A professional development/support model for all teachers

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Executive Summary

This study reports on the development of a *Reflective Practice Project*: an eight week mentored professional development programme conducted on three private training establishment campuses.

Coming to grips with the challenges of classroom management and the facilitation of quality learning is important in an environment where many practitioners enter teaching from an industry background.

The ten teachers involved in the project had a mix of teaching experience and qualifications but all taught anatomy and physiology and a practical client skill and were selected by management of the PTEs. Around 600 students were involved and were selected because they were taught by the teachers involved in the project.

The criteria used to measure the success of the project were decided upon and data was collected from learners and teachers both before and after the trial to compare results and record improvements. The criteria selected were; to increase: collaborative relationships between learners and teachers, effectiveness of educational strategies, student engagement with learning, and teacher confidence with educational practice.

The study showed that tutors made significant shifts as they reflected on their practice with the support of a mentor. It also showed that those with an understanding of adult learning principles generally made better progress than those without.

The study was able to follow the development of practitioners over the eight week period in relation to relationships between learners and teachers, effectiveness of educational strategies, student engagement with learning, and teacher confidence in their practice. Valuable feedback from both the practitioners participating in the study and the learners for whom they are responsible was able to be gathered across the eight week period.

It is recommended that education providers implement the eight week Reflective Practice Project for teachers, regardless of experience, on an ongoing annual basis to provide effective and individualised professional development, increase and record benefits for learners, and to foster collaborative learning/teaching environments. A readymade resource pack for implementing the Reflective Practice Project at any tertiary educational institution can be found on the Ako Aotearoa website: www.akoaoteaora.ac.nz/.

The findings from this research will contribute to discussions about how best to induct and support new tertiary educators in the private training sector, and how to improve the tools used in the eight week programme.

It was noted during the project that organisational cultures may have an effect on teacher/student relationships. Included in the recommendations in this report, is that educational institutions develop clear teaching philosophies to guide teachers practice and that they develop clear models of what constitutes good educational practice so that teachers know explicitly what they are working towards. While it was not the purpose of this project to examine the beliefs or policies of the organisations involved, this finding deserves to be discussed in greater detail and this is suggested as a possible area for future research.

Contents

Introduction

It is widely accepted that there is room for improvement in educational practice within tertiary education in New Zealand. It is acknowledged that professional development across the tertiary landscape is delivered in many different ways; however this study focuses only on one method used effectively within a private training establishment. Professional development comes in many forms, however the practice of reflection is an effective tool for developing educators because it accommodates tailored learning to meet individual teacher needs (Knox, 2011). This Ako Aotearoa-funded project using a generic teacher support model based on reflective practice, was created to fill a gap in easy, ready to use professional development resources available to private tertiary providers. A mentored reflective practice model had been used previously with some success by the author at The International College of Camille. York-Barr, Sommers, Ghere & Montie (2006) report that the results of mentored reflective practice far surpass workshops or demonstrations for professional development purposes.

The model developed has been titled the 'Reflective Practice Project' (RPP): an eight week professional development programme. This ready-to-use resource can be found on Ako Aotearoa's website (www.akoaotearoa.ac.nz). It includes guides for project leaders, teachers and mentors, meeting templates to guide participants through the process, consent forms and a conclusion survey for measuring and recording results achieved. The intention of engagement in the RPP is to create lifelong reflective practitioners who will continue to improve their practice and benefit students' learning. Specifically, the expected outcomes of participation in the project are to increase: collaborative relationships between learners and teachers, effectiveness of educational strategies, student engagement with learning, and teacher confidence with educational practice. These outcomes were selected as themes for measuring the success of the project because they indicate good educational practice and foster effective learning environments**.** The rationale for designing a model to share lies in the desire to assist teachers who are often left to struggle alone, and in the long term, to see an improvement in educational practice in the tertiary sector, and in the overall achievements of students across that sector.

The RPP was implemented over eight weeks at three private training establishments which employed teachers with a range of teaching experience and qualifications. All taught anatomy and physiology and a practical client skill but at varying levels. Criteria used to measure success was determined and data collected from learners and teachers both before and after the trial to compare results and record improvements. The RPP showed positive results in all categories measured. The process of gathering feedback to inform reflective practice by teachers allowed the learners to share the 'power' in the teacher/student relationship and guided improvements in teachers' educational practices. The mentoring process increased knowledge of adult learning principles, and facilitated growth in a variety of new teaching strategies being used with flow-on effects that increased students' learning and their engagement with learning, and, gave teachers increased confidence.

Overall, the project achieved its objectives and proved beneficial irrespective of the teachers' qualifications or experience. The RPP is a simple and cost effective way to professionally develop staff and allow them to continue improvements on their own. In

the long term, it is expected that implementation of the RPP will lead to better practice and subsequently, benefits to learners. Therefore, it is recommended that educational institutions implement the programme for teachers irrespective of experience, on a continuing annual basis to provide effective and individualised professional development, increase and record benefits for learners, and to foster collaborative learning/teaching environments.

It was noted during the project that organisational cultures may have an effect on teacher/student relationships. The recommendations include one around this.

The task of educating adults in New Zealand is not only varied, but extremely important. If we are to meet the Ministry of Education's goal of increasing the current skills of our labour force to ensure economic success as set out in the Tertiary Education Strategy 2010-15 (MOE, 2010) adult educators must be supported in their efforts to engage in good practice using current educational philosophies. Effective educators get to know their learners, work collaboratively with them, consider individual learners needs, and continually improve their educational practice (Brinthaupt, Fisher, Gardner, Raffo, & Woodard, 2011; Walkin, 1990; Rogers, 2003). The most effective way to achieve all of the above is to be actively involved in reflective practice, yet reflective practice is foreign to many adult educators. Crowe (2010) tells us that reflective practice is driven by the fundamental assumption that change is not only possible but necessary to effect social change, however a number of educators are unwilling to engage in self reflection. Putting resources into encouraging and supporting adult educators to engage in reflective practice will support teachers, benefit learners (Ruddick, 1998), and see tertiary education outcomes improve (Roberts, 2011).

Educational practice should always be developmental - as Eisiner (1994) points out, most teachers out of necessity, constantly reflect upon and improve their educational practices, that is, they are developing. This reflection and improvement of professional teaching practice has been coined 'action research' (Newton-Suter, 2006). Action research seeks to address the practical concerns of people in an immediate situation; it is systemic in its approach in that it studies what is happening in order to make informed decisions and improvements (Hodgson, May, & Marks-Maran, 2008). It is this aspect of research which defines educators as professionals, and makes it vital that research be a conscious process and a formal requirement of all educators. Individual educational practice needs to be dissected if teachers are to develop because an important dimension of professionalism is the desire to go on extending one's knowledge and refining one's skills.

Self reflection is important not only for the growth of educators, but also to increase outcomes for students (Brookfield, 2006). The government is increasingly holding the education sector accountable for student outcomes (Ministry of Education, 2010) and there can be little improvement without progress in teaching practice. If educators are not focused on learning it is hard to imagine why students would be (York-Barr et al, 2006). Bain (2004) sums up the reasons teachers should engage in self reflection by saying "With a robust system of evaluation, we can continue to explore what the best teacher's do that makes them so effective…excellent teachers develop their abilities through constant self-evaluation, reflection, and the willingness to change" (Bain, 2004. pp. 172).

Reflective practice is a form of action research which has long been used to professionally develop teachers; the author has used mentored self reflective practice in particular to help professionally develop direct reports and improve student engagement with some success. Students comment on the useful teaching techniques used, the collaborative learning environment, and on the teachers' adaptation to different learning needs within the private training establishment (PTE) where the author is based. Mentored self reflective practice has become ingrained within the culture at the author's place of work, however it is noted that many other private training establishments may not utilize or be aware of its many benefits.

Informal consultation with other PTEs revealed that reflective practice was not widely used and that while professional development was desired by teaching staff, and was an important part of business operation plans, PTEs often found it difficult to find the time, resources, or expertise to undertake it satisfactorily. While there is a large body of literature available on professional development and some quality educator targeted literature available such as Stephen Brookfield's many books, tutors may not be aware of these valuable resources or make the time to read and apply the knowledge.

Varying levels of collaboration between teachers and learners were noted at the beginning of the project; however, greater collaboration has developed between learners and teachers at all three colleges. There have been improvements in educational practice, especially in the use of experiential learning strategies for all teachers involved in the project, and learners have reported increased learning as a direct result of the change in their teachers. "The new strategies help me personally to understand more" (Student interview). Before the project implementation several teachers were using only visual slides and the majority requested help with creating interactive/experiential learning strategies. Alexander (2001) tells us that while visual and auditory learners have their needs met most of the time; kinaesthetic learners are often left out. It was surprising to realise that even among experienced and/or qualified teachers who had an understanding of different learning styles and the need for experiential teaching strategies, there was little evidence of knowledge of how to create them or indeed of the adult learning principles which shape educational practice. Student engagement with learning was increased as a direct result of the new experiential teaching strategies implemented, and also by increased power sharing in student/teacher relationships. Increases in teacher's educational practice and success with reflective practice afforded improved teacher confidence.

