A CROSS ANALYSIS OF SINGAPORE AND NSW

This chapter compares the two cases, Singapore and NSW, providing a summary of the critical findings, an analysis and discussion. The aim of this study was to illuminate teachers' experiences as practitioner researchers in secondary schools in NSW and Singapore to explore to what extent their experiences are similar or different and how context - such as differences in culture or policy - might help to shape teachers' experiences. Hence, the matter of context was critical to this study. Practitioner research is undertaken in-situ and thus will look very different under different educational regimes. As Schatzki (2005) and later Kemmis and Grootenboer (2008) remind us the "sayings" and "doings" of practitioner research are all mediated by the historical circumstances that underpin them. While common ground existed across both settings, I argue that sufficient differences existed between the two sites explored so that practitioner research was prefigured and remodelled distinctively in each context.

The Different Contexts in Which Practitioner Research Transpires

The findings of this study revealed deep similarities and differences simultaneously existed between the two cases under study, conditions Macfarlane (2004) has identified as necessary for a true cross-cultural comparison to be made. This occurred across most of the themes that emerged in the study. While each case was identified by marked differences, in many instances certain traditions, beliefs and meanings were shared collectively among respondents regardless of where they were situated. Furthermore, there was evidence that schools have their own sub-cultures. I argue that such differences act to prefigure and shape the way practitioner research is understood and practised so that practitioner research is uniquely remodelled in each context.

Cultural Contexts

The educational landscapes of both Singapore and NSW were characterised as constantly, if not relentlessly, evolving and changing, supporting the notion that the Singapore education system is not as "rigid, prescriptive and homogeneous" as might perhaps be expected in such a tight politically controlled state (Sim & Print, 2009, p.721). Respondents across both cultures also believe the job scope and workload of teachers have grown exponentially over

the past few decades to the extent that they are "overloaded" and "overcrowded". In Singapore, it has long been believed that the nation's survival is dependent on the development of human capital. Human resource development has always been a core element in its strategic economic plans (OECD, 2011; Osman-Gani, 2004). Consequently, the quality of the teaching force has changed dramatically over the last 30 years as a result of a national initiative to professionalise it. The need for constant change and the upgrading of skills has also been embedded into the psyche of teachers. While the PLLD Directorate provides policy frameworks and resources for supporting teacher learning and the NSW Institute of Teachers evaluates and provides advice about the provision of professional development, the emphasis on the development of human capital in NSW does not appear to be as explicit or intense as in Singapore.

In both cultures there has been an attempt by the central authorities to cede certain power and autonomy to regions and schools, although some respondents suggested such efforts have perhaps been limited. In NSW this is mainly evidenced through the devolution of PL funding to schools. A criticism raised, though, was that such funding is often tied to government initiatives. In Singapore it was perceived there has generally been a loosening of control from the central authorities, although it was contestable as to whether all teachers willingly embrace the autonomy given to them. In NSW respondents commonly believed the opposite - that there has been a tightening of control due to accountability pressures which impinge directly on the work of teachers.

In both Singapore and NSW teachers felt increasingly constrained by accountability pressures. This has impinged on all areas of their work including practitioner research. Singapore has long functioned as a meritocracy and has a competitive education system (Sweeting & Morris, 1998) and parents have high aspirations for their children (Reynolds & Farrell, 1996). Respondents described a culture of 'kiasuism' where a fear of 'losing out to others' is pervasive. A popular belief is that paper qualifications are needed in order to succeed and that exam results are what matters most. Consequently parental pressure can shape the type and extent of research and innovation that occurs in schools with teachers reporting they often feel frustrated and constrained. On the one hand, schools are likely to engage in research if they feel it provides a competitive advantage while on the other hand, teachers feel obligated to "drill" students and "teach to the test".

Teachers in NSW are progressively facing similar constraints. There is a current fixation on 'standards' measurement and accountability in schools (Groundwater-Smith, 2007, p.62). Schools are increasingly becoming results driven and busier places, hence taking time away from innovative and creative practices such as undertaking research. In the past teachers tended to operate in isolation. There have been moves to de-privatise classrooms but schools in NSW still function largely in silos. Based on the conversations with respondents, I formed the conclusion that teachers in NSW are perhaps less accustomed to being scrutinized, assessed, or held to the same level of accountability, as their counterparts in Singapore.

When discussing research paradigms, several respondents confirmed that many senior bureaucrats in Singapore possess a sophisticated knowledge of various research approaches and methodologies. However, it was also reported that there was a culture in the past of favouring quantitative methodologies and that many schools in Singapore still tend to trust quantitative data. Nonetheless, a greater awareness and "maturing culture" of research has developed over the past decade with a marked trend towards greater use of qualitative research methodologies in schools.

The Institute of Teachers Professional Teaching Standards and the Quality Teaching Framework have stimulated enormous cultural change in schools in NSW. While ARAL was introduced by the PLLD directorate specifically to support the Professional Teaching Standards, at the same time teachers felt pressured to quantify the work they did. In contrast to the trend in Singapore, increasingly there is a dependence, reliance and emphasis on quantitative data in NSW schools, this being attributed to accountability pressures. Respondents believed that research is now less open than in the past focusing more on producing data, often in order to gratify superiors.

The political landscape varies considerably between the two contexts. While teachers in NSW viewed a change of government and a corresponding change in policy as normal, this was not considered to be the likelihood in Singapore. Consequently, by avoiding frequent changes of political leadership, Singapore has been able to keep "a bold long-term vision ... of education ... moving forward" (OECD, 2011, p.172). And while respondents in NSW tended to be vociferous in their criticisms of government and policy - pockets of the teaching force even being described by some as cynical - this was not often the case in Singapore, where only a few respondents were critical of aspects of MOE policy. In contrast to the

MOE in Singapore, the NSW DET was commonly described as a fragmented bureaucracy. Furthermore, in NSW, the Teachers' Federation had worked, in one instance, to influence school leadership, and in turn the type of research and innovation implemented in a school, but in Singapore, respondents did not describe any external institution functioning this way. Consulting teachers to reach a consensus so that schools are seen to function in a collaborative, collegial and egalitarian way was far more characteristic of government schools in NSW than in schools in Singapore. However, the perception was that principals in private schools in NSW tend to be more authoritarian than their government-school counterparts, and as a result, it is thereby easier to implement change in such settings.

In the two cases explored, the socio-cultural worlds were not fixed or static entities but constantly evolving and in a state of flux (Freire, 1974, 1985; Schatzki, 2002). The different contexts in which practitioner research transpired were thus subject to ceaseless movement, incessant rearrangement and reorganization, as has been described by Kemmis (2009) and others.

Policies and Programmes

Across both contexts practitioner research was shaped by the "meta-practices" of educational policy-making and administration, as teaching practices typically are (Kemmis & Grootenboer, 2008, p.59). The model of PL was changing across both Singapore and NSW as the central authorities encouraged schools and teachers to embrace practitioner research.

