

Embedding language, literacy and numeracy skills in a Youth Guarantee programme: The effects on the participation, retention and achievement of young learners

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Abstract

In 2010, 37 students aged 16 and 17 were admitted to the New Zealand Management Academies (NZMA) Youth Guarantee Programme, which includes the Level 2 National Certificate in Business Administration and Employment Skills (20 weeks) followed by one of three Level 3 National Certificates (a further 20 weeks). All students enrolled on the programme were assessed on their literacy and numeracy skills using the Tertiary Education Commission Adult Literacy and Numeracy Assessment Tool. The results of these assessments formed the basis of Individual Learning Plans, which included goals for literacy and numeracy development. The assessment was repeated at the mid and end points of their Level 2 course as well as mid and end points of their Level 3 course.

Five students from the original cohort withdrew after the first month, with 32 remaining. Of these, 29 students (90%) completed the Level 2 programme and 27 (84%) progressed to Level 3 programmes within NZMA. All three classes showed progress in both literacy and numeracy over the 20 weeks, with the majority of individual students making positive gains along the progressions. We believe that embedded and direct literacy and numeracy tuition, along with the extensive pastoral care and student support systems provided, has been the primary driver for the retention and academic success of NZMA's Youth Guarantee students.

Introduction

Aims, objectives and hypothesis

The aim of this paper is to provide the results of an intensive research study carried out by a team led by the authors. The main objective was to understand the effects of embedding literacy and numeracy into Level 2 Certificate programmes at New Zealand Management Academies (NZMA). The hypothesis for this research project was that *language, literacy and numeracy (LLN) support would result in an increase in attendance, participation, retention and qualifications gained.*

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Background of literacy and numeracy programmes in New Zealand

The current state of adult literacy in New Zealand is one that causes concern to government and employers and is the result of, amongst other things, successive policies and practices over the past decades (Soler & Smith, 2000). It has been suggested that adults with low levels of literacy have often hidden their lack of skills in manual and unskilled labour jobs, but more damaging in New Zealand society has been the linking of low literacy skills with lack of intelligence (Watson, 1999). The associated feelings of shame consequently meant that the lack of literacy in the nation as a whole was kept hidden by individuals (Watson, 1999).

However, two important surveys conducted in the last decades have highlighted the problem and forced government to act. The first, the 1996 International Adult Literacy Survey, brought to light the reality of the state of adult literacy in New Zealand. Most alarming was the finding that “the majority of Maori, Pasifika people and those from other ethnic minority groups are functioning below the level of competence in literacy required to effectively meet the demands of everyday life” (Walker, Udy, & Pole, 1996). The second international survey undertaken ten years later served to confirm the findings of the first, but showed that there had been some minor improvements (Benseman & Sutton, 2007). There had been a gradual increase in people with higher levels of literacy skills, that is, at Step 3 and above (on a scale of 1 to 6 where Step 6 is comparable to year 12). However, this left at least 1.1 million New Zealanders with literacy levels of 1 and 2 who did not have the skills to “meet the demands of fully participating in a knowledge-based economy and society” (Ministry of Education [MOE], 2008, p. 11). For New Zealand to operate effectively and competitively in an international market, adults need to have higher levels of literacy and numeracy skills. The Government, through the Tertiary Education Commission (TEC), has therefore sought to correct this by introducing strategies for raising adult literacy levels. The New Zealand Adult Literacy Strategy (MOE, 2001) takes a long-term view and aims to raise the levels of literacy in the current population, invest in the current working age population so that they keep current with new technologies and work practices, and ensure that those leaving school have adequate literacy as they enter the workforce.

The background of NZMA

New Zealand Management Academies is a private training establishment (PTE) which was founded in 1985 and is one of New Zealand’s oldest and most established PTEs. NZMA has four schools of business and hospitality management located in Auckland City, Henderson, Otahuhu and Hamilton. NZMA also operates an English Language Academy, Fern School of English, which provides various English for Speakers of Other Languages (ESOL) programmes, and a recruitment company, Redfish Recruitment Specialists, which provides employment services to students and industry partners.