Method

The project was a pilot to test the templates and gauge the effectiveness of the model. The aim was to understand how the programme would work and those elements that make it successful, so that the model can undergo continuous improvement.

Methodology specified for the pilot was action research. This required the participants to be active in the change process by examining their own problems or issues with their learners, critically reflecting on what they had achieved and modifying their teaching strategies, methods and resources to improve on past performance, based on their own reflections and feedback from their learners and mentor.

Development of the resource kit evolved from an earlier version used by the author. Modifications were made to enable the material to be used by other people in the tertiary sector, whose staff may or may not have previous experience of reflective practice, and adult learning principles.

Decisions about what to include in the RPP kit were shaped by an examination of both the fundamentals of reflective practice, and areas of professional development most often needed by tertiary educators. The templates and documents used in the project can be found in the RPP Management Guide.

Reflective practice is a purposeful process involving an experience-analysis-action cycle which can be used by teachers to improve their teaching skills. It has been used since the 1980's (Jasper, 2003) to allow professionals to learn from experiences in order to understand and develop their practice. The process of reflective practice involves a teacher (or any other professional) thinking about things which have happened to them, gathering data from different perspectives, analyzing the data, and then taking some form of new action to make improvements (Beaty, 1997). The forms of enquiry that teachers use to think about their teaching practice may include identifying problems or crises that occur in teaching, thinking about the cause of classroom events, examining personal actions, emotions and responses in relation to classroom events and gathering feedback which will assist improvements in the classroom (Hartman, 2010). This theory formed the basis for the creation of the weekly meeting templates designed to lead teachers through a reflective practice cycle to enable them to analyse and improve their practice.

Questions used (for the meetings) were designed to guide teachers to think critically about their practice; why things may have turned out as they did and how they could modify the practice to achieve better results. Another section asks specific prompting questions about aspects suggested as most likely areas of concern for teachers, that is, lesson objectives, activities and materials, students and classroom management. The template is designed to be completed by the teacher before meeting with the mentor so that the mentor can guide the process and offer guidance. A teacher's guide to reflective practice was then created to explain the process, purpose and benefits for teachers who would be participating in the project.

While some teachers may naturally reflect on their practice, it is acknowledged that others may find it more difficult to select just one aspect of practice on which to focus. Specifically, teachers often find that they need help to establish the basics of teaching such as classroom management, designing and communicating clear lesson objectives, and implementation and evaluation of successful learning strategies (Tileston, 2004). Hopkins (2002) points out that reflective practice does not necessarily need to start with a problem, just a general idea that something needs to be improved. Kremmis and McTaggart (1982) suggest an initial focus on what is happening now, in what sense is the current situation problematic and what could be done about it? Kremmis and McTaggart's literature informed the questions used in the initial meeting between the mentor and teacher.

The initial meeting template includes a classroom observation, and this, together with the meeting information, enables the mentor to get a sense of the teacher's practice and possible areas for development. The teacher's goal for their own educational development is then agreed upon. Questions used to determine the focus for educational development during the meeting include questions about challenges faced, lesson preparation, expectations, engagement, and feedback.

Identifying an area of practice for improvement can be a daunting process. The teacher may wish to focus on one area while the mentor may feel that fundamental principles should be addressed first. For reflective practice to be successful and result in maximum learning and progression for a teacher, it is necessary to balance the teacher's concerns with the mentor's direction, as new teachers may not always recognise what should be prioritised. As a result, the teaching mentor's guide to the RPP was created. The guide contains information about the reflective practice cycle, potential areas of improvement for teachers, addresses some concerns or issues that may arise from the perhaps emotional process of self reflection, and suggests ways to maximise growth during the RPP. The project leader's guide contains detailed information about the purpose and benefits of the project and step by step information on how it could be run.

As the intention of the project was to test an assumption that private providers would benefit from a professional development programme, and that this would help to improve both teachers and the quality of education being provided to learners, collaboration with others in the private sector was sought. The pilot was conducted with three providers located across Auckland who all employ industry experts, and teach anatomy and physiology and practical care of clients with a syllabus divided into approximately 50% theory and 50% practical. For the purpose of this report, they are called Colleges 1, 2 and 3.

The qualification levels offered and the quality of teaching resources were similar across the three colleges. Qualifications ranged from level 4 for part time study to level 7 for full time. Teaching staff taught at all levels regardless of their own teaching qualifications, and the learning assistance and professional development about educational practice was the same for teachers teaching at all levels. All colleges had substantial teaching materials, and methods to ensure consistency such as moderation of assessments, teaching timetables, and student evaluations. However, there were clear and substantial differences in the quality of education being provided by individual teachers in some cases. The colleges had an awareness of the differences in the quality of teaching but resources to address this were a challenge.

Ten teachers were involved in the study and were selected by management of the PTEs on the basis that they would benefit from professional development. Teaching qualifications of the participants ranged from no formal education qualifications to Diploma in Adult Education, but all providers were planning for staff to be qualified to at least Certificate level within a year. Some placed a greater emphasis on employing teachers for their knowledge of content and experience in the field rather than on teaching skills. All teach hands-on skills and as such, teachers have to possess experience and knowledge to pass on to learners. However, it is important to recognise that industry experts must have the ability to communicate their knowledge if they are to be successful teachers. Teaching experience among the participants ranged from new teachers to those with 25 years experience.

The highest level of attainment across the board in teaching qualifications was at College 1, whose teachers had undergone professional development on adult education practices and theories and this was apparent in speaking with them. They needed assistance with varying teaching tools and strategies to better reflect their individual teaching styles and individual learner needs.

Some staff at the second college had teaching qualifications, some teachers had considerable teaching experience, and there was evidence of an awareness of adult education principles, for example the display of Ako Aotearoa learning posters.

However there was little evidence of professional development having taken place, or of a culture which ingrained and incorporated adult teaching practices. These teachers needed assistance with this in order to engage in meaningful reflection and also needed help with the creation of learning tools.

College 3 included some teachers who had formal teaching qualifications and had considerable teaching experience. There was knowledge of professional development and awareness of adult learning principles but praxis of this knowledge was lacking. At the beginning of the pilot, this group demonstrated the greatest variation in teaching quality, some teachers using current teaching theories to inform their practice and others using very traditional methods. This group needed assistance with integration of adult learning principles, basic teaching tools such as lesson plan formats and teaching strategies and tools.

Project participants, both teachers and learners, were selected by management at the colleges. Those teachers were chosen who would most benefit from professional development. Not all were happy to be engaged in the project. Some initial resistance changed when they realised that the support they would get would be beneficial to them, however others were reluctant to commit to improvement regardless of a directive from their management. This phenomenon was expected and fits with the literature about teacher resistance to change (Ruddick, 1998). Students who participated in the project were those who had classes with the selected teachers. Effort was made to ensure that most classes across the colleges experienced at least one teacher who participated in the project. Approximately 600 students were involved, however it was difficult to get responses form all students due to absences.

Prior to beginning the pilot, criteria were created to measure the project's success. The intention was to create reflective practitioners who would continue to improve their practice and benefit their students' learning. In particular, the expected outcomes of participation were to advance collaborative relationships between learners and teachers, effective educational strategies, student engagement with learning, and teacher confidence in their practice.

Collaborative educators believe that sharing power in the classroom and helping students to take responsibility for themselves facilitates better learning (Slater, 1988). There is much debate as to what constitutes good educational practice. Knowles (1990) suggests in his theory of andragogy, among other things, that learners need to see the relevance of learning, access prior knowledge and link it to new learning, and construct learning in a self directed way. Ellis, Worthington & Larkin (1994) maintain that educational practices which facilitate learning are those which allow learners to be engaged with learning activities, experience success, scaffold learning appropriately, actively use knowledge, and make instructions explicit. Tileston (2005) says that finding out about learners needs and providing feedback on learning is critical for student success.

Students who are engaged show sustained involvement in learning activities accompanied by a positive emotional tone, initiate action willingly, exert effort and concentration during learning activities and show generally positive emotions during the learning including enthusiasm, optimism, curiosity, and interest (Skinner, 1993). It is a fact that teachers need confidence in order to teach well (Valazza, 2012), but the factors that indicate and improve teacher confidence are varied. Eison (1990) cites the following factors which contribute to teachers' confidence: knowledge of the ingredients and components of effective instruction, adequate preparation for lessons, and willingness to listen to what students have to say about one's teaching.

The Pilot

To gather the pre project data, the colleges were visited and the teachers to be involved attended an introductory seminar during which they were informed of the project aims and purpose, invited to think about their individual practice and areas where they may require assistance, and signed the consent forms. A variety of methods was used to gather data (surveys, interviews and observations).

The table below shows the data gathering methodology used before and after the project. (**B** = before the project, **A** = after the project.)

