

Investigating the Changes in Teacher Professional Learning:

A Case Study of QMEA Schools*

UNE ENQUÊTE SUR LES CHANGEMENTS DANS L'APPRENTISSAGE PROFESSIONNEL DES ENSEIGNANTS :

UNE ÉTUDE DE CAS DES ÉCOLES AMEQ

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Abstract: Teacher professional learning plays an important role in teaching outcomes and student performance. Teachers who engage in professional learning often find themselves in empowering cycle. Although not all teachers follow this path, those who do benefit from improvements in their teaching. This paper investigates the issue of changes of teacher professional learning provided by schools under Queensland Minerals and Energy Academy, how much these QMEA schools invested in it, and how teachers were involved in it by analysing professional learning initiatives presented in the Annual Reports of these schools. The research findings indicate that there is variance in quantity and variety in initiative offerings in different QMEA schools. Teachers' involvement in the professional learning offered is not in direct proportion to the schools' investment in the initiatives. The initiatives provided by almost all the QMEA schools still centre on academic knowledge building and pedagogical skills.

Key words: Teacher Professional Learning; QMEA Schools; VET; Change

Resumé L'apprentissage professionnel des enseignants joue un rôle important dans les résultats d'enseignement et dans la performance des élèves. Les enseignants qui s'engagent dans l'apprentissage professionnel se retrouvent souvent dans le cycle d'autonomisation. Bien que tous les enseignants ne suivent pas cette voie, ceux qui le font bénéficient d'une amélioration dans leur enseignement. Cet article étudie la question des changements dans l'apprentissage professionnel des enseignants fourni par les écoles de l'Académie des minéraux et de l'énergie de Queensland (AMEQ), combien ces écoles AEMQ y ont investi, et comment les enseignants ont été impliqués en analysant les initiatives d'apprentissage professionnelles présentées dans les rapports annuels de ces écoles. Les résultats de la recherche indiquent qu'il existe une variance dans la quantité et une variété de l'offre de l'initiative dans les différentes écoles AEMQ. La participation des enseignants dans l'apprentissage professionnel offert n'est pas en proportion directe avec les investissements des écoles dans les initiatives. Les initiatives prévues par presque toutes les écoles AEMQ se concentrent encore sur le renforcement des connaissances académiques et les compétences pédagogiques.

Mots-clés: Apprentissage Professionnel Des Enseignants; Écoles AEMQ; EFP; Changement

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INTRODUCTION

Teachers' knowledge makes a difference in the quality of implementing school curricula and teaching outcomes. It is categorised into three types: pedagogical knowledge – in which teachers know general strategies of teaching; content knowledge – what teachers know about their subject matters; and pedagogical content knowledge – the knowledge of how to teach a particular subject matter in a way that fosters students' understanding (Sadovnik, 2007, p. 144).

These three types of knowledge are indispensable in teaching and have an important influence on student learning outcomes.

In the changing times in education systems around the world, many societies are engaging in serious and promising educational reforms. One of the key elements in most of these reforms is teacher professional learning, the aim of which is to enhance the three types of knowledge. Teachers are “not only one of the ‘variables’ that need to be changed in order to improve their education systems, but they are also the most significant change agents in these reforms” (Villegas-Reimers, 2003, p. 7). This dual role of teachers in educational reforms – being both subjects and objects of change – makes the issue of teacher professional learning a growing and challenging area. Teacher professional learning is the professional growth a teacher achieves as “a result of gaining increased experience and examining his or her teaching systematically” (Glatthorn, 1995, p. 41). Professional learning includes formal experiences (such as attending workshops and professional meetings, mentoring, and engaging in research) and informal experiences, including “regular opportunities and experiences planned systematically to promote growth and development in the profession” (Villegas-Reimers, 2003, p. 12). Teachers who engage in professional learning often find themselves in empowering cycle: “the more they learn, the more they open up to new possibilities and the more they seek to learn more” (Lieberman cited in Sadovnik, 2007, p. 147). Although not all teachers follow this path, those who do benefit from improvements in their teaching. When teacher professional learning is organised within and across schools, it is expected to help establish many features of a professional community, such as collaboration, shared values, and reflective discussions about teaching and learning. The benefits of teacher professional learning are that it contributes “to teachers' knowledge, skills, and dispositions” (Sadovnik, 2007, p. 147).

This paper investigates the issue of changes with regard to teacher professional learning provided by schools under Queensland Minerals and Energy Academy (QMEA), how much these QMEA schools invested in it, and how teachers were involved in it by analysing professional learning initiatives presented in the Annual Reports of these schools (2007-2008). QMEA is selected because of its importance in Australian economy. Founded in 2007, QMEA worked with 18 schools initially and 30 schools at present and, its sponsors to provide the chances and experiences for school teachers. This means QMEA provides school teachers with prizes, awards, research projects, chances of attending conferences, seminars, workshops and training as part of teacher professional learning. The aim of this investigation is that it is a key mechanism for organising the teaching in QMEA schools where it is regarded as a necessary job requirement.