In Singapore, policy makers and administrators perceive education moving from a centralized to a decentralized system with greater autonomy, flexibility and choice being ceded to schools. Practitioner research is located in the larger context of making schools more autonomous. There has been an emphasis on skills upgrading to increase the capacity of teachers and enable schools to be more independent and flexible. A shared mantra is that education needs to undergo constant change to remain relevant. In particular, schools are encouraged to develop ground breaking curriculum approaches tailored to their local needs through innovation and research.

It was a common belief among respondents in NSW that the DET encourages schools to adopt a data-driven evidence-based approach. Respondents interpreted this to mean that any

sort of change in schools, including curriculum reform, should be based on some sort of data or empirical evidence. At the same time there is a changing PL model away from teachers attending external workshops to school-based learning which is continuous and on-going focussing on local needs. The NSW AGQTP used AL as the principal model of PL in many of the research projects it facilitated while ARAL was introduced by the PLLD directorate specifically to support the NSW Institute of Teachers Professional Teaching Standards. It is imagined that teachers will more pervasively engage in practitioner research in the future in order to be accredited under the Professional Teaching Standards and to satisfy the Quality Teaching Framework requirements. The directorate anticipates a greater focus specifically on AR in schools from 2010 supported by the on-line resources it was developing at the time of this study. However, school leaders and teachers interviewed were sceptical of the efficacy of such an on-line on-time learning approach. Although the evolving PL model employs ARAL strategies, several respondents believed that teachers in general remain somewhat mystified by this, often still perceiving PL as one day, in-service courses.

In both cultures, policy on practitioner research is not explicitly or coherently stated in a single policy document but rather implicitly communicated, being embedded in different programmes and initiatives, although there was agreement that the central bureaus do staunchly encourage teachers to engage in practitioner research. In Singapore policy messages are communicated at milestone events, such as the National Day Rally or annual Work Plan Seminar. And while most respondents used a similar rhetoric and terminology when discussing teachers' experiences as practitioner researchers, senior personnel are aware that not all teachers have a consistent understanding of policy, hence more work needs to be done in order to rectify this. For instance, the DD, CPPU, reported that many schools and teachers variously interpret the TLLM Ignite policy. So while the government might communicate a "clear vision" of policy among "top officials" (OECD, 2011, p.166) the message is not always as clearly transmitted to those at the coal face. The practitioner research agenda is even less coherently communicated in NSW, there being no one, clear policy. Although the PLLD Directorate explicitly states a predilection for ARAL in policy documents, many viewed the NSW DET as a fragmented bureaucracy where different regions and various directorates often interpret policy diversely. In contrast, a model of research is not specifically identified in any MOE policy documents, although AR was commonly referred to by respondents in their conversations about practitioner research.

It was perceived by some respondents that Australia and NSW are in an era of severe financial constraint, Kemmis and Grootenboer (2008) noting that currently there is reduced public expenditure in fields like education (p.59). Many school personnel consequently decried a shortfall in funding for PL. In contrast, the Singapore MOE has devoted substantial resources, including funding, people and support, to encourage innovation and research in schools. The dedication of resources to practitioner research stems from a vision charted by then Prime Minister Lee Kuan Yew in the 1960s, and re-stated by many government ministers since, there long being an emphasis on the development of human capital, including teacher training, in Singapore (OECD, 2011). A suite of programmes has been developed to support the Thinking Schools Learning Nation policy initiative, chief among these being the TLLM (Teach Less Learn More) Ignite programme whereby it is planned that by 2011 every school will have a teacher trained as a RA to cascade innovation and research in the school. In addition, all teachers are offered incentives to undertake post-graduate research study. Still, some respondents thought support for innovation and research remains uneven across schools. While support initially comes from the MOE, it was noted by several that a secondary level of support comes from the cluster superintendents who may or may not see practitioner research as a priority. Also, school management and HODs do not always give teachers the support needed to effectively conduct research in the school.

Compared with Singapore, the approach adopted by the NSW DET to encourage innovation, research and change in schools does not appear as well-funded, ambitious or comprehensive. While PL funds are devolved to schools many school leaders felt that the amount granted was insufficient and inadequate. Furthermore, the discontinuation of the NSW AGQTP in 2010 has meant a significant source of funding for on-site research and development is no longer available to schools. It remains debatable what impact the demise of this programme will have. Typically the bulk of PL funding in NSW schools is spent on teacher release-time, whereas in Singapore funding allocated for innovation and research was mainly utilized to employ consultants or academics or procure other resources to support the planned innovation. Although ARAL is identified as a Key Strategy in the NSW DET Professional Learning Continuum, at the time of this study there was no systematic or comprehensive programme in place to train teachers in these approaches. It is envisaged that the main mode of delivery for PL in the future will be via on-line resources, with modules specifically on AR, but as noted earlier, the efficacy of this mode of learning is debatable. It can be argued that shifting the focus to on-line, on-time teacher learning provides only a superficial

engagement by participants and is perhaps a reactive, long-term approach to budget constraints.

In Singapore, perhaps advantaged by its compact size, there are several structures in place for teachers to meet to share their PL or research findings. This includes at a cluster, zone and national level, a landmark event being the annual Teachers Network Conference. In NSW, beyond on-line forums, there remains no centralised or formal opportunity for teachers to interact, either at a state or regional level.

Enablers and Constraints

Teachers have considerable agency to shape practices and change their immediate classroom practice but function in a world that is largely pre-formed, meta-practices acting to prefigure, enable or constrain practices (Kemmis, 2009; Kemmis & Grootenboer, 2008; Schatzki, 2002, 2010). Respondents across both cultures identified a supportive school management, the provision of time, funding, teacher capacity, and opportunities to share learning as important, enabling factors that help to facilitate practitioner research in schools. Supportive leadership was viewed as paramount if practitioner research is to flourish in a school, hence the principal needed to be passionate, empathetic, open-minded and responsive to different ideas. It is also essential that teachers are provided time to do their research, this being universally identified as the most critical facilitator to the success of any research enterprise in a school. In NSW, time and funding were seen as being inextricably linked. Funding was required to employ casual relief so that teachers might have the time to engage in research activities. In Singapore, the fact that schools were given the provision to use funds flexibly acted as a further facilitator.

Universally, teacher capacity in research practices and methodologies was viewed as a crucial enabling factor. In Singapore, some respondents felt it beneficial to have a mentor to guide neophytes and to provide concrete, specific, on-time support to members of the research team, replicating the findings of a contemporary study which focussed on pre-school teachers (Ebbeck, Chan & Yim, 2011). In NSW, many respondents believed it essential to have an academic partner to provide expertise and guidance and to facilitate research projects. In both cultures respondents believed it vital that opportunities be made available for practitioner researchers to share ideas and research findings, both at informal and formal

forums. Also, in both Singapore and NSW, the independent schools appeared to have more leeway and resources to enable them to put in place unique structures to support the school's research enterprise. Generally, respondents in NSW further identified the following as enabling factors: collegiality and an established culture of trust in a school; researchers working in cross-faculty teams; a research focus relevant to teachers; and the provision of clear targets, monitoring, and timely feedback.