Criteria measured	Student survey	Teacher survey	Teacher interview	Teacher observation	Student observation
An increase in the collaborative/democratic relationships between learners and teachers	**B** **A**		**B** **A**	**B** **A**	**B** **A**
Increased effectiveness of educational strategies and systems used by teachers		**B** **A**	**B** **A**		
Increase in student engagement with learning	**B** **A**	**B** **A**			**B** **A**
Increase in teacher confidence with educational practice		**B** **A**		**B** **A**	

Figure 1: Summary of data gathering methods used during the RPP pilot

The project leader mentored 80% of the teachers involved in the project personally, and a senior tutor from one of the colleges also trialled implementation with teachers at one location to check for ease of implementation by a third party. An overview of the implementation of the RPP over the three colleges follows:

Week 1:

- Introductory meetings
- Lesson observations
- Initial meetings with all teachers individually
- Setting of individual goals for the project
- Guidance on the first new educational strategies to implement

Weeks 2-9:

- Implementation of new educational strategies by teachers
- Guiding teachers to reflect upon the week and fill in the weekly

meeting template
- Educating teachers about adult learning principles and help with creation of teaching tools and resources
- Guidance on new educational strategies to implement

Week 10:
- End surveys to measure improvements

Classroom observations were conducted with all teachers' participating in the project prior to their initial meetings to ascertain their goals for the project. The observations were designed to record baseline data of current practice, collaboration and student engagement with learning. The original observation list did little to achieve the objectives, and a more useful method of considering teacher/student relationships may be the *Model for Interpersonal Teacher Behavior* (*MITB*) based on Timothy Leary's research on the interpersonal diagnosis of personality (1957) and its application to teaching.

In the MITB the two dimensions are Influence (Dominance—Submission) and Proximity (Opposition—Cooperation). These dimensions can be represented in an orthogonal coordinate system (see Fig. 2). The two dimensions, represented as two axes, underlie eight types of teacher behaviour: leading, helpful/friendly, understanding, student responsibility and freedom, uncertain, dissatisfied, admonishing and strict (see Fig. 3).

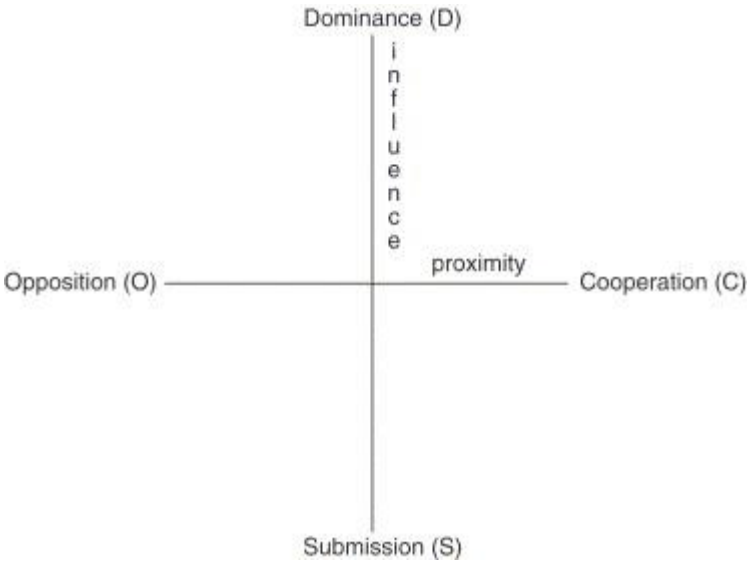


Fig. 2. Two-dimensional coordinate system of the model for interpersonal teacher behavior.

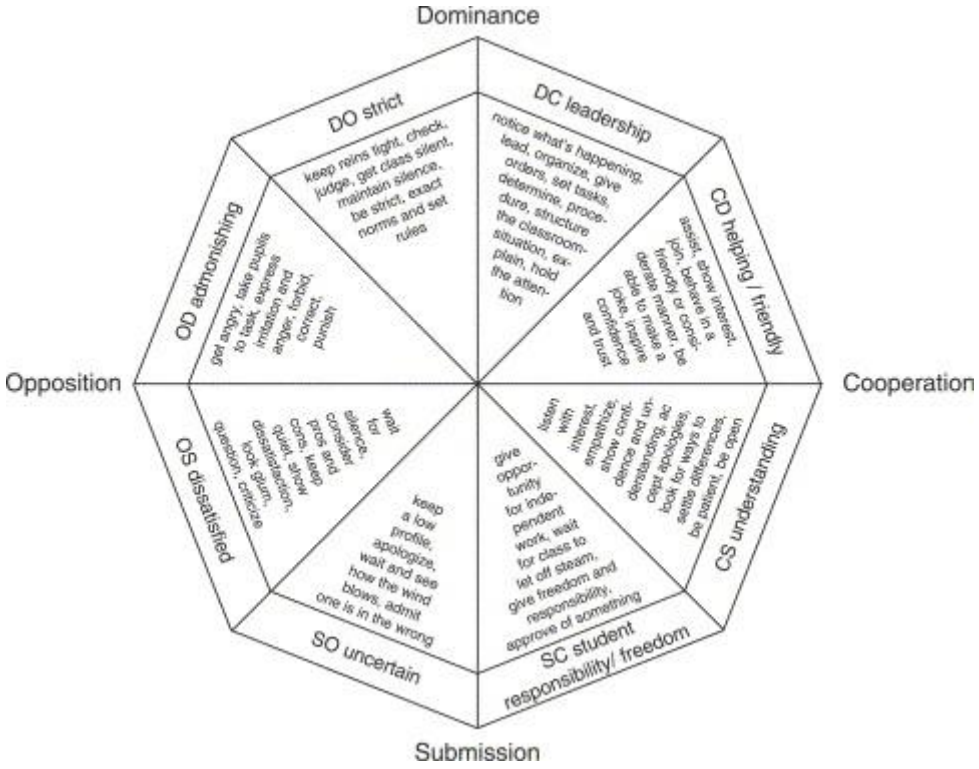


Fig. 3. Model for interpersonal teacher behavior.

The DO/DC letters in Figure 2 represent the extent to which Dominance and Opposition are present in the relationships, or Dominance and Cooperation and so forth. It is suggested that these factors may be more useful in observing classroom relationships.

Following the classroom observations in this pilot, an initial meeting was held with each of the teachers to determine their professional development needs and devise a plan for development. Teaching practice was discussed and teacher interviews conducted to inform other aspects of the project, for example, beliefs about collaboration and knowledge of adult teaching theories. It became apparent that some teachers were unable to see where they needed to improve but those who were familiar with reflective practice and regularly analysed their own teaching were better able to identify areas which needed improvement.

The classroom observations and initial meeting provided clarity about the areas of practice to focus on. Reflective practice requires time, effort, and commitment, so the individual teacher goals need to be specific to each teacher if they are to 'buy' in to the project and sustain the necessary effort to achieve the set goals. York-Barr, Sommers, Ghere & Montie (2006) suggest three main areas of possible reflection: technical, conceptual and dialectical.

Examples of technical reflection might be teaching strategies, solving classroom conflicts, meeting lesson objectives, and classroom management. Conceptual reflection could include teaching philosophies, consistency of teaching philosophies with classroom practices, and how current practices affect students. Dialectical areas may include how organisational structure affects teaching practices, the role teacher's play in an organisation and the matching of teaching philosophies with students needs. In the case of emerging teachers it is recommended that the first area, the technical, is

appropriate, and this focus formed the basis of the prompts used to guide the teachers' reflective practice during the weekly meetings.

A survey was created to explore student perceptions of their teachers' teaching/learning strategies, teacher/learner relationships and classroom environments. At the request of management the surveys were given directly to the students by the teachers. This was not well conducted and the resulting lack of data on pre student perceptions greatly impeded the findings. It is advisable that an independent person conduct the surveys.

Further student surveys and classroom observations were conducted at the end of the eight week period to measure results and a final meeting was held with the teachers to discuss noted transformations. This data was collated and evaluated and the survey and observation information were collated as percentages.

Findings

The outcome of teacher participation was that collaborative relationships between learners and teachers improved, educational strategies increased in effectiveness, student engagement with learning increased, and teachers gained confidence with their practice. These achievements were experienced across all three colleges involved in the pilot. There were some unexpected findings such as the discovery of an apparent lack of knowledge and integration of adult learning principles in some places, and also that an organisation's culture and policies affect teaching practices.

Changes to student/teacher relationships

There are differing philosophies about the role of the educator and these beliefs ultimately influence interactions between students and teachers, and have an impact on student/teacher relationships. Two opposing educational stances are technical-linear and transformative approaches. The technical-linear approach sees the role of the educator as 'delivering' content or pre determined learning objectives without alteration or consideration for differences. Technical-linear teachers tend to be dictatorial and hold the power in the student/teacher relationship (Cox & Roberston-Pant, 2008). The transformative approach views content as the 'starting' point for learning and requires collaboration (power sharing) between educators and learners (Slater, 1988). Collaborative teaching practice encompasses the idea that educators are not merely technicians, they are professionals, because they need to think and problem solve; that is, be flexible within their teaching approach in order to meet varied learners needs.

Collaborative educators believe that sharing power in the classroom and helping students to take responsibility for themselves facilitates better learning (Butler, 2008). Teachers can share power with students by actively engaging their students in decisions about what will be learnt and how that learning will occur. Studies have shown that when learners are able to collaborate with their teachers, they take more responsibility for their learning, learning is enhanced, student well being and satisfaction are improved, lifelong learners are created, and test results are superior (Race, 2006). Even with knowledge of this evidence some students resist taking responsibility for their learning, and, some teaching practices discourage it. Brookfield (2006) tells us that education is a transactional encounter in which learners and teachers are engaged in a continual process of negotiation and that viewing it as thus, the responsibility for learning rests with both parties.

