ENHANCING PROFESSIONAL LEARNING FOR RURAL EDUCATORS BY RETHINKING CONNECTEDNESS

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ABSTRACT

Impending changes in Australian education brings forth the expected transformation of teachers working in schools. Three key points for transforming Australian schools has been identified by Gillard (2008a) including the improvement of quality teaching, ensuring every child benefits and mandating transparency and accountability. A number of initiatives were considered to assist with such reform including the implementation of a Digital Education Revolution, the move to the Australian Curriculum and the implementation of a National Framework for Professional Standards for Teaching. As these transformative initiatives are rolled out to teachers across Australia, the equitable access to PD to support all teachers, regardless of their geographical location, is in question. In line with the literature, the author proposes the concept of delivering PD and accessing PD from regional and remote areas be reconsidered. This research paper will outline the findings from the study including travel time being significant and impacting on teachers personal time; limited relief teachers impacting on access to PD; promotion and teacher registration being explicitly linked to PD; professional learning communities being valued but often limited by small staff numbers; professional learning conducted in the local context being preferred; professional learning established at the teacher and school level being desirable; teachers being confident in using technology and accessing PD online if required; and social cohesiveness being valued and often limited by isolation. Further this research has culminated in the development of a conceptual framework that would facilitate improving the amount and variety of professional learning available to regional and remote teachers.

INTRODUCTION

The Australian Governments' education revolution started around three years ago and the "fruits of its labour" is slowly culminating. While some would argue it is highly necessary to improve quality teaching in Australia through education reform, a survey of 1600 school leaders recently commissioned by Principals Australia indicated a division of opinions. Consultative processes employed by government authorities leading the charge were not held in high regard, with only 24% of respondents indicating the national professional standards were given an appropriate level of principal consultation and 48% of respondents indicating the

national curriculum did not apply an appropriate level of consultation with principals (Education Review, 2011).

Previous research has indicated that effective teaching is the most important school factor in a child's schooling. As regional and remote schools often find it challenging to recruit staff, it is found they often contain disproportionate numbers of new and less experienced teachers. Further, experienced teachers are often unable to access the same quality and quantity of professional learning opportunities as their city counterparts.

This paper will describe recent reform agenda's that have contributed to the need for research into equitable access of professional learning for teachers living and working in regional and remote Australia. It will also provide findings of a recent study into such phenomenon and propose a model of connectedness to assist with such a challenge.

BACKGROUND

Three recent initiatives within the education revolution that are of significance to teachers working in schools in Australia are the Digital Education Revolution, the Australian Curriculum (v1.2) and the National Framework for Professional Standards for Teaching. This section provides a background to these reform agenda's in order to contextualise the paper.

Digital Education Revolution

Over the past few years, the notion of an education revolution has been of great interest within the Australian media. A discussion paper in January 2007 revealed Australia's national investment in education had fallen behind a number of our OECD counterparts and as a result the investment in education would be addressed (ALP, 2007).

A Federal initiative, coined the National Secondary School Computer Fund, aimed to provide a laptop for every child in secondary schools, along with the networking infrastructure to connect with the 'information superhighway' and online teaching materials relevant to the curriculum within each state. Since this initiative was released in 2007, there have been two rounds offered (Round 1 and Round 2), and an additional supplementary round (2.1) has also occurred. In 2008, under the Round 1 label, 896 schools received 116,820 computers improving the computer to student ratio from 1:8 or worse to a target ratio of 1:2. In January 2009, the Round 2 schools were announced with 1394 schools receiving 141,319 computers allowing those in the second round to also move to a ratio of 1:2. Further a supplementary round entitled Round 2.1 in March 2009, announced that 512 schools would receive 34,700 computers (Department of Education, Employment and Workplace Relations, 2010a). Figure 1 shows the total of national funding that has been expended over each state and territory by the end of 2010.

Figure 1 National secondary school computer funding expenditure by State (DEEWR, 2010a).

NATIONAL Total by State

	No of Schools	Number of Units	Flexible Funding*	Total Funding Provided	% of ALL rounds of Funding
NSW	872	110,139	$1,399,000	$111,538,000	38%
VIC	561	65,787	$124,000	$65,911,000	22%
QLD	501	54,544	$123,000	$54,667,000	19%
WA	310	27,113	$31,000	$27,144,000	9%
SA	239	20,284	$20,000	$20,304,000	7%
TAS	103	6,316	$-	$6,316,000	2%
ACT	40	6,342	$57,000	$6,399,000	2%
NT	75	2,227	$4,000	$2,231,000	1%
	2701	292,752	$1,758,000	$294,510,000	100%

The 2007 discussion paper suggested professional development would be addressed by working with state governments and universities to ensure teachers have "access to training that will allow them to use the technology". This is now evident in the Digital Strategy for Teachers and School Leaders whereby:

> through this strategy, the Australia Government will commit $40 million over the next two years for the professional development of teachers and school leaders in the use of ICT (Department of Education, Employment and Workplace Relations, 2010a).

