

PRACTITIONER RESEARCH AS UNDERSTOOD AND PRACTISED

There are different traditions of research with multiple conceptual usages of the same terms across and between contexts (Campbell & McNamara, 2009; Kemmis, Mattson, Ponte & Rönnerman, 2008). Practitioner research will often adopt different forms in different settings (Groundwater-Smith, 2007; Somekh, 2006, 2011; Somekh & Zeichner, 2009). Generally, though, ‘research’ is defined in the literature as being ‘intentional’ and ‘systematic’ (e.g. Bassey, 1999; Cohen et al., 2007; Stenhouse, 1981). The third main category constituting the themes which emerged in the analysis of data, *Practitioner Research as Understood and Practised*, describes what teachers understand research and practitioner research to be, how practitioner research is practised in schools, teachers’ perceived role as researchers, and how practitioner research is transmitted as a practice. This main category is composed of three dimensions labeled as follows: *Definitions of research*, *Teacher identity and disposition*, and *Transmission of practices*.

Definitions of Research

This dimension describes respondents’ beliefs about what research is and what purpose it serves, thereby serving to demystify the “conspiracy of silence” (Burgess, 1984, p.1) that exists around what constitutes research. The discussion explores respondents’ definitions and understandings of both research and practitioner research. It illustrates the complexity of research as it is understood and practised by schools and teachers.

Singapore

Results suggest that respondents in Singapore vary greatly in their understanding of the nature and purpose of research. Although several referred specifically to action research, often their understanding was at variance with the way the term is traditionally defined in the literature. There was a perception, though, that an understanding and appreciation of research is evolving in Singapore. In the past there has been a tendency towards quantitative methodologies and this continues largely to be the case. Commonly, research was used to confirm rather than to explore and a scientific or quasi-experimental approach was often favoured. Teachers identified as engaging in practitioner research were in fact often the

objects of inquiry. At the same time there were an enlightened few, mainly in positions of power, but also a few in schools, who had a sophisticated knowledge and understanding of the nature and purpose of research.

Definitions and understanding of research.

There was a very uneven understanding of research among respondents interviewed in Singapore. While some, including the academics, senior personnel, some school leaders and teachers, were able to articulate a clear understanding of the notion, others, including the HOD leading the research enterprise in his school (E), were not. Certainly, many teachers did not appreciate why the central bureau was encouraging practitioner research or how practitioner research might be utilized in the classroom and school. One teacher stated, “When my principal asked me whether I am interested in research, I have no idea what educational research is all about” (D3). As observed by a VP (D1), it would appear there are many and varied forms of research conducted across schools in Singapore and that the definition and understanding of what constitutes research can vary considerably.

Different teachers had been exposed to different trainers from different agencies (academics from universities, trainers from Teachers’ Network, private consultants engaged by schools) with differing understandings of research, and in particular, of action research. The persons responsible for training teachers in research often hold polemical views and exercise considerable persuasion and influence over teachers in the formation of their beliefs and ideas.

In Singapore considerable emphasis is placed on the idea of innovation, and the terms innovation and research are often used synonymously. A VP explained that “innovation and research in schools should be tied together because you want to see whether the innovative ideas are workable, effective or not” (D1). Research is also often linked with the idea of experimentation, a TN trainer equating practitioner research with teachers “experimenting on certain things” (B4). Teachers often talked about implementing an innovation rather than using research to explore when invited to discuss their research practices in school. One academic (A1) clarified the “whole idea” and focus of the TLLM Ignite programme is

“innovative ideas to improve the curriculum”. Therefore the title Research Activist (RA) is a misnomer as the work they do “might not be linked to any research” at all.

The same academic, rather despairingly, observed that most teachers would define and understand research as “an interventionist study to see if hypothesis works” (A1). During the interviews several teachers did talk about practitioner research involving a quasi-experimental approach, involving a control group, “the traditional approach”, and an experimental group, “the experimental approach”. Such an approach seemed to be widespread in the school that was new to research (E). Although evident, it was not as pervasive in the other two schools in the study that had been identified as having longer histories of school-based research (C and D). Another academic noted that many teachers seek only positive results in order to justify an intervention and “don’t realize they can publish negative results” (A2). Those teachers adopting a quasi-experimental approach had often not considered the ethical implications of the methodology, one teacher stating that he had “not considered that some students miss out” if they were not in the “experimental” group (E2).

Other teachers described a less rigorous approach to research. A teacher (D2) involved in the research effort at her school and who had completed her MEd studies in NSW, described what appeared to be a somewhat cavalier approach to school-based research:

I think my views of action research, or rather teachers’ research, has changed. Because, even when I was doing my Masters in Macquarie Uni, the data you get and all that, has to be coded, a long process. Whereas, when I did with the teachers, it was quite – wow, quite free! You just gather, and you find, “Yeah, this is right”, and there’s nobody to really check your data (laughs) ... and you just sense, so long as you can see your class has improved, we are happy and the students learn.

The DD, CPPU, confirmed that in Singapore research is a new concept and is still quite a new idea for most teachers, even though “they may think they know research” (B1).

Definitions and understanding of action research.

Even if unprompted, it was common for respondents to refer specifically to the term ‘action research’ when talking about practitioner research. An academic observed, “There is this

generic, loose term, action research” (A1). Although in widespread use, respondents offered many different definitions and interpretations of the term, the DD, CPPU, clarifying that the “MOE ... did not really define” what action research is (B1) while a cluster superintendent confirmed there is not “a consistent understanding” of the term (B2). One academic believed the concept is mystifying to teachers because it is “double-loaded ... You have to explain what is research, then you have to explain what is action research” (A1).

In common with the academics and senior personnel interviewed, there were some teachers who were able to articulate a clear understanding of the concept, describing a bottom-up, localized approach and the action research cycle, one teacher explaining that action research (AR) is where “the teachers identify their own problem with the class, and they think of ways, and they work on it and experiment and try to solve the problem” (D2). Other respondents, including an RA, admitted a limited understanding of AR, although they frequently used the term. One teacher explained he did not have a good understanding of the concept as “only a quick overview of action research was given in research methodology courses” he undertook (D4).

Some teachers took a very general view and regarded any research taking place in schools as constituting AR. One academic observed critically that in Singapore AR is broadly conceived as “any research that leads to action” (A2). Other respondents differentiated between “formal research” and AR, which they regarded as “informal” and inferior. Several respondents also conceived AR as “small scale research”, one teacher (D3) stating:

Educational research is more of a long, really a long term, looking at the impact, whereas action research, to my understanding, could be looking at a small scale, smaller scale type of research, that gives an immediate response.

Common beliefs were that AR is less rigorous, does not have to be situated in the literature in any way, and does not have to be written up or documented, compared with “the more formal ...[where] you go through the literature review” (D1). Also, respondents did not necessarily equate AR with practitioners studying their local setting or view AR as being a continuous, on-going process or cycle in any way. While expert support, such as an academic partner, is required for “formal” research, one VP believed this is not the case for AR, detailing the practice in his school:

You don't really have an expert come in to give you input. So it is more like a small group of teachers, then they may have read up about some pedagogy and some theory, and they want to try it out in the classroom. And then they will just design some methodology, data collection and they don't go through, like, very careful sampling. They just use whatever class they have, and then they will just do some observation, they will do analysis, then debrief, then that's about it. That's the kind of action research we are having ... it is not so formal. (D1)

While in the literature it has often been said that practitioner research /action research is pervasive in schools, it needs to be considered how broadly and deeply this might be, and in what form. While the phenomenon described might also represent the evolution of a form of AR unique to Singapore, it could simply be the generic use, wrong use or 'bastardisation' of the term as well. One academic (A3) described how a "populist version" of AR has developed in Singapore where "most people are just operating just a Lego version of it".

Another elaborated:

I think, in Singapore, it is action research in that they are taking action and they are doing research (laughs). But whether or not it takes on the form of action research that people in the UK or the US, who propelled action research would be comfortable with, is really a question ... I think it has taken a different take ... I don't think that it 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)

Learning circles and lesson study as research.