NZMA students

NZMA's local students consist primarily of school leavers, people on a benefit, people without any formal secondary school qualifications, mothers returning to the workforce, and people looking to improve or gain skills suited for a better career. A large percentage of these students are Maori and Pasifika, and those under the age of 25. Academic outcomes for all NZMA students reflected a steady improvement over 2009. Of the Student Achievement Component funded students who completed their studies between January and December 2009, 75% gained a qualification.

“The purpose of the Youth Guarantee initiative is to improve the educational achievements of targeted 16 and 17 year olds by providing them with an opportunity to participate in a range of vocational courses free of charge” (TEC, 2009, para. 1). In 2010, 37 students aged 16 and 17 were admitted to the NZMA Youth Guarantee Programme. This programme includes the Level 2 National Certificate in Business Administration and Employment Skills (20 weeks), followed by a choice of Level 3 National Certificates in Hospitality, Business Administration or Contact Centre Operations (a further 20 weeks). Five of the original cohort had withdrawn after the first month for personal reasons. The figures in this report are based on the remaining 32.

NZMA staff

NZMA's LLN department has two full-time staff focused solely on the embedded literacy project. The team has been involved with implementing the project, leading initiatives to support and train tutors to integrate literacy and numeracy into their teaching and resources. The majority of NZMA tutors now have good underpinning knowledge of the learning progressions. That is, they understand how to support learning in order to bridge the gap between the demands of the vocational programme and the skills of their learners. This knowledge is being further enhanced through their involvement in TEC-funded training, including cluster workshops, seminars and webinars. The majority (80%) have already obtained or are currently completing the National Certificate in Adult Literacy Education qualification.

Research method

All students who were enrolled in the YGP were selected for this research. The research was what one would term a 'small-scale intensive insight' study which was designed to “provide a rich description of additional programme factors” (Benseman, Sutton, & Lander, 2005, p. 12), including recruitment, patterns of attendance and barriers to participation, all of which have been key factors in the YGP course. Both quantitative and qualitative methods were used for this research.

Quantitative evaluation

The quantitative evaluation was based on the performance of the learners in the Adult Literacy and Numeracy Assessment Tool (ALNAT) introduced in March 2010 by the

TEC. The learners were assessed initially and then at ten-week intervals until they completed the programme.

Qualitative evaluation

The qualitative evaluation had several aspects: interviews with the Director of Domestic Students, academy managers, senior tutors and tutors of NZMA; a questionnaire about student background and family support for learning to be completed by the YGP students; and interviews with the students.

Comparisons

Comparisons were made between initial and intermediate; intermediate and final assessment results; between outcomes—retention, attendance and qualifications gained—of NZMA’s general student body and the YGP students; between male/female, ethnicity, native and ESOL speakers; and between rates of absenteeism and progress along the steps of the learning progressions.

Preparation of a report based on the findings

Using the information, statistical analyses of data and interpretations, a 25-page report was prepared and submitted to the National Centre for Adult Literacy Education, Waikato University.

Literature review

The importance of embedded literacy and numeracy

The Tertiary Education Strategy (TEC, 2010) states: “For tertiary study to be effective for second-chance learners, the quality of teaching and learning needs to improve to raise completion rates. Students who need to improve their literacy, language and numeracy skills should be able to do so” (p. 13). The evidence from the research by Casey et al. (2006) indicates that “vocational courses at Levels 1 and 2 in which LLN is embedded are linked to more positive outcomes for learners than courses for which the LLN provision is separate” (p. 44). According to Rogers (2005):

It would seem best to combine the two elements (vocational skills training and literacy learning) rather than keep them in parallel, to embed the learning of literacy within the skills training by using the embedded literacies of the craft or trade as the teaching-learning materials, so that literacy becomes one of the skills being learned rather than something on its own. . . . And this will mean not having separate literacy learning classes but simply using these texts in the training programme in exactly the same way as learning to use a chisel or a trowel or sewing machine, etc. (p. 64)

The findings of Casey et al. (2006) confirmed that language literacy and numeracy are best learnt in the context of meaningful and relevant vocational study, and that this has a positive outcome for the vocational content in that it can also be better learnt and applied. Learners may not be aware of their own need of LLN support until they get

onto a vocational course and are faced with learning a body of information and set of skills which are alien to their everyday life. A small case study at Eastern Institute of Technology (Johnstone & Govers, 2009) found that the embedding of literacy and numeracy in one vocational programme “resulted in improved student retention and pass rates” (p. 4).