In the following sections, this paper investigates QMEA and VET related teacher professional learning provided by six QMEA schools in their annual reports (2007 and 2008) as a sample, two from Northern Queensland, two from Southern Queensland and two from Central Queensland. Then it analyses QMEA schools' investment in the professional learning. Finally, it focuses on teachers' involvement in teacher professional learning offered by these schools.

TEACHER PROFESSIONAL LEARNING OFFERED BY QMEA SCHOOLS

Of the six QMEA schools, not all of them provide in their Annual Reports variety of information with regards to their teachers' professional learning. Some provided QMEA related information; others provided either academic or vocational information. Therefore, the professional learning initiatives offered by these QMEA schools were selected for detailed analysis (see Tables 1-6).

Table 1: Professional Learning Initiatives Offered by Lony

Year	Professional Learning Initiatives
2007	Managing Student Behaviour Through Micro-skill Training; Teacher Classroom profiling; Literacy Across the Curriculum; Senior Schooling Initiatives; Go Maths In-service; District Maths Program PD; Better Behaviour, Better Learners; Certificate 4 Accreditation; Spelling Program; Curriculum Leadership Program; QCAR District PD; Prep follow-up PD; SMS PD; Time chart PD; VET qualifications for year 11 and 12 teacher.
2008	Intermediate to Advance Welding; Curriculum Leaders; TA Conference; Key Teacher Training; Year 2 Net Moderation; Prep Reflection; Smart Moves Primary Classrooms; Early Years Curriculum Guidelines Training; Thinking and Learning Outside the Square; Student at Risk Networking Opportunities; QCAR Students with Disabilities Workshop; North West Anaphylaxis Allergy Workshop; Rehabilitation Return to Work Coordination; Reading In-service; PRO Engineering CAD Software Training; QSA Developing a P-12 Framework Workshop; Dare to Lead Workshop

Table 1 shows that in 2007, Lony provided its teachers with some vocational education and training (VET) initiatives including *Certificate 4 Accreditation* and *VET qualifications* for Years 11-12 teachers. It was one of the few among the six QMEA schools which reported offering VET qualifications for its teachers as professional learning initiatives. It also offered a range of workshops and activities concerning skills and pedagogy training. In 2008, the VET initiatives involved *Intermediate to Advance Welding* and *Engineering Computer-aided Design Software Training*, in addition to different workshops about diverse skills and capacity enhancement. With the teachers equipped with VET Certificates and qualifications in 2007, this school increased the VET offerings in the specific fields such as welding and software, providing its teachers with technological skills for engaging in VET.

Table 2: Professional Learning Initiatives Offered by Batter

Year	Professional Learning Initiatives
2007	Middle Phase Learning Strategy including the Middling Schooling Cluster SAIL Project; Rural & Remote Centre of Excellence PD Day; Preparation and ongoing implementation of QCAR and Essential Learnings; Cross Cultural Awareness Training – Module 2 completed ; Literacy development through Support-a-Reader and Support-a-Writer; Senior Phase of Learning – Emphasis on Set Plans, QCE and other QSA subject based training; TAA04 Certificate 4 in Training and Assessment for VET teachers
2008	Literacy across the curriculum; ICT Pedagogical License & ICT Certificate; QCARF Implementation; Certificate IV Training & Assessing; Middle & Senior Phase of Learning – QSA; Specific curriculum development

Table 2 reveals that in 2007, Batter provided its teachers with professional learning with regards to *Middle Phase Learning Strategy* and *Senior Phase of Learning* in addition to *Cross Cultural Awareness Training*. *Literacy development* was another important initiative. The only VET offering was the *Certificated 4 in Training and Assessment* for VET teachers, which suggests that this school had its own VET teachers. This was not reported as common among most QMEA schools. In 2008, with the majority of the initiatives offered in 2007 continuing, *ICT Pedagogical License* and *ICT Certificate* were added to the initiatives which provided VET teachers with more skills and technological knowledge. Batter was another QMEA school which provided VET qualifications for their teachers.

