

Developing vocational skills with embedded literacy and numeracy in second-chance adult learners

Neal Terry and Seelig Caroline (Dr)

Open Polytechnic of New Zealand

terry.neal@openpolytechnic.ac.nz

caroline.seelig@openpolytechnic.ac.nz

Sub-theme

Skills development

Abstract

Technical and vocational education and training (TVET) is concerned with the acquisition of knowledge and skills for the world of work. TVET is becoming a priority as more people achieve basic education, and then need to achieve employment skills to be able to work and live in their communities, and adapt to rapid economic, social and technological changes. However, literacy and numeracy assessment indicates that 40% of those employed in New Zealand lack the necessary literacy and numeracy skills to participate in a knowledge society. There is, therefore, a need for programmes that build vocational and literacy and numeracy skills. Research shows that literacy and numeracy activities related to employment are more effective than generic literacy and numeracy training, if they are tailored to vocational contexts.

The Open Polytechnic of New Zealand is successfully developing foundation skills in second-chance adult learners in New Zealand communities and prisons. The programme builds confidence, focus, commitment and a positive outlook. It develops communication, problem solving, interview and budgeting skills, and it helps learners to identify their strengths, learning needs and career and training goals. At the same time, the programme embeds literacy and numeracy. Keys to its success are engaging print materials with images and appropriate vocabulary, and one-to-one mentoring by trained staff from specialist partner organisations.

In 2013, the Open Polytechnic added a new programme to follow its foundation skills programme to assist learners to build skills towards selected vocational courses, while still building literacy and numeracy skills. Through the programme, learners understand their own strengths and interests and then select one of five vocational areas to study in more depth.

This case study outlines the experience of an Open Polytechnic team in developing this programme. The challenges that have been overcome include how to meet the needs of second-chance learners while working within the constraints of the New Zealand Qualifications Framework, and designing and developing learning materials to support low literacy learners. The case study will also describe the learner support model which offers a blend of self-paced distance learning and individual coaching. The authors will share evaluation feedback and lessons learned from offering supported distance programmes which build literacy and numeracy and vocational skills for adult learners in communities and prisons.

Key words

Distance learning, skills development, literacy and numeracy

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The need for skills

Technical and vocational education and training (TVET) is concerned with the acquisition of knowledge and skills for the world of work. TVET is becoming a priority as more people achieve basic education, and then need to achieve employment skills to be able to work and live in their communities, and adapt to rapid economic, social and technological changes.

However, literacy and numeracy assessment indicates that 43% of adults between 16 and 65 in New Zealand lack the necessary literacy skills to participate fully in a knowledge society. Similarly, over 51% lack the numeracy skills they need to meet the complex demands of everyday life and work (Tertiary Education Commission, 2008a). Also, many lack the confidence to return to learning.

The same report concludes that technological changes, an increase in knowledge-based jobs, globalisation and an increasing focus on quality, mean that literacy and numeracy skills are becoming more important for people to be employable. And for those who are making a contribution with lower skill levels, increasing their literacy and numeracy would enable them to make more of a contribution. Workers with low literacy and numeracy skills are more likely to struggle with tasks that require reading, writing or maths, and learning new skills. They are also more likely to experience mistakes, wastage and poorer quality outputs in their workplaces. Such workers are also more likely to be working part-time or only for part of the year (Dixon & Tuya, 2010).

In New Zealand, 71% of prisoners have literacy levels and 65% of prisoners have numeracy levels at Step 3 or below on the Tertiary Education Commission's (TEC) Learning Progressions (Department of Corrections, in press, 2013). This means that such prisoners do not have the literacy and numeracy skills necessary to effectively participate in a knowledge society.

There is, therefore, a need for programmes that build literacy and numeracy skills alongside vocational skills in a safe and effective way, for learners in the community, in the workplace, and in prisons.

Literacy and numeracy research indicates that adults best develop their literacy and numeracy expertise when learning is linked to purposes that matter to them, the context is relevant, the learning experience is engaging, they are part of a learning community, and they are able to solve problems themselves. It is also important that they can build on existing knowledge, skills and experiences. Adults who have not succeeded in previous educational experiences tend to be more anxious. This can be mitigated by educators' positive attitudes towards literacy and numeracy, contextual relevance, and opportunities for problem solving and discussion (National Centre of Literacy and Numeracy for Adults, 2013).

When embedding literacy and numeracy within the development of other skills relevant to learners, it is important to make the links to the other skills development explicit. It is also important that literacy, numeracy and vocational educators work together as a team so that their combined expertise informs the final learning experience. Formative assessment is an important part of any learning process, particularly with adult learners. Effective formative assessment focuses on giving students information and support that increases their confidence, gives them strategies to understand what they need to do to improve and to assess their own achievement, and helps them understand their own thinking processes and how they can apply these in various contexts (National Centre of Literacy and Numeracy for Adults, 2013).

