic year, while Trial 2 students essentially received remedial assistance at probably the latest point in the year for it to have any positive effect.

Interestingly, although we did not teach maths concepts at all during WaiBoost, Trial 2 students nevertheless felt confident enough after WaiBoost to seek maths tutoring assistance from Student Learning. None of the participants had visited a Student Learning tutor previously. Student achievement in Math education showed remarkable improvement amongst Trial 2 participants, many of whom had struggled all year with the maths content of their courses. Two students had already failed major assignments and yet were able to pass the maths education paper. This was a significant achievement, as they would have needed at least an “A” grade in final assessed work in order to do so. Another student who had failed a maths paper in Semester ‘A’ was also able to complete it successfully.

As for other end-of-year grades for Trial 2 participants, there was no marked improvement from ‘A’ to ‘B’ semester, but as stated above, WaiBoost was offered late in the year. The more interesting comparisons might yet be found in their 2012 grades, as students will have opportunities to apply the WaiBoost skills much earlier in the teaching term.

**Conclusions and implications**

Four days is not very long to effect behavioural change, but it would appear that WaiBoost contributed positively to student achievement. However, it is probably fair
to say that some students were not well placed in university study and more up-skilling than could be provided by WaiBoost was required. For some students low literacy levels would have hindered their chance of academic achievement. It was also clear that processes for identifying and recruiting students needed much more careful consideration. Simply developing a list of potential participants (based on grades) and then sending a letter or email invitation had been a failure; more nuanced and personal approaches were needed as had been the case in Trial 2.

Although student numbers were small in both trials, we nevertheless gained important insights into the planning and running of an intensive programme such as WaiBoost. One is that the collaborative approach to the design, teaching, and administration of WaiBoost, including as it did input from content-area lecturers, library staff, administrators, and Student Learning tutors strengthened it. In addition, the programme’s emphasis on reflection helped students make explicit how and why they were under-achieving. It helped students understand that they needed to assume responsibility for their own learning, but also that they were part of a larger academic community. They also became aware that there was a range of people who could help when academic challenges emerged and that it was entirely acceptable to seek assistance. Finally, as was noted earlier, the structure of Trial 2 and its instructional approaches were identical to those in Trial 1. The major change was that Māori protocols and some use of te Reo had been added, thus creating a learning environment in which students clearly felt comfortable. The intensive cohort-based approach of WaiBoost appealed to the students, which reflects the importance of
culturally responsive pedagogy, not only in school settings, but also at tertiary level (Savage, Hindle, Meyer, Hynds, Penetito, & Sleeter, 2011).

There were key implications that emerged from the trials, especially around student recruitment, timing for when the programme could be most efficacious, and resourcing. First, recruitment of students requires careful advance planning and needs to be a careful combination of invitation and “shoulder-tapping”. If students attend WaiBoost (or a similar up-skilling programme), they can benefit academically, but helping them first realize that they need assistance is problematic and must be handled sensitively. Shame and embarrassment are powerful disincentives to students who should seek support.

Second, intensive up-skilling programmes such as WaiBoost can be very effective and need to be offered regularly so as to become a regular feature at university. WaiBoost should not be perceived as “special”, but as “normal” for any student who might have experienced academic learning difficulties. Such perception could diminish the sense that up-skilling is remedial and acknowledge that any student could experience gaps in their understanding of how to be an effective learner. More widespread student acceptance of the idea that seeking help is positive could in turn make recruitment more straightforward.

Third, WaiBoost needs to be offered before the beginning of teaching semesters, include regular follow-up during the semester, and be tailored to the particular learning needs of students from different Faculties.
All of these conclusions have resourcing implications that need to be addressed. However, the resourcing required for WaiBoost need not be excessive. Through the combined cooperation of Faculties and academic support units, costs could be distributed and shared. More importantly, however, resourcing for intensive programmes such as WaiBoost needs to be perceived and acknowledged as an investment in success, not a costly burden. What can be seen from the two trials outlined above is that the rewards far outweigh any expense.

**Acknowledgements**

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References


New Zealand Universities Academic Audit Unit, Te Wāhanga Tātari. (2010). *The University of Waikato, Academic Audit Report, Cycle 4*. Wellington, New Zealand: NZUAAU.

Radloff, A. (Ed.). (2010). *Student engagement in New Zealand’s universities*. Ako Aotearoa; AUSSE; ACER.


## Appendix A – Overview of WaiBoost Program (Trial 2)

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<th>Monday</th>
<th>Tuesday</th>
<th>Wed</th>
<th>Thursday</th>
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<td>Karakia/ Himene Mihimihi Introductions and overview of program</td>
<td>Sharing of completed overnight task</td>
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<td>Library information evaluation sheet</td>
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<td>Group discussion about what participants hope to gain from WaiBoost</td>
<td>Interactive workshop: <em>Academic reading</em></td>
<td>Interactive workshop: <em>Writing assignments: What makes a good assignment, with a focus on paraphrasing and referencing to avoid plagiarism.</em></td>
<td>Interactive workshop: <em>Writing assignments: Introductions, conclusions, cohesion.</em></td>
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<td>Sharing strategies for successful learning</td>
<td>Cracking the library code – 1</td>
<td>Cracking the library code – 2</td>
<td>Student panel:</td>
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<td>Success stories; Successful study strategies; Support systems</td>
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<td>Interactive workshop: <em>Effective time management</em></td>
<td>Interactive workshop: <em>Writing assignments – Developing an argument and writing effective paragraphs</em></td>
<td>Interactive workshop: <em>Goal setting – short term and long term</em></td>
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<td>Identifying and incorporating learning strengths into goal setting and academic study</td>
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<td>Strategies consolidation activity</td>
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<td>Discussion/ reflection on Day 1’s questions; what has been answered for you and what remains?</td>
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<td>Topics/questions students have for Thursday’s student panel.</td>
<td>Overnight tasks explained</td>
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<td>The learning development offered by Student Learning Reminder of follow-up meetings</td>
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