Lony and Batter were the only two QMEA schools that explicitly and clearly reported they had their own VET teachers in schools. This could indicate that the rapid growth of VET has led to a VET teacher supply problem for schools. VET was traditionally reliant on “committed individuals who have worked long hours to establish the programs in their schools” (Smith, 2004, p. 571). This is because VET teachers need to be specialists in a number of senses. First, they are specialists in areas of knowledge related to specific occupational fields. It follows that they need to be graduates in a technological or other professional field and have gained experience in using that knowledge in a number of specific workplaces. This means that prior to becoming a VET teacher, they had some industrial or commercial experiences linked to their prior studies. It is likely that the recruitment of VET teachers has to compete with industry where there is a shortage of skilled labour. Now, they are specialist vocational teachers in particular areas of the curriculum. That is to say that they now need to be familiar not only with the content and philosophy of the curricula and how it may need to change, but also with its implications for teaching, learning and assessment in their specialist field (Young, 2008). Due to these ‘specialist’ requirements, VET teacher supply problem in schools is difficult to solve. One possible solution to this problem is to train teachers via a partnership between university education faculties and technical and further education (TAFE). The university could specialise in the broad professional educational issues involved in becoming a teacher, and TAFE could be responsible for developing the teachers’ specialist vocational pedagogy (Young, 2008). The major problem with VET teachers in schools was that high schools rarely have the resources and expertise in vocational pedagogy to take on the role prescribed for them. As a result, VET students do not have the opportunity to develop their vocational knowledge and skills.

In the initiatives of most QMEA schools, very little attention was given to developing the specialist vocational knowledge and skills of future potential VET teachers. VET teachers can rely on “a combination of generic pedagogic knowledge acquired in the university and the ad hoc vocationally specific skills that they pick up during their teaching practice in schools” (Young, 2008, pp. 178-9).

There are other drawbacks in supplying VET teachers in QMEA schools. First, with a new or revised curriculum, few school VET teachers are likely to have the appropriate expertise and, if so, only in certain vocational fields. Second, those training to become VET teachers may continue to be cut off from the rest of the education community, and have few opportunities for progression to higher level professional studies. Therefore, systematic attention needs to be given to the professional learning of VET teachers. This requires a change of attitudes towards VET status in schools as well as much funding. It is imperative now to have “fast-track training of teachers in VET subjects to accommodate both the rapid growth in VET and the turnover of burn-out VET teachers” (Smith, 2004: 571).

Table 3: Professional Learning Initiatives Offered by Pini

Year	Professional Learning Initiatives
2007	Leadership Development including Curriculum Leaders Program; Curriculum Development including QSA courses in Manual Arts, Art, Hospitality, Maths, Physics and Chemistry; Middle Years in-services; Literacy – District Literacy Team, Building Blocks to Literacy, THRASS; Staff Welfare, Conflict Resolution, Probationary Teacher Programs
2008	Literacy and Numeracy development – THRASS, Literacy Workshops; Staff Leadership Development; Understanding and Embedding Indigenous Perspectives in the Classroom; Curriculum Development in specialist areas; Improving use of ICTs in the classroom; Other: SET Planning Processes; Thrive Not Just Survive; First Aid

Table 3 indicates that Pini teachers had the opportunity to engage in such school initiatives as *Leadership Development*, *Curriculum Development*, *Literacy* and some other programs in 2007. Professional learning for curriculum development included VET related courses in the Queensland Studies Authority (QSA) courses, such as *Manual Arts* and *Hospitality*. However, in 2008, professional development initiatives centred on specialist areas, in addition to *Literacy*, *Numeracy* and *ICT Certificate* were provided. While not made explicit it is possible that this school kept its 2007 offerings and added new initiatives in 2008.

Table 4: Professional Learning Initiatives Offered by Alan

Year	Professional learning initiatives
2007	Literacy; ICT; Middle Years of Schooling; Success for Boys; Indigenous Education; Gifted and Talented Education; Queensland Certificate of Education
2008	Developing performance framework; literacy; numeracy; dimensions of learning; gifted education

Table 4 shows that the potential VET related initiative offered by Alan for its teachers in 2007 was *ICT* and *Queensland Certificate of Education*. It provided a range of activities to build its teachers’ capacity in teaching. In 2008 it offered numeracy and literacy and other training activities to its teachers even though it did not show specific activities. It provided opportunities for its teachers to be engaged in professional learning.