Many enabling factors when in deficit became a barrier to innovation and research. Across both contexts, time constraints were viewed as the greatest barrier to teachers conducting practitioner research in schools. Time constraints might include: a lack of time; a misalignment of time so that it is not possible for various participants to meet; or a time cycle being imposed artificially on certain research projects. Inadequate training and the lack of teacher capacity to effectively conduct research were also viewed as barriers in both cultures, it being a belief that many teachers lack the required competence to do research. In Singapore, bureaucratic constraints, such as a lack of teacher facility in choosing a research topic, and the need for documentation, which many teachers viewed as "a chore" (Fang, Lee & Haron, 1999), were further barriers to research. In NSW, the following were identified as other possible barriers to practitioner research: poor school leadership; a change of school leadership; finding an appropriate academic partner with the necessary facilitative skills and disposition; working with an inappropriate academic partner; and, maintaining the energy and commitment required to complete a research project.

Furthermore, across both cultures teachers undertaking practitioner research were forced to cope with many competing priorities. It was a universal belief that teachers are subject to constant change and are struggling to cope with a massive workload. One DP described how teachers are "being killed" (Z1). Such huge workloads mean most teachers have little or no time to reflect on teaching let alone engage in research. Increasing the regulation and accountability of teachers reduces the time they have to focus on their primary practice, thus acting to undermine and subvert good practice, including practitioner research (Kemmis & Grootenboer, 2008, p.60). Teaching to the syllabus and the test, accountability pressures, and a pre-occupation with being results-driven, were perceived as barriers to innovation and research and to teachers undertaking qualitative research in particular. In Singapore, the proclivity to focus on the syllabus and exam results was attributed to deep-seated cultural traits (Hairon, 2006), whereas in NSW it was seen as a newly emerging phenomenon.

In response to the above, there is a need then to create the institutional and social conditions that will support practitioner research. While time was identified as the chief constraint, sometimes the practices of the central bureau itself were identified as a barrier to practitioner research, e.g. applying through the State Education Research Approval Process (SERAP). Several respondents in NSW were critical that the DET values practitioner research in spirit but in practice does not provide the needed funding or support. There is therefore a pressing claim for improved conditions of practice if practitioner research is to thrive (Kemmis & Grootenboer, 2008, p.59).

Furthermore, respondents in both cultures described how the two practices, practitioner research and teaching, often conflict rather than necessarily cohere, with organizations sometimes threatening "the conduct of the practices they aim to engender and sustain" by unwittingly generating constraints in "pervasive ways" (Kemmis & Grootenboer, 2008, p.57). As time is finite and limited, engaging in practitioner research commonly takes teachers away from the classroom. Invariably preparation time is sacrificed. Individual respondents both in Singapore and NSW noted ironically that the more time is spent on research in order to improve practice, the less time is spent on the "core business" or primary practice of teaching.

Practitioner Research as Understood and Valued

Re-defining Practitioner Research

While there is celebration that practitioner research is burgeoning (Carr & Kemmis, 2005; Cochran-Smith & Lytle, 2009b; Groundwater-Smith & Mockler, 2005), the findings of this study suggest that practitioner research is not understood, nor does it occur, as a homogeneous practice as defined by Schatzki (2002, 2005), either across or within the two contexts under study. Respondents had adopted different "rules" and "teleoaffective structures". They did not always share the same kind of "general understandings" about what is and is not acceptable as practitioner research, nor express "a common orientation". Thereby, respondents often did not have sufficient common background knowledge to be able to agree about what practitioner research was in words (Kemmis & Grootenboer, 2008, p.53). Their "sayings" and "doings" and the way they related to one another were not "bundled" together in a characteristic way (Schatzki, 2002) nor were they "mutually

intelligible" (2006, p.1868). Rather, practitioner research occurred across and within the two settings as a series of disparate practices, the two educational bureaus, sometimes even different regions or schools, adopting different research paradigms, assumptions and orientations. Accordingly, practitioner research was innate to the setting in which it was practised.

It is acknowledged there are different traditions of research and often there will be multiple conceptual usages of the same terms across and between contexts (Kemmis, Mattson, Ponte & Rönnerman, 2008). However, while it has been argued that practitioner research will look different in different places and that fidelity should not be measured against a set model (Groundwater-Smith, 2007; Somekh, 2006, 2011), it is contestable whether some of the practices respondents described as practitioner research might be considered practitioner research or any form of research at all. It was arguable where the dividing line between practitioner research and many of the day-to-day activities teachers engage in should be made.

Stenhouse (1981) describes research as "systematic and sustained inquiry, planned and self-critical, which is subjected to public criticism" (p.113). Many researchers have continued to adopt such a definition, Ewing (2007), for instance, stipulating that educational research should be both "systematic and intentional" (p.1). However, some of the activities teachers described as practitioner research were not intentional, systematic, sustained, nor subject to public scrutiny.

In both Singapore and NSW, definitions and understandings of practitioner research varied greatly between respondents within each culture. These definitions and understandings in turn were often inconsistent with extant definitions in the literature, respondents expressing a diversity of views. While asked to talk specifically about practitioner research, often respondents spoke more broadly about the work teachers do as researchers in schools rather than practitioner research as strictly understood in a theoretical sense. In the literature practitioner research generally refers to classroom-focused, practitioner-relevant research, but often respondents in this study referred to research that had been implemented as a top-down policy initiative, either by the central bureau, cluster supervisor, school management, an academic partner, or head of a research team, teachers having limited facility over the research topic or agenda.

In both instances, key personnel in the central bureaus, some individual school leaders and certain teachers had a sophisticated knowledge of different research methodologies. But this was not consistent across either teaching force, or even necessarily the case for those leading the research enterprise in their schools. In Singapore a HOD and in NSW a DP had hazy notions of what research and AR consisted of although they frequently referred to both of these terms and were spearheading the research effort in their respective schools.

In Singapore practitioner research is still "a new idea" (B1) for most teachers, many being unclear as to why the central bureau is encouraging such activity. In NSW several experts believed there is little consensus as to what constitutes research or practitioner research across the teaching force, many teachers being "mystified" (V5) by what practitioner research means. Nonetheless, the way practitioner research is understood and practised, or the 'sayings' and 'doings', could still be broadly characterised within each of the two contexts studied, some distinct differences existing between the two.

In Singapore research was generally equated with innovation, the two concepts being viewed synonymously and the two terms used interchangeably. But in NSW research was commonly seen by respondents as using feedback from teachers, students or parents, or using data, often from standardized tests, to inform decisions and change. Personnel in schools often tended to adopt a very broad and inclusive definition of research, at one extreme a particular respondent believing "discussions" around the "pizza oven" (Z4) constituted practitioner research. Interestingly, the idea that practitioner research necessitates data collection and is a collegial activity appears to have been transmuted into an untruth by some respondents: that any collegial activity or data gathering conducted in the school thereby constitutes practitioner research. But to add clarity, in those schools which had worked with academic partners, teachers interviewed did display a familiarity with practitioner research approaches, AL in particular. Furthermore, teachers sometimes engaged in practitioner research but were not cognizant of the fact as it had not been explicitly articulated to them. They became, what Kemmis (2011) might describe as an "accidental practitioner" (p.20). As Schatzki (2002) argues, any person "who performs actions that are part of a nexus of activities organized by a collection of interlinked understandings, rules, and teleoaffective structure is by that fact alone a participant in that practice" (p.84).