The Teachers' Network (TN) has introduced the concept of 'learning circles' to many schools across Singapore because "not every teacher is at the level of doing action research or any research per se", explained the TN trainer (B4). Independently, one of the schools in the study had initiated 'lesson study' teams. One teacher described the approach:

... in which fellow teachers, working on the same level, the same subject ... would go into each other's class to look at the lesson ... then give feedback to the teacher on how the lesson has been conducted and what could have been done better. (D3)

One academic (A1) considered learning circles and lesson study to be closely related to AR, the three practices sharing the reflective cycle and other common traits. However, the teachers interviewed who had been involved in 'lesson study' did not see parallels. While they felt that AR lacked the rigour of 'formal research', they believed lesson study moreover lacked the rigour of AR, one teacher (D4) stating that "action research requires lot of documentation compared with lesson study". They thought that lesson study provided an effective means of sharing ideas and improving practice but it does not constitute research.

Qualitative versus quantitative methodologies.

As discussed in Chapter 6, respondents believed that there has long been a culture in Singapore of trusting statistics with a prevailing preference for quantitative methodologies and a distrust of qualitative methodologies, although some attest this is now changing. The DD, CPPU, conceded that many people across the educational landscape remain "suspicious" of qualitative research. "But I think they are beginning to see things differently, at least at the Ministry level. At the school level, yes, they always wanted quantitative data" (B1). A cluster superintendent (B3) agreed there remains "greater emphasis on quantitative" methodologies and data across schools, albeit change is occurring.

Schools tend to favour a quantitative approach, according to one academic (A2), because they seek results "they feel can be generalised". Schools also believe such data "is more compelling", the superintendent observed (B3). One teacher (D3) confirmed that schools "want to look at data ... [and] statistics", and summed up, "I guess people prefer numbers more than words". The DD added, "Qualitative data such as narratives and survey questionnaire are not easy to interpret and use whereas quantitative data is a lot more accessible in terms of interpretation" (B1). Another reason teachers preferred a quantitative approach, the academic (A2) felt, is because the "template is clearer".

Furthermore, up until about 2008, due to centralized training, “one person who favours a quantitative approach” (B1) was largely responsible for schooling all the RAs in research methodology, explained the DD, thus greatly impacting the RA’s approach. It is also “prevalent”, an academic observed (A2), for a school leader or middle manager, who is not aware of “the other options available”, to instruct an RA to undertake quantitative research, a teacher (D3) confirming “friends in other schools” functioning as RAs report being always compelled “to provide some quantitative data”.

In tandem with teachers favouring quantitative methodologies, many embrace a positivist paradigm, an academic explaining, “We came from that scientific research paradigm” (A1). Hence teachers tend to be more comfortable with an interventionist study and often felt that a scientific or quasi-experimental approach was the only valid form of research. Emphasizing the significance of a control group, one teacher stated, “It was important for me to have a control ... so that I can see there is a difference” (D3).

But there were some teachers who were advocates of qualitative methodologies. “I want to look into more qualitative, because I want to find out how people feel”, one teacher claimed (D3). Another (C3), a Chinese Language teacher, feels qualitative research provides more “sincere” data and “very true feedback” compared with statistics. The information gathered reflects “exactly what the girls feel” and is “very sincere and from the bottom of their hearts”, whereas, “sometimes statistics can be a bit liar” (statistics do not give a true picture), she claimed.

Certainly there is evidence of a shift towards qualitative research methodologies. The MOE itself is “embarking on an in-depth qualitative study” of the TLLM Ignite programme, explained the DD (B1). Furthermore, she claimed the MOE “make it very clear to the research activists and the schools” that they should not persist with an experimental approach due to ethical concerns. An academic observed that people within the “Ministry” are “all generally open to different approaches” (A2) and there has been “a conscious effort” to expose the RAs to qualitative methodologies because the MOE is realizing “that they can’t continue doing research in the experimental way, and get the kind of depth and insight they would like the teachers to come out with”, she added.

Research to confirm versus research to explore.

It has been claimed in the literature that there is a tendency for schools in Singapore to use research to confirm rather than to explore (Tan, Macdonald and Rossi, 2009). Results of this study largely supported this theory, respondents describing how research is often used, both at the MOE and school level, to confirm the success of a newly introduced policy, programme or intervention rather than to explore or investigate the underlying situation or phenomenon. Describing the general approach to research in Singapore schools, a trainer (B4) from Teachers' Network stated, "it is innovation on pedagogy, and this pedagogy is followed by a research".

Teachers themselves described introducing curriculum change then utilizing research "to see if it works" (E1) or has an "impact on students" (D3), or to get "some indicators that we have done well" (D3). A VP detailed the research approach that transpires in his school:

We want to be innovative, we want to do new things, we want do things better. We want to improve. But we must be able to evaluate the effectiveness of this innovative ideas or whatever we try to do, see whether it is effective, see whether it achieve (sic) the outcome we intend to achieve. (D1)

The TN trainer (B4) explained that it is normal practice for teachers to "actually look for, some, maybe pre-test data" in order to gauge the success of an intervention. One teacher (C2) exemplifying such an approach stated, "I also used some instruments to gauge their learning, before and after this type of learning". Another (E3) described "a project class and comparison or control class" and explained, "We will need two classes - one whereby we carry out the experiment".

Research was also used within schools "to convince others" of the worth of a particular innovation or pedagogy. One teacher explained, "There are certain teachers who have negative ideas ... but when ... they witness for themselves ... their personal beliefs changes. And with their change in belief, they are more receptive to the new pedagogical practices" (D4). A VP agreed that, "Nothing will work better by providing evidence to these teachers that this method actually works better, that this method is more effective" (D1).

The DD, CPPU, (B1) explained when schools send teachers to be trained as RAs under the TLLM Ignite programme they often have a different agenda to her unit:

Many schools when they came on board, they wanted the opportunity to validate that what they are doing ... [is] sound, and it will result in gains. So, you know, we had to try and keep on messaging, that ... our purpose of building a research capacity is to take at least one teacher in the school to go through that research process. We are not too keen on whether it shows that it is a positive gain, or it is not going to value-add or what.

Differing from the two government schools (D and E) in the study, the independent school (C) regularly used research to explore issues and support data-based decision making rather than test the viability of an innovation. The Deputy Dean (C1) explained that research is often conducted within the school to explore a phenomenon in order to assist “with decision making”. A teacher (C5) from that school was personally motivated to engage in research because, “I was just curious to find out ... I am interested in that area (student motivation), and I just want to find out”.

Teachers as researchers versus teachers as objects of research.

Often teachers were drafted into a research team in their school but were not expected to actively engage in the research process. They played a passive role, functioning more as data collectors or the subjects of the research rather than practitioners investigating their own practice. Such teachers were “being observed as data points rather than functioning as full participating members of the team”, one academic (A2) observed.

It is common in schools for an intervention or “innovation” to be implemented across a number of classes or whole level. The RA or team leader would then go into classes to observe, not so much to provide feedback to the classroom teacher, but to collect data to measure the success of the intervention. In one school, one team leader explained how the research team consisted of the researchers and “other teachers as well, who are conducting the lessons” (D2). Another team leader (D3) from the same school explained how she is “off-loaded ... to work on my research” in order to “have the time to go into the other classes to observe and to record my observations”. She elaborated:

... sometimes some of the teachers don't understand why you want to do this. Of course, when you are talking about going into other teachers classes to observe, our teachers are very willing to allow us to go into their class to observe. But, having to explain to them why you are doing this, why you want them to change some of the things that they are doing so that you could look into the effectiveness of that programme, the resistance we face from the teachers to what we are doing sometimes makes it a little difficult.

A teacher (E3) from another school described how she was co-opted into the school's research team when the RA "initiated this action research" involving parallel classes:

I happened to be teaching 1E2 as well as 1E3 last year. So we needed one class to be the project class and another one to be the so called comparison class or control class. So that was how I got involved in this project.