Professional development has been split between two phases: the ICT Proficiency Project and the ICT Innovation Fund. A limited amount of information has been provided with regard to the ICT Proficiency Project; however, a consultant will be employed to provide a 'scoping study' of self-assessment and best practice to determine the steps toward ICT proficiency on a national level.

In contrast the ICT Innovation Fund has provided organisations with $16 million funding between four projects that will undertake activities which "improve the capabilities of pre-service, enhance capacity of in-service teachers or drive innovation through leadership" (Department of Education, Employment and Workplace Relations, 2010b). This funding has been provided from the start of 2011 until June 2012.

It is evident from the four project descriptions that regional and remote schools and teachers have not been a priority area. The "Teaching the Teachers for the Future" project, which has secured the largest budget of $7.8 million, will be a national approach by all 37 Australian universities with teacher education programs. A content analysis of this project indicated there was no reference to explicitly supporting regional or remote teachers, as the emphasis was on pre-service teachers. The "ICT in Everyday Learning: Teacher Online Toolkit" project focuses on providing online resources for the delivery of the Australian Curriculum and will

enable "teachers to access professional learning at the school level with local support" (Department of Education, Employment and Workplace Relations, 2010a). Similarly, this project does not state how regional and remote teachers will access this support at the local school level. Ironically, the "Anywhere, Anytime Teacher Professional Learning" project has stated that its impact will be initially on teachers, principals and teaching students within the NSW region, yet in the future it "could" be scaled to all throughout Australia. Benevolently, this project does state:

> the products developed through this project will mean all teachers, whether in rural, regional or metropolitan areas can access the same high quality professional learning (Department of Education, Employment and Workplace Relations, 2010a).

The fourth project entitled, "Leading ICT in Learning" will assist principals lead their school communities to understand the role and potential of ICT to transform the learning environment. It will target school leaders in all 9,500 schools across Australia with the aim of establishing a sustainable national infrastructure to develop through collaborative networks for professional growth. Within this collaborative network the notion of remote schools has been stated (Department of Education, Employment and Workplace Relations, 2010a).

The process of implementation for the Digital Strategy for Teachers and School Leaders is questionable, as some 292,000 computers were provided to schools and teachers without timely professional learning at the coalface to support pedagogical change for using this technology.

The Australian Curriculum v1.2 (formerly the National Curriculum)

The notion of a national curriculum in Australia is not new. In the late 1980s the Ministers for Education of each state set common national goals that would plant the seed for a future national curriculum reform (McGaw, 2010). This was in the form of the *Hobart Declaration* of 1989.

In 2002 and 2003, Professor Alan Reid from the University of South Australia was selected as a DEST Research Fellow to investigate the relevance of a national curriculum in the current climate and how this might be advanced in a productive manner (Reid, 2005). In the findings from this research, Reid argued "if the purpose of education is to promote human development through experience, then the starting point for curriculum work should be the identification of the capabilities that people need, individually and collectively, to live productive and enriching lives in the 21st century." (Reid, 2005, p. 53). This report identified the need for curriculum to move away from the traditional model of acquisition of knowledge and content (see Figure 2) to a capabilities-based curriculum model (see Figure 3).

Figure 2 Dominant curriculum model (Reid, 2005, p. 56).

Reid (2005) argues that when curriculum planning starts with knowledge and content, as determined by the model in Figure 2, evidence shows that the "teaching OF subjects or learning areas become an end to itself" (Reid, 2005, p. 56). In contrast, the capabilities-based model of curriculum development, as seen in Figure 3 and reflected in the pending Australian Curriculum, allows teachers to teach through the knowledge and content in order to develop the capabilities that students will require to operate in a competent manner within the workforce of the twenty first century.