The nature of reflective practice requires collaboration between teachers and learners. If the reflection is to be true and meaningful teachers must gather many viewpoints (Knox, 2012). Students who are asked to provide feedback are able to collaborate with teachers and have a voice in the teacher/student relationship. The participating teachers were encouraged to gather feedback from students and the process was scaffolded for them. There was initial resistance to asking students for their input, which was later acknowledged as fear based. Later, they gained enough confidence to embark on the process with pleasing results.

Two methods were used to gather evidence about teacher-student relationships: classroom observations and questionnaires for both parties. The questions asked of teachers focused around the definition of collaboration, beliefs about collaboration, and how it could be achieved in the classroom. Classroom observations and the student questionnaire focused on evidence about how teachers shared power in their classrooms and to what extent the student had a voice in the relationship. The responses showed varied levels of collaboration at the beginning of the project, with the least collaborative teachers showing the greatest change at the end of the pilot.

Most of the teachers knew what collaboration was and thought it was desirable, but 50% were unable to give examples of how it guided classroom practice or benefited learners. During the mentoring process, the teachers were given an explanation of how a strategy they were using was an example of collaboration and how it would likely affect student relationships and learning. During the cycle of reflective practice, they were able to confirm the results for themselves. After the pilot most could give examples of good collaborative practices. For example, when one teacher was asked during a mentored meeting what they might do about the current state of student anxiety that had been noted during the weekly reflection, the response was… "I might ask my students what I could do to help relieve the anxiety". This suggests that teachers need not only theoretical knowledge but concrete examples which they can directly relate to their own practices and experience before praxis will occur.

It was noted that in one college classroom environments and practices afforded collaboration and an open trust relationship between teachers and learners both before and after the project. Sitting in round table formats instead of rows, seeking student opinions about learning strategies, and student participation were evidence of this. As a result the findings for this college showed little change.

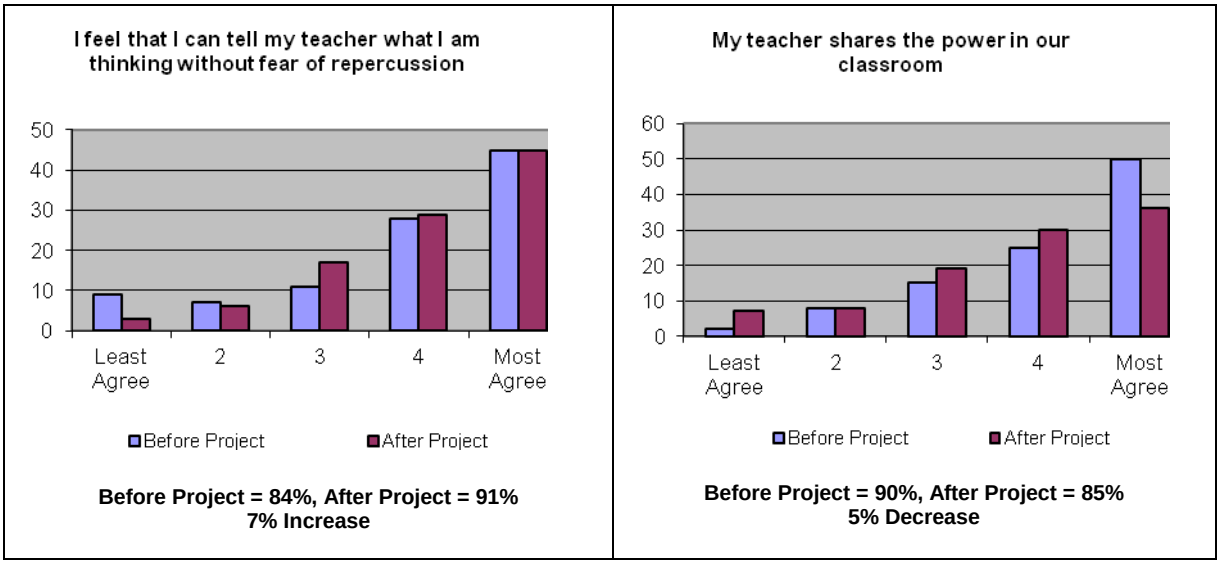
The level of the collaboration in the second college was not as marked as the first, but there was some evidence of student interaction. After the pilot the interactions between learners and teachers challenged teacher's power in the learning relationship. For example, there was a change in the type of questions being asked by the learners, they clearly felt that could ask questions which questioned what the teacher was saying, for example "you said that bees wax makes a product thicker, why is it also in lipstick then" (Classroom observation). The ability to pursue this line of questioning when making sense of learning affords greater learning for the student because assumptions are being challenged.

A technical-linear approach to education was evident at the third college prior to the pilot. This was evident in seating arrangements, ingrained non participatory teaching strategies, avoidance of student questions, and insistence of title usage by teachers. One teacher publicly embarrassed a student in order to stem the student's line of enquiry which challenged the authority of the teacher. When asked about this incident, the teacher responded that they often used this method to control their classes so that the lesson would proceed as planned. Another class at this college revealed learners who sat passively in class and did not respond at all to the teacher's questions. This apparent lack of collaboration appeared to be a direct result of the teacher not waiting

for a reply but flicking to the next 'slide' and answering the question themselves. When this teacher was asked about the collaboration in their classroom, they commented that they were frustrated by the lack of student interaction and felt that students should pay better attention in class (Teacher interview). The students in this teachers class showed improved student interaction and responses to classroom activities after the project (Classroom observation) and made comments on their surveys such as "I feel like a participant in this class now". The greatest increase in classroom collaboration was at this college, and all teachers reported that they felt comfortable about gathering student feedback and sharing power in the learning relationship at the end of the project.

The 'before and after' graphs below compare student's feelings about the power sharing and the openness of their relationships with teachers. The results show that students felt more comfortable around their teachers and that students' relationships with their teachers better assisted their learning. However, there is an unexplained decrease in the perception of teachers being willing to share the power in the classroom. This finding does not fit student comments such as "it make[s] me feel really good that my teacher ask[s] me what I like and share[s] with me" (Student survey), nor does it fit with final observations of classroom interactions. A possible reason for this discrepancy could be the lack of student response to the early questionnaire compared to the far better response at the end. It is also possible that as teachers tried new strategies in their classrooms each week they were less flexible in their approach because they had a 'set' lesson planned, or that the teachers were in fact less prepared to share power with the learners because they felt 'challenged' and fearful of the new strategies.