An enlightened few.

As discussed in Chapter 6, a developing awareness of research was evident among teachers in Singapore. The experts interviewed commonly believed that key personnel across the education system in Singapore possessed a good understanding of the different research approaches and methodologies, and value practitioner research in schools. Indeed, one academic who has worked extensively with key personnel from both the Singapore MOE and the NSW DET on collaborative research projects ventured that senior personnel possess a sophisticated knowledge of research and that it would be wrong for "Western visitors" to interpret that Singapore hasn't "yet arrived at the point of progressivist, student-centered and teacher collaboration, and teacher action-research" (A3).

While many schools might still favour a quantitative approach to research, one academic (A2) noted that "people at higher levels are perhaps more enlightened. They are open to all approaches". She further believed that there is an "increasing awareness of the purpose of research - to find out, rather than to confirm - to see what went wrong to allow you to refine and work on those issues". A cluster superintendent (B3) concurred that "there is an increasing appreciation and awareness from MOE now, for qualitative data". At a school level, one teacher (D4) observed that there are a few select teachers who have a good

understanding and knowledge of different research methodologies, who also perhaps might be seen as enlightened. The fact that some teachers do not use experimental design for classroom research due to the ethical issues involved, he believes, is evidence of this.

NSW

Respondents in NSW tend to have adopted a very broad and inclusive definition of research, the term often being associated with elements of data collection, gathering feedback, collaborative and team learning, and self-reflection. The terms practitioner research, action research, action learning and to a lesser extent, lesson study, were commonly used interchangeably and while personnel in key positions seemed to have had a clear understanding of these concepts this was not necessarily shared by school leaders and teachers. Traditionally teachers engaging in research have tended to adopt qualitative methodologies but their perception was that in recent years there has been an increasing expectation from authorities that change be informed by quantitative data. Generally research was employed by schools and teachers to modify and improve local conditions. It was common that research conducted by teachers though was not necessarily informed by the literature. Teachers also sometimes engaged in practitioner research even though they were not cognizant of the fact or familiar with the prevailing terminology.

Definitions and understanding of research.

There was little consensus among respondents in NSW as to what constitutes research. One academic described “a spectrum of ways” in which research “works” across the educational landscape. While at one extreme some people insisted research must be supported by “stats” and published “in a refereed journal”, others believed “the teacher does research every time she goes and tries something new in the classroom” (A3). Such a range of beliefs exists among both senior personnel and teachers in the classroom he deems. A SED (W2) who has worked with many schools believed that teachers do not necessarily have a good understanding of what research is:

Different people have different views. Academics have a very specific view. And I think that it could be one of the hindering things for teachers when they hear research or practitioner research. They don't know what it means and it sounds scary.

Expectedly, the academics interviewed provided exact definitions of research, one stating that “really important components” are that “it is systematic” and “it is made public” (V4). While an AGQTP manager (W3) further qualified that evidence-based teaching does not necessarily constitute research, many teachers appeared to have taken a more liberal view and had adopted a very broad and inclusive definition. Research was often viewed as using feedback, whether from teachers, students and parents, or using data, often from standardized tests, to inform decisions and change. Some teachers rationalized that any form of self-reflection or sharing with colleagues is a guise of research. Some also thought that any form of professional development conducted in the school constituted research.

One DP (Z1) equated research with “substantive conversations” and working “collaboratively on common tasks and common assessments”. She saw “faculty meetings” as “the core” process put in place by the school to encourage practitioner research. The DP described various forums where staff “get together and ... nut-out collaborative solutions to problems as they arise”. “Now is that research? I think so”, she stated. “We are learning from each other there and we are working as a team to implement more effective strategies, so we are learning from those teams”.

A teacher (Z4), identified by school management as actively involved in practitioner research, described a very informal practice which was not systematic or rigorous in any way. “A lot of the times I will just specifically ask a student whether they liked a particular topic or not, and I will ask particular students depending on what I want to know”, he stated. Documentation of the research process consisted of “scribbling on programs ... [at] the end of the year in hindsight”. Elaborating on his perceptions he stated:

I think that the vast majority of research that is done in the school is done in a verbal way. And I think the vast majority of it is done informally ... regularly we have staff socials. We have a pizza oven down there and things like that.

A PL consultant conjectured that school leadership will have an understanding of practitioner research and the different professional learning models because of the conferences they attend, but not the teachers, “the rank and file” (V5). However, there were some teachers in the study who did seem to possess a good understanding of particular research approaches

and methodologies, especially where they had formal training in research or experience working with an academic partner on a research project.

A central belief of respondents in NSW was that research is used primarily to generate change rather than used to measure change. Research is used to find out and explore, rather than to confirm the success of an innovation. Also there was often a sense that research was a continuous, on-going process rather than a one-off thing, although this was not absolute.

Action research and action learning as practitioner research.

When asked to talk about practitioner research, often respondents referred to action research and action learning, the DD PLLD stating “they are the terms that I am using that I believe will equate to ... practitioner research” (W5). Although the two have different pedigrees, and in the literature, often clear distinctions are made between action research and action learning, respondents in this study, including the academics, tended to use the terms synonymously, although a few individuals did draw distinctions. A PL consultant observed, “We’ve got some terminology problems ... between action learning and action research ... but I wouldn’t get hung up on that ... lots of people use the terms interchangeably” (V5). While in recent years the PLLD Directorate has tended to advocate action research, the model of PL used under the NSW AQGTP was action learning. Consequently, due to their affiliations, the Director, PLLD, and SEDs tended to speak more about action research (AR) and the managers from the NSW AGQTP more about action learning (AL) in their conversations about practitioner research.

Both AGQTP managers clarified that AL does not necessarily constitute research. The emphasis is on teacher learning “with a view to improving their practice” (W4) although there might be an “element” or “component” of practitioner research or inquiry (W3). Agreeing, an academic noted however that AL “follows many of the same action research cycles” (V3). A colleague postulated that AL is a form of practitioner research “satisfying ... technical and hermeneutic knowledge interests, but it doesn’t take us into that more liberatory, emancipatory area. So it’s to do what you do more efficiently” (V4). Many teachers engage in AL as opposed to AR, one of the academics further noted (V3).

Often schools and teachers understood practitioner research differently to the way it was defined by the academics and senior personnel. One academic described how practitioner research should be “about inclusion, about social justice, about self-empowerment, about moving education forward, about emancipation” (V1). Schools and teachers though did not always adhere to such an ethical practice when engaging in practitioner research. Often the primary focus was on classroom improvement. “It may not be a democratic classroom that you end up with ... That teacher might in the end have lifted the achievement levels of a number of students in the class, but to me it has been at an ethical cost”, another academic described (V4).

The academics and senior personnel also spoke about the “cyclic, on-going” nature of practitioner research where there are several rounds of “reflection”, one academic describing “a never ending story” (V4). Both managers from the NSW AGQTP (W3 and W4) concurred that practitioner research should be an ongoing process, where teachers are “observing each other and meeting together and planning action, seeing the action through, seeing the results of that action, reflecting on that action and deciding on how they will do things differently and hopefully better”, one stated (W3). But it was observed that some schools conduct a one-off process and call it action research rather than engage in a responsive research process that is ongoing and cyclical. The approach they practised constituted “a slice rather than a whole iteration” of the practitioner research or ARAL process, one academic explained (V4). Academics and senior personnel also believed that ARAL should be collaborative, but often in schools “there is an attempt to use the process to do one of those blanket in-services for the whole staff”, observed another academic (V3), thus undermining the value of ARAL.