Figure 3 Capabilities-based curriculum model (Reid, 2005, p. 57).
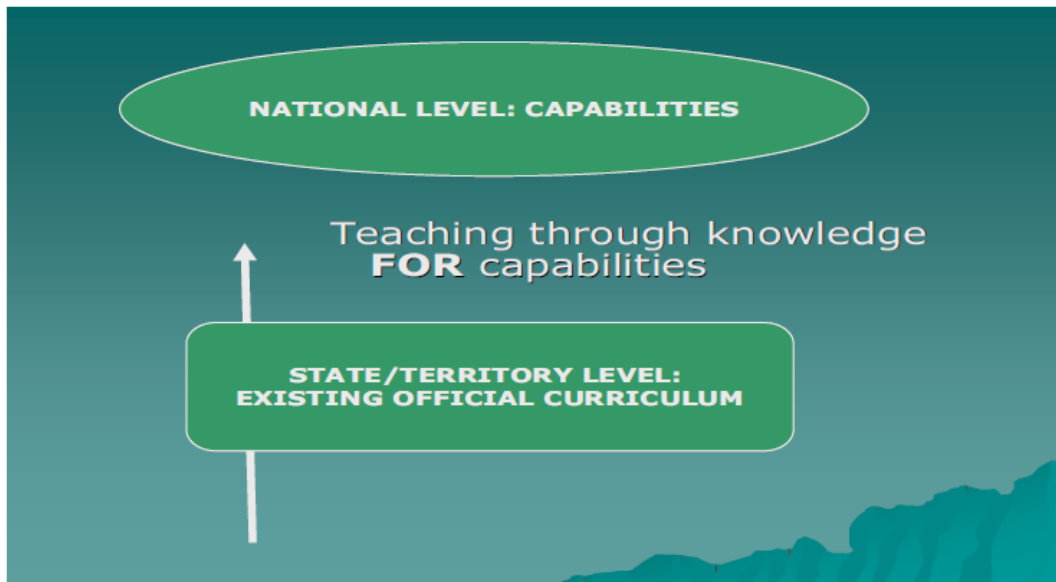
From Reid's (2005) research into the need for a national curriculum, the National Curriculum Board was established. In April 2008, this independent body, chaired by Professor Barry McGraw, was charged with development of a national curriculum in consultation with a large range of stakeholders including all education sectors,

teachers, parents, students, academics, business groups and professional organisations (Gillard, 2008b). In December 2008, the Australian Curriculum Assessment and Reporting Authority Act *2008* were established under the Commonwealth of Australian Law (Australian Government, 2008). The Act established the functions, powers and procedures of the Board of the Australian Reporting and Assessment Authority (ACARA), formerly the National Curriculum Board. This Board was officially announced in 2009 and ACARA's work has been guided by the Melbourne Declaration.

The Melbourne Declaration on Educational Goals for Young Australians was developed in 2008 by the Education Ministers from each state and territory (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008). This declaration documented the collaborative goal setting and the commitment to action plan in order to achieve these goals. One such action plan is documented as "promoting world class curriculum and assessment". In this plan the notion of a national curriculum was stated whereby all state and territory governments, along with the Federal government, would work with all school sectors toward such a deliverable. This report identifies remoteness as a cause of inequity as seen in Goal One:

> Reduce the effect of other sources of disadvantage, such as disability, homelessness, refugee status and remoteness (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008).

With the introduction of the Australian Curriculum the need for professional learning of all teachers in all schools in Australia is paramount in the implementation of such an initiative. The Australian curriculum includes the introduction of ten general capabilities that will be embedded throughout each learning area in order to prepare students for future employment in the 21st century. These include literacy, numeracy, ICT, thinking skills, creativity, self-management, teamwork, intercultural understanding, ethical behaviour and social competence. The document states that "particular attention has been given to the incorporation of literacy, numeracy, ICT, thinking skills and creativity" (ACARA, 2009). Recent literature indicates that up skilling teachers to be prepared to teach the knowledge and skills required within the Australian curriculum will require considerable support and development sustained over time (Broadley, 2010; Wise, 2010). The general capabilities embedded throughout each learning area present a challenge for teachers who do not have a sound pedagogical base for teaching with ICT or higher order thinking skills. As a result professional learning for all teachers who will implement the Australian curriculum is critical.

Professional Standards for Australian Teachers

The quality of teaching in Australia has been one of great discussion over many years. Louden (2000) analysed and critiqued the four Australian standard frameworks in the first wave of teaching performance standards. These were developed in the 1990s by state government agencies in a number of states of Australia and focussed on differing levels of performance from beginning teachers through to experienced teachers. Louden (2000) argues that all four of these attempts to define teaching standards shared some common weaknesses including "long lists of duties, opaque language, generic skills, decontextualised performances, expanded duties and weak assessments". Taking the argument in a new direction, Louden (2000) proposed that the successful development of standards needed to include teachers working in the field, professional associations and academics. Further, the development of standards needed to be a higher standard and be strengthened in terms of being "brief, transparent, specialised, contextualised, focused on teaching and learning and matched by strong assessment". The focus on teacher quality is consistent with current research on the importance of the teacher in improving student learning outcomes.