In Singapore, the phrase "action research" was commonly employed as "a generic, loose term" (A1) or "buzz word" (Hairon, 2006) and often a "populist version" (A3) of it appeared to operate. The way it was understood and practised was generally not congruent with the way it is classically defined in the literature, such as by Carr and Kemmis (1986, 2005) and others. Some conceived AR as any research taking place in the school that leads to action and it was commonly conceived as a very informal process. Several respondents referred to a hierarchy of practices; "formal research" being superior to "action research" which in turn is superior to "learning circles".

Somekh (2011) and Somekh and Zeichner (2009, p.14) have asserted that AR might evolve, develop and take on different forms in different contexts. However, I argue this is not the case in Singapore but suggest instead it perhaps is a problem of "conceptual equivalence" (Crossley & Watson, 2003, p.42). Quoting one respondent:

> I don't think that it [AR] is unique to Singapore. I think, as in other countries, people do do what we do, as in, they do collect data from one school, they do do quasi-experimental, but as to whether they would call it action research, is the question mark. They would probably call it educational research, or school–based research, or something else. They might not call it action research. (A2)

To illustrate with an analogy, the term 'football' is in common usage both in Singapore and NSW, but in Singapore is understood to mean 'soccer', and in NSW, generally 'rugby league'. Both these codes have very different histories and traditions as well as rules and regulations governing their practice. And so it is with the term practitioner research, and AR in particular. There are multiple conceptual usages of the same term. It has taken on "distinct meanings" in different cultural contexts (Crossley & Watson, 2003, p. 42) inhabiting "different spaces" with different characteristics (Kemmis, Mattson, Ponte & Rönnerman, 2008, p. vii). The practices can be deemed 'cousins' (Somekh, 2011) only adopting the broadest view.

In NSW, the terms practitioner research, AR and AL were often used interchangeably, the PLLD Directorate consistently using the acronym "ARAL" (Action Research Action Learning). Similar to Singapore, one criticism by the experts interviewed was that the phrase AR is used loosely and without understanding. Some schools conduct a one-off process and call it AR although the process is not ongoing or cyclical in any way. It could be claimed,

across both contexts, the term 'action research' has been so ubiquitously used that its meaning has been largely lost.

Of interest, it emerged in both Singapore and NSW, that groups of teachers in certain schools have embraced lesson study. Teachers collaboratively plan a unit of work, implement it over a period of time and meet at regular intervals to discuss the strengths of the approach and areas for improvement. In some instances teachers might observe each others' lessons, but always there is a sense of peer-coaching, team learning and collaboration. A government school in Singapore and one in NSW involved in this study had adopted lesson study, respondents reporting the approach holds great promise for schools. But while proponents of the approach interviewed in Singapore did not see lesson study necessarily as constituting practitioner research or research, academics and teachers in NSW did.

Results indicate that in Singapore, research is often used in schools to confirm the effectiveness of an intervention rather than to explore an issue (Tan, Macdonald & Rossi, 2009) and there has been a tendency to favour a scientific or quasi-experimental research design and quantitative data. Interventionist studies were often undertaken "to see if a hypothesis works" (A1). Furthermore, teachers in research teams often functioned as data collection points or the objects of study. In comparison, in NSW, respondents believed that schools and teachers generally use research to modify and improve local conditions, teachers showing a predilection for qualitative methodologies despite the pressure for them to use quantitative data. Research tended to be used to spawn or produce change rather than to measure it. But it was a common occurrence that the research undertaken was not necessarily informed by the literature, even where an academic partner had prepared and supplied the researchers with a synopsis. Across both cultures, many teachers remain blind to the theoretical and methodological issues and debates characterised in the literature. As a broad generalisation, in Singapore research was used to *measure* an innovation and in NSW to *generate* innovation, teachers in Singapore thereby favouring a "deductive theory" model as described by Ezzy (2002) and in NSW, an "inductive theory building" approach.

In Singapore in the past there has been a tendency to trust quantitative methodologies and data but in recent years there has been more of a tendency towards the use of qualitative approaches in schools, purposively to obtain the kind of insight and depth researchers desire. There is a perception among many that an understanding and appreciation of qualitative

research is evolving in Singapore. In contrast, respondents in NSW commonly identified themselves with a qualitative paradigm but feel, due to accountability pressures and expectations, there is a growing tendency for schools to rely on quantitative data. So while in Singapore there is a perceptible shift towards greater acceptance of qualitative studies, paradoxically perhaps, it would appear in NSW that there is a growing tendency in the opposite direction towards a quantitative paradigm. In both cases, these trends are in response to messages respondents perceive are being sent by the central bureaus.

Importantly, it is required that a distinction be made here between 'practitioner research' and 'research by practitioners'. While asked to talk specifically about practitioner research, often respondents spoke more broadly about the work teachers do as researchers in schools rather than practitioner research as strictly understood in a theoretical sense. Although in the literature practitioner research generally refers to classroom-focused, practitioner-relevant research, often respondents in this study referred to research that had been implemented as a top-down policy initiative, either by the central bureau, cluster supervisor, school management, an academic partner, or head of a research team, teachers sometimes having limited facility over the research topic or agenda (Ellis & Armstrong, 2011).

Across both contexts teachers tended to focus on pupil learning rather than broader school issues in their research (McLaughlin et al., 2008). Generally the knowledge generated through practitioner research was intended primarily for application and use within the local context in which it was developed (Cochran-Smith & Lytle, 2009a). By advocating teachers be critical theorists (Carr & Kemmis, 1986, 2005; Freire, 1970, 1974, 1985, 1998) rather than remain reflective practitioners (Stenhouse, 1975; Elliott, 1991; Schön, 1983, 1987), as teachers appear to be naturally inclined, the danger perhaps then exists of wresting practitioner research "away from practitioners and into the hands of the theorists and the academic research community only" (Cohen et al., 2007).

The findings of this study suggest, that across both contexts, ultimately teachers wished to improve practice in the classroom, the students being the beneficiaries of such commitment and good intentions. Immediate and practical solutions were paramount, while terminology or theoretical concerns were less of a concern. Schools or teachers appropriated what works best for them in their immediate setting. Hence, the data revealed different transmogrifications, versions and interpretations of practitioner research. Practitioners had

borrowed from various sources, including action learning, action research, evidence-based practices, lesson study, then adapted and modified these, practices tending to "coalesce" and "fragment" at one and the same time (Schatzki, 2002, p. 84). Whether much of the activity undertaken is best deemed 'professional learning' or 'practitioner research' remains debatable.