While academics and senior personnel provided exact definitions of practitioner research some school leaders and teachers could not. One deputy principal (Z1) had difficulties articulating what AR or AL were, stating, “See. I still don’t know what you are talking about because I thought I had given you lots of examples of action research”. One particular example of AR she described seemed more characteristic of developmental supervision. “I go into a classroom and I code the use of the teachers’ quality teaching strategies in the lesson and we have a conversation about it later which has an impact on how I might evaluate that lesson”. There was no evidence here of the classroom teacher identifying a need, researching

their own practice or engaging in the reflective cycle. It appeared the classroom teacher in this case became the object of study rather than functioning as an active researcher. A teacher (X2) from another school also believed that practitioner research necessitated some form of external observation questioning “how objective” any teacher could be “just looking at your own practice”

The academics interviewed believed many people do not have a clear understanding of practitioner research and ARAL or its value. “There are several people who use the label action research... they use it loosely without understanding”, one stated (V1), while a PL consultant observed, “When you talk about action-learning or team-based research, quite a lot of people are mystified by what that means” (V5). A principal agreed that even among school managers, “not everybody understands what action research is about and how it improves learning” (Y1) while a SED surmised different teachers have different levels of understanding of ARAL because “they come from different backgrounds, different universities” (W1). There were individual teachers in the study, however, who did display a clear knowledge of practitioner research, one describing the process as:

... people who are in a particular area of involvement, practicing that actual field, and gathering data and looking at evaluating that data in terms of its effectiveness and what we can learn from it to either change the way we do things or to move forward. (X4)

Summing up the current situation one of the academics (V4) stated:

I don't think, across the board, we have a teaching force, either here or in Europe or in the UK, or probably even less in the United States, who are really familiar with systematic enquiry methods. I think it penetrates little zones. I don't think we are into something that is a normal part of practice that you are deeply investigating what you do, that you are reflecting on it. I think that it is the exception rather than the rule. (V4)

Lesson study as practitioner research.

In addition to ARAL, some respondents believe that lesson study constitutes a form of practitioner research. One teacher described her involvement in “practitioner research

involving four schools ... based on the Japanese concept of Lesson Study” (X2). An AGQTP manager confirmed that some of the QTAL projects adopted a lesson study approach based on the Japanese model where reflections on a lesson are shared with others and then may be used to improve that lesson (W3).

Quantitative versus qualitative methodologies.

When talking about their research, teachers in NSW commonly described qualitative research methodologies and often alluded to a constructivist paradigm. “You are dealing with human beings. It is not some scientific experiment”, one teacher stated (Y4), while another said “the most effective [research approach] is qualitative ... because we are all variable and things like that” (Z2). Another spoke about “doing a lot of focus groups” to get a “real snapshot” (X4) while yet another said the work she had “done in schools has been more qualitative rather than quantitative research” because she believes she gets “more value out of that” (Z3).

The two managers described how provision was made in the QTAL projects for teachers to collect both qualitative and quantitative data, but one qualified that “the work done ... is mainly qualitative” (W4). One teacher described how her school often employs a mixed methods approach, generally a survey followed by focus groups, to get detailed data from both the teachers and the students and found that this provided “very honest feedback” (Y2). A teacher (X3) from another school in the study described a similar approach.

The perception of many respondents, though, is that there is a perceptible shift towards favouring quantitative data in response to indications made by the central bureau and the State and Federal governments. An SED (W2) acknowledged such a shift but cautioned against the limitations of relying purely on quantitative data. She stressed the need to support or supplement such findings with practitioner research and the thick, rich description characteristic of qualitative data. “It is about thinking, data, evaluation and not just number data. And to get past number data, other quality data, you have to be engaged in practitioner research”.

Research to modify and improve local conditions.

It emerged from the interviews that in the schools involved in this study the research done tended to focus on very local needs and it was common that teachers were provided some facility, being involved in some form of consultation and negotiation during the different stages of the research process. As described by a DP (Z1), teachers “tend to do research that may not be data driven so much, but gut-driven, and it involves experimentation, and innovating with programmes and new teaching strategies” in order to effect change in the classroom so as to lead to improvement. Some teachers, however, expressed the feeling that a “framework” or direction for the research had been predetermined either by the school executive or by the academic partner hence teachers only had limited facility in the research process. Teacher facility is discussed further in Chapter 9.

Generally the impetus for the research is in response to a perceived problem or research interest rather than imposing a blanket change across several classes to see if an innovation works. An academic (V4) who has collaborated with many schools described the research process:

Something is identified something like the grit in the oyster. It’s making you want to engage with and make a change. After some reflection about well what is it that has created these conditions, that make it difficult, then considering some strategies that could be developed and put in place that will interrupt those conditions.

Respondents from the three NSW schools involved in this study tended to view research as a long time venture, a gradual and continuous process, leading to incremental change and improvement, rather than a one-off quick-fix. Describing the research process adopted in his school, a director of study (X1) stated:

If you really believe this change is worth doing, the first time you do it you learn to accept that it might fall over, and you are looking for ways of doing it better. So, I think that we are lucky in a way that we have a principal that is prepared for the failures, to accept the failures, if, long term things will work out better. So if you have an idea that is going to help the kids learn better, then the first time you do it, you mightn’t do it so well, but you’ll do it better the second time, and better still the third time, so that in each iteration you are looking for improvement.

Research uninformed by theory: action without research.

In many cases it would seem that practitioner research has not addressed the practice theory divide its advocates intended. While one teacher had described how she “did a lot of reading ... on what best practice was” in order to be informed (Z3), in contrast, many of the other teachers interviewed appear to engage in practitioner research without any knowledge of the prevailing literature. This was especially so where the school’s research enterprise was not supported by an academic partner. One teacher conceded that he hadn’t “actively gone out to find studies” as “it is quite hard to find reputable material” (Z4).

Even where an academic partner was engaged to support the school’s research projects, various teachers indicated that they didn’t have the time to read the literature provided to them, unless it was a summary. “Being a classroom teacher you don’t have a lot of time to really do a lot of background investigation”, one teacher explained (X4). “The focus would be more on the practice and the focus groups rather than the theory”. Another rationalized not reading through the literature provided to him “as much as I should” because he “could not allocate the time to do it”. Instead, he said, “I just wanted to go with something I was comfortable with” (Y4).

Models of research and terminology not always explicitly stated.

Sometimes teachers engage in practitioner research, even if they are not conscious of the fact or aware of the nomenclature, perhaps because it has not been articulated to them. The director PLLD explained that ARAL is embedded in the PL model articulated by her directorate. However, “the action research action learning process is not always sitting there with a big label saying ... now we are going to ... do practitioner research or action research. It is totally embedded in the framework of what you are doing”, she said (W5). An SED agreed that teachers are often involved in ARAL through their PL activities albeit they are not aware, “but that’s what it is” (W1).

Another SED observed that schools sometimes embed practitioner research within their programs without explicitly labeling it as such. “Different people call it differently. You might go into a school where there is really good leadership around planning, but they

wouldn't necessarily call it practitioner research", she explained (W2). A school principal (Y1) described how she has embedded action learning principles within the school structure and organization. Any teacher new to the school will be assigned to a Team with three other teachers. They will then be engaged in ARAL practices but may not be consciously aware of it, a teacher describing how he became a member of a Team by "just fitting in with how the school runs. It was a whole school concept" (Y4).

The learning consultant (V5) summarises, "When you talk about action-learning or team-based research, quite a lot of people are mystified by what that means. There is no clarity, in people's minds. I don't think. And I don't think the models have really been made explicit". Because of the different understandings people have of practitioner research, there will be some schools and teachers engaged in practitioner research activities who perhaps are not aware they are. At the same time there will be some schools and teachers professing to be actively involved in practitioner research when perhaps they are not.

Teacher Identity and Disposition

Schatzki asserts that "a person's chief identity is what ... he understands himself principally to be" (2002, p.54). He also states that the elements of a practice are differentially incorporated into the minds of participants, due to differences in their training, experience, status, etc. (2005, p.480). Furthermore, practices "spread, stagnate, or disappear because of what, above all, people do" (2001, p.353). It is reasonable to postulate then that a teacher's disposition and identity will likely have a bearing on the way practitioner research is transmitted as well as understood and executed as a practice. A chief belief among respondents was that the disposition of a teacher or group of teachers, and what they perceive their role to be, can be either a powerful facilitator or barrier to practitioner research. This subcategory or dimension describes how a teacher's identity and disposition might impact on their work as a practitioner researcher and the way the practice is transmitted.