A study carried out by Bowen-Clewley (2004, as cited in Moses, 2010) found that “a key to successful qualification completion using recognition of current competency is for the learner to become a motivated, independent, self-directed learner with confidence in their prior knowledge and their own learning ability” (p. 17). Moses (2010) identified several actions to “maximise learner motivation to complete qualifications” (p. 19). For training providers this includes aligning training with identified industry skill needs.

In a study of the literature regarding literacy support carried out by Benseman et al. (2005), one of the key findings was the importance of managing both the positive and negative forces which either help or hinder student learning. This included helping with transport and finding suitable childcare, building self-confidence and giving personalised attention. They also suggested that a possible contributing factor to enhanced learner gain was an awareness and management of critical periods in the programme when learners were susceptible to failure and/or withdrawal.

Government thinking/strategy

According to Moses (2010), funding as per the Tertiary Education Strategy (2010–2015) is now much more about qualification outcomes with a focus on training to meet current identified industry skill needs. The Government has also identified a need to increase its return on investment, and a report by Beardslee (2006) makes it clear that employers value people with a broad education, including literacy and numeracy. They want confident, connected, reliable young people and they also value attitudes such as openness, which is considered an indication of the young person's potential to learn continuously rather than to rely on their current store of knowledge.

Future prospects

Loader and Dalgety (2008) analysed government data to examine the transition of learners to tertiary education. They found that young people who have left school with no or few qualifications are less likely to go on to tertiary study and then only at certificate level in the main. From an employment perspective, the Government wants to improve the skill levels of young people because “changing technology, globalisation, a shift to knowledge based industries and an increasing focus on quality are all contributing to the demand for a more literate and numerate workforce” (TEC, 2008, p. 6). The most obvious outcome from LLN learning is improvement in LLN skills, but this can be hard to measure and is not always evident. However, Gray (2006) states that development in LLN skills can bring about increased productivity in the workplace, greater personal confidence and an interest in further training.

A study by Whatman et al. (2010) could find no definitive evidence for the economic impact of improving young people's levels of LLN. However, a US study suggests that for youth who have low vocational skills, literacy and numeracy skills have greater importance (Tyler, 2004). It would seem, therefore, that programmes such as Youth Guarantee need to pay particular attention to developing these kinds of skills in young people who have left school with low educational achievement and skills.

Views and opinions of directors, managers and tutors

Written and verbal comments were obtained from the Director, managers and tutors. The verbal comments were also documented and archived. The overall view of the managers and tutors was that they were satisfied with the outcome of the YGP project. The following remarks are those of the Managers and tutors regarding the YGP student performance. (Comments made by tutors refer to their own students, not the programme as a whole.)

Regarding LLN support

Senior Tutor: Low level LLN skills didn't help the students' comprehension: the scaffolding wasn't in place. Once they got their basics, they did well. We realised that the students needed help not just with literacy but with life skills as well.

Manager: At the beginning, the students had issues with life skills—especially communication. They had no understanding of respect and they did not abide by any rules.

Issues other than LLN that affected their ability to learn

Manager: Lack of confidence was a major issue too.

Senior Tutor: Outside influences such as drugs, alcohol, accommodation issues and food scarcity—all this made a negative impact.

Tutor: The dysfunctional living had the biggest effect on them [my students].

Tutor: Instilling discipline into them was hard. Punctuality was not something [my students] understood or cared for.

Additional support rendered to the YGP students

Tutor: I provided food and transport with my own money. Later the manager arranged for them to get free breakfast from the NZMA cafeteria.

Tutor: They had some mentoring from senior students. Pastoral care was provided to the students and that helped a lot. There were instances of monetary support from NZMA too.

Reasons for students leaving the course

Tutor: Personal reasons such as family disharmony, matters related to heart and mainly due to lack of parental supervision.

Any suggestions for future youth projects

Manager: The youth tutors need to have some experience about the lifestyles of the students. They have to be empathetic, patient and good listeners.

Youth Guarantee programme student survey

Our aim was to position LLN provision at NZMA as a very normal and expected element of the programmes offered, and something in which every student and tutor was engaged. Offered this way, LLN was expected to be ‘unremarkable’ and yet powerfully effective at raising confidence and belief in learners who have been disadvantaged by the social and education systems.