Student responses to collaboration questions before and after the project



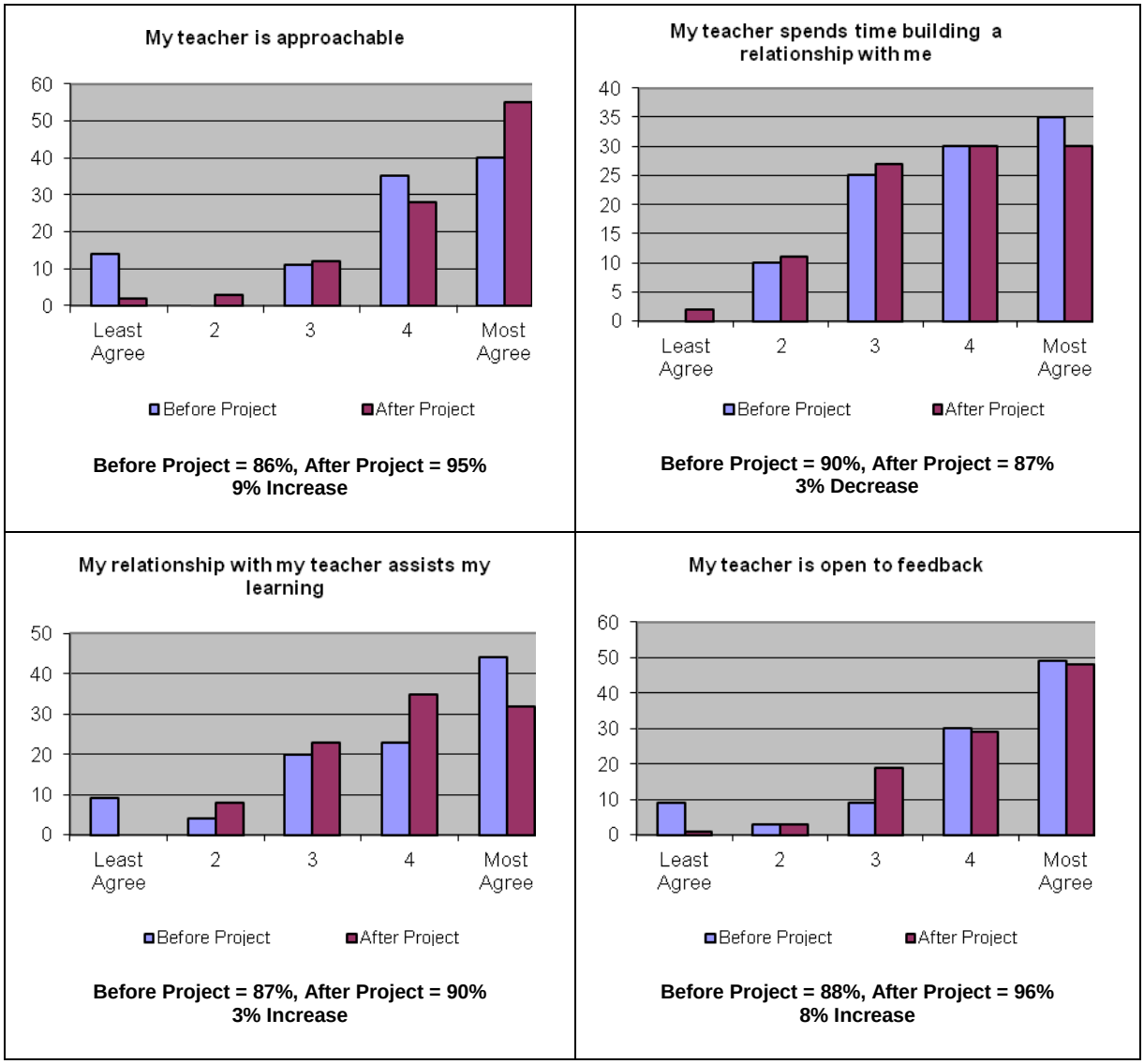


Figure 4: Student perceptions of classroom collaboration

Overall, collaboration increased for all participants, leading to increased student well-being and learning. When asked for feedback, students reported that they felt more comfortable around their teachers and that they could tell their teachers what they were thinking without repercussions. One student's comment sums up nicely the general benefits expressed by the majority of students involved in the project; "I feel valued and more involved in the learning relationship and I appreciate the teachers consideration of my thoughts" (Student survey). Similarly, teachers reported that while apprehensive at first about seeking anonymous student feedback and sharing power in the classroom, after seeing direct benefits for themselves and their learners, they were able to overcome this apprehension and acknowledged the positive benefits of collaboration and reflective practice. "I will continue to use reflective practice to better understand my students, I can't believe the difference just asking for their opinion has made" (Teacher interview). This new confidence factor created across the board helped to foster trusting relationships, leading to improved teaching practice and better learning environments.

Changes to educational practice

What constitutes good educational practice is a complex construct. Opinion on practices which lead to effective learning vary, but for the purposes of this project the indicators have been taken as first ascertaining, planning for and then meeting learner's individual needs, using varied and experiential learning strategies.

It was initially assumed that all the teachers would understand basic principles of adult learning at least in essence and would use them to guide their practice. Thus, data was not gathered about these principles specifically. In hindsight this was a mistake. The majority did not use the principles to guide their practice, nor did they establish their learners' needs or consider them when planning their lessons or teaching tools. While it was not the purpose of this project to investigate the current skills of adult educators, this could be explored further.

Teachers and students were consulted and classroom observations were performed. The questions for teachers focused on the type and variety of teaching strategies used, the rationale behind using them, and how the needs of learners were known and met. The students' questions sought feedback about how effective they found such practices in their classes as learning activities and teacher/student interactions.

Pre-project data showed some awareness of learning styles and preferences, but this knowledge did not apparently guide practice. During classroom observations it was possible to get an overall view of the predominant teaching practices at the colleges, and the practices and improvements at each college are outlined below.

Tutors at College 1 demonstrated practice which considered learning objectives, prior planning, consideration of individual learning needs, and adult learning principles. They conducted learning style tests and one on one learning interviews on a monthly basis to in order to give learning support. They used their knowledge of individuals to guide lesson planning. Learning objectives were written up and clearly guided the learning activities used and achievement of learning objectives was measured at the end of each class. A variety of teaching methods was evidenced here, but the teachers wanted help with further interactive strategies. They were aware of adult learning principles and used them to guide the planning of their lessons, but needed assistance with applying this knowledge directly to teaching tools. Specifically, the support materials (such as student handouts for activities) needed to include information that would explicitly highlight the relevance and process of the learning activities for students.

These participants were given advice about experiential learning techniques and the process of making appropriate learning support sheets was scaffolded. By the end of the pilot, they reported that they had experienced growth in their abilities to plan teaching strategies which would allow the learners to experience learning directly, and that they felt more confident with making learning resources which contained information specifically needed in order to maximise learning. The students commented that they felt they were enjoying the new learning activities "I am finding the new games are helping my learning" (Student survey).

Practices at the second college were similar, but while the teachers evidently knew about learning objectives and adult learning theories, they could not apply this knowledge to lesson planning or preparation. This was resolved by designing and implementing a 'linking lesson objectives to classroom learning' workshop and by linking information about adult learning theories from Ako Aotearoa posters displayed around the college into the individual help and strategies given to the teachers. This

unobtrusive use of praxis proved effective, and by the end of the project they were able make the connections to their lesson planning and strategies without prompting. They also wanted help with designing more interactive learning strategies and commented at the end that they were happy with the new strategies that they had gained, and that they felt confident to create their own in the future. The students here reported that they "enjoyed the activities cause they get us up and moving around so we can focus better" (Student interviews).

Some evidence of adult learning principles was seen at the third college, but little evidence of systematic lesson planning, knowledge about experiential teaching strategies, or how to find out about and meet individual learner's needs, or of assessing the achievement of learning outcomes. Teachers were aware of some of the different learning styles but were not able to link this knowledge to actual educational practices. Most teachers thought that kinetic learners were catered to in practical lessons and that these learners needs did not need to be considered in theory classes.

It was apparent that these teachers did not know what learning preferences their learners had and that they did not consider individual learning needs. Their college did conduct learning style tests for its students but this knowledge was not used by the teachers. Most of the theory lessons relied heavily on PowerPoint presentations and lectures. The 'PowerPoint teaching' culture appears to be ingrained in the college by its long standing history of use and by the practice of passing 'slides' and lecture notes from one teacher to the next. These teachers often used the 'slides' unchanged because of a lack of time to alter them or not knowing how to alter them in a way which made sense. It was suggested to several of these teachers that starting with lesson objectives and then matching only one or two slides to each topic and then allowing for 'actively' using the information would enhance learning and cut down on non participatory learning.

Significant instruction in adult learning principles and how to use them to guide educational practices such as planning for classes, creating resources, and experiential teaching strategies were provided at College 3. By the end of the project the teachers were comfortable with using experiential learning activities and were confident that they could continue to make their lessons more interactive. They had experienced success with asking for student collaboration to improve lessons and to find out about their learners needs so that they could better meet them. Students at this college reported a significant improvement in their satisfaction with learning and the new learning strategies. "The new strategies help me personally to understand more" (Student interview). Even when a student did not like the strategy used they recognized that it would help others to learn; "I didn't really like the mind maps, but I know that others found it useful" (Student interview). The college did not have a lesson plan format so an appropriate format was provided. In this way, it was not only the teachers who gained something from the pilot, but also the educational institution.

There have been improvements in educational practice for all teachers involved in the project, and learners have reported increased learning as a direct result of the change in their teachers. After the project, teachers were found to be using more than twice as many learning strategies, and those strategies were better meeting the needs of learners. All teachers reported that they learnt something new from being involved in the project and that it helped them to grow as an educator. The majority of the participants said that they would now be keen to mentor other teachers to share their new knowledge. At least half the teachers involved commented that they wished the mentoring programme could continue as they felt they were gaining a lot from the process. All teachers involved in the project said that they found student feedback useful, and that they would continue to seek out student feedback for the purposes of improving their professional practice. All of the teachers commented that they could

now see the benefit and rewards of reflective practice, and one teacher commented that they looked forward to collaborating with other staff in the future for sharing teaching ideas as another means of gathering data about their educational practice.

The graph below demonstrates the increase in learning strategies used across the three colleges.

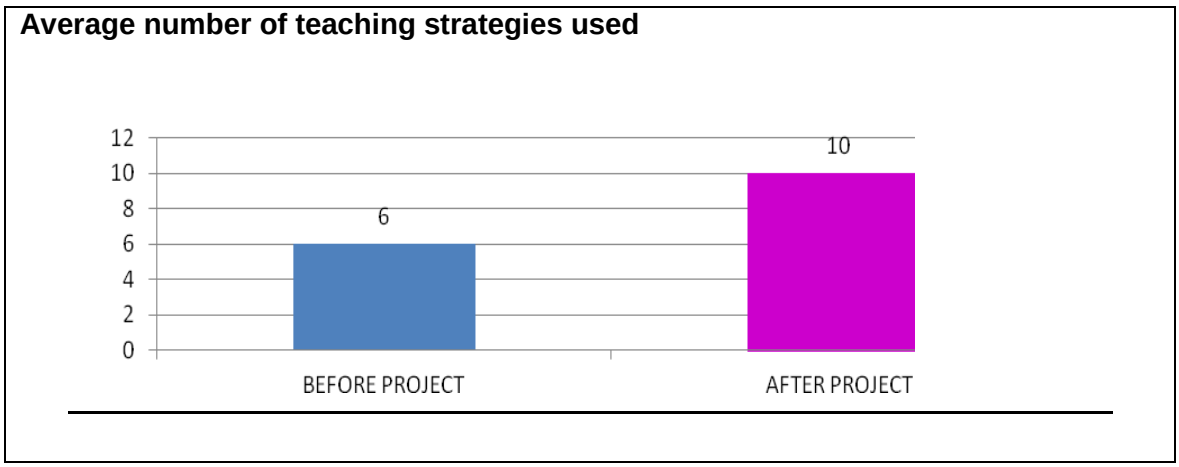


Figure 5: increases in learning strategies used after involvement in the RPP

The next graph summarises how the teachers participating in the project felt about improvements in their practice. It shows significant improvements in being able to meet learners needs, organisational skills, and using interactive learning strategies.