Singapore

Respondents in Singapore differed in their perceptions of what a teacher's identity and role should be. While some believe that practitioner research should be part of a teacher's role

others perceive practitioner research as “something extra” or an “add on” or believe that teachers cannot be expected to possess the expertise or facility required to undertake research. A dominant belief was that suitability to do practitioner research is inter-related to a teacher’s disposition. Some respondents further feel that neophyte teachers should not be involved in practitioner research as they are overwhelmed adjusting to their new role.

Teachers’ identities as practitioner researchers.

One belief shared by several respondents was that practitioner research is beyond the ambit of teachers. “Somehow research frightens off people”, observed a superintendent, and teachers believe they “need to be a PhD to present” (B3). “Research isn’t something that comes naturally to them, and requires a major paradigm shift”, agreed an academic (A2).

Concurring, a teacher (C2) observed that research is “at a higher level” and therefore is “more difficult to promote” among teachers. “In their minds”, added a VP, “research is a very big thing, so it is very hard to convince them ... you will be able to cope with that” (D1).

Although there are “good instances” where a teacher is able to adopt “the identity of the researcher with all the tool kit that involves”, one academic believed that research works best in schools “when you have teachers and researchers working in collaboration. Expecting teachers to be researchers, or indeed researchers to be teachers, is to actually minimize the potential value that can be gained from the collaboration” (A3).

A dominant sentiment among respondents was that practitioner research is perceived as an “add-on”. “Research is always taken as something extra”, laughed a TN trainer (B4). “It is an add-on to whatever you are doing”, agreed one teacher (C5). “It is something extra ... and not included within our usual job scope”, confirmed another (E3). “I guess I still see myself as a teacher first”, a colleague reflected (E3). Another view was that the identity of a teacher is changing. Research is “becoming part of a teacher’s role... it is becoming more and more part of what we should do as teachers”, stated the TN trainer (B4). One teacher agreed that research should not be “disjoint[ed] from what teachers do in everyday life” (C1) while a colleague stated, “I guess in the long run, I see a teacher, a really successful teacher, as a teacher-researcher. That means it is part of a role. Besides teaching, I have to validate the methods I use” (C2). Certainly, a common belief was that on a macro level the educational

landscape in Singapore is perpetually evolving and developing and that more recently innovation and research have grown to become a central focus.

Some teachers simply believed it was their duty to engage in practitioner research if given the task. “I’ve been selected. My HOD has given me the responsibility that I have to do it”, explained one teacher (E4) while another similarly believed, “This is my scope, my area of responsibility. If my head tells me to do it, then I have to do it” (D2).

Different dispositions and attitudes.

Whether teachers engage in research “depends on the priority of the teacher”, observed an academic (A1) and there are “different levels of passion, different levels of ability” added a superintendent (B2). There will be “teachers who are enthusiastic” about research and others who “see their role just as a dispenser of knowledge” observed a colleague (B3). “The 30,000 teachers are not the same”. A VP agreed that “not everyone will accept this kind of work ... Teachers are very different, each of them. Some take it more positively, readily. Some may take a while to accept it” (D1). “I feel it is a personality thing”, added one teacher (D2).

A recent survey of teachers indicated “there was a lot of enthusiasm for getting involved in some kind of research”, claimed a superintendent (B2). “Teachers don’t just want to be passive workers in schools. They want to get involved”, he said. But “in fact the realities make it very difficult for them to be involved”, explained an academic (A3). “And so you often get, people getting started, but not finishing up, in some of these projects”. Another academic (A1) agreed that a lack of commitment was a common barrier to research.

New teachers and old teachers.

A belief among some respondents was that older teachers are likely to resist research and new ideas. “Some teachers, who have been teaching ... for some time, they tend to be more unwilling, less receptive, towards new ideas”, claimed one teacher (E3) while a VP reflected that “the more senior teachers will be more reluctant, more resistant” to doing research (D1). Conceding that some people act as resistors, an academic (A2) disputed the claim though that

such people come from an identifiable group. “I would say that there is not a known pattern”, one teacher (D4) agreed. “It is really based on individuals ... [and] their personal attitudes”.

Newly appointed teachers were commonly co-opted into research teams but many respondents felt that such teachers are not suited to doing research. “They may find it very heavy going”, explained one teacher (E2). “On the one hand they are struggling with teaching and on the other hand they have to do research and all that”. New teachers need time “to settle down” before undertaking research, agreed another (C4). A novice testified “everything is new, a drastic learning curve” (C2) while another neophyte believed involvement in practitioner research “would be more helpful when I have more experience, when I am able to cope better” (E3).

One teacher providing a distinctive view believed a commitment to practitioner research will be dependent largely on an individual’s circumstance or phase in life:

I guess it depends on what the priority of the teacher is. I mean, different people are at different phases of their life, and I find that, sometimes those with families, find it hard to cope ... Being a single person, I can, in that sense, manage, because any time after that is my own time, and I don’t have to worry, about families. But I see a lot of colleagues, when their kids fall sick, they have to stay up the whole night through to look after the children. That, I find, I think they will have a harder time to manage.
(C5)

NSW

While some respondents believed practitioner research constituted part of a teacher’s core work others viewed it as something “extra”. A common belief was that not all teachers have the disposition to do practitioner research. There are those who have a “real orientation” for practitioner research while others are either fearful or resistant to research and change. Several respondents suggested that practitioner research can be successfully implemented across a school where leadership adopts change management strategies.

Practitioner Research as an “add-on”.

Many respondents felt that teachers often perceive practitioner research as an “add-on” or “extra work” outside their job scope or role. Teachers “are struggling to keep their heads above water ... and they just see this as a lot extra than they can do”, observed a PL consultant (V5). An AGQTP manager agreed that if teachers are not provided release time to do practitioner research then “you are actually asking teachers to do a heck of a lot of things in their own time ... It’s an add-on. So that’s an issue” (W4). A principal conceded that “one of the negatives” for teachers involved the school’s Teams (research groups) “is that it is extra work for teachers” (Y1).

A DP qualified that while some teachers view practitioner research “as something extra”, others believe “part of their job is improving practice” and that practitioner research is “a useful tool” (Z1). A teacher’s role encompasses more than “just teaching kids in classrooms” one teacher agreed and therefore “it is good to have the research” (X3). One SED (W1) was of the opinion that practitioner research is not “alien” but something teachers do “all the time”. They are “actually action researchers in the way they work in their classes”. “Rather than an add-on”, practitioner research should be viewed as “part of their core work”, she believes. The Director, PLLD, similarly stated:

We need to be reconceptualising the school as not only a place for students to learn, but places for teachers to learn. And you can only do that by not seeing practitioner research as something new and different and added on, but something that is embedded in the way that you work. (W5)

Different dispositions and attitudes.

Not all teachers have the disposition to do research. It “rests on the creativity and willingness of the teacher” (V1) observed an academic. “I guess it is a personal thing ... whether you want to explore alternatives. Some people are willing to do that but others are not”, stated a teacher (X2). A colleague similarly agreed, “it is a personality trait ... it is more disposition” (X3). The Director, PLLD, concurred, “Wherever you have people you have got variance” (W5).

Teachers' enthusiasm for research will depend on "people's own experience of research and what's important", observed an academic (V2). "You can have inexperienced teachers who think that they know everything. And you can have very experienced teachers who are continually changing their practice... It comes down to teacher willingness to be innovative, to be responsive to change", stated an AGQTP manager (W3). Consequently mandating practitioner research would not be "productive", stated one SED (W1), as "You have to have people who are willing to do it". When tasked to work in Teams and to do research some teachers "did it more successfully than others" observed one teacher (Y2). "There are always going to be some that don't put enough energy into the programme, let others carry it. We all know that. That is true of teams", reflected the Principal (Y1).