In connection with the earlier literature from Louden (2000), the Australian College of Educators, a national professional association, recognised the need for a collaborative effort to pursue a unified approach to teaching standards (Australian College of Educators, 2000). Opportunities were provided for teacher professional associations to gain funding from the federal government in order to develop teaching standards in their discipline areas. The work of more than 20 professional associations, carried out in a consultative process with teachers in their subject areas, contributed to the *National statement from the teaching profession on teacher, standards, quality and professionalism* in May, 2003. This statement indicated the primary purpose of standards is to provide guidance for pre-service teacher education programs and continuing teacher professional learning (Australian College of Educators, 2003).

More recently, Ingvarson (2010) has argued there are two purposes for teacher evaluation. One is to ensure basic standards of professional practice are met and the other is to provide high standard of professional accomplishments and incentives for attraction and retention. These fall into two separate realms of school management responsibility and profession-wide responsibility. After providing a historical overview of the development toward a national standard for the profession, Ingvarson (2010) discussed the locus of authority for where such responsibility should lie. The formation of a national professional body for teachers has been somewhat problematic and evolved over much iteration. A succession of national bodies for the profession has been documented by Ingvarson (2010). The Australian Teaching Council was started in the 1990s and was followed by the National Institute for Quality Teaching and School Leadership (NIQTSL), which later changed to Teaching Australia. In late 2009, Teaching Australia was yet again replaced with the Australian Institute of Teaching and School Leaderships (AITSL). AITSL was

charged with building on the work of Teaching Australia and the professional associations to provide a one national process of certification of teachers toward a vision of teaching as a profession.

The most current document at a national level is the *National Framework for Professional Standards for Teaching.*

> The specific role of the National Framework for Professional Standards for Teaching is to achieve national consistency and a common approach to recognising quality, as well as to facilitate a national co-operative approach in supporting teacher quality (Ministerial Council on Education, Employment, Training and Youth Affairs, 2003).

Four levels of teacher standards identified in the framework are Graduate, Proficient, Highly Accomplished and Lead. This framework aims to provide guidance, support and recognition for the ongoing professional learning of teachers and is currently under a validation process to identify the appropriateness of the standards within each level. These standards aim to deliver accountability for teachers in terms of professional knowledge, professional practice and professional engagement (MCEETYA, 2003, p. 11). Communicating these standards to teachers and having them embedded in practice requires significant professional learning. Professional learning in regional locations has already been seen to be problematic.

Professional Development Policies and Funding

Government funding of teacher professional development initiatives appears to be the responsibility of a number of national and state groups. The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA), prior to the establishment and merger to become the Ministerial Council for Education, Early Development and Youth Affairs (MCEEDYA), through the Australian ICT in Education Committee (AICTEC) was reported to be developing a "*Digital Education Road Map* which would include a *Teaching in the Digital Age Work Plan"* to focus on teacher professional development linked to the Digital Education Revolution.

Text analysis conducted on the Department of Education, Employment and Workplace Relations (DEEWR) website in September 2011indicates that professional development initiatives for teachers in non-government schools in 2009 would be funded by the Australian Government Quality Teacher Program (AGQTP) through funds of up to $11.25 million which "should be directed to ICT-related school-based professional development for teachers" (DEEWR, 2011a). However, further investigation of the AGQTP funding for non-government schools 2011-2013 guidelines, indicates a total of 25% of each calendar year's funds must be spent on professional development activities. The priority areas for funding include the Australian Curriculum, the National Professional Standards for Teachers and Student Wellbeing (including Bullying). Projected funding for these years can be

seen in Table 1, which indicates a total of $56, 363 will be spent on PD across the independent and Catholic sectors over three years (DEEWR, 2011b).

Table 1 AGQTP Funding for Non-Government Schools 2011 to 2013

Sector	2011	2012	2013	Total
Catholic	4,151,317	4,429,119	4,788,157	13,368,593
Independent	2,849,683	3,040,381	3,286,843	9,176,907
Total	7,001,000	7,469,500	8,075,000	22,545,500

The background provided in this section has aimed to provide a contextual basis in which to place the current study of regional and remote teachers access to professional learning. It is evident that professional learning is of utmost importance to support teachers through current educational reform.

METHODOLOGY

This study was conducted in phases, referred to as an explanatory mixed methods design. Data were collected in two different stages. Quantitative data were collected to provide a general picture of the research problem, followed by the qualitative data to further refine the general picture (Fraenkel & Wallen, 2006). This closely fits with Creswell & Plano Clark's (2007, p.71) purpose for using such an approach in that "qualitative data helps explain or build upon initial quantitative results."