Table 5: Professional Learning Initiatives Offered by Vela

Year	Professional learning initiatives
2007	Beginning Teacher program; Pre-Service Teacher program - Staff PD Forum; Systemic Programs – Literacy, Behaviour Management, Code of Behaviour and Student Protection; School Initiatives – LTLTR, Leadership Development (for promotional aspirants), Leadership program for HODs, GO, HOSE and Principal, Leadership program for teachers, Crossing Cultures, ICTs in the classroom; Individual teacher requirements; Curriculum-Specific requirements; First Aid Course; Faculty Requirements - QCAR Reporting Requirements
2008	Beginning Teacher program; Pre-Service Teacher program: Staff PD Forums; Systemic Programs: Literacy; Behaviour Management; Code of Behaviour and Student Protection; School Initiatives – FCT Pedagogical Licence / Certificates; Literacy; Leadership Development (for promotional aspirants); Leadership program for teachers; Crossing Cultures; ICTs in the classroom; Individual teacher requirements; Curriculum-Specific requirements; First Aid Course; Faculty Requirements - QCAR Reporting Requirements; NAPLAN Testing

Table 5 reveals that in 2007 and 2008, the only VET related initiative offered by Vela to its teachers was *FCT Pedagogical Licence/Certificates*. In 2007, Vela offered a *Leadership* program for head of departments, general officials, head of senior education and the Principal, and *Learning to Learn through Reading* (LTLTR). In 2008, it offered *FCT*

Pedagogical Licence/Certificates and Literacy. This might mean that this school turned its attention somewhat from academic to VET. The common initiatives offered during these two years were *Beginning Teacher Program, Systemic Programs, Individual Teacher, Faculty and Curriculum-specific Requirements*. It also reported offering a *Pre-service Teacher Program*, which was a distinctive claim made among all the QMEA schools.

Table 6: Professional Learning Initiatives Offered by Dasy

Year	Professional learning initiatives
2007	Provide professional development and training opportunities for teaching and non-teaching staff to ensure continuous growth in skills and knowledge; Maintain a highly structured and supportive policy framework to cope with a teaching workforce characterised by frequent change and large numbers of beginning teachers; ICT pedagogical license & ICT certificate; Cluster assessment moderation & bank of assessment standards.
2008	All staff have completed ZIP training - (Zero Incidence Process) ; Provide professional development and training opportunities for teaching and non-teaching staff to ensure continuous growth in skills and knowledge; Maintain a highly structured and supportive policy framework to cope with a teaching workforce characterised by frequent change and large numbers of beginning teachers; ICT pedagogical license & ICT certificate; Cluster assessment moderation & bank of assessment standards.

Table 6 tells that Dasy provided professional learning and training opportunities for its teachers to grow their skills and knowledge. It also used a structured and supportive policy framework to deal with frequent staff changes and its large number of beginning teachers. Assessment related initiatives were offered for its teachers. Possible VET related offerings were *ICT Pedagogical License* and the *ICT Certificate*, which were offered in both 2007 and 2008. But in 2008, *Zero Incidence Process (ZIP)* training – a psychologically based program, was offered sponsored by Billiton Mitsubishi Alliance Norwich Park Mine². Dasy was the only school in Australia to be offering this [training] to staff and Year 12 students.

From the analysis of the evidence above, it can be seen that there are not many VET offerings for teacher professional learning in these particular QMEA schools. This means that most QMEA schools are still academically oriented in this regard.

For some QMEA schools, there were no apparent VET related initiatives that could be recognised in the offerings reported for both 2007 and 2008 school initiatives. Some initiatives might be VET related, but they were not explicitly reported as such. For example, most QMEA schools offered the Queensland Certificate of Education (QCE) which now includes VET courses, but the schools just gave a general mention about it without presenting any specific information in this regard. Some schools provided their teachers with external and internal professional learning including conferences, seminars, workshops and training programs. VET related offerings might be included in these activities, yet they were not explicitly in the annual reports of the QMEA schools.

Teacher professional learning plays an important role in teaching because “curriculum is a weak force for regulating teaching” (Coyle cited in Sadovnik, 2007, p. 137). Although teachers tend to cover the topics reflected in the curricula, they use their own judgment and may vary widely in their pedagogy, the time devoted to various topics and their modes of assessment. Consistent associations between teacher professional learning and student outcomes have been found in some studies. For example, it was found that “students’ achievement is higher in high schools in which teachers perceive a greater sense of efficacy and responsibility for student learning and in schools where educators have engaged in restructuring activities” (Sadovnik, 2007, p. 138). Such organisational change in teacher professional learning is assumed to influence students’ learning outcomes by influencing the conditions for senior learning and promoting devotion to the academic/VET mission among teachers. This is expected to lead to enhanced teaching and better learning outcomes. Teachers who participated in school-wide professional communities tended to engage in more innovative teaching. This perception is consistent with the view that “a community of teachers encourages instructional innovation, which promotes greater learning, [and] innovative instruction lead to both school restructuring and better learning” (Sadovnik, 2007, p. 138). The QMEA has the potential to organise inter-school professional learning communities, especially through the use of new Information and Communication Technology.