Personal circumstance can also affect a teacher's enthusiasm for practitioner research. "I think personal situation has a huge impact on one's ability to take on anything extra", reflected one teacher (X2). She elaborated, "I think where I am in my particular life cycle facilitates it too... I don't have to rush home, and to the child care, or anything like that". An academic similarly believed that a way a teacher will respond to practitioner research will depend "very much where that person is in their personal life" (V1). It also emerged that a teacher's situation in terms of age, promotional position or faculty can act as a facilitator or impediment to them embracing research. A DP theorized that "new" teachers "are already quite open" to engaging in practitioner research as "they have already been trained in the quality teaching framework and research" (Z1).

The early adopters.

One academic postulated that some people have "a real orientation" for practitioner research driven by an "intellectual curiosity" (V4). They wish to gain "a deeper and more profound sense of what it is that they are engaged with in the classroom", she believes. One teacher exemplified:

I think that I have a creative mind and I like thinking out of the box and the research that I have done has allowed me to do that, because what I have done has always been reviewing a process and saying, "Is that working well or is there another way it can work?" (Z3)

Another teacher reflected:

I like reading research and things. It is an extension of my intellectual curiosity. So it is not painful for me. It is not a hardship. I mean it would be for people if they were forced into it, but I was invited into it by the principal, because she knows that I am interested in it. (Y2)

A PL consultant observed “the early adopters” tend to be open minded about all professional learning, including practitioner research, concluding “Perhaps there are people more positive than others” (V5).

The fearful and the resistant.

Teacher resistance was commonly cited by respondents as a significant barrier to practitioner research. “In every school there are pockets of resistance. You can’t have a school that exists without pockets of resistance”, observed one teacher (Z2). Several reasons were identified as to why teachers might possess a negative attitude or mindset towards practitioner research including an innate fear of research, an SED believing research “sounds scary” (W2) to a lot of teachers. Then, because of their cynicism, there are “pockets” who think that practitioner research “is a waste of time”, believes a teacher (Z3). Another observed that many of her colleagues do not see the benefit or need for change. “I think some of them are thinking, ‘Well. What’s in it for me?’ or, ‘I am a good teacher. I get good results. I don’t need to improve my practice’” (X2).

Many respondents believe that teachers are also fearful of being judged or criticized. Teachers don’t like to “gather data” because they are worried people will criticize them”, one DP observed (Z1). A teacher elaborated:

People get defensive if they know what you are looking for is trying to work out if there is something wrong, because the implication is, it might be you, or me, or someone else. So, there’s a bit of stone-walling that can go on there. (X3)

An AGQTP manager observed, “a lot of teachers are very uncomfortable... [with] someone coming in to watch them teach” (W4). A trust and openness needs to be established. Some schools operate with “a fortress faculty thing”, one teacher noted, where there is not always

“conversation between teachers” (Y2). Furthermore, even within a research project “group think” can occur where after some time the team splinters “into two cliques” with opposing views on how members should proceed, one teacher recalled (Y3).

A DP described in considerable detail a specific and identifiable group of teachers who are recalcitrant “resistors”. She referred to this group as “POPOs”, a popular acronym, she explained, to describe those teachers who felt “passed over and pissed off”. Typically, POPOs are older, experienced male teachers disgruntled with the system. “They are terrible - because they are often more experienced teachers and very good teachers. Their negativity, their political power within the school ... is such that they have the ability to poison”, she described (Z1). She further suggested in those regions where there exist larger concentrations of older teachers there will be more resistance to innovation and research, stating, “Try and tell an older, experienced teacher how to suck eggs” (Z1). An SED confirmed there had been a lack of “movement” in one region thus people had “come here and stayed ... and not wanted to change” (W1).

While many respondents believed that older teachers were often resistant to change, most qualified that this is not absolute and there are always exceptions to the rule. One teacher stated, “There are some of the older teachers where it is a problem. But it is not all the older teachers” (Z3). The DP (Z1) observed, if older, experienced teachers resist doing research it is a barrier, but “if you can bring them in” because of their wealth of knowledge, then they become a facilitator. Several participants described how school management might harness change management principles to encourage more teachers to embrace practitioner research. An SED observed:

It is a matter of the leadership in the school taking the changes slowly and ensuring these people that it is going to be all right and they can do it at their own pace. And it does happen. You get a critical mass of people who are doing these things and the others move along. (W1)

The Transmission of Practices

Like others, Schatzki notes that learners actively construct meaning and information through a process of variation and selection. People will appropriate and impose practices

differentially, likely adopting practices of others that offer significant gains. The results of their choices is that “certain practices are selected and successfully spread, while others are not selected and either stagnate, disappear, or are never implemented” (2001, p.359).

Dissemination of practices might also result in their diversification (2010, p.143). This subcategory or dimension describes how teachers develop their capacity as practitioner researchers and hence how practitioner research might be transmitted as a practice.

Singapore

There are many modes of delivering training to teachers and they develop their capacity as researchers in many different ways. In contrast to previous years, it is now customary for teachers in Singapore to do a research component within their formal training. Teachers nominated as Research Activists (RAs) undergo systematic training and are expected to cascade learning within their schools but efficacy will often depend on the disposition of the RA. Many RAs did not feel confident enough to competently train other staff. In the past RAs were exposed to one trainer who tended to favour a quantitative approach, but since about 2008 have been provided an overview of different research methodologies by lecturers from the NIE. Some schools engaged external experts as research advisors while others depended on internal capability, the independent school leveraging on in-house expertise to offer “bite-sized” training to all members of staff. While there exists both formal and informal forums for sharing, learning is not always wholly transmitted, sometimes remaining personal hence lost to the rest of the staff. Developing the capacity of teachers as researchers in order to build a culture of research in a school requires transformational change and hence takes time to nurture.

Formal and informal training.

Apart from the training of the RAs, there is no formalized or systematic way for training teachers as practitioner researchers. The deputy director or cluster superintendent might encourage principals to promote practitioner research in schools, explained an academic, but apart from funding being provided, “it is very much left to ... the school principal to structure their own formalization of training of action research” (A1). Teachers confirmed they learnt to do research in a variety of ways. “I was an assistant researcher ... so it was then I mastered

the research skills”, one explained (C3). A number of teachers described how they were largely self-taught in research methodology often piqued by self-interest, one teacher (D2) relating how she “went to read up on a book about action research” and got information “from the web-site” when tasked to lead a research team in her school.

In the past, “There were no real structured training for teachers on how you go about doing research”, explained one teacher undertaking post-graduate work (C2). However, the trend now is for both undergraduate and post-graduate courses to have a research focus. “I just started this year. And every assignment I do is related to doing research”, the teacher further explained referring to a post-graduate course he was undertaking. “I think maybe teachers who have just left [National Institute of Education] NIE, perhaps in recent years, perhaps they are more exposed to action research and the kind of research activities going on in the research field”.

“A lot of schools invite officers from Teachers’ Network to facilitate learning circles and from there they move on to do action research”, explained a TN trainer (B4), even though the “Teachers’ Network doesn’t really train teachers to do research”. Corroborating this, one teacher recalled how trainers from the Teachers’ Network came “down to the school to conduct an introductory session on learning circles, which is quite similar to action research ... to encourage us to embark on it. So that was when I first got to learn about research in the classroom” (C4).

The training of Research Activists (RAs).

As described in chapter 6, schools joining the TLLM Ignite programme nominate one teacher to be trained as a research activist (RA). Ostensibly, the learning is then cascaded or filtered down to others in the school. “Those with this training, go back to the school ... where they will try to pass down that training to other interested teachers in the school”, explained a superintendent (B2). “We did tell them ... when you go back, to share this capacity as well”, confirmed the DD, CPPU (B1). A teacher trained as an RA described how lecturers from the National Institute of Education (NIE), working in conjunction with the MOE, “come over to talk to us about research methodologies, research design, how to look at research in a critical way” (D3). The academic’s role is to provide the RAs “with research method skills and some

guidance and hand-holding along the way”, clarified an academic (A2), rather than to act as an academic partner.