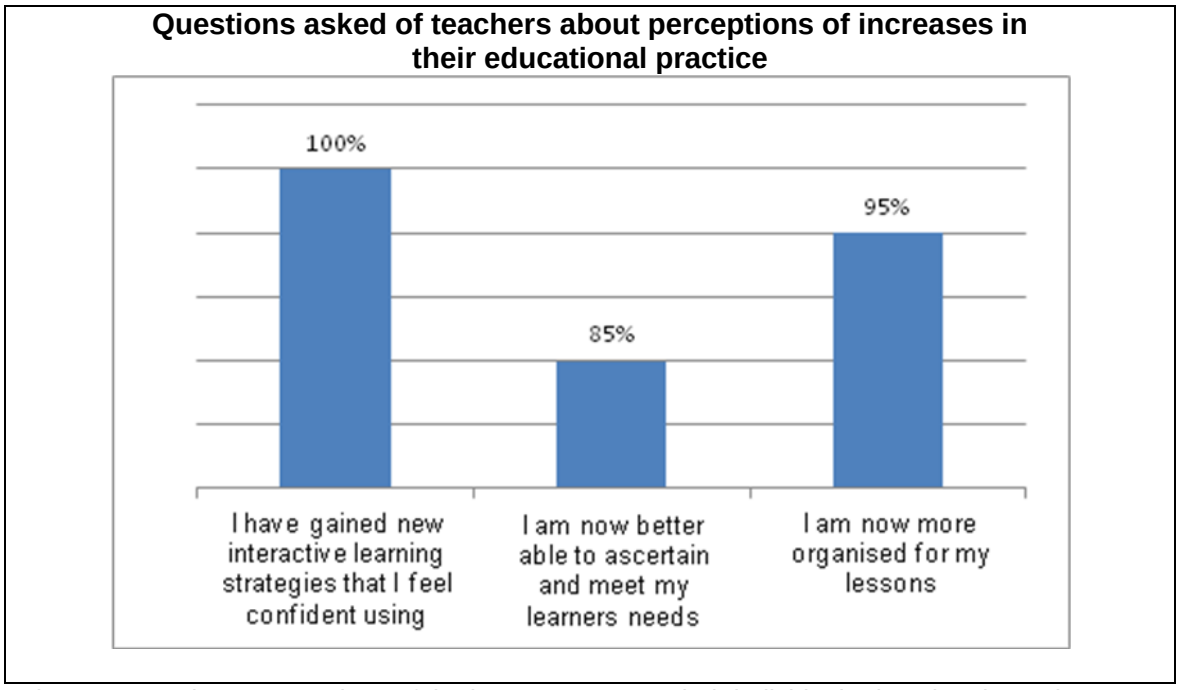


Figure 6: Teachers perceptions of the improvements to their individual educational practice

Changes to learner engagement

Much has been written with differing definitions and indicators on learner engagement. Students can be considered to be engaged with learning when they sustain effort for the duration of the task and actively participate in constructing the learning (Rogers, 2003). Students who are engaged show sustained involvement in learning activities accompanied by a positive emotional tone, initiate action willingly, exert effort and concentration during learning activities and show generally positive emotions during the learning including enthusiasm, optimism, curiosity, and interest (Skinner, 1993).

Lack of student engagement has many causes, such as poor self-image or efficacy, fear of the unknown, incompatible learning and teaching styles, apparent irrelevance of learning (Brookfield, 2006), incorrect level and pace of learning, unfair and invalid assessments (Frye, 1999), fear of failure, cultural issues (Banks, 2005), lack of clarity of teachers instructions or students understanding of the task (Grimes & Stevens, 2009). Most definitions include reference to some form of active learner involvement or participation in the learning activity. The evidence is compelling that enriching experiences and academic challenge are successful in engaging students (Zepke and Leach, 2010). For the purposes of this project, indicators of student engagement with learning were considered to be active participation with learning activities, turning up to class, paying attention in class, and believing that teaching strategies were meeting their individual learning needs.

Methods used to gather data were questionnaires, observations, and interviews. Students were asked about the learning activities used and whether they met their needs, and what factors assisted them to engage in learning. They were observed for signs that indicated engagement, such as paying attention, actively asking questions. Teachers were asked to comment on engagement of their students by indicating levels of participation in activities and attendance.

The pre project data revealed that while most teachers reported that students consistently turned up for classes more than half of the time, the learning strategies they used were perceived as useful by students only some of the time, and that they had trouble getting students to stay focused on learning activities. This perception of teaching strategies was confirmed by the data gathered by students, and ties in with the trend of participants needing help in designing interactive learning strategies. During initial meetings it became apparent that most were aware that learning activities played a part in student engagement and as a result they wanted to develop and use more interactive strategies, but had less awareness of the role played by collaboration. Adult learners need to have a say in their learning if they are to be engaged (Fenwick & Tennant, 2004).

At the beginning, students reported that half the teaching strategies used met their learning needs however classroom observations showed a high incidence of off-task behaviour in a class at the third college, where the only teaching method used was lecture. Learners' comments about the factors they felt assisted them to be more engaged with learning varied. This was expected as there are a myriad of learning preferences. The two most common engagement factors indicated were small group work and fun or interesting activities or lectures. Therefore, the new strategies scaffolded for teachers were based around interactive learning which required action and active thought from the learners and activities which required some element of 'fun' or 'novelty' such as 'Simon says touch the organ responsible for _____'.

Results at the end showed that both teachers and students felt there was a dramatic increase in student engagement after the teachers had been implementing new

teaching strategies and asking for student collaboration. There was an 18% increase in student attendance in classes, and a reported increase of 34% in students participating in learning activities. Teachers also reported that students were doing better academically according to test results in their classes. The graph below compares the teachers' perceptions of student engagement before and after the project.

What teachers had to say about their students:

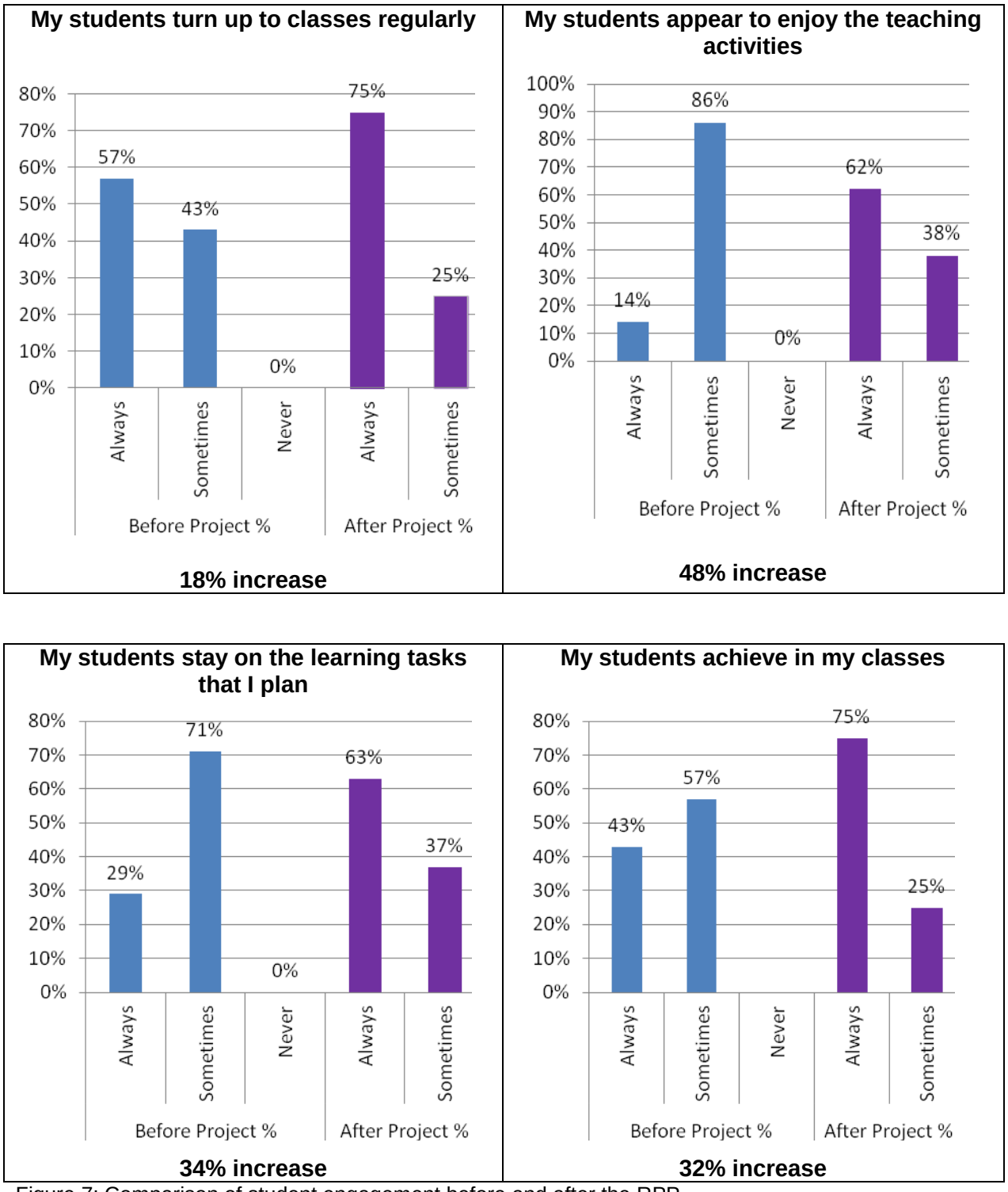


Figure 7: Comparison of student engagement before and after the RPP

Students reported that the strategies tried out by their teachers and the attempts at collaboration made them feel more comfortable with their teachers and better able to see the relevance of the information being taught. Almost two-thirds of the students said that the strategies and collaboration helped their learning and over half said it helped them to understand the information more easily. Nearly half said they paid more attention in class and felt more inclined to learn. A few students commented that the strategies and collaboration made them feel nervous because the techniques were new to them. The table below shows how students felt the strategies affected their engagement with learning.

The percentages below indicate the positive student responses to the statements:

The changes in my lessons have increased my learning	63%
I feel that I now pay more attention to my learning tasks	45%

Figure 8: Student perceptions of increased engagement with learning after the implementation of interactive learning strategies

Changes to teacher's confidence

Confidence is the one factor that arguably affects nearly every aspect of teaching, and many teachers cite or display a lack of confidence when changes to teaching practice are discussed. Ahmed (2011) talks about how a teacher's professional development and confidence are intertwined because one will not feel safe to challenge and change current teaching practices if they are not confident, and at the same time increasing ones educational performance allows the teacher to gain confidence. One cannot be achieved without the other. Teacher confidence is another complex construct. It is well known that teachers need confidence in order to teach well (Valazza, 2012), but the factors that indicate and improve teacher confidence are varied. Eison (1990) cites the following factors which contribute to teachers' confidence; knowledge of the ingredients and components of effective instruction, adequate preparation for lessons, and willingness to listen to what students have to say about one's teaching.

Participants were asked questions about their confidence with teaching before the project's implementation, and the most frequently stated reasons for lack of confidence with teaching in order of frequency were; lack of knowledge about teaching strategies, being 'shown up' in class by students, lack of organisation and preparation skills. Teachers with all levels of qualifications and experience reported some lack of confidence with teaching, however, those with fewer than three years teaching experience demonstrated the least confidence, suggesting that time helps to build teacher confidence. This is most likely because teachers (or any other professional) will gain skills and qualities which improve their practice over time and this will lead to increased efficacy. Yet, it should also be noted that even experienced teachers feel anxiety and a lack of confidence with teaching at times. Gaining confidence with teaching skills and developing teaching ability is not just of concern for teachers who are new to the profession, but also of experienced teachers who meet new challenges which seem to threaten their long-standing values and beliefs about learning and teaching, especially if these may imply changes to their teaching practices (Newton-Suter, 2006).

The assistance provided to teachers varied according to individual needs. Teachers at Colleges 1 and 2 required help with teaching strategies to build confidence, while those at College 3 where the teaching climate was more linear-technical and the teachers initially lacked confidence to share power with their students because they feared

appearing incompetent, were given more assistance to demonstrate how power sharing was safe. This allowed them to experience success with exposing and examining weaknesses in teaching practice by being honest with their students, and in turn they gained confidence not only with sharing power but also in improving their practice. " My biggest fear was if a student asked me a question and I didn't know the answer, and know I know its ok to be a real person I get on with thinking about how to improve my teaching instead of expending energy on perfection" (Teacher interview).

All participants reported a gain in confidence with teaching. Most reported that they felt more organised for their classes even if no direct organisational assistance was given. It is likely that teachers felt more relaxed about their teaching role with gained confidence and that this allowed head space and time for better lesson planning and preparation. Some of the teachers who required help with improving teaching strategies initially showed resistance in examining the role they may have played in problematic learning strategies, but more confidence in examining their practice honestly and critically after the project leading to advances in practice.

Confidence was increased for all teachers regardless of their qualifications, experience or needs. 70% of the teachers involved said that they now felt confident enough to mentor other teachers and share their newfound skills. Teachers had varying positives to report from involvement. "I now have simple strategies to improve my teaching", "I can now collaborate with other teachers and continue improvements on my own", and "I can confidently communicate with my students now" (Teacher interview). By mentoring and scaffolding teachers on an individual basis it was possible to give them the confidence they needed to continue improving their educational practice on their own.

Teaching philosophies and organisational culture

Adult learning principles guide good educational practice because they form the basis from which all teaching/learning methods and practices can be examined and referenced (Brundage & Mackeracher, 1980). There are of course many adult learning theories and just as many guiding principles, and it is up to individual providers to decide what constitutes good educational practice for them. The starting point should be the formation of what constitutes good teaching practice, this includes detailed information about the underpinning beliefs of the purposes and aims of education (Walkin, 1990). For example, is the purpose of education to transfer knowledge as in linear-technical teaching or is it to achieve the growth of individuals by allowing them to have influence in the construction of their own learning as in transformative or collaborative teaching?

Classroom observations during the pilot showed variance in the understanding and application of guiding teaching principles. At one college it was apparent that the teachers were aware of adult learning principles and that these where used to guide educational practice and planning. "I try to find out what my students are interested in outside of school so that I can make the topics they have to learn here more personally relevant to them" (Teacher interview). When teachers from the other two colleges were asked why they thought their students appeared disinterested or why their learners were not doing well, they could not give reasons outside the learners themselves. It must create a source of frustration to teachers who believe that they cannot change the outcomes of learning for their students and that change is beyond their control. Through understanding adult learning principles such as relevance of learning or of linking prior knowledge to new knowledge for learners, teachers are able to see that they way they teach can be altered to achieve greater student interaction and participation.

It was apparent that while the providers visited for this project believed in the value of education, they did not have guiding teaching philosophies, nor had they considered what good teaching practice looked like. Good teaching practice cannot be planned for, modelled, achieved or rewarded if it is not recognisable (Walkin, 1990). All wanted to improve teaching practice within their colleges yet none had a clear vision of what the result would look like. Therefore, it is understandable that teachers are often left feeling unsure about how to develop professionally if they have no policies to guide them or any particular goal to aim for. It is suggested that all colleges have as part of their educational policies a clear outline of the teaching philosophy they aspire to and of what constitutes good educational practice so that it may guide their teachers' practice.

In order for teachers to be able to challenge and improve their teaching practice, it is necessary to create a climate in which it is safe to make mistakes. The climate or culture of any institution generally permeates every aspect of the organisation (Stone, 2006) and this may be why educational institutions which have autocratic management styles often create the same teaching environment through the modelling of autocratic interrelationships. With many educational institutions trying to focus on building collaborative learning environments (possibly because recent literature, and the government now cite student collaboration as an indication of good teaching practice) it may be necessary for them to first examine the culture and the environment which it creates. By fostering collaborative management practices it is possible that this style of interaction will filter down to classroom practice, and also create a safe environment in which teachers can expose, examine and improve their teaching practice individually and collaboratively. During the project it was apparent that the teachers who worked in an environment in which transparency was encouraged and modelled by management were more transparent with their learners.

Factors to consider before implementing the RPP

Selection of appropriate mentors needs consideration. Both of the mentors involved in the project held qualifications to at least Diploma in Adult Education level and had at least 5 years of teaching experience. They said they found the process rewarding in that they were able to help other teachers gain confidence and share their hard earned knowledge to benefit others. The teachers involved in the project reported that they felt engagement in the project was beneficial. Conversely, the possibility that mediocre practice may be spread by mediocre teachers across organisations needs consideration. It is suggested that teaching mentors are selected carefully and that they be matched to teachers with some care. Advice can be found in the RPP: Management Guide as to how to select mentors, and the weekly meeting templates used for the RPP have a section which allows the project leader to monitor and guide the mentoring process. If there are no teachers within an organisation who are capable of mentoring other staff, it may be possible to professionally develop a few staff members so that they can assist others, or to bring in an outside mentor.

It did become obvious that teachers with at least some formal education qualifications were better equipped to improve their practice because they had a knowledge base of adult learning theories, even if they were not able to achieve praxis of this knowledge, they could understand the terminology used and had a least been exposed to some learning concepts. It became apparent that teaching experience did not necessarily equate to teaching quality, however attainment of teaching qualifications did. Those colleges who had teachers with a minimum of Certificate in Adult Education were more aware of adult learning principles and were better able to reflect on why a new strategy may work, or why a particular strategy went wrong. Staff who lacked teaching qualifications needed to be made aware of adult teaching principles and the foundations of good educational practice before they could really engage in valuable self reflection

for growth. Those with higher teaching qualifications displayed better teaching practices; this appeared to be directly related to the understanding of adult education theories and practices. It is advisable therefore to ensure that teachers involved in the RPP first be taught about adult learning principles. This could be achieved through first conducting a questionnaire to ascertain prior knowledge and then conducting training to fill the gaps in knowledge prior to the start of the project.