Foundation skills programmes

The Open Polytechnic of New Zealand offers a suite of blended, distance learning foundation skills programmes targeted at second-chance learners with low literacy and numeracy. These Get Ahead programmes are set up as staircasing programmes, yet they can also stand alone as individual programmes.

Each of the three programmes within the suite builds literacy and numeracy, and life and study skills; the third programme introduces vocational options.

1. Get Ahead Start is primarily a literacy and numeracy programme for adult learners who have low and limited literacy and numeracy levels. The programme applies the research on effective literacy and numeracy development for adults by developing confidence and competence in reading, writing, listening and numeracy strategies, in the context of their everyday life (family, community, employment, etc.). Learners study this programme to gain literacy and numeracy levels to enable them to move effectively into other foundation programmes, such as Get Ahead Skills. The programme is delivered in collaboration with community organisations, within workshops and by providing additional coach/mentor support.
2. Get Ahead Skills is a foundation level programme that facilitates learners to identify positive ways forward in their lives. The programme embeds literacy and numeracy, so that learners continue to develop these skills. Learners explore aspects of their personal, social and educational

development with a focus on literacy, effective communication, financial goal-setting, and training and employment pathways. Learners also explore personal and community health and wellness, establish realistic plans to enhance employment opportunities and set future goals. The programme is designed to develop learners' employment prospects, inspire and staircase them into further study, prepare those not in employment for the workforce, and encourage those in work to aim for increased productivity and job satisfaction.

The programme is highly motivational with a focus on supporting and inspiring learners. To achieve this, the programme has a strong support component which is a key to the success of the programme. A coach/mentor is integral to delivery, acknowledging the importance of supportive feedback for literacy learning. Another important feature is the ability for learners to access a study venue if needed, away from the home environment.

3. Get Ahead Choices is at Level 2 on the NZ National Qualifications Framework, a level up from Get Ahead Skills. It reinforces the benefits of lifelong learning and tertiary study, and helps students to go even further in preparing themselves for employment opportunities, through introducing learners to taster sessions for vocational options, while continuing to build life, study and literacy and numeracy skills.

The focus of this paper is the Get Ahead Skills programme. The programme is targeted at second-chance adult learners who are on low incomes or who are unemployed, and with minimal or no tertiary education. It includes social service clients and employed people who need foundation level skills, work skills, and motivation and personal development. Learners may be in full time or part time employment, a casual worker or unemployed; or a stay-at-home parent, a caregiver for an elderly or homebound relative, a mature student, or someone who has decided to return to the workforce. The courses are offered free to reduce the financial barrier to learning.

In 2012, the Open Polytechnic piloted delivery of the programme to offenders who are in prison. A majority of offenders in the care of the Department of Corrections (68%) lack basic literacy and numeracy skills, and this affects their ability to gain employment, and to rehabilitate. The Get Ahead Skills programme helps offenders gain personal and employment skills so that they are better able to contribute to society upon their release. Following the pilot it was decided to offer the programme to offenders who are in prison and those undertaking some other form of custodial sentence.

Upon successful completion of the Get Ahead Skills programme, learners receive the Open Polytechnic Certificate in Career and Self Development, and the National Certificate in Employment Skills. Learners can achieve credits towards the National Certificate of Educational Achievement, the school leaver qualification in New Zealand.

Get Ahead Skills model

Get Ahead Skills has four courses.

1. My Planning, My Preparation. This course facilitates learners to identify positive ways forward in their lives. Learners explore aspects of their personal, social and educational development. There is a strong literacy focus in this course, offering learners reading, writing, and language skills for effective communication. Learners who successfully complete this course will be able to:
 - 1.1 Identify personal strengths and limitations in context.
 - 1.2 Identify personal skills and behaviours that will enhance life.
 - 1.3 Set personal goals and develop plans to achieve them.
 - 1.4 Identify study skills that will enhance learning.

2. My Finances, My Work. This course develops basic mathematical skills, in order to facilitate financial self-review and goal setting. Learners also use their analysis of their financial situation to inform their vocational options. Learners who successfully complete this course will be able to:
 - 2.1 Identify a personal financial situation.
 - 2.2 Set a personal financial goal and a plan to achieve it.
 - 2.3 Review vocational and training history.
 - 2.4 Explore achievable employment and educational pathways for the future.

3. My Health, My Community. This course encourages learners to assess their communication strategies and identify ways to improve personal communication. It encourages learners to identify and recognise health and wellness issues and to take responsibility for managing their own health, while supporting the health of their family and community. Learners who successfully complete this course will be able to:
 - 3.1 Communicate more effectively in family, community and workplace contexts.
 - 3.2 Identify and recognise personal health and wellness status and plan to manage issues.
 - 3.3 Recognise family or community wellness issues and identify ways to support change.