The hard question remains, what is research? One respondent (A3) reflected, "Teachers can experiment, investigate, develop and share best practice or work collaboratively on projects, which is purposeful and beneficial". But a "spectrum" exists when "putting propositions on the table" between the more formal and the "more informal stuff that you talk with your colleagues in the staffroom". He concluded, whether all or some of this is labeled "research" then becomes a "bureaucratic exercise". So I argue that while research can be viewed as existing on a continuum (Stenhouse, 1975), it perhaps needs to be asked, how far should this continuum stretch? Practitioner research is more than just reflection. It emphasises a systematic research approach that is cyclical in nature (Ary, Cheser Jacobs, Razavieh & Sorensen, 2006, p.538). Indeed, 'research' is generally defined in the literature as being 'intentional' and 'systematic' (e.g. Bassey, 1999; Cohen et al., 2007; Stenhouse, 1981). Some of the actions that teachers undertook under the guise of practitioner research thereby did not satisfy this requirement, although it is acknowledged that there are many critiques about what counts as research in the first place (Cochran-Smith & Lytle, 2009a). Thereby, there is a need for clarity within the teaching profession as to what exactly constitutes 'research' and ultimately 'practitioner research'.

The above would suggest a fundamental re-conceptualisation of practitioner research in education in Singapore and NSW perhaps is essential and timely. Key terms need be better articulated, clarified and communicated in policy documents. Instances emerged where some schools and teachers exploited the existing ambiguity, acknowledging they "re-packaged" or "re-labelled" extant practices in the school as practitioner research in order to satisfy a change of policy emphasis or accountability concerns. Sometimes the label practitioner research was used as an excuse to engage in practices devoid of any rigour.

Teachers' Disposition and Identity as Practitioner Researchers

Education systems are "arenas for conflict" and for this reason people differentially construct their roles (Reimers & McGinn cited in Crossley & Watson, 2003, p.81). Teachers across both contexts varied considerably in their views of what their principal identity was. Some saw practitioner research as an integral part of teachers' work while others viewed it as "something extra" or an "add on". Stenhouse (1975) identified a number of barriers which might prohibit practitioner research from being successfully implemented in schools including resistance from teachers themselves. Identity and disposition greatly shaped teachers' attitudes towards practitioner research acting as either a powerful enabler or constraint.

The idea of "identity" presents the possibility "of people's self-understandings diverging from the identities attributed to and foisted on them by and through others" (Schatzki, 2002, p.47). While some teachers perceive practitioner research as a useful tool and part of their job of improving practice, thereby corresponding with policy as espoused by the central bureaus, respondents across both cultures believed the majority of teachers view practitioner research as something outside their usual job scope, hence see it as "extra work" or even a "waste of time". Certain respondents, both in Singapore and NSW, also believed that perhaps practitioner research was beyond the ambit of teachers, that only in rare cases are teachers able to adopt the identity of the researcher with all the skills that are required. It was also commonly believed not all teachers have the disposition to conduct research. It depends on the creativity and willingness of the teacher and the different levels of both passion and ability among teachers to undertake practitioner research. Some teachers have an "orientation" towards research while others are resistant to change.

Some respondents from both settings believed there are identifiable groups who are resistant to, or not suited to doing, practitioner research, several believing older, more experienced teachers will be resistant to change and therefore to innovation and research. In Singapore, there were respondents who thought that neophyte teachers should be excluded from undertaking research as they would be overwhelmed adjusting to their new role. But the findings of this study suggested there was not a known pattern or a particular identifiable group that resisted change among the schools in the study, rather it was more dependent on

personal attitudes. Many noted there will always be the "early adopters" as well as "pockets of resistance" across the gamut of staff in any school. Particular respondents in both settings also thought that commitment to practitioner research will likely be dependent on personal circumstances and one's phase in life. Furthermore, it was observed by respondents across both cultures that although in spirit some teachers might enthusiastically embrace practitioner research, the realities, such as an overwhelming workload, time constraints and the need to prioritise, often make it difficult for them to sustain a research undertaking in school.

The findings of this study indicated that in both Singapore and NSW school management commonly embrace change management theory in order to institute change or to implement practitioner research. Moreover, some respondents in NSW observed that teachers are sometimes resistant to practitioner research because they are used to functioning in "silos" and do not like to open their classrooms to others or, as some teachers might perceive, be scrutinised or judged in any way. This did not arise as an issue in Singapore where teachers have long been observed, assessed, and ranked as part of their developmental supervision.

A culture and practice of taking directive and initiative from the top is pervasive across the Singapore education system (Hairon, 2006). As Hairon rightly notes, this poses a constraint to any form of ground-up teacher-initiated research (pp.516-517). However, I further suggest, the flip-side is, that when a policy initiative is implemented top-down, including practitioner research, it is more likely to be adopted by teachers functioning in such a paternalistic culture, as described by Hairon, compared with teachers who are perhaps operating in a more consultative context. Furthermore, although teachers in NSW appeared to function in a more consultative environment than their counterparts in Singapore, due to an expanding curriculum and workload, little research training, and a lack of funding for innovation and research in schools, teachers in NSW often experienced feelings of confusion and frustration.

In Singapore, a common belief across all strata was that the identity and role of a teacher is evolving. Greater focus and emphasis is being placed on innovation and research in schools so increasingly teachers will be expected to take on the role of being a researcher. In NSW, such a notion yet appears to be rooted in the psyche of teachers, the Director, PLLD, envisioning schools need to be reconceptualised as places for teachers to learn so that practitioner research is embedded in the way teachers work.

The Transmission of Practitioner Research as a Practice

Results indicate that practitioner research was "differentially incorporated" into the minds of those participating in the practice due to "differences in participant's training, experience, intelligence, powers of observation, and status" (Schatzki, 2005, p.480). Across both cultures, practitioner research was transmitted as a practice in a variety of ways. Although teacher capacity was commonly perceived as a significant enabling factor, there was not a homogeneous, systematic or comprehensive means for training staff across either teaching force. This corroborates contemporary OECD reports which concluded that "professional in-service development" in Singapore "comes from various institutions/sources" (OECD, 2011, p.166) and in Australia "appears not thoroughly planned, fragmented and not systematically linked to teacher appraisal" (Santiago, Donaldson, Herman & Shewbridge, 2011, p. 88), although the necessity of professional development is "widely recognised".

Some teachers were self-taught or learnt "on the job", others had learnt formally through post-graduate work, while teachers working on research projects or teams tended to learn through targeted training, from academic advisors or partners, or from their peers. Both the quantity and quality of learning received was therefore uneven. Consequently, the practice became "sometimes descendant" or a "considerably altered version" (Schatzki, 2005, p.478) of what was conceived originally by theorists or policymakers, the changes being made often "unintentional" as participants did not appear "conscious" of them (p.475). Hence, the dissemination of the practice fostered its metamorphosis and diversification. Respondents reported that in the past it was rare for teachers to receive any specific training in research methodology during their preparatory training, either in Singapore or NSW. However, contemporary teacher-training courses now tend to include a research component, although some respondents were critical that generally only a survey course is offered.

Singapore has attempted to introduce a more systematic and comprehensive means of increasing teacher capacity in innovation and research through various initiatives including TLLM Ignite. The teacher nominated to be trained as a RA is tasked with cascading learning within their school, thereby functioning as a "steward" of the practice (Kemmis, 2010, p. 420), but often efficacy depended on the disposition of the RA. It was reported that different teachers displayed different levels of engagement in their role as an RA. Until 2008 the RAs were exposed to the ideas of one trainer who favoured quantitative methodologies, but more

recently have been trained by lecturers from the NIE who provide a more comprehensive overview of different research methodologies. Yet, many RAs still lack the confidence to competently lead or train other staff.