Teachers must be given space and encouragement in order to reflect on their practice. Teachers are always busy and struggle to find time in the day (maybe more so in the private sector due to lack of resources) but time must be carved out for teachers. Thinking on the run does not allow for full concentration, nor does it reflect just how vital reflective practice is for improving teachers. The skills of reflective practice will need to be heavily scaffolded in the beginning of the project. The majority of the teachers involved in the project thought initially that thinking about their practice would be easy, but true reflection requires interrogation of ones assumptions and that is neither an easy nor a straightforward task. Teachers often made assumptions about what their students were thinking, and had to be encouraged to ask for student feedback. Nevertheless, once they gained more confidence they became less hesitant to ask for learners feedback, and the more they asked for feedback and could experience the benefits for themselves, the more enthused about student feedback they became. “The thing I learnt most was that I had no idea what my students thought” (Teacher interview).

It was noticeable that in the beginning some teachers found the process of reflection difficult and sought out answers from the mentor instead of thinking for themselves. As the purpose of the RPP was to create lifelong reflective practitioners who would be able to continue improving their own educational practice and perhaps mentor other teachers, it was necessary to research ways in which teachers could be encouraged to think for themselves. For reflective thinking to occur, space needs to be provided; therefore it is advisable not to step in to resolve the problem or to provide an answer too quickly.

The weekly reflective practice meetings with individual teachers at times became muddled and veered off course from some of the teacher’s initial areas of focus for educational improvements. It was easy for the teachers to lose focus of their end goals for the project as they battled with other teaching crises on a weekly basis, as is common in the teaching profession (Deming, 1982). It became apparent very early on that many teachers wanted and/or needed help in areas unrelated to their personal end goals, and in particular it sometimes became apparent that some of the teachers needed to be taught the basic principles of adult educational practice, and that taking a break from the original teacher goal provided positive results in the end. Therefore, professional judgement should be exercised by mentors, and assistance from the project leader provided as necessary.

In the beginning some of the teachers were unmotivated and reluctant to make a commitment to reflective practice. This initial resistance may have had something to do with the teachers either not believing that they could change outcomes for their learners or because they believed the change would be harder than it was. “ I was dubious about the project at first, and it really challenged me sometimes”…. (Teacher interview). However, around week six most the teachers involved were well into the swing of reflection and were able to reflect on their practice and devise their own improvements without assistance, were beginning to display real motivation and desire to continue improving their practice because they had experienced efficacy - goal accomplished. However, the teachers who did not have a grasp of educational principles at the beginning of the project, came to grips with reflection only by the final week; therefore it is vital that the project be run for at least eight weeks. There was also evidence of

increased camaraderie between teachers around week six of the project, this coincides with the teachers becoming more confident with their practice, and it is likely that they were more willing to share their experiences. Also, as the teachers engaged collaboratively with their students and experienced the benefits, they probably felt more confident to collaborate with their peers. Perhaps organisational culture can be affected by a change in beliefs from the bottom upwards also?

Conclusions and recommendations

The eight week pilot of the RPP proved that the model is successful. The expected outcomes of participation in the project were to increase: collaborative relationships between learners and teachers, effectiveness of educational strategies, student engagement with learning, and teacher confidence with educational practice. These four criteria were achieved across the board at all three colleges involved in the project. Specifically, the direct benefits of involvement in the project included creating more open student/teacher dialogues which allowed learners to have their individual needs better met, expanding teachers' tool boxes of experiential teaching strategies and integration of adult learning principles, increasing both student and teacher engagement with learning that occurs in the classroom, creating environments in which it was safe for teachers to critically examine their educational practice, and building teacher confidence with teaching practices and the process of reflective practice. There were also some unexpected findings from the project; the discovery of an apparent lack of knowledge and integration of adult learning principles, and that an organisation's culture and policies may affect student/teacher interactions and teaching practices.

Openness of the student/teacher relationship is vital in achieving educational improvements and ultimately, student success. Educational practice cannot be improved without student feedback, but in order to make worthwhile changes to educational practice the information gathered must be honest. Honest information will only be given when learners feel comfortable enough to speak freely (Brookfield, 2006). Students reported that they felt more comfortable with giving their teachers feedback after being involved in the project, and this is reflected in teachers' comments as well, where they report feeling more confident with asking for learner feedback and using that to improve their educational practice. This increased willingness to collaborate from both teachers and students will continue to see the parties involved in the project sustain positive effects.

The main improvements in teaching practices came about by coaching teachers in the use of experiential teaching strategies and from the integration of adult learning principles into teachers' practice. After the project, teachers were found to be using more than twice as many learning strategies, and that those strategies were better meeting the needs of learners. The teachers involved in the project were able to experience the benefits of using reflective practice to improve their educational practice for themselves, and as a result said they would continue to reflect on their practice on their own and that they also looked forward to collaborating with other staff in the future for sharing teaching ideas as another lens for gathering data about their educational practice.

Student engagement with learning increased dramatically through the implementation of experiential learning strategies and the sharing of 'power'. It was apparent that students felt more open to learning when teachers were open to collaborating, and are more likely to learn when they feel heard and understood on an individual basis. The teachers also noted increased student engagement directly resulting from collaboration and in turn were encouraged to continue with collaboration and reflective practice.

Confidence was increased for all teachers regardless of their qualifications, experience, or needs. There are many factors which affect teacher's confidence, but it appears that improving educational practice allows teachers to feel more confident, and that this confidence in turn allows them to better examine and improve their teaching practice. Improvements to practice and teaching confidence go hand in hand and educational institutions need to create climates in which it is safe for teachers to examine their teaching practice. By mentoring and scaffolding teachers on an individual basis it was possible to give them the confidence they needed to continue improving their educational practice on their own.

It became apparent after talking to teachers and students that there was little knowledge of how adults learn best and/or how to translate this knowledge once considered into practical educational practice and teaching/learning strategies, even amongst those teachers who held adult teaching qualifications or had substantial teaching experience. It may be possible to look into the curriculum of adult education and to consider whether the desired message is being absorbed by learners and whether there is enough focus on how to actually recognise good practice and how to emulate it. Watching other experienced teachers in action is a useful way for new teachers to learn, however, they should be first exposed to current adult education theories. If beginning teachers are to watch experienced teachers in action it would be useful for them note down actual acts which demonstrate each good practice indicator. This would allow ease of praxis and would of course be experiential learning. Perhaps we are very good at talking about experiential practice but not so good at implementing or demonstrating it.

The culture and policies of an organisation may affect the educational understanding and practices of its teachers. It was apparent that while the organisations visited believed in the value of education, they did not have guiding teaching philosophies, nor had they considered what good teaching practice looked like. Good teaching practice cannot be planned for, modelled, achieved or rewarded if it is not recognisable (Walkin, 1990). It is suggested that all colleges have as part of their educational policies a clear outline of the teaching philosophy they aspire to and of what constitutes good educational practice so that it may guide their teachers' practice. In addition to this, the management style and culture of the PTEs involved in the project tended to emulate what was observed in student/teacher relationships, that is, the more transparent and collaborative the management were at the college, the more open the teacher/student relationships seemed to be. It may therefore, be desirable for colleges wishing to effect social change and alter the relationships between its teachers and students to consider the culture they model themselves.

While it was not the purpose of this project to examine the beliefs or policies of the organisations involved, these last two findings deserve to be discussed in greater detail and these casual observations may be a possible area for future research; does the leadership style in tertiary colleges affect and influence student interactions and teaching styles, and ultimately student outcomes?

The RPP is an easy and cost effective means to professionally develop staff in a way that allows them to continue improvements on their own. In the long term, implementation of the RPP leads to better educational practice by teachers and increased educational performance by students. The mentoring process used during the RPP increased teachers self efficacy and proved an effective way to professionally develop teachers, increase educational practice and camaraderie amongst teachers, and created lifelong reflective practitioners. It is recommended that all educational institutions implement the eight week RPP for teachers regardless of experience on an ongoing annual basis to provide effective and individualised professional development, increase and record benefits for learners, and to foster collaborative learning/teaching

environments. All the necessary information and templates to implement the RPP can be found in the Reflective Practice Project Management Guide and on the Ako Aotearoa website: www.akoaoteaora.ac.nz/.

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Appendix 1:

Comments about being involved in the RPP from a mentor's perspective

3 May 2012

It was a great opportunity to be able to assist with the RPP. It gave me a chance to reflect on what has worked well for me over the last few years in my teaching practices and assist a fellow tutor in improving their teaching practices.

This was a valuable experience for new tutors and I was able to see firsthand how beneficial it was having someone else to give you new ideas for teaching strategies, classroom management and support. I enjoyed seeing someone utilise my advice, sharing in the highlights of their successful teaching practices and watching their confidence grow over the weeks of the project.

Regards

(Mentor)