Youth Guarantee Programme background

All students enrolled on the programme were assessed in their literacy and numeracy skills at confirmation, using the online diagnostic assessment tool (ALNAT). The results of these assessments formed the basis of Individual Learning Plans (ILPs) which included goals for literacy and numeracy development. The assessment was repeated at the mid and end points of their Level 2 course, and student progress in literacy, language and numeracy was tracked and recorded.

YGP student demography

The demography of the 32 students who completed the NZMA Certificate Level 2 programme is further described:

Ethnicity: The YGP student body comprised mostly Maori and Pasifika students. The ethnic breakdown of the students is given in Table 1.

Gender: The distribution by gender was as follows: male – 13; female – 19.

Student age: The distribution by the year of birth was as follows: 1992 – 12; 1993 – 15; and 1994 – 5.

Table 1. Student demographic details

Ethnicity	Number originally enrolled	Number obtained NZMA Level 2 Certificate	Number completed Level 3 Certificate
NZ European (Pakeha)	5	4	4
Maori	12	12	8
Samoan	6	6	6
Cook Island Maori	4	3	3
Tongan	2	2	2
Niuean	2	1	1
Asian	1	1	1
Total	32	29	25

Youth Guarantee Programme students' current situation

In July–August 2010, 29 of these 32 students completed the first part of the programme and obtained the Business Administration and Employment Skills Level 2 Certificate from NZMA. Twenty-seven of them made a pathway into NZMA Level 3 in the three fields of Business Administration and Employment Skills, Contact Centre and Employment Skills, and Hospitality and Employment Skills. Two students joined another tertiary education provider but have since returned to NZMA. A further two students withdrew for personal reasons in December 2010.

YGP student survey questionnaire

A questionnaire containing 18 questions was presented to the YGP students in November, and 24 of 25 responded. The questions asked students about household structure, family type, facilities at home, reasons for absenteeism and support received.

Survey results

The results of this survey were analysed, and some of the findings are as follows:

School leaving age: Most of the students left school at 15-16 years of age—16.6% left at 17; 41.6% at 16; 33.3% at 15, and 8.3% at 14 years of age.

Transport: Fifty percent of the students used private cars for travelling to course while 33.3% of them walked to course and 16.6% of them used public transport.

Reasons for absenteeism: The students were unable to attend classes for various reasons: 29.1% of them had hangovers; a similar number of them had to do chores at home or look after siblings; 16.6% of them could not attend classes due to lack of transport; 12.5% were in custody; and another 12.5% had other reasons such as family funerals.

Family support & living arrangements: More than half of the students (58.3%) still lived with their parents and 41.6% of them had to look after their siblings and had to do chores. Nearly half (45.8%) had parents with tertiary education, and 70.8% of the students received encouragement from their parents to study. Most students (83.3%) had their own bedroom, 58.3% had computers at home and 37.5% had Internet access at home. 54.1% received external study help and 62.5% had emotional support from someone outside NZMA. 58.3% consumed alcohol on a regular basis.

Evaluation of the YGP: All the students surveyed considered the experience at NZMA YGP Programme satisfying and very positive.

YGP students' TEC online assessments

After initial diagnostic assessments in reading and numeracy, the Youth Guarantee Students created their own ILPs with guidance from the LLN Facilitator. Initial tests placed them mostly in the range of Steps 3 to 4 in both reading and numeracy. They were then assessed at mid (10 weeks) and end (20 weeks) points.

Assessment results

The result scores for reading and numeracy assessments showed that some students made tangible progress when tested over small periods of ten-week intervals, indicating that they had improved in their literacy and numeracy skills. Some students expressed to a researcher that they found the literacy assessments containing lengthy texts extremely boring and tiring. This suggests that assessment results may not necessarily be a true reflection of progress made, although this would require further study.

The differences in performance based on gender were analysed. In numeracy, male students gained higher scores than female students. The reverse was true for literacy. The student performance based on ethnicity was considered. No particular ethnic group demonstrated any unusual capabilities.

