

Embedded Literacy and Numeracy Project Action enquiry - Case study from Manukau Institute of Technology



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Manukau Institute of Technology (MIT) is based in Manukau City, and has specialised learning centres throughout the greater Auckland region. MIT runs over 1500 full and part time degree level, diploma and certificate courses, including an extensive portfolio in business, human science, arts and technology.

The practice-based researchers involved in this project were interested in exploring effective ways to disseminate and 'keep alive' the principles and practices for effective L&N practice. They worked alongside a co-ordinator and within a community of learning to develop their respective projects which involved staff in their faculties.

The concern was that the learning and energy gained through clusters for L&N may be lost at the conclusion of L&N clusters and when teaching staff went back to 'business as usual'. The goal of this project was to explore some of the barriers to and levers for spreading effective L&N practice within teaching departments at the institution and thereby continue the work with L&N that started during clusters. This is seen as the next phase of work for L&N within our institution in terms of how to tailor and develop L&N principles and practices at department/faculty level. This also links to one of the key goals of the L&N clusters: to disseminate and discuss practices and principles with colleagues in departments.

ACTION ENQUIRY TOPIC & RESEARCH QUESTIONS

"We've done the cluster." Exploring the effectiveness of communities of practice for sustainability in the post-cluster environment.

- » What are the barriers for sustaining and spreading effective L&N practices within departments?
- » What are the levers for spreading L&N practices within departments?
- » How can a wider community of learning support individuals to work within their departments, overcome barriers and enhance levers?

CONTEXT

Following their own participation in 2009 in L&N clusters, the practitioner researchers were interested in exploring the most effective ways to spread their learning and encourage L&N based discussion amongst colleagues. The practitioner researchers were

keen to enhance L&N awareness and practice within their respective departments.

The project was focussed in the disciplines of Horticulture and Carpentry. Each of these areas has a diverse student body in terms of age, background and former schooling experiences. Both disciplines work predominantly with courses in the level 1-3 range and in the main educators are aware of the benefits of embedded L&N to improved student outcomes. There is however some resistance to L&N and practitioner researchers were aware of this when they started their work. An organisational drive for improved student outcomes provided an initial lever for the work with more resistant educators. The seven carpentry educators who participated in this project taught at level 3 and the ten participating horticulture educators worked with students at level 2.

Each discipline had challenges to consider as they developed department based L&N plans for working with staff. Horticulture is delivered at a range of sites remote from the campus, often within local communities and marae. Carpentry is delivered on-site and was at the time of the project involved in a process of change where programmes and courses were being restructured and reorganised. Across both departments teaching staff have strong industry backgrounds.

The project was explained to heads of school and to staff during staff meetings. Staff volunteered to be part of the project.

METHOD

The project followed a series of steps. The first step involved the completion of questionnaires by teaching staff within the respective departments. The questionnaires related to trade and teaching background and qualifications as well as perceptions of L&N and teaching and learning challenges within their trade. Questions also explored the mode of professional learning that staff preferred. The responses were analysed and used to inform a plan, developed by the practitioner researchers and the co-ordinator for ongoing L&N work within the respective departments. Field notebooks were kept and the practitioner researchers recorded their ongoing interactions with teaching staff related to L&N. Regular co-ordination meetings were held.

Communities of Learning were developed along two lines. The first was intended as a learning opportunity for practitioner researchers to engage with others involved in similar work within their departments. The second was an opportunity for the co-ordinator and practitioner researchers to meet together and discuss progress, problem solve and generally 'catch up' with how the plans were working and whether changes were required. Information from the field notebooks was discussed on these occasions and the group worked together to explore key ideas, barriers, challenges and successes in the ongoing L&N work.

Finally, the co-ordinator and the practitioner researchers worked together to collate the key findings for the project. The key findings were based on the information they had gathered during the development and undertaking of the respective plans and their experiences over the duration of the project. The experiences were supported by notes made in the field notebooks.

QUESTIONNAIRES: RESULTS

The results of the initial two questionnaires provided some background that supported the tailoring of L&N plans for the ongoing work within departments. The questionnaires were designed to gather background trade and teaching information and qualifications as well as to gain an initial impression of staff perceptions of teaching and L&N within their trade. A teaching based questionnaire asked educators to identify challenges they experience in their teaching work and how they normally solve such challenges. Questions also related to perceptions and understandings of L&N and explored the mode of professional learning that staff preferred.

The questionnaires demonstrated the vast range and diversity of experience, qualifications and backgrounds of the educators involved in the teaching of courses requiring L&N skills as well as the diversity of the teaching/tutoring roles in which they engage daily.

Educators identified that they do experience problems and challenges in their everyday practice and that many of the L&N concerns relate to the reading and basic maths skills of their students. Most educators indicated that they talk to colleagues when they experience problems.

