Boosting literacy and numeracy outcomes in tertiary education: 2015 research findings

Tertiary Education Commission
Te Amorangi Mātauranga Matua

Introduction

The Tertiary Education Commission (TEC) commissioned research to find out more about how to improve the literacy and numeracy outcomes for learners. We focused on developing tools to help tertiary education organisations assess the state of embedded literacy and numeracy in industry training, and the use of Pathways Awarua, a TEC-funded digital learning tool.

This summary highlights the key findings from the research on the tools available to support literacy and numeracy in tertiary education.

Making a difference to literacy and numeracy learner outcomes

Enhancing the Adult Literacy and Numeracy Implementation Strategy through Data-Driven Decision Making[i] has resulted in a benchmarking Framework and User Guide to help tertiary providers measure organisational performance in literacy and numeracy against agreed benchmarks.

The purpose of the Framework and the User Guide is to support the process of organisational improvement. The Framework provides structured support for making evidence-informed strategic and operational decisions for the improvement of learner outcomes.

The Framework supports a consistent approach to an organisation's self-assessment processes.

Evaluating literacy and numeracy in ITOs

Evaluating the Progress of Embedded Literacy and Numeracy in Industry Training Organisations (ITOs), Heathrose Research Ltd (2014)[ii] assesses changes in practice, the effectiveness and impact of practices, and the extent to which literacy and numeracy is now embedded into ITOs' organisational approaches, processes and practices.

The evaluation found that ITOs have multifaceted, strategic and operational plans that guide their overall organisational approach to addressing literacy and numeracy in their industry training arrangements.

Approaches and practices used by ITOs for embedding are driven by the sector and delivery models that are commonly accepted. The areas of most significant
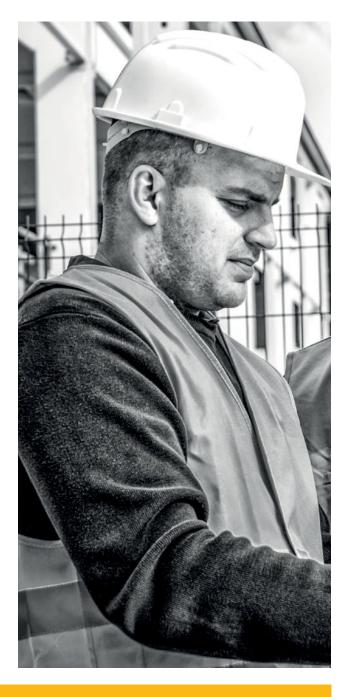
progress have been in building staff capability, trainee learning resources and on-the-job training support.

There is growing confidence and competence amongst ITOs to take a strategic and integrated organisational and industry development approach. Internal ITO literacy and numeracy capacity and capability have been critical to effectiveness, particularly in consistently articulating to employers and industry the case for addressing literacy and numeracy skill development.

However, there are still challenges for ITOs in using the literacy and numeracy Assessment Tool particularly for those where training is on-the-job only and there is little or no contact with an ITO adviser or education provider. Better use of the Assessment Tool is found where off-job providers and training advisors are conducting assessments.

Whilst there has been progress, embedding literacy and numeracy in on-the-job training continues to be a challenge. ITOs need to continue to work with employers and industry groups to raise awareness of the benefits of embedding literacy and numeracy in the workplace.

Where progress has been made, elements of embedded literacy and numeracy activities included strategic, operational and employer/trainee elements that ITOs have successfully adapted to meet their predominantly workplace-based learning contexts.

"Embedding at [ITO] is just part of what we do with apprentices and learners. No one person has responsibility, we see it holistically. We use the Assessment Tool, make resources accessible, have support for learners who need it. Field staff are critical to support it."

ITO interviewee

Pathways Awarua complements teaching programmes

Pathways Awarua: A digital learning tool to support adult literacy and numeracy, Heathrose Research Ltd (2014)[iii] identifies more about how this digital learning tool is being used, the extent to which it supports face-to-face teaching, and the extent to which it is affecting outcomes for learners, in particular Māori, Pasifika, youth and learners, with low literacy and numeracy skills.

Pathways Awarua is valued by educators and learners, particularly as it complements teaching programmes, engages learners well, works well with motivated, independent learners and is observed as 'making a difference' to literacy and numeracy proficiency and practice.

The most cited uses of Pathways Awarua by educators were as an independent activity, to target gaps, and to supplement other classroom-based learning resources.

Its use, mainly as an independent learning activity, suggests it could be better integrated with programmes of learning, although there is also evidence to suggest it is used to consolidate or reinforce what is learnt in a face-to-face learning situation.

The report concludes that more research needs to be done to understand how specific user groups, particularly Māori, Pasifika, and second language learners, use Pathways Awarua.

"We have set a number of numeracy and reading modules that students have to attempt. It is used as a motivating tool for adults to gain confidence in computer literacy, numeracy and literacy. It is used as part of the students' homework expectation."

Educator

Measuring learner outcomes

Literacy and Numeracy for Adults Assessment Tool: Contribution to Educational Outcomes in New Zealand, TEC (2015)[iv], explores how the Assessment Tool results are being used by learners; to inform teaching resources pedagogy and programmes; and at an organisational level to inform policy and practice. The research also explored the contribution that the information from the Assessment Tool is making to educational outcomes for learners.

The research found the Assessment Tool is well used as a diagnostic tool. The research highlights the work organisations, programme managers and tutors have undertaken to get to where they are today through reflective practice and continuous professional learning.

However, the research identifies that the work continues to be challenging, particularly in relation to progress assessments and being able to measure learners' 'true gain' in literacy and numeracy proficiency.

The report concluded that ascribing the contribution of the results from the Assessment Tool to overall educational outcomes for learners was difficult. However, the research showed that tutors are using the results to inform practice and that learners also know more about their literacy and numeracy proficiency through using the Tool.

"Good teaching practice is more important than the tool... the tool's a good start." **Educator**

"The tool is definitely helpful. You can't deny the fact that there is an opportunity to know where your student is at and then put things in place to develop their skills." **Educator**

This summary sheet is part of a series the TEC has published to contribute to the evidence on boosting outcomes for priority learners in tertiary education, including Māori, Pasifika, Youth Transitions and Adult Literacy and Numeracy.

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i   *Enhancing the Adult Literacy and Numeracy Implementation Strategy through Data-Driven Decision Making: A framework for developing organisational benchmarks for literacy and numeracy learner outcomes – The Framework*. November, 2014. National Centre of Literacy and Numeracy for Adults, Waikato University

ii *Evaluating the Progress of Embedded Literacy and Numeracy in ITOs*, Heathrose Research Ltd (2014)

iii *Pathways Awarua: A digital learning tool to support adult literacy and numeracy*, Heathrose Research Ltd (2014)

iv *Literacy and Numeracy for Adults Assessment Tool: Contribution to Educational Outcomes in New Zealand*, TEC (2015)