The survey was conducted during 2009. Approximately 720 surveys were sent to 50 schools within the Remote Teaching Service and Country Teaching Program of the Department of Education (WA). The Remote Teaching Service (RTS) schools are some of the most isolated schools in the world. Some may be in small towns whereas others are in community settings with predominantly Aboriginal populations. Schools classified in the Country Teaching Program are located more than 35 kilometres outside the Perth metropolitan area, however many are in small, isolated and challenging communities. Of these, almost 15% (n=106) of teachers responded to the survey. After analysis of the returned surveys and the removal of two unanswered survey forms, the final number of respondents for the survey sample was 104. The survey instrument consisted of five categories which included forty two statements.

Qualitative data for the study were collected over a period of 14 months, from March 2009 through to May 2010. A total of ten teachers were willing to participate in interviews conducted by email, telephone and where possible, in person. Of these ten participants, four identified as classroom teachers and six were administrators in

the role of principal or deputy principal within a school. Six participants were females and four were males. These teachers were employed in schools that ranged from employing a teaching staff of three to thirty staff. Experience working in a regional location ranged from four months to twenty years.

The final phase allowed the researcher to consider associations and relationships from the findings and formulate a conceptual framework to facilitate improving the amount and variety of professional learning available to regional and remote teachers by using synchronous and asynchronous technologies. The results of this mixed-method research have provided a better understanding of the research problem than either approach alone.

RESPONDENT PROFILES

A summary of the demographic data collected within the survey, including gender, years of teaching experience and current teaching status, is represented in Table 2. The respondents to the survey correlated with familiar statistics regarding gender population within the teaching profession. The Western Australia College of Teachers (WACOT) is the registering board for all teachers in the state of Western Australia. Their figures showed that in 2009, 26% of its 45,000 members were male and 74% female. The respondents from the survey in this study similarly reported 23% male (n=24) and 77% female (n=80). This illustrates that the results of this study were evenly reported with regard to gender population of the teaching profession.

As reported, the majority of the respondents were female and classified themselves as teachers who had taught for more than two years. The number of participants classified as Graduate Teachers within their first two years of teaching (n=21) and teachers who had completed the Senior Teacher 1 or 2 qualification (n=21) were identical. The smallest group of respondents (n=6, representing 5.8% of all respondents) were those who had successfully completed the Level 3 Classroom Teacher process. A large percentage of the teachers (44%) identified as being within their first five years of teaching. These data indicate that less experienced teachers working in regional and remote areas were more willing to participate in the survey than those with more teaching experience.

Table 2 Demographic information detailing respondent numbers by gender, years of teaching and current teaching status.

	N	%
Gender:		
Male	24	23.08
Female	80	76.92
TOTAL	104	100.00
Years of teaching:		
0-5	46	44.23
6-10	12	11.54
11-15	14	13.46
16-20	14	13.46
20+	17	16.35
No response	1	0.96
TOTAL	104	100.00
Current teaching status:		
Graduate Teacher - in his/her first two years of teaching	21	20.19
Teacher - taught for more than 2 years	55	52.88
Senior Teacher 1 or 2 – has successfully completed the process	21	20.19
Level 3 – has successfully completed the process	6	5.77
No response	1	0.96
TOTAL	104	100.00

It is evident within Table 3 that seven teaching regions, as they were previously defined in the Department of Education of WA, were represented within this study, with the largest percent (23.1%) being from the Pilbara district. This district is a considerable distance (1300 to 1900 kilometres) from the metropolitan area. Narrogin and the Midlands District were also higher represented with 20.2% and 19.2% respectively. Although low numbers of respondents were located in the Kimberley (n=9), these teachers contributed important viewpoints to the study due to the considerable distance of this region from the metropolitan area.

Table 3 Demographic Information Detailing Current Teaching Region

Current Teaching Region	N	%
Esperance District	3	2.9
Goldfields District	10	9.6
Kimberley District	9	8.7
Midlands District	20	19.2
Midwest District	17	16.3
Narrogin District	21	20.2
Pilbara District	24	23.1
Total	104	100.0

FINDINGS

Eight key findings emerged from the research through the process of triangulation of the data collected within this study. These findings were then used to inform the conceptualisation of the *Rethinking Connectedness Model.* This section of the paper will report the eight findings.

Travel Time and Teachers' Personal Time

The quantitative data from this study strongly indicated that both regional and remote teachers (84.5% of total population) perceive the time taken in travelling to access face to face professional development (PD) is significant. Further analysis of the data revealed that there was significance ($p<0.05$) between those teachers working in the CTP (regional) and the RTS (remote). It is pertinent to note that regional areas are generally less isolated and located physically closer to regional centres or the metropolitan area, whereas, remote locations are significantly isolated meaning travel time is far greater.