One of the schools in the study had engaged outside partners as advisors on research projects, including contracting an academic to specifically train all staff in research methodology, to exceed the expertise of their RA. But it was not a general case that teachers across schools in Singapore were formally trained in practitioner research. While funds are made available for innovation and research it is left to the discretion of the school principal how these are utilised.

In NSW, the team-leaders and academics involved in the QTAL research projects facilitated by the NSW AGQTP underwent systematic induction to ensure they had a consistent understanding of AL approaches. Teachers in the study who had worked on various collaborative research projects benefitted greatly and gained considerable knowledge from working with an academic partner. Significantly, both schools identified as having an ethos and culture of research had maintained a long, on-going relationship with academic partners. There remains a need for "a close and consistent interaction between researchers and those engaged in the field of practice" (Groundwater-Smith, 2010, p.3).

Furthermore, ARAL was introduced as an approach in PL courses by the PLLD to be modeled and cascaded in schools by school leadership and regional facilitators, the Director acknowledging though that research "takes shape in a slightly different way" (W5) across various regions and locations. More recently, the PLLD directorate has embraced on-line, on-time learning, with developed resources specifically focusing on AR, but there was no consensus to the efficacy of this approach. While the PLLD reported receiving favourable feedback from teachers about on-line learning, school leaders and teachers involved in the study were more circumspect about the effectiveness of this form of learning.

In Singapore, the independent school cited in the study functioned in a unique way. It had not engaged outside experts but had relied on the collective expertise of teachers to offer "bite-sized" training in research methodologies to all members of staff. In NSW, the government school with an established culture of research inducted new teachers into that culture by placing them in consortiums or research teams with other, more experienced

teachers in order to snowball or cascade learning within the school. This approach had then been modeled as a best practice to other schools.

In Singapore, there were many formal forums organised in schools and externally for teachers to share their research, but some respondents sometimes also leveraged on informal channels and networks with teachers or experts in other schools or organisations to learn more about research. Despite the availability of forums to share professionally, it was noted that learning sometimes remains personal and is not effectively shared or transmitted, hence is lost to the rest of school, especially when the research has not been well documented. Respondents in NSW reported that there is often sharing conducted within schools, sometimes in very informal settings, but there are few forums or opportunities for teachers to share learning between schools. School personnel interviewed across both contexts largely believed that the Internet is not a good platform for either learning or sharing ideas on practitioner research.

Different respondents across both cultures thought that transformational change is necessary if practitioner research is to be embedded in schools. Training teachers and establishing a culture of research requires a gradual, transformational change. It cannot be implemented top down or over a limited time frame. Rather, it needs to be sustained over time. It was noted that in Singapore school principals are generally rotated every five years thereby creating pressure to seek quick results from any research enterprise they might establish. Furthermore, some respondents believe certain schools were perhaps culpable of adopting research in name without truly embracing the practice.

If practitioner research is to be pervasive across an education system then teachers need be equipped with both the theoretical and practical skills to undertake research in their schools. Manifesting an understanding of and transmitting a practice are crucial to its preservation (Schatzki, 2006, p.1868). However, despite the different approaches adopted, it could not be claimed that teachers were being comprehensively trained as practitioner researchers in either context. Teachers across both contexts often remained "theoretically innocent" (Stenhouse, 1985, p.16). Research was often conducted without knowledge of the relevant theory so that a theory/practice divide prevailed. Although academic partners did on occasion provide selected literature, teachers tended to only scan through this material citing they were time poor. Teachers tended to focus on the more practical rather than theoretical concerns. This

might suggest that academic partners need to workshop the literature otherwise it is material that is simply collected and stored away by teacher researchers.

Although Singapore has made attempts to provide systematic training through the development of RAs and other initiatives some current approaches warrant further consideration. This includes the selection of both the MOE sponsored trainer/s and the RAs, as the transmission of practitioner research as a practice will be considerably affected by the training, experience and disposition of the persons chosen for those roles. While many respondents across both contexts believe that practitioner research works best when done in partnership with academics, for long term sustainability teachers need to be given the tools to be able to research their own practice, otherwise the "rules" and" understandings" constituting practitioner research will remain "differentially distributed among participants in the practice" (Schatzki, 2006, p.1869). In particular, since ARAL is identified as a "key strategy" across the professional learning continuum by the NSW DET it would seem prudent that teachers should learn AR strategies during their pre-service training. One respondent (V4) suggested that teacher educators might engage in more ARAL about their own practice then make that explicit to their student-teachers as a model. I would also suggest that academic partners need to consider further how the theory underpinning a particular research interest might be made more relevant, accessible and attainable by teachers who consistently reported they are time poor. Certainly though, there remains "a critical role for academic partners in the plethora of practitioner research" (Campbell & McNamara, 2009, p.23).

Teacher Facility

It can be argued that across both contexts there is an externally imposed implementation agenda, hence practitioner research is being institutionalized in a "top down way" (Groundwater-Smith & Mockler, 2005). Schools joining the TLLM Ignite programme in Singapore and the AGQTP in NSW were required to engage in research as a condition of funding. As the funding agencies could impose certain parameters this sometimes limited the facility of schools and teachers when undertaking innovation and/or research. Furthermore, schools in both Singapore and NSW were often subject to external pressure by persons in positions of power and influence, such as a cluster superintendent or regional director, to implement certain initiatives, including practitioner research. Moreover, in Singapore, the expectation has been communicated that by 2011 every school ideally will "come onboard"

the TLLM Ignite programme (B1) putting further pressure on schools. I would agree with Hairon (2006) that it is contestable whether innovation and research in Singapore was being fostered using a "bottom up initiative, top down support" approach as has been described by Tharman (2005).

Although some are critical where practitioner research is seemingly appropriated as an implementation tool for government policies (e.g. Carr & Kemmis, 2005; Kemmis, 2006), one respondent, who has worked extensively as an academic partner with schools in NSW believed it to be "far more complex than that". Schools, she observed, leverage on the funding, sourcing and recognition offered through projects such as the AGQTP so that they "can actually do something that's a bit broader than what actual government policy is" (V4). In doing so, I argue, schools thereby are beginning to exploit some of the "cracks, tensions, and contradictions" that Freire (1985) has described in his dialectical notion of power. They are "looking for points of leverage ... in which to work creatively" (Somekh, 2010, p.117). Schools in Singapore also "have their own agendas" stated the DD CPPU (B1), undertaking research to confirm or test an innovation, although this is not stipulated by the MOE. So while schools in one culture often sought to work around imposed constraints, in another, paradoxically, often schools imposed a limitation on their own research work.

Despite the fact that schools in NSW are encouraged by the DET to engage in practitioner research, particularly ARAL, it was reported that many do not actively or overtly engage in such enterprise. It might appear then that schools and teachers in NSW are under considerably less pressure to participate in practitioner research than their counterparts in Singapore, although respondents believed increasingly schools and teachers in NSW will feel obligated to engage in research in a bid to produce data in response to accountability pressures. While many schools in NSW freely chose not to embark on research, schools in Singapore seemed to interpret policy more anxiously looking for codes in order to determine what the expectation from the top might be. Such compliance could be symptomatic of a highly competitive education system (Sweeting & Morris, 1998), the "kiasu" mentality of not wanting to "lose out" to others, or again, be reflective of a culture of taking directive from the top (Hairon, 2006).