The QMEA provided teacher professional learning for its school teachers, as Mary, once a partnership manager of the QMEA (Aug 6, 2009) explained it:

What we do, we pay particular attention to our teachers, because to be honest, if the teachers don’t understand, they are not going to promote it to the students, and they will not engage the students. So teacher professional

² Jointly owned by Mitsubishi Development Pty Ltd and BHP Billiton, the BHP Billiton Mitsubishi Alliance (BMA) is Australia’s largest coal miner and exporter, and the world’s largest supplier to the seaborne coking coal market.

development is a core part of our business. We do that in two ways. In one way we actually take groups of teachers on excursions and tours and activities, to provide that one-on-one level of exposure. In another way, we work in partnerships with the Queensland Resources Council.

So teacher professional learning can be delivered either in schools or out of schools or in the workplace, especially for training VET teachers. However, wherever the training occurs, it requires funding, which is the focus of the next section.

SCHOOLS' INVESTMENT IN TEACHER PROFESSIONAL LEARNING

Offering professional learning initiatives to teachers was one part of the measures for making changes in teacher professional learning. An important part of this was the funding issue. Professional learning requires considerable funds, particularly when it is maintained over time and involves collaboration among teachers and, between schools and industries. Different QMEA schools expended different amount of money on teacher professional learning, depending on the size of the school and their available funding.

Of the six QMEA schools, Alan invested the most funds (\$38919) on teacher professional learning in 2007, and Dasy invested the least (\$14,026). This is in part due to differences in the sizes of schools. Most QMEA schools expended between \$20,000 and \$40,000 on teacher professional learning, while one third of them spent less than \$20,000. The amount of money spent on teacher professional learning reflected schools' principles, policies and strategies in teachers' in-service education. However, the amount of money directly used on VET related professional learning was difficult to establish from the information given in these reports. In 2008 changes occurred in the funds invested in teacher professional learning in most QMEA schools.

Among the same QMEA schools, Alan kept leading the investment (\$48000) in teacher professional learning, increasing it in 2008, and Dasy invested least (\$12186). Half of the schools invested \$40 000 or over, while the other half spent \$20 000 or less. Again it was not possible to identify how much money was specifically used for VET initiatives. It is possible to compare funds invested in professional learning by these schools in 2007 and 2008 as a way to gain insights into this aspect of change in the QMEA schools (see Figure 1).

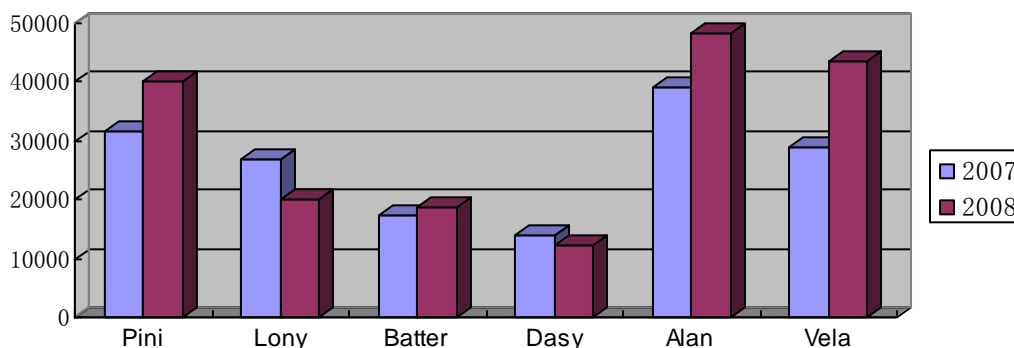


Figure 1: Total Funds Expended on Teacher Professional Learning (07-08)

There were changes in the investment on teacher professional learning in all six schools from 2007 to 2008. Most of them increased their funds invested in teacher professional learning, with three showing a marked increase. However, two schools decreased their funding of such initiatives, with one showing an obvious decrease. Alan was outstanding in its investment in the two years with much higher expenditure on teacher professional learning than all the other QMEA schools. Vela increased its investment by \$14590, from \$28897 (2007) to \$43487 (2008). Batter and Dasy invested more or less similar amounts during these two years with only a slight increase or decrease. That more schools increased their funds in teacher professional learning indicates that QMEA schools valued teacher professional learning, especially in the enhancement of teachers' capacity, skills and knowledge. Many schools offered programs for beginning teachers as a way to improve the quality and standards of teaching practices. Since schools have invested so much on teacher professional learning, then how do teachers involve in them?

TEACHERS' INVOLVEMENT IN PROFESSIONAL LEARNING INITIATIVES

It was also necessary to investigate another side to this. Specifically, it was necessary to investigate teachers' involvement in these initiatives since the QMEA schools had offered these possibilities for professional learning and invested much money in it (see Figure 2).