Horticulture

Ten staff members teaching across levels 1-6 were involved in the project. Tutors in horticulture range in age from early 30s to mid 60s; their teaching roles vary from actual teaching to teaching support and tutorial assistants. All lecturers have a teaching

qualification at certificate level. Tutorial assistants are working toward their Certificate in Tertiary Teaching. 'Lecturers' are trained horticulturalists who hold either a diploma or a degree in horticulture and have a teaching qualification; others, who act as tutorial assistants, have industry experience and were included in this project because of their role with students in the practical environment.

The level 2 course that was the main focus for this action enquiry has recently been redeveloped. Students range in age from school leavers to those in their early 60s, and have a variety of backgrounds. Some have degrees in other areas and some are long term unemployed. There are approximately four 'youth guarantee' students.

Horticulture lecturers reported that they preferred professional learning opportunities that were 'one-on-one' and they least preferred 'formal PD sessions.'

Carpentry

Seven carpentry lecturers completed the initial questionnaire for this project. Lecturers range in age from mid 30s to mid 60s. All have a trade qualification; one has an Advanced Trade Certificate. Two of the seven involved in this project have a teaching qualification, and the others are currently enrolled in a Certificate in Tertiary Teaching.

The tutors within this enquiry teach within a level 3 carpentry programme. The programme was undergoing redevelopment at the time of the enquiry. The students in this programme are ethnically diverse and range in age from 16 to 60. Approximately 20% of students in this group were 'youth guarantee' students.

Carpentry lecturers stated that, in terms of their own professional learning, 'informal discussions' with other lecturers were the most beneficial and 'formal PD' was least beneficial.

KEY FINDINGS

Negotiation with leaders was vital

Before the work could begin there was a certain amount of ground work that had to occur. Practitioner researchers had to get support from course and programme leaders, negotiate meeting times and places, and organise time for preparation and administrative tasks related to the project. Only after these things had occurred could the 'actual' work around L&N begin.

'Formal' PD sessions were problematic. Informal discussions worked

Researcher practitioners reported that the responsiveness of many lecturers to discussions around teaching practice and L&N improved when the learning environment was less formal. The depth of some of the discussions and the willingness of lecturers to explore their practice in an informal environment were noticeably different.

In both horticulture and carpentry the initial plan was to arrange 'formal' sessions with staff. This was to administer the questionnaire and to discuss L&N practices and ideas. The initial plan proposed that formal sessions would continue into formal L&N sessions over a period of weeks and time would be set aside through staff meetings for this to occur.

Both practitioner researchers identified early in the project that this way of working would be a barrier to the dissemination and discussions around L&N within their discipline. Each suggested that informal discussions would be more beneficial for staff within their area.

Horticulture

For horticulture the initial barrier was logistical. Since much of the delivery happens off-site it was difficult to bring people together. Many staff members are part time and finding an appropriate time and place to bring all staff together as a community to discuss practice was very difficult. The researchers decided to have an open morning tea and to deliver the questionnaire by hand to those off site. At the same time the researchers talked with staff about L&N and teaching practice in an informal way.

Informal discussions with staff and what they were already doing to support L&N within their work resulted in the development of a common resource to support teaching staff keep track of numeracy embedding within Horticulture. This has become a point

of discussion and a place for lecturers to start their thinking about how they are embedding numeracy. The template organises the numeracy events within a course, ensures that deliberate acts of teaching occur around that event and provides evidence for teaching having taken place.

Carpentry

The planning for L&N in carpentry initially included a formal 'space' within the regular staff meeting to discuss literacy and numeracy practice. This seemed to be the easiest logistically and was planned before the team had analysed the results of the questionnaires. The practitioner researcher prepared a programme for a series of six sessions for L&N. Afternoon tea was provided at the first meeting and tutors discussed their concerns and issues around L&N. They also completed the questionnaires.

Discussions about L&N in carpentry were attached to a new departmental approach to assessment. This was seen 'as a way in'. While this opened the door for discussion about different approaches and ideas around delivery and assessment and included L&N it wasn't until the formal session was over that valuable discussion occurred. Informal discussions were sparked around assessment options, more student focussed approaches and use of resources. This occurred spontaneously following the formal session.

Ongoing and informal discussions based on initial information were important

In horticulture the informal nature of the first meeting opened the door to ongoing discussions. The questionnaire also got tutors thinking about their practice and became the starting point for ongoing topics of discussion. For example, "I realised that some students didn't realise that x on the calculator meant times, what should I do?". "How do I cope with a student that appears to be bright and switched on but doesn't appear to be able to put things on paper?" These informal discussions continued and shaped the rest of the project. The researchers responded to the questions and topics from tutors and lecturers as they came up. By providing resources and being resource people a shared 'problem solving' relationship developed and further opportunities were presented in an ongoing way.