Across both contexts there were teachers who had opted to undertake practitioner research, but at the same time there were instances where teachers were tasked or mandated to embark

on research, especially when management had decided to initiate a school-based research enterprise. In Singapore in particular teachers were commonly co-opted into a research team when an innovation or intervention was applied across a whole level or if an experimental or control group was required. Teachers then functioned as data collection points, not as fully functioning members of the research team. Teachers should be "agents of the research" not merely "objects" in, or "observers" of, the process (Kemmis, 2011, p. 13). People achieve knowledge of a practice by participation and by their activity, not just from observing others "doing and relating" (Kemmis & Grootenboer, 2008, p.56). Thereby, these teachers had not been given "legitimate peripherality" (Lave & Wenger, 1991) as they were not crucially involved in participation but remained as observers.

Practitioner research is not just a matter of instrumental behaviour and following rules but should be a consultative process where proponents proceed towards consensus about what to do (Kemmis, 2010). Yet, teachers frequently reported forgoing autonomy and choice in determining the research focus, especially when working collaboratively with others. Teachers across both contexts were critical that school management typically only approved those projects "seen to be of benefit to the school" (X3). Furthermore, the research focus or agenda was often determined by a group leader or academic partner when teachers worked in research teams.

Kemmis (2010) states that practitioner research is shaped by "inherited ways" and by "pre-existing patterns of relationships between different people involved in the process" (p.421). Speaking broadly, teachers in NSW, as described by respondents, appeared to have more agency to opt out of a project compared with their counterparts in Singapore. Furthermore, although restrictions were sometimes imposed on teacher-researchers either by school management, an academic partner, or a team leader, there appeared to be greater "democratic dialogue and practical deliberation" (Kemmis, 2010, p.424) within the research teams in NSW, compared with Singapore, where taking directive from the top is more a cultural norm (Hairon, 2006). One respondent (A3), with an intimate knowledge of both contexts, did caution though that teachers in Singapore perhaps have more facility than what first appears to be the case and teachers in NSW far less than they would like to believe.

Adopting a critical Freirian perspective (1974, 1985, 1987), it could be argued that in many instances teachers are "silenced" and not "given voice" in that they have limited facility to

decide the research focus, especially in Singapore, or limited opportunities to broadcast findings, particularly in NSW. A "cultural revolution" confronting such silences as "introjected reality" rather than as "external fact" might entail teachers mobilising their own research teams and organizing their own forums. But while respondents across both contexts tended to agree that teachers will be resentful and not fully cooperate if research is implemented in a "top down" fashion, select respondents in Singapore did believe such an approach needs to be adopted if research is to be established in schools.

The Pervasiveness of Research

Results indicated that a culture of research was not pervasive across either of the education systems involved in the study. The level of involvement is best described as patchy, irregular and uneven between schools, one respondent describing how it thrives in "little zones" (V4). In NSW it was reported that the AGQTP only ever had had limited penetration and often it was the same schools involved in practitioner research. In Singapore, it would appear a more systematic approach has been implemented to encourage innovation and research in schools, but even so, some regions and schools appear to be more active than others. In NSW, there are some champions of practitioner research at different levels within the DET and in schools but this is not the case comprehensively across the system. There are a passionate few (Ellis, Armstrong & Groundwater-Smith, 2010).

It was commonly believed that the extent to which schools engage in practitioner research will be largely determined by the value senior personnel and principals attribute to it. If a person in a position of power or influence has a personal interest in research it is more likely they will encourage and endorse practitioner research in schools under their supervision. Respondents in both cultures identified particular regions where schools were more active in practitioner research than others, in Singapore in order to create a "niche" (Tan et al., 2009) and in NSW due to the particular challenges schools are confronted with in those regions.

Across both cultures it emerged that the principal must set the vision and direction if practitioner research is to be valued within a school. Even so, the extent to which practitioner research was practised varied considerably between the schools in the study. In some schools a wide spectrum of staff was involved while in others it was just a few individuals. Furthermore, teachers themselves displayed different levels of passion and ability for

practitioner research. Generally teachers only value research when they can see that it will have direct relevance to their work in the classroom. It was common for school management to adopt change management theory, working with the early adopters, to implement practitioner research. But research enterprises once initiated were not always sustained in schools. Enthusiasm for research can fluctuate over time. The level of involvement can oscillate, especially when there is a change of management or a critical mass within the staff leaves the school.

In spite of the many challenges and concerns, universally respondents believed that practitioner research is in a state of growth. In Singapore the MOE is trying to make innovation and research pervasive across schools. In NSW practitioner research is practised more broadly in schools now than in the past. Increasingly ARAL is being adopted as a PL approach across schools in NSW. Nonetheless, the celebratory stance that practitioner research is "burgeoning" (Carr & Kemmis, 2005; Cochran-Smith & Lytle, 2009b) perhaps needs be tempered. Although practitioner research may appear to be growing and developing, it was not pervasive, but rather was practised intermittently and inconsistently across schools or sometimes "used wrongly" (V1). Certainly practitioner research often was not being practised as it is espoused in theory (Carr & Kemmis, 1986), exacerbating a theory-practice dualism it was originally intended to resolve (Carr & Kemmis, 2005). Practitioner research may be burgeoning but in "a kind of somewhat imperfect form" (V4). A longitudinal evaluative enquiry over several years is warranted to monitor the "sustainability" of practitioner research "and conditions for its effectiveness" (Anderson, Ewing, Herrington, Hoban, Kervin & Smith, 2005, p.12).

Effecting Change and Social Good

We are reminded that practitioner research should not merely generate knowledge of the world but aim to effect social change and good so as to achieve a better, more just world (Freire, 1974, 1985, 1998; Kemmis, 2010). However, the academics and policy makers interviewed across the two cultures tended to be more optimistic than teachers about the potential power of practitioner research to effect wide-ranging change, teachers believing change will likely be limited to a local setting only. Teachers in Singapore tended to focus on issues directly relevant to their classrooms rather than broader issues but occasionally did effect change across their school. In NSW the situation was largely the same, with

respondents being able to cite limited instances where good practices developed out of practitioner research had been implemented across different settings.

Although abundant opportunities exist for teachers in Singapore to share their research findings several respondents believed such professional sharing often has little impact, one belief being that teachers need to work collaboratively with an academic to effectively broadcast findings. But a limitation could also lie in the type of knowledge produced through practitioner research. Because it creates distinctively local knowledge for use only within the school, it remains questionable, depending on the context and use, whether practitioner research could result in a 'generic practical knowledge' or 'public knowledge' that has relevance to a wide population (Enthoven & de Bruijn, 2010; McLaughlin et al., 2008). In NSW only ad hoc forums existed where teachers could share externally.