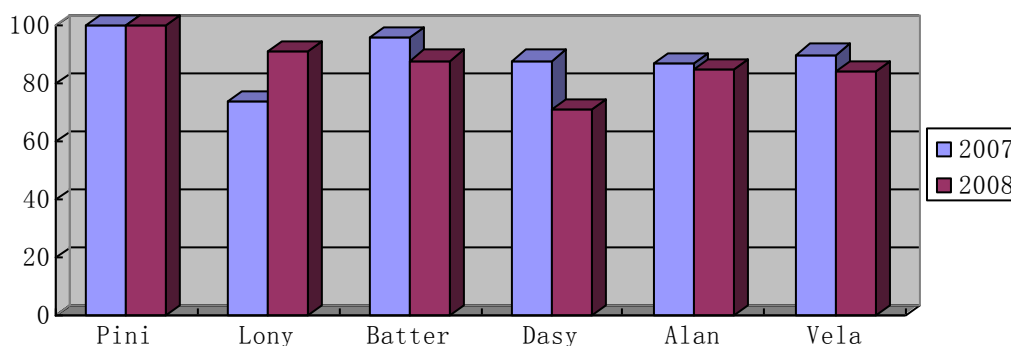


Figure 2: Involvement of Teachers In Professional Learning Initiatives (07-08)

Teachers' professional learning during 2007 saw one of the six QMEA schools with 100% of its teachers involved in the initiatives offered. While Lony had 74% of its teachers participate in professional learning, Batter reported it had over 90% of its teachers engaged in these activities. In 2008, only Pini reported that all of its teachers were involved in school initiatives for professional learning. Lony reported that over 90% of its teachers participated in the activities offered.

Pini reported that 100% of its teachers were involved in the professional learning in both 2007 and 2008. The number of teachers engaging in the initiatives offered by QMEA schools grew from 74% (2007) to 91% (2008) for Lony. Most of the schools reported that the percentage of teachers involved in these initiatives fell, with Dasy reducing 17.6% from 2007 to 2008. The analysis of the evidence indicates that schools expended relatively large sums of money on providing professional training activities for their teachers, but the involvement of the teachers in these initiatives does not seem to be satisfactory. In some QMEA schools, nearly one third of their teachers did not participate in these activities. The reasons for this might be multiple, with teachers' interests and satisfaction being one among many possibilities. Thus, the relation between these initiatives and teachers' involvement is dynamic, and not always in direct proportion to the funds invested. The impact of professional learning on teachers depends in part on the quality, variety and practicality of the initiatives available for the diffusion and implementation of ideas and practices. Research indicates that teachers are more likely to "engage in non-routine behaviour in schools where principals were more knowledgeable and supportive and where teachers obtained assistance in acquiring materials and supplies" (Sadovnik, 2007, p. 148).

Research to date demonstrates that professional learning is usually "effective when it is embedded in the school and when it is the focus of collaborative discussion and action" (Little cited in Harris, 2003, p. 377). However, the possibilities for interschool professional learning in an organisation such as the QMEA require further investigation. Professional learning is conceived of as "a collaborative process" (Villegas-Reimers, 2003, p. 14). Even though there may be some opportunities for isolated work and reflection, most effective professional learning occurs when there are meaningful interactions, not only among teachers themselves, but also between teachers, administrators and other community members.

A challenge to implementing effective professional learning can be the lack of time. Teachers need time to understand new concepts, learn new skills, develop new attitudes, research, discuss, reflect, assess, try new approaches and integrate them into their practice. They need time to plan their own professional learning. More time and variety for professional learning result in "the enhancement of teacher capability, skills and knowledge, and hence more learning for students" (Sadovnik, 2007, p. 143). When teachers are more capable, they cover the curriculum more extensively or in greater depth, and this yields enhanced learning for students, although the pattern may be invariable.

Additionally, teachers' professional learning may influence student pathways. For example, on the whole, school career advisers view VET in a positive vein, and they claim "to advise all students of its merits as a pathway to pursue" (Dalley-Trim, Alloway & Patterson, 2007, p. 31). This is important, because these positive attitudes towards VET are likely to lead them to advise young adults about the merits of the program. However, their advising practices differ for different students, categorising students as either academic or non-academic. They tend to advise the academic students to

take VET subjects in order “to gain an advantage over their fellow academically-oriented peers and to get some relief from the serious and rigorous work of academic studies” (Dalley-Trim, Alloway & Patterson, 2007, p. 31). In contrast, the undertaking of VET subjects was presented as the ‘only’ option to non-academic students. Career advisers in schools advised their students differently due to their attitudes towards VET. In effect, this is a means of streaming students by ability. The consequence of advising students in this way is likely to lead non-academic students all together into VET programs while doing so more selectively and discriminatingly for their academic counterparts. In regard to professional competency and practice, this practice by school career advisors raises problems such as the status of VET in schools. Career advisors may need to be better informed in professional learning about VET and the potential benefits it offers all students, with professional learning plans put in place in order to ensure this. Otherwise they might mislead some students, and lead VET programs astray.