The DD, CPPU, (B1) conceded that in the early phase of the TLLM Ignite programme a retired academic who favoured a “quantitative” research paradigm was responsible for training all the RAs. “So you will find that the Research Activists, they always wanted a control class and an experimental class ... and they become a bit formulaic”, she explained. Several respondents ascertained that teachers are now systematically exposed to both qualitative and quantitative methodologies during their training as RAs. Hence “there should be some consistency in understanding the [research] process” postulated a superintendent (B2).

The success of cascading learning to others in the school will depend largely on the commitment of the RA. If the RA “comes back, and he goes back to his normal teaching ... [and] there’s nothing taking place in the school in terms of sharing, facilitating, or creating a structure where your role is ‘train the trainer’ approach”, then learning will not be transferred, suggested a superintendent (B3). “A lot of the Research Activists, depending on their pre-disposition, as well as their backgrounds or other factors” may not have all the capacity or skills required to “initiate” and “maintain” a research project and “to write a report”, observed an academic (A2). Different teachers display “different levels of engagement” during their training as RAs, she added. “It is very individual”.

One teacher described how his role as an RA was to “help” and “guide” teachers as well as “try to find some good literature for them” (E1). He elaborated:

We will brain storm and discuss what we want to do, and I will guide them, with certain basic research ... for example, how do you create a research problem, where do you get a research problem from, you learn to do research design ... whether you want to do qualitative or quantitative kind of research, or even things like statistics. So I’ll guide them and show them things like that.

However, the RAs interviewed all conceded their learning was limited. They did not think they had a good knowledge of research methodologies and did not feel confident enough to competently train other staff. “Actually, I am not so expert in research even after I went

through the course. So I just give them basic guides, basic tools on research”, stated one (E1) while another (D3) expressed, “I don’t feel confident enough” so the school “actually engages lecturers from NIE” to coach the teachers in research methodology. One teacher confirmed that the RA in her school “only shared a little bit with me in terms of research methodology” (E3).

Furthermore, it also transpired that the RA might have a limited role in leading research and transmitting practices within the school. At one school (D) the function of the RA was exclusively to execute the approved TLLM Ignite project. They consequently played a subordinate role in championing the research effort at the school. The VP stated categorically, “This research activist is trained because they have to carry out the TLLM Ignite research project. To us, it’s finished. We did it in 2006, we finished it in 2007” (D1).

Use of external advisors compared with an in-house mentor.

The expertise provided by a mentor or academic often provided important opportunities for teachers to develop capacity as a practitioner researcher. While the school new to research (E) relied entirely on the RA to lead the research enterprise there, the government school with a culture of research (D) engaged external experts to exceed the learning provided by the RAs. The independent school (C) exclusively utilized the expertise of its own staff members.

At the government school with a culture of research, management organized “a series of workshops” for all teachers “by getting a lecturer to teach them about research methodology”, the VP claimed (D1). “Then after that, for each project, we try to identify a research consultant for them, which is more related to the area”. Management might engage a consultant from “outside” the school to guide teachers in their research if “the school does not have expertise in that area”. Teachers verified that the school “invited lecturers from the NIE to come down and speak about research methodology”, which teachers found “very beneficial” (D3), and had engaged trainers “proficient” in the different fields research teams were interested in (D4). In addition the school leveraged on the strengths of certain staff members. One teacher described:

After I completed my Masters... the principal... said maybe I could make use of what I have just studied and help some of the teachers in the school... So I actually selected

three teachers from the maths department, under me, who I have to coach them... that is how I started with them. (D2)

There were several respondents who believed that practitioner research is best done when teachers collaborate with an expert. “Ideally” academics should “support the teachers on the ground, on the theoretical level” for a project to “benefit” because, “very often the teachers are struggling with what topics would be worth exploring ... [and] with the methodology as well”, purported one academic (A2). However, the extent to which schools across Singapore work with universities is “sporadic, haphazard, a bit random”, reported another academic (A1).

At the independent school, a large number of staff had undertaken post-graduate studies, and the school depended largely on the cumulative knowledge of staff to provide support and customized training to other teachers engaging in research. The Deputy Dean leading the Research Unit stated that building a culture of research is a matter of “not only raising awareness but raising skills” (C1). She described working with teachers, “leveraging up their skills in their area, to help construct that very positive attitude towards research”. Training, “is run in-house, based on demand ... I ask around, and I see what would be the type of skills to get their research off the ground”, she explained. “Bite-sized, very rudimentary, very basic skills” are then provided. One teacher confirmed the provision of “some short sort of workshops, for those on the committee, as well as those that are interested, on what research is about, what is qualitative, what is quantitative research, how you may go about doing it” (C2) while a colleague described “workshops and sharing sessions by other teacher-researchers, more experienced researchers” (C4). Another teacher further substantiated how the chairperson of the Research Unit provided “random help. Anytime we need help, she would help us” (C3).

Formal and informal sharing.

Many of the teachers interviewed described opportunities to attend both national and international conferences and how they had benefited from this. “I think I learnt quite a lot from attending some of the international conferences held in Singapore ... I get to see how research is done by people in Singapore and overseas”, one teacher recalled (C2). Another

stated, “You really have new perspectives. You get to see how people do research” (E2). Teachers also described formalized forums in their schools for sharing learning. “Every Wednesday, there is a department meeting, one hour. We have a chance to share,” one teacher (C3) related. Elaborating, she explained:

After ... attending those international conferences, we are asked to share also. We are not only sharing our findings, we also share what we learn from other countries ... what we learn from them, we share during the department meeting or staff meeting.

In addition to formalized sharing teachers also related how they learn to do research via informal networks. One described how he was “trying to make reference to ... a colleague who is doing research in chemistry” at another school in order to seek “advice from him” (E2).

But some respondents described how a practice might not be successfully transmitted because the learning is diluted or lost. The quality of work can be diminished when a research project is expanded or extended to include others. One teacher described, when “we gave different teachers different topics to work on ... we found that some tasks were not quite up to what we had expected” (E3). A VP lamented that learning is not always shared and often remains “very personal”:

[T]he teachers who have gone through the action research or the research project ... have learnt quite a lot through it, but the learning is not transferred, it is not documented, and so it is only limited to themselves and it will not be passed onto their colleagues or peers. So to the school, it is a loss. Because we have so much experience, but it cannot be shared among the other teachers. (D1)

Although it was commonly believed there are plenty of opportunities for teachers to share at the “school level, cluster level, zonal level and conferences”, as expressed by a TN Trainer (B4), a few individuals thought still there is a lack of interaction and networking between schools. One believed this resulted in teachers “re-inventing the wheel” even when another school might already have “a solution to solve certain things” (D4). He also felt that sharing published papers has a limited benefit as it is done “after the fact” and there is “no opportunity for sharing on an ongoing basis” as the research is taking place. Some teachers also felt the “internet” is not an “effective means” of disseminating findings, one describing

how few people had accessed the research findings he had posted. “I don’t think that is the way” (E1).

Effecting transformational change.

Some respondents believed that transformational change is necessary if a culture of research is to take root within a school and this takes time to nurture. The leader of the Research Unit at the independent school believes that it is important to change teachers’ attitudes “ground up” through “transformational change, rather than top down” (C1). She further states, “It takes a long time for research culture to bear fruit. It has taken us five years in this school with this much pumped in to see some budding results”. She stated her mission is “to enlarge the interest level of the whole school” and to develop a “critical mass of people who are involved in research, whether it is because of their own professional development or because they want to contribute to the school’s body of research”.

A teacher from the government school with a history of research also describes a gradual, transformational process. “The principal slowly gets us to buy in, and then we see some results from what we are doing, and we learn along the way” (D2). The VP confirmed that a culture of research had been nurtured through a change management process. “We start from a small group, and we did try to choose those teachers we think are more enthusiastic, more innovative, more committed, to start with” (D1). When the small group gets “some results” and shares with the rest of the staff, other teachers then realize that perhaps they can manage such projects as well.