Qualitative responses within the interviews indicated that often the travelling time was greater than the time spent attending the actual PD. With teachers explaining that one to two days in a car to a major regional centre, in order to catch a flight to Perth often required them to be out of their school for up to week in order to attend a PD opportunity.

Whilst the focus on travel time within the *Access to PD* category was not surprising, the impact on a teachers' personal time was considered to be of particular importance to the teachers in this study. The quantitative survey revealed a large number of the teachers in this study (93.3%) believed that personal time was impacted if they were to access face to face PD. This was further discussed in the qualitative interviews, where one teacher described travelling on a weekend to be able to attend PD that started on the Monday. Being away from her children on the weekend and needing to organise someone to care for them and transport them to

their sporting events was of great significance to her personal life. This was supported by a graduate teacher who reported the need to travel 200km to a major regional centre from her remote community on a Friday after school in order to attend mandated graduate PD modules being offered on a weekend in order to not interrupt the school staffing. This, however, impacted on her personal time. A common theme was the impact of attending PD on fellow teaching staff as many teachers were often not replaced with a substitute teacher. The importance of substitute teachers is discussed under another finding further into this section. These data have suggested a need to explore ways of presenting professional learning opportunities that limit the necessity for travel.

Limited Availability of Relief Teachers

The survey item on access to relief teachers was not rated considerably highly by the total population of the study; however, qualitative data revealed this to be of great impact on teachers gaining leave of absence from their teaching in order to attend PD. Further, this question appeared to have more relevance to the remote teachers. This is supported by the quantitative data where there was a statistically significant difference (p<0.05) reported between those teachers working in the CTP (regional) and the RTS (remote). This indicates that regional teachers have better access to relief teachers which might be explained by RTS schools generally being located in predominantly indigenous communities. From the qualitative data it was evident that teacher relief was considered to mean the employment of a casual staff member for the days they were away, but also considered to mean when fellow permanent staff members were covering their teaching role. In very small schools, where no teacher relief was available within the community, the absence of a teacher on PD meant they would need to reshuffle the students into other classes which then impacted on the student teacher ratios for that time. When school leaders left the school to access PD, this often meant DOTT relief was not available to the entire teaching staff as this was often covered by the school leaders. Therefore, the data indicated that teachers and school leaders considered the variable associated with PD attendance carefully prior to making the decision to attend.

Promotion and Teacher Registration

Apart from the benefits to teacher professionalism and student learning that PD offers, there is also an extrinsically motivating factor offered to teachers working in the Department of Education schools of this state. Teachers are required to provide evidence of approved professional learning in order to gain promotion and renew teacher registration. This brings to the fore the importance of access to professional learning for teachers who are working outside of the metropolitan area.

The impact of limited access to professional learning might explain the smallest group of respondents (n= 6, representing 5.8% of all respondents) were those who had successfully completed the Level 3 Classroom Teacher process. Further, within this study, no remote teachers identified as having Level 3 classification, all six were

from the CTP cohort. This might indicate that teachers in regional and remote areas are disadvantaged in terms of promotion within the department due to their challenges associated with accessing professional learning.

Value of Professional Learning Communities

For many participants in this study, a professional learning community was underpinned by the notion of working in groups, supporting each other, sharing PD and learning together. The value of professional learning communities was demonstrated where 81.5% of teachers from the quantitative survey chose to be part of the professional learning community within their school. Similarly, learning with and from your work colleagues (including mentoring) and attending regional workshops were the two highest valued approaches to PD by teachers across all seven districts. This result supports that teachers in this study believed a professional learning community is one of the most valuable forms of PD approaches available to them. In terms of teaching in a very small school with sometimes very inexperienced teachers, this could provide a number of limitations.

Two studies conducted by Leonard and Leonard (2001, 2003) into professional collaboration among teachers found logistical structure and size of the school was an integral reason as to why professional collaborations did not occur or were not sustained. The respondents from this study were employed within schools that ranged from a staff of two qualified teachers to 65 qualified teachers, showing a large variance in staff numbers which could possibly impact on the respondents' view of learning communities, networking and collegiality. A large proportion (45.3%) of respondents reported being employed within a school that had less than ten teachers employed. This indicates the survey data is representative of teachers who work not only in geographical isolation but also with a limited number of colleagues. The need for teachers to collaborate with others outside of their schools was recognised by many participants with 100% strongly agreeing or agreeing that attending PD with teachers from other schools was highly valuable and 86.3% stating that this allowed them to engage in a more positive PD experience. From the qualitative data, the notion of school based PD and the questioning of the effectiveness and quality of such an approach was raised by one principal: "I think this is creating an inbred culture, as ideas and innovation are not being pollinated from outside (P1)." As the numbers of staff in schools are affected by student enrolment, in many regional and remote schools there will often be teachers facing limitations in the choice of face to face collaboration.