Teachers are an influential factor in educational reforms in schools. The crucial role of teachers in the efforts to innovate the curriculum might be assessed from different perspectives. The lack of innovative professional learning initiatives has been attributed to the failure of teachers to implement the innovation of curriculum “in a way corresponding to the intentions of the developers” (van Driel, Beijaard & Verloop, 2001, p. 137). The claim is that “educational reform efforts are doomed to fail if the emphasis is on developing specific teaching skills, unless the teachers' cognitions, including their beliefs, intentions, and attitudes, are taken into account” (van Driel, Beijaard & Verloop, 2001, p. 140). This is not so for many QMEA schools which offered training in specific teaching skills. Most QMEA schools invested funds in enhancing teachers’ skills and knowledge in areas such as ICTs, VET courses, literacy and numeracy. Professional learning has to be “a permanent process, aimed at extending and updating the professional knowledge and beliefs of teachers in the context of their work” (van Driel, Beijaard & Verloop, 2001, p. 148). The focus is on facilitating the growth of professional knowledge and pedagogical skills that teachers already have and use for teaching.

For interschool cooperation, *Peer Learning Circles* is one of the possible initiatives which present a feasible strategy for teacher professional learning across QMEA schools. Peer learning is “a process of cooperation between two or more colleagues in which they exchange ideas, attempt to implement these ideas, reflect on their own teaching practice, and so on” (van Driel, Beijaard & Verloop, 2001, p. 149). This reciprocal interaction could extend across QMEA schools. Theoretically, collegial learning strategy can impact on how teachers function within and across QMEA schools. This is because most teachers are “professionals in isolation” (Clandinin cited in van Driel, Beijaard & Verloop, 2001, p. 149), and are not used to talking about their work. Peer learning implies that certain working conditions would have to be met and implemented by the QMEA so that it becomes part of its schools’ culture.

Teachers’ involvement in professional learning is closely linked to the organisational reform. Villegas-Reimers (2003, p. 24) argues that “educational reforms that do not include teachers and their professional learning have not been successful. Professional-learning initiatives that have not been embedded in some form of reform of structures and policies have not been successful either”. To be satisfactory, professional learning experiences and opportunities need to be embedded in the major reform of structures, policies and organisations of schools. Changing teachers without changing contexts, beliefs, and structures rarely created significant change. Unless there is some QMEA school-wide commitment and collaboration, most attempts at promoting teacher professional learning are likely to be less than effective. In other words, educational reforms and teacher professional learning go hand in hand, such that they share “a symbiotic relationship” (Villegas-Reimers, 2003, p. 26). Teacher professional learning is a key factor in ensuring that educational reform is effective and fruitful. Successful professional learning opportunities for teachers have a significant positive effect on their teaching and hence students’ performance and learning outcomes (Villegas-Reimers, 2003). Given that the goal of education is to increase students’ learning and to improve their future work/study trajectory, teachers’ professional learning is a key to such achievements.

Some QMEA schools provided their teachers with *Positive Behavioural Support programs*, which is particularly important for beginning teachers. This is because, according to the Australian Centre for Equity through Education and the Australian Youth Research Centre (cited in Smyth & Fasoli, 2007, p. 276), the most important factors connecting young people to school were “linked to relationships – friendship with other students and relationships with teachers that involved mutual respect and responsibility”. In this sense, teacher professional learning is a key resource in constituting the QMEA as much as providing its teachers with respect, personal relations, competence and integrity.

Teachers’ professional learning can serve as an incentive for educational reforms across schools. The schools with high-quality teaching and learning might not experience many changes in teachers’ professional learning. Newly established schools and small schools that intended to develop might encounter these issues from the beginning. Therefore, changes in teachers’ professional learning are not something that can take place once but “a process of continuous improvement” (Sadovnik, 2007, p. 148). Schools being restructured to be part of the changes represented by the QMEA have to be dynamic and adaptive, not static. Teachers’ professional learning plays a key role in “stimulating, supporting and enhancing these changes” (Sadovnik, 2007, p. 148).