The practitioner researcher noted that the first formal session planned for carpentry didn't work well. He identified that the formal nature of the meeting would not work for this particular group of people. Lecturers were resistant; and it appeared that those who were not resistant chose not to engage. "Why do literacy in tertiary, what's happening in secondary school?", "I don't have time to do literacy", "We're already doing it, why should we change?" etc. The practitioner researcher looked outside to the wider community of practice to find solutions to the negativity he experienced. Motivated by what was happening in horticulture he decided to take a similar informal approach, abandoned his plan and developed a new plan. By visiting lecturers one-on-one or in twos he found a way to engage in open-ended chats, "The doors opened.... lecturers were happy to talk about their practice, successes and challenges together". This set the template for what followed with informal 'chats', sharing practices, sitting in on each other's classes and working together on group assessments using L&N. Three key people began to work together and made plans for ongoing peer work around L&N. It is envisaged that this will grow, "it has developed momentum".

Having people external to the department helped gain traction internally and made a difference

Having people external to the department had some influence in gaining traction for the projects – made it more 'visible' and gave it 'authority'.

Having a professional learning group of people involved in the same work helped

Regular meetings between the practitioner researchers and the co-ordinator were a key mechanism for problem solving by discussing concerns to find solutions. This group exchanged ideas and experiences. A co-operative, mutually respectful team that had both a common goal and an understanding of context was an important lever in terms of supporting and spreading L&N at department level. Discussions that focussed on actual literacy and numeracy practice were reported by practitioner researchers as "very important" to reaching the overall goals.

Common and explicit goals and a time frame enhance the effectiveness of a community of practice

A wider community of practice involving people from earlier clusters as well as the practitioner researchers was set up at the beginning of the project. It was the intention that this group would be able to field ideas that may enhance the work of the practitioner educators as well as enhance their own practice within their own departments. This wider group was less focussed on the goals common to the practitioner researchers. It became an opportunity for people from past clusters to talk about L&N in their own context and while this was useful it didn't feed into the goals of the project. Participants in this group were at different places in terms of their own L&N development and the group was quite disparate, lacking a clear and explicit goal and time frame. The significance of this group to the overall project was very small. However, what this does suggest is that common goals and a clear time frame may enhance the effectiveness of a group of people involved in advancing L&N practices and principles at department level.

Participation in clusters provided a useful base

Practitioner researchers suggested that there were benefits from the cluster which flowed through to the informal discussions with other educators. The formal learning from these clusters provided a background in terms of key principles of literacy and numeracy practice i.e., know the learner, know the subject and know what to do. The practitioner researchers used the resources from the clusters in their work with educators.

Key factors for improved knowledge of L&N and enhanced L&N practices:

- » Being flexible in our work with L&N and staff. Knowing that every group of educators is different. While the message might be the same the way we deliver may well be very different.
- » A realisation of the importance of the principles of adult learning—i.e., the need to be recognised as competent adults and to be connected to a community of others—was a key factor in the success of this project. Working with staff and engaging them in terms of their own areas of expertise were important. Staff worked together, as equals, towards a common goal.
- » A wider group for professional learning that was focussed on common goals was important. It provided the opportunity to reflect on incidents, discuss ways to move forward and gave general support.
- » The initial clusters for L&N provided the basis for professional learning in L&N and encouraged experimentation.
- » Diagnostics provided evidence for teachers that they needed to do something. The need was high and this was seen through analysis of diagnostic information.

CONCLUSIONS

The [Action Enquiry process](#) provided an opportunity for interested individuals from different disciplines to work together to develop common findings. It provided a framework to problem-solve specific areas through a common area of practice, in this case L&N. Common questions provided focus, the process provided a forum, and the structured time frame kept the project moving forward.

The ethics process provided a structure for the research and had the benefit of involving Heads of Schools and the Dean thereby raising the profile of this particular research project and giving it 'legitimacy'. It has encouraged the development of pockets of support within and outside departments for L&N. Here lecturers talk to each other and get ideas from within and outside of their department. Having two departments involved in this project meant the benefit of lots of cross-referencing and discussion across fields. The focus provided by the project was important in this respect.

The Action Enquiry into L&N formed the basis of wider dissemination of ideas through informal winter lunchtime gatherings - 'soup and bun' sessions which provided an opportunity for practitioner researchers to discuss their work with the staff in the wider institute.

The [Action Enquiry](#) process around L&N has provided the institution with information and evidence to inform and develop institutional and sector relevant responses to this area of work.

WHAT NOW?

The results of this project provided the basis for a different way of working with L&N at an institutional level. This institution has restructured and reorganised the way it works in terms of L&N and embedding. 'L&N Lead Practitioners' from within each faculty now work with the dissemination and delivery of L&N supported by a co-ordinator. This group of people are 'insiders' from their faculty and meet regularly as a Learning Community to discuss common areas of interest , to problem solve together and work toward common, institutionally based L&N goals.

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