Professional Learning in the Local Context

Under the broader category of *Value of PD Approach*, teachers were asked to rate the value of regional workshops. Regional workshops were identified as those held within their school or local regional district and, therefore, are considered in the local context. Teachers (from 82.3% to 100%) reported regional workshops as very high and high in value across all teaching districts with exception of the Goldfields

district where 60% of teachers reported very high or high value for regional workshops. Another item asked teachers to rate the value of learning with and from your colleagues, including mentoring. This item received very high and high value reported (from 82.4% to 100%) across all teaching districts with exception of the Goldfields district where 70% of teachers reported very high or high value. These two items were the only items that were explicitly linked to professional learning in the local context, and were also the two highest valued across all regions apart from the Goldfields district who reported university postgraduate courses as most valued. From the qualitative data, the desire for PD to be delivered in the local context was raised voluntarily by two teachers who discussed schools collaborating in local areas to bring quality PD into the town or district.

Professional Learning Established at Teacher and School Level

The *PD Selection* category of the survey contained items that gathered perceptions on why and how teachers might choose to undertake professional learning. Two items within this category revealed that teachers strongly believed their professional learning must be linked to their own needs and the needs of their students. Very high levels of agreement were reported from all teaching regions across items Q39 and Q42 which stated that teachers should be free to select PD based on their perceived needs and that PD should help teachers build new skills and identify strategies to better meet the needs of their students. Similarly, the total population data indicated 99% of teachers believed PD should help teachers build new skills and identify strategies to better meet the needs of their students (Q42) and 93.3% of teachers believed they should be free to select PD based on their perceived needs (Q39). McWilliam (2002) and more recently, Parr (2004) posed the argument against a bureaucratic approach to professional development where policy makers convey single-solutions to skill development. These approaches are often not truly reflective of the needs of teachers at the coalface and research shows that on return to the classroom have not informed teaching practice or improved student learning (Anderson & Henderson, 2004; Trinidad, 2004). Professional learning needs to be driven from the teachers and school level and then facilitated and supported by those at the organisational level, not delivered from a top down approach.

It was found that teachers in this study could see value in school priorities and programs influencing their professional learning to some extent, however, at the system level where policies were made, were not included in this sentiment. From the total population data, the highest mean (2.14) indicated that teachers believed their PD should be connected to the school's priorities and endorsed programs. There were no teachers who strongly disagreed with this statement. Further qualitative data revealed that both teachers and principals could see the necessity in this with one commenting that she enjoyed being involved in PD that was focussed on the priorities of the school because "these priorities are focussed around the betterment of student outcomes (T4)".

Teachers Confident in Accessing and Using Technology

Over half of the teachers in this study (66%) reported having a sufficient number of computers in their schools and 63.1% reported having fast, reliable internet access at their schools. Similarly, when asked about their home environments, 93.1% of teachers had access to a computer at home and 61.7% reported fast, reliable internet access in their homes. In 2007, three-quarters of the schools in the Department of Education network had 10 megabytes per second (Mbps) broadband service. Others were between 1Mbps and 10Mbps, with 37 schools using satellite links (Cisco Systems, 2007). These schools using satellite connections would be in the remote communities, which might explain the statistics for the total population.

Within the *Use of Technology* category, high levels of confidence in using technology and accessing PD online (if required) were reported across six out of the seven teaching regions. Teachers in the Goldfields reported highest levels of confidence and Kimberley teachers reported lowest levels of confidence. This may be linked to the perceptions of support for ICT and technology, where Goldfields teachers reported the highest perceived support and Kimberley teachers reported the lowest perceived support.

Value of Social Cohesiveness

Many teachers moving to regional and remote areas find the feeling of isolation detrimental to their social networks they may have had prior to relocating. This can impact considerably on the retention of teachers in these communities. In her study of first-year rural teachers, Sharplin (2008) found that lack of contact with other teachers in their subject area was of major concern. At a more collegial level, it was found that many teachers suffered professional isolation as did other service professionals in regional areas and were "equally at risk of leaving their profession in those first critical years in country placements" (Herrington & Herrington, 2001, p. 1). The current study extended this research as the qualitative data collection provided evidence that teachers felt professional networking was often conducted during breaks in informal situations and this was highly valued within the teaching community. This notion of social cohesiveness, being an explicit issue for regional and remote teachers, links very clearly to the community cohesion model.