4. My Goals, My Future. This encourages learners to continue their career exploration and develop plans to enhance employment opportunities. It asks learners to identify the contribution they make to their community. Learners are encouraged to reflect on past goal setting and to set new goals for their chosen educational, vocational, community and personal pathways. Learners who successfully complete this course will be able to:
 - 4.1 Assess their personal qualities, skills and experiences.
 - 4.2 Design an achievable plan to enhance their employment

opportunities.

- 4.3 Identify past and possible future community contributions.
- 4.4 Review and reflect on past goals and set new goals for the future.

Each kit for the four courses within the programme contains a booklet of learning materials specific to the subject, a journal and a workbook. The materials are instructionally designed for self-managed learning. They enable the learner to work through comprehensive guides, journals and workbooks independently in their own time and place. The language used within the learning materials is aligned with the New Zealand government's literacy and numeracy learning progressions standards. The reflective journals within the kits are used for learners to assess, monitor and evaluate their personal, social and academic learning experiences. The learning materials are specifically designed for a range of learning styles. They are printed in full colour and contain photos and illustrations to help maintain the learner's interest through the course.

The kits for community groups include additional cognitive items to help learners engage with their studies. These are: a dictionary, a set of cards with motivational sayings, a CD of classical music to play in the background while they study (to help ease anxiety), coloured pens and a magnetic calendar so that students can colour code study tasks around other commitments.

Everything the learner needs for study is included in the kits, including lined note paper and pens so that there is no disadvantage for any learner.

The kits sent to our learners studying through the Department of Corrections are slightly pared down. These resources include the dictionary, course resources and pen, but do not include the CD, cards, felt pens or any spiral bound resources, as the Department of Corrections believe these would increase security risks in a prison environment.

The coach is integral to the successful delivery of this programme, as it is important for learners to get guidance and support when learning new skills. The programme is highly motivational with a focus on supporting and inspiring learners. To achieve this, the programme has a strong support component which includes face-to-face coaching, with at least two student-coach interactions per workbook. The programme enables learners to study independently and to meet regularly with small groups of other learners. It provides support from programme coaches, so that learners can work through problem areas in the face-to-face sessions.

The programme content is embedded with literacy skills (speaking, listening, reading, and writing), and numeracy skills based on a nationally recognised learning progressions framework. Adult learners develop expertise by building on their existing knowledge, skills and experiences and they develop literacy and numeracy most effectively in contexts that have meaning to them. Learners' increasing awareness of their knowledge and skills allows them to apply these skills in a wide range of contexts. The student's learning is also scaffolded (delivery based on student's current knowledge and skills) to assist students with low levels of numeracy and literacy. The coaches provide extra

literacy and numeracy support to those students who are particularly challenged.

Each learner's level of literacy and numeracy is measured at two points. The first assessment is within six weeks of the student enrolling in the programme, and the second is within the last six weeks of the programme.

All learners complete an assessment based on knowledge and skills within the nationally recognised learning progressions framework. These assessments pinpoint accurately the learning needs of the learner. Each learning progression describes a typical pathway, and when the coach knows where a particular learner 'fits' on any one progression, they can be reasonably sure what the learner will need to learn next to develop their expertise in that area.

The result of the first assessment is integrated with students' learning by being reflected in a 'Future Directions' plan that students complete in the first section of the Get Ahead Skills programme. Results from the second assessment will similarly be used to complete their pathway plan in the last section of the programme.

Assessments may take place on-site or at a venue agreed between the student and coach.

The Get Ahead programmes are scheduled to take 32 weeks to complete, however each course can be completed earlier according to the motivation and commitment of the student and availability of the coach.

The Open Polytechnic works with partners to deliver the programme to groups identified by the New Zealand government as being most in need. Since 2010 the programme has been delivered through community partners to Pasifika learners throughout New Zealand. Pasifika make up 7% of New Zealand's population, with 41% leaving high school without a Level 2 National Certificate in Educational Achievement – the minimum level of learning the New Zealand government has identified for effective contribution in the work force.

The Open Polytechnic provides:

- Enrolment advice and documentation to ensure potential students meet entry and funding criteria.
- Referrals of individual Open Polytechnic students to community organisations for programme support.
- Management of student information, such as reporting, records and results.
- Course materials dispatched to community organisations upon enrolment of the student.
- Ongoing review and updating of course material.
- Management of intellectual property.
- Quality assurance, compliance and moderation.
- Programme accreditation and result reporting.
- Regular monitoring of programme delivery practices.

- Training to the coaches/mentors on how to deliver and assess the programme.
- Ongoing provider and coach support.