School teachers are now engaged in diverse work experiences, vocational and academic courses, flexible learning services, planning holistic engagement strategies and growing their innovative leadership capacities (Harreveld, 2007). Deeper professional learning is essential to equip teachers with the capacity to live and thrive as professional educators in QMEA schools. This is because knowledge no longer exists solely in the heads of teachers to be transmitted to their students. Teachers' work is to support their students-as-learners, navigating across oceans of knowledge and information, helping them make sense of what they discover and putting it to use in many and varied situations. In this sense, teachers "carry great moral, as well as intellectual responsibility" (Newby cited in Harreveld, 2007, p. 286). However, while times keep changing both structurally and pedagogically, teacher professional learning looks very much as it did decades ago; it may be time for school leaders to change their approach to teachers' professional learning, especially for VET in order to move towards a new professionalism for teachers. However, it is argued that "teaching success is not measurable by simplistic quantitative criteria and the public school system relies upon a philosophy of cooperation and camaraderie amongst teachers" (Bardsley, 2007, p. 502). Moreover, teachers, who are already comparatively poorly paid professionals often working in substandard conditions, could have their morale undermined further and students would suffer. Given the high degree of teacher autonomy in the classroom, the emphasis on teachers' professional learning seems promising (Sadovnik, 2007). A strong professional community across schools – collaboration and continuous learning among teachers, provides the capacity for improving teacher instruction and ultimately for enhancing student learning outcomes.

Teachers in some QMEA schools form relationships with one another around academic concerns of teaching and learning. These social networks constitute important resources on which teachers can draw to improve their teaching. Under certain conditions, social relations among teachers may profoundly influence their classroom work and thereby affect student learning. When teaching is considered as complex, interactive, dynamic and changing, rather than routine, the QMEA has to rely on "developing commitment rather than imposing controls" (Sadovnik, 2007, p. 145). This may lead to more successful teaching and learning outcomes.

With innovation in the curriculum comes the problem of organising teacher professional learning for VET. This is a well established historical problem. Qualified VET teachers in schools were difficult to supply to teach a specific trade, in part because of labour and/or skills shortages in those trade and industries. In some situations, a person experienced in the trade might be employed and "the instructional aspects of the subject were developed as the course proceeded" (Kliebard, 1999, p. 101). Ultimately special training was provided for a new type of teacher. This is because "an ordinary school teacher did not know much about industry, and the skilled worker presumably did not know how to teach" (Kliebard, 1999, p. 107). Additionally, industry was not enthusiastic about the schedule that students spent one week in school and the next week in the factory, because the students were still being instructed by the traditional high school methods. The new type of teacher was to be "skilled workers who had taken short course for [training] teachers rather than enduring a long course of professional training" (Kliebard, 1999, p. 107). With some VET being based in schools, it proved to be necessary to train specialist teachers to teach them. This was possible for teachers who already had teaching experiences but needed to make up for a lack of knowledge of a trade. If the QMEA could include trade knowledge in teacher professional learning, the supply of VET teachers might not be impossible.

Teachers undertook the responsibility for "the transformation of immature human beings into appropriately-socialised adult citizens" (Hamilton, 1989, p. vii). Where QMEA schools were thought to be free from social and economic structures they were seen as being independent sites of educational innovation, with change coming from the ability of teachers to build new educational relationships within the status quo (Hamilton, 1989). Teachers and students are typically involved in "a relationship of transmission and acquisition, whether this is unilateral or reciprocal" (Bernstein, 1977, p. 176). The organisational structure of the QMEA focuses on the relationships between fundamental scholastic categories.

Implementing changes in the QMEA schools was problematic for several reasons. One of them was that it was not clear what particular kinds of trades could be successfully taught and who could teach them. School teachers were generally considered to be too academically oriented to be entrusted with trade training. The evidence analysed in this paper indicates that this situation was changing in QMEA schools. Some schools provided their teachers with VET professional learning and/or VET training and certificates, and invested large sum of funds to help them. Even though these QMEA schools invested in teacher professional learning, a fundamental change in the organisation of professional learning requires generous government support, since VET training requires uncommon tools, equipment, space, which adds considerable costs to the QMEA professional learning programs. Vocational and academic education entails long periods of training, close attention to the qualifications and credentials of teachers, and very considerable flexibility for the QMEA and its schools to shape the programs and activities (Kliebard, 1999).

CONCLUSION

This paper has explored the organisation of teachers' professional learning, including the QMEA schools' investment in the professional learning and teachers' involvement in these initiatives. This evidentiary analysis helps to better

understand the important role teachers' professional learning plays in enhancing teachers' capability and knowledge building. The findings indicate that there is variance in initiative offerings in different QMEA schools. Teachers' involvement in the professional learning is not in direct proportion to the schools' investment in the initiatives. The initiatives provided by almost all the QMEA schools still centre on academic knowledge building and pedagogical skills. Few schools appear to convey information to their teachers that they are QMEA schools and encourage their teachers to be involved in the programs, activities, training or awards offered by the QMEA. Further investigation to these issues need to be done in the future.

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