MODEL OF RETHINKING CONNECTEDNESS

The model in Figure 4 provides a conceptual framework for facilitating teacher professional development through an online learning community to deliver just-in-time (JIT) and individualised support to teachers in their local context. The teacher is the key element at the core of the model and understanding their individual professional needs is essential. In line with the findings, the second layer ensures the professional learning allows teachers to be situated in their local context; yet engage with other professionals within their schools, within their districts and across boundaries of districts. Ideally, a variety of learning opportunities would be made

available that include just-in-time (JIT) support and meetings that are planned on a regular basis. For this to occur, the third layer of the model requires a vision from the principal at the school level to ensure the professional learning, although catering for teachers professional needs, is ultimately linked to the school priorities and the student needs within the individual school. The fourth layer of the model provides the technology that is available to support such an initiative. The use of both asynchronous and synchronous technologies is necessary to cater for those who prefer to collaborate and learn within a real-time environment. Those who are unable to join at specified times in the synchronous environment would access asynchronous communication tools.

Figure 4 Rethinking Connectedness Model.
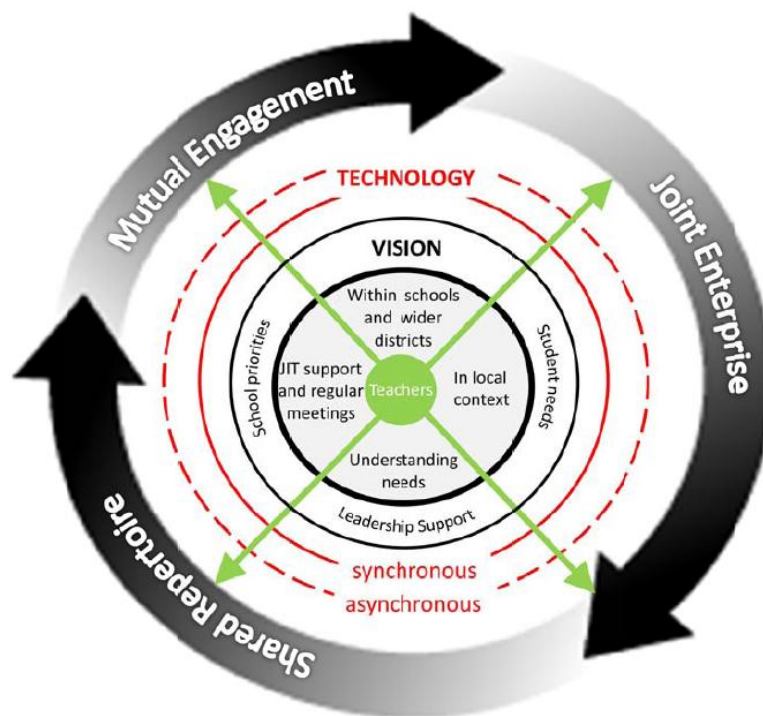
This model has implications for a range of stakeholders involved with professional learning for teachers in regional and remote areas. Those in educational governance, including, but not limited to the Department of Education in WA, may find this model beneficial to inform policy changes in professional learning at the system level. Providers of professional learning, including, but not limited to the PLI and a wide range of professional associations, will find implementing the model will ensure the needs of teachers in regional and remote areas are considered at the planning stages of professional learning scheduling. Principals and school leaders are encouraged to apply the model when planning school vision, school priorities and professional learning of all teaching staff, to ensure a more collegiate approach to professional learning has been applied. This will assist in the move toward a holistic approach to professional learning and one that moves away from one-off skill development.

CONCLUSIONS

Educational reform is very real for teachers and teachers working in all classrooms in Australia require adequate support in order to implement the required changes. This will not be successful without professional learning for all teachers, regardless of geographical location. The author proposes the concept of delivering PD and accessing PD from regional and remote areas be reconsidered. This research lies at the nexus of one key issue. Teachers as professionals must adopt a continuous cycle of improvement within their workplace and thus require a learning support network that underpins that cycle. In the case of regional and remote teachers, the only logistical possibility is to provide this through technology that offers synchronous and asynchronous communication.

For regional and remote teachers to gain access to such a rich sharing environment, technology offers the most convenient and affordable option to do so. The findings from this study have provided evidence that teachers find it difficult to leave their school to attend PD, they value the notion of collaboration and sharing in professional learning communities and although uncertain about online communities, many are confident with using technology. The culture of an online professional learning community is not simply a network of teachers who can communicate over distances. It needs to fundamentally provide a dialogue between professionals of curriculum, teaching, learning and assessment. However, as discussed in the findings, there also needs to be an element of social cohesion. Teachers value the informal networking opportunities that are presented in face to face PD and therefore would benefit from opportunities to develop those social connections in an online environment.

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