Most teachers in Singapore doubted whether wide-ranging change can be affected "bottom up", some believing it to be a "romantic notion". Several thought systemic change is necessary if practitioner research is to be truly effective. Many feel there is currently too much emphasis on the national examinations and "pen and paper" assessment, a view echoed by the OECD (2011) which warned the assessment system in Singapore "sets high standards but also inhibits innovation" (p.171). In NSW, several teachers believed school leadership can obstruct change through determining what research gets done, where, and to whom it is broadcast. One respondent (A3) suggested that ideally more AR should be done at those "tension points" identified by teachers as impeding change; at the principals' office, curriculum bureaus, and regional offices. Although cases were cited where change had been implemented across a number of schools, and in rare instances, even state-wide, most doubted whether the conditions exist to generally implement change across the state. It was believed that more likely teachers will change "pockets" of the system (V4). Across both cultures, it would appear that practitioner research as currently practised in schools rarely results explicitly in social change. Rather, change made tended to focus on local issues and be incremental.

Schools function as agencies of social, economic, and cultural reproduction (Freire, 1985; Kemmis, 2008; Somekh, 2006). Teachers cannot move in a "moral vacuum" but must choose between conducting themselves as the "operatives" of the education system or "agents" of change (Kemmis & Smith, 2008). It is argued that in order to take transformative

action the practitioner researcher needs to understand not only their practice but the situation in, and conditions under, which they practise as well (Carr, 2007; Kemmis, 2010). Teachers need to adopt a "critical disposition" (Kemmis and Grootenboer, 2008, p.39) and "critical consciousness" (Freire, 1974, 1985, 1998) so as to "deconstruct" context in order to arrive at understanding (V1).

As might be expected, the teachers involved in this study, displayed an awareness of the larger world in which they function as teachers, the mesh of practices or meta-practices that enables and constrains possibilities for action in education. However, often they stated or implied they were perhaps powerless to effect change at this meta-level. It would appear that many teachers had adopted a "fatalistic" approach (Freire, 1985; Freire and Shor, 1987), believing they were hemmed in by certain constraints, for example, in Singapore, the need to teach to the exam, and in NSW, by accountability pressures or the lack of funding for research. Respondents citing the need for systemic change appeared to stop at this point and did not contemplate "the untested feasibility, the constructable future" (Friere, 1985, p.154) or embark on "praxis" as described by either Freire (1974, 1985, 1998), Kemmis and Grootenboer (2008), or Kemmis and Smith (2008).

The findings of this study indicated that teachers tend to lock themselves into the technical aspects and an instrumental approach to research, which is viable in its own right, but limited. They were not so much interested in the kind of interpretive, hermeneutic knowledge interest, where one is trying to actually understand the phenomenon that is being explored, or an emancipatory or liberatory knowledge interest. The type of practitioner research largely undertaken by teachers as described by participants tended to focus on a teacher's immediate class or school rather than attempt to make sense of phenomena across a number of settings (Somekh, 1994). Teachers wished to improve their practice so that ultimately their own students would benefit. Practitioner research should necessarily be concerned not only with solutions, but with the conditions that produced the problems in the first place (Groundwater-Smith & Mockler, 2007), yet there had been few attempts to change the system itself or "those conditions which impede desired improvement of the system/organization" (Cohen et al., 2007, p.303). Across both contexts there remained "a dominance of treating educational problems as technical" rather than emancipatory (Groundwater-Smith & Mockler, 2005, p.2).

Teachers interviewed either did not desire, or believe it was possible, to change the system, society or world. In doing so they largely handed over control "to the authors of … policies and procedures" (Kemmis & Smith, 2008, p.5). But as mentioned earlier, there were rare exceptions. One academic (V3) described:

> I have seen action research projects with drama teachers who are often isolated ... working in their networks, to produce change. One of the biggest changes I saw was action research from drama teachers to get drama introduced as a subject ... into the HSC list.

Broadly speaking, though, teachers "may simply be unable to resist being socialised to the patterns of work of the schools they work in" (Kemmis & Smith, 2008, p.26). They perhaps "gradually absorb and are absorbed in a 'culture of practice'" (Enthoven & de Bruijn, 2010, p.290). Teachers had become sensitised to their local situations, able to look only at their local environment, but perhaps not able to look at macro issues. Or perhaps they had not contemplated with any rigour or determination the meta-practices that enmesh their own practices. Although such reflexivity is "clearly difficult to achieve" (Kemmis, 2011, p.14) it is essential if teachers are to reach richer understandings. Even though results suggested that teachers do, to a certain extent, critically think and reflect about the topics, themes, and issues that envelop their practice, they perhaps do not adopt a "critical disposition" or engage in a "sea of discourse" and "relationships" with the intensity advocated by Kemmis and Grootenboer (2008, p.44), Friere (1974, 1985, 1998), and others. Such a disposition did not appear to be entrenched in schools illuminated in this study. This could be due in part to teacher education courses inadequately preparing students to question the status quo and to "break out of the cycle by which the dominant culture is reproduced" (Seddon, 1983, p.4).

Schatzki describes how the doings and sayings that compose a practice are organised by "teleoaffective structures" or "teleologies". Essentially, there is an order of actions, intentions and "acceptable ends" within any practice (2009, p.39). Borrowing from Schatzki, ultimately then, the emancipatory practice that researchers like Friere and Kemmis advocate as opposed to the practices teachers describe and engage in as practitioner researchers are separate and distinct. The "ends" that are acceptable to teachers, such as technical improvement in classroom practice, are deficient for Kemmis or Freire, who desire social justice and an emancipatory outcome. Rarely were teachers as described by participants

engaged in an ongoing, continuous process of action to transform the world as advocated by Freire.

Paradoxically, when Freire states that "any radical and profound transformation of an educational system can only take place when society is also radically transformed" (1985, p.170), he perhaps unwittingly concedes that teachers cannot affect profound change unless they first have the agency to transform society itself. Teachers might strive to "educate" rather than to merely "teach" students (Freire & Shor, 1987; Kemmis, 2008; Kemmis & Smith, 2008; Somekh, 2006), thus playing some role in shaping society. But perhaps society ultimately is the more omnipotent force, one which subsumes teacher practices, teacher practices transpiring as they do in the vast constellation of practices and arrangements that comprise society itself, the site of the social (Schatzki, 2002). While teachers are perhaps not able or concerned with changing *the* world, they are able and concerned with changing *their* world, the classroom.

Conclusion

Practitioner research as understood and practised by teachers does not transpire as a homogeneous practice. Rather it occurs as a series of disparate practices in different contexts and settings. Different sets of understandings, norms, and rules prevail. This said, practitioner research can still be broadly characterised within Singapore and NSW, being shaped within the two contexts by policy, culture, and other extant differences.

Such differences in "doings" and "sayings" (Schatzki, 2002), or understanding and practices, highlight the importance of enhanced cross-cultural dialogue among and across different perspectives and academic communities around the world (Crossley and Watson, 2003). The interchange of ideas, insights and understandings might circumvent problems of conceptual equivalences. Knowledge of the way others understand and practice concepts might also provide counter instances, as Crossley & Watson argue, challenging us to refine our theories and test their validity against the reality of different societies.