The community organisation provides:

- Suitable staff to fulfil a coach role.
- Students eligible to study in New Zealand.
- A training room for workshops and student–coach meetings and assessments.
- Student access to computers to assist with computer related activities.
- Appropriate resourcing for coaches and workshops, that is: whiteboard, pens, access to photocopier, access to internet (on occasion), computers, phones, email.
- Private space for individual assessment interviews to be conducted from time to time.
- Flexible hours for delivery of programmes to meet the needs of students.
- Regular communication and reporting of student progress and results.
- Ability to offer support to students referred by Open Polytechnic.

Learner and coach feedback

The Get Ahead suite of programmes is subject to nationally coordinated performance monitoring and outcome reporting frameworks. Independent analysis by government statisticians report that graduates of this employment skills related programme are less likely to stay on an unemployment benefit after their study, and are more likely to find employment compared to similar employment skills programmes offered by other providers.

Since Get Ahead Skills was launched through community partners in 2010, over 600 learners have graduated from the programme. Graduates span the ages of youth to mature adult. Completion rates are near 80% – a high level of success in terms of learner outcomes. For many of the graduates, the programme is their first experience of educational success.

Many graduates have gone on to further study and better jobs as a result of their Get Ahead Skills experience. The programme has been so successful that currently the student demand exceeds available places in the community based programme.

Evaluation feedback from programme pilots (prisoners working through the first kit in several New Zealand Corrections facilities during late 2012) indicated that learners and coaches value the programme.

Coaches believed that the Open Polytechnic training and the materials prepared them well to support the programme effectively. Comments from evaluations included:

- [Materials were] good, clear and easy to understand.

- ...the layout is great and it flows very well. The timing of the programme was easy to work out, the workbooks are easy to follow.
- The quality of the material is very good. The layout is great and it flows very well, clearly a lot of thought has gone into this.
- The timing of the programme is easy to work out even for first time event as this was. The workbooks are easy to follow and easy to time for your outcomes.

Learners were able to work through the activities outside coaching time, which coaches observed worked well.

- [It was] easy for the students to follow and complete the journal activities out of class.
- Students enjoyed journal work and were very proud of their contributions.
- There was apprehension from the students at the beginning of the programme about sharing information with others; however they were assured that journals were their own work and would not be subjected to discussions in class.
- In general these guys are enjoying this program and some have gone to places with it that I feel perhaps they have never done before.
- Well the Christmas period has done the opposite to what I thought, all of the journals are now completed and marked appropriately. This is above my expectation and I can say that I am pleased.
- All learners had no issues with the tasks given to them to do in their own time.

During the Department of Corrections' pilots, the tight timeframes and lack of extra coaching time if learners missed a class put some learners under pressure and they then felt stressed. The ongoing programme allows for catch-up sessions. Coaches spent time making sure learners knew what they needed to do and when, and they supported learners through stressful moments. Some learners needed extra support because of their lower literacy and numeracy skill levels, or lower confidence levels.

During the pilots, coaches identified a need to improve some administrative details, such as enrolment forms and the Learning to Learn resource not being available until Week 5. They also stressed the need for a good lead-in time, which had not been possible for the pilots. This would allow coaches to work through the pre-enrolment information with learners so that learners are able to understand the programme before committing. It also allows coaches to assess literacy and numeracy levels. Based on experience from the pilots, Department of Corrections' learners need to demonstrate literacy and numeracy levels at step three of The Learning Progressions (Tertiary Education Commission, 2008b, 2008c) to be accepted into the programme.

Lessons from the pilot experience:

- Learner pre-enrolment advice is important.
- Selection criteria should include evidence of self-motivation and some level of literacy and numeracy.
- Catch-up classes need to be available to learners.
- Some learners need extra support to complete missed classes.
- Corrections needs to ensure that learners accepted into a programme are not taken away for other educational activities or work.

Surveyed learners agreed or strongly agreed that they understood the aims of the programme, what was required of them to complete the programme, and that the coach helped them to learn and complete the programme. They all found the workshops helped them learn and they were satisfied with the course; most believed that the resources contained everything they needed for their learning. When asked what the best part of the programme was, learners commented on various aspects of the model:

‘the certificates’
 ‘learning new things’
 ‘getting good feedback from tutor’
 ‘good coach, very helpful’
 ‘I recommend this to all inmates’
 ‘learning in a group environment’

Conclusion

Countries at all stages of development face challenges in supporting adult learners to improve their literacy and numeracy, and employability. An effective model for developing these skills is the use of well-designed self-paced learning materials with embedded literacy and numeracy supported by trained coaches. Learners should be able to work through the materials on their own, completing journal activities with the level of support they need to build confidence and to enable them to succeed. The learning materials free up coaches to focus their time spent with learners on motivation, specific feedback, and targeted support. This model has proven effective in New Zealand when offered by the Open Polytechnic in partnership with community groups and the Department of Corrections.

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