Influences of other factors on assessment results

An attempt was made to seek relationships between students' living arrangements and whether or not they had access to the Internet. The evidence seems to show that there is no correlation between student performance and living arrangements or access to the Internet.

Discussion of findings

The Embedded Literacy Project within the Youth Guarantee Programme at NZMA was very much a pilot project in 2010 and gave the opportunity to focus on a small number of students. This was in the context of an organisation that held a strong belief in the value of LLN before embedded literacy became an explicit government focus, and was moving very purposefully towards a fully embedded approach in all of its programmes.

However, there was a great deal to be learned from this project and it has been an extremely useful study for the organisation. Completion rates for Youth Guarantee students have been higher than the overall rates for NZMA students (90% compared with 84%) and the number of students transitioning to higher levels has also been high (86%).

In terms of ethnicity, the students on the programme were no different from the overall student demographic, but what became immediately apparent to the authors was their lack of any formal qualifications and maturity. According to senior tutor Alan Hatchard, these students arrived “dazed and horrified” and were “dysfunctional, loud, outwardly confident but lacking in respect and very restless” (personal communication, November 22, 2010). An observation made by several of the tutors at the end of the 20 weeks was that students had grown significantly in confidence and had noticeably more positive attitudes towards staff and peers. They were able to communicate their needs and had “grown in stature”. Alan Hatchard, responsible for overseeing the transition of students from Level 2 to 3, commented that the help they

most needed was in the area of life skills (personal communication, November 22, 2010). Marama Tahapehi, the Academy Manager, remarked that self-belief was the key element. According to Marama, they had been “given up on and so they had given up on themselves. Students were afraid to write anything down in the beginning for fear of making a mistake and this, as well as difficulties with fine motor skills and concentration, had to be addressed by the tutors” (personal communication, November 22, 2010). Small classes with high tutor-to-student ratios gave tutors the opportunity and time to do this.

The evidence from the student survey is that absenteeism was due mainly to hangovers and having to do chores at home. However, there is no correlation between absenteeism and course completion. Constant affirmation and encouragement by staff teams built and maintained self-assurance and a culture of positive reinforcement ensured that most students continued to attend classes. This involvement by all of the tutors in the Academy, and not just the YGP tutors, was the key to creating an environment in which literacy and numeracy skills could be taught.

One of the key findings was the importance of enabling students to transition from Level 2 to Level 3. Strategies were put in place to facilitate transition; the most successful involved visits from Level 3 tutors into the Level 2 classes so that students could get to know them, followed by a weekly arrangement whereby the students could sit in on Level 3 classes and familiarise themselves with the new environment. Food was also a prominent part of the programmes; breakfast became a regular feature at one Academy, which seemed to result in improved concentration in lessons. Tutors continually provided a high degree of pastoral support which often extended outside the classroom and even into court and family proceedings. Going the ‘extra mile’ in this way has reinforced the life and literacy skills embedded in the classroom contributing, it is believed, to the successful retention and completion rates of these students.

Conclusions and recommendations

The evidence from this study has been encouraging. It is clear that the provision of embedded literacy and numeracy skills within the context of vocational programmes has a positive effect not only on the development of these specific skills but also on the outcomes of assessment and qualification. As discussed earlier, student attendance and retention have also been high in comparison to overall levels at NZMA, and this seems to correlate with the progress made in literacy and numeracy.

However, it seems that the high levels of pastoral support and care given to the students, combined with embedded, relevant and focused literacy and numeracy provision, have contributed to the success of the Youth Guarantee Programme at NZMA.

The following points highlight the specific learning and recommendations drawn from the study:

- The Youth Guarantee students benefitted from embedded literacy and numeracy as well as LLN support offered as games and exercises. This is evident from their scores in assessments.
- The students needed discipline and authority in order to adjust to the environment, driven by expectations based on their experiences in school.
- The evidence suggests that pastoral care and the provision of transport and food helped the learners to achieve positive academic outcomes.
- There was no correlation found between ‘living with parents and student performance’ or ‘availability of computer and internet at home and student performance’.
- Individual support outside the classroom is an important factor in student retention. This includes financial, emotional and advisory support as well as care of physical needs.
- Close tracking of course results/progress is recommended.
- Over-assessment negatively impacts student engagement with the online tool and students will therefore be assessed at start and end points of programmes in future.

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