However, as explained by one respondent, in Singapore where it is customary to rotate school principals every five years or so, it might be difficult to effect transformational change.

I would imagine in some instances principals they might want to see results a little faster ... [It] might make it tempting for a principal to want to put up the structural part, which is the easiest part, fast, and then expect a lot of results immediately. (C1)

NSW

The way teachers in NSW learn about research varies, some learning through their formal training while others “on the job”. As opposed to the past, many contemporary teacher training programmes now have a component focusing on AR, although perhaps only a preview course is given. Teachers involved in the NSW AGQTP QTAL projects were provided a systematic introduction to AL. Schools and teachers felt that working on collaborative projects with academic partners was extremely beneficial. Some had maintained long-standing collaborations. Teachers joining schools with an established culture of research come to learn about practitioner research when inducted into that culture. In the three schools in the study, teachers were grouped into research projects, teams or consortia, many teachers learning about research through team learning and sharing. Although there was much dialogue within schools, there were restricted opportunities to share learning externally. The NSW DET has adopted a model of “on-line on-time” learning but few teachers in this study actually utilized this mode of learning.

Formal versus on-the-job learning.

A DP conjectured that most teachers “have not been trained” to systematically research their own practice (Z1). How and where teachers learn to be researchers “would vary” observed an SED (W2) and could be “within your faculty... at whole school staff meetings” or via a special project a teacher is involved in. One teacher described how “as a counselor ... with a background in psychology” she has “done a bit of research” in terms of her degree (Z3). Another recalled how he learnt about practitioner research through a team leadership course he attended where participants “looked at a type of action research” (Z2). Others learnt about research through post-graduate work. An SED stated AR “was one of the tools that was used” (W1) in such courses while a teacher said he “did a subject called Research Perspectives” (Y3) while undertaking a Master of Education.

Although encouraged by the DET to engage in practitioner research as part of their PL, teachers are not necessarily being rigorously trained in ARAL during their pre-service training probably due to “the incredibly over crowded initial teacher education curriculum”, postulated one academic (V4). But “teacher training is definitely improving” surmised an

SED (W2). “I think that even at the undergraduate level it is an expectation that students undertaking their internship will engage in an action research project around their own teaching practice” disclosed another academic (V2). While agreeing, there were some respondents who believed such learning is very superficial though. Undergraduates do not gain a comprehensive understanding of AR or AL.

Those teachers involved in AGQTP projects were provided with some systematic learning. A manager described:

We put out a handbook, and in the first page we have a discussion of action learning and action research and what we see as the common ground and the difference between the two... we have a planning conference for a couple of days with representatives from all our teams ... we emphasise that this is an action learning project and that we would expect that they would be engaged in the action learning processes. (W4)

Teachers divulged how they learnt to do research “by osmosis” (Y2), “on the run” (X2) or “on the job” (X3, Y2, Y4). One teacher stated, because of an “intrinsic interest” in research he has done “a lot of reading and things outside of school” and engaged in PL courses “that would encompass that” (Z2). Another recounted “I’ve done a Masters. So I did a bit of educational research methods in that, and then the rest would be learnt on the job” and through “professional reading” (X1).

Immersion of new staff into a culture of research.

Practices might also be transmitted through the immersion of new staff into a school’s culture. One principal stressed how “critical” it is to sustain any research culture that has been established in a school nurtured over time. She emphasized, “I didn’t want to lose that ethos that was here, so I have continually worked over the years in sustaining that ... All the new staff that arrive ... are inducted in that culture” (Y1). This is achieved through involving neophytes in Teams (research groups) and “in different projects”. A teacher (Y2) confirmed the school “likes to reinvent itself” and has “a pretty high level of conversation about things”. She became involved in research “because it is that kind of school”. However, successful induction of new personnel into the school culture is challenged by the staff turn-over rate:

One of the actual problems ... is staff are changing. And having the time to induct people to the level that we have all been inducted is a problem. So, people are being attached to Teams and they don't have a clue about the background. (Y2)

Furthermore she stressed that the transmission of practices “would really depend on the team that [teachers] are on, on how much an experience they are getting, and how useful it is”.

Results suggest that if research is to be an integral part of the school culture it is essential that a comprehensive and holistic approach to research be put in place in the school. Some of the practices and processes include getting staff “buy-in” through constantly communicating and reinforcing the school philosophy and approach, providing training to staff and building up a critical mass of teachers with capacity. A director from the private school related how teacher capacity had been built up within the school “over time” so that there is a critical mass of teachers with the requisite interest, skills and capacity to conduct practitioner research projects (X1).

One academic described how practitioner research “might rise up and be very powerful in one part of the school for a couple of years then in the other parts of the school not much is happening” but might eventually become imbedded in a school's culture if, over time, it is seen by teachers as part of “the way we do things around here” (V4).

Learning with an academic partner.

Teachers often learnt to do research when working with an academic partner on a research project. The private school and one of the government schools, identified as having a culture and ethos of research, had worked extensively with academic partners, often on AGQTP projects, and the second government school was actively sourcing for an academic partner at the time this study was conducted. Academic partners “are like critical friends to the schools”, explained one academic (V1). Often they have an “ongoing relationship” and some of them have been with particular schools “for years and years and years and years”. The academic partners' role is to act as a window, another described (V4). They have this vast wealth of theory that they know about, so they can identify what is relevant and pertinent, and summarise or direct people to some of the more critical readings.

School leadership and staff reported positively on the learning benefits of such partnerships. The Director of Studies at the private school (X1) believed such collaborations give authority, objectivity and credibility to the school's research findings while the Principal of one of the government schools reported that the school's experience has been "very, very positive" (Y1). But "it would depend on your academic partner as well", she qualified. An SED observed that the most successful partnerships are when there is "respect between the external partner and the school", but if academics are "arrogant" or have their own agenda they "will get people off-side quick smart" (W2).

One teacher enthused, "It is really, really good working with an academic partner ... because she listens and has these great ideas about the project" (Y3). Another stated, "this was the beauty of it, having an external consultant or external expert in methodology, assisting us and guiding us into how to go about these things" (X2). One teacher described how the academic partner "would send through a whole lot of literature" (X2). "She would provide readings, if it was ... a difficult topic that required a bit of background theory to it", another recalled (X3). The academic partner also provided links to other schools embarking on similar research and to the theory, it was reported (Y3). Furthermore, it is the role of the academic researcher to dispel the myth that exists among many teachers that research necessarily entails measurement, emphasized one academic (V4). The Director of Studies at the private school summed up:

I think some of our teachers have been exposed to a very good level of academic research. And as the projects change so do the personnel that get involved, so I think that sort of spread through the school as well. (X1)

In the government school without an academic partner the group leader of the research project had to play the role of an academic partner, finding resources and the theory to share with team members, but "without the skill (laughs)". "Not good", the teacher reported (Z3).

Team learning and a cascading or ripple effect.

Practices might also be transmitted by cascading learning through the school. The Director, PLLD, asserted:

The tremendous amount of professional, personal and practical knowledge that is actually contained within the repertoire of teachers is very, very high. So creating opportunities where teachers can actually be working together and engaged in learning together ... is one of the most powerful things that can actually be happening in schools. (W5)

She further explained that ARAL was introduced as an approach in PL courses, to be modeled and cascaded in schools by school leadership, that is, the principals and head teachers. The idea was that principals would use AR to guide PL within their schools. In addition to providing online learning, the PLLD Directorate has trained a number of “regional facilitators and local facilitators to actually run programs locally” so that learning can be contextualized. “There is not a one size fits all. So the fact that something takes shape in a slightly different way in one region to another region or one location to another location, is good”, the Director concluded.

The NSW AGQTP adopted a team learning approach to cascade learning. A manager described:

The approach that we took in NSW was around professional school-based learning, with external support... bringing in some outside expertise, but, using a team approach to share, to generate the learning and share that learning within the school... it’s a very effective form of professional learning. (W3)

Another manager stated, “We suggest that someone in the current action learning team might become the leader of that new action learning team ... so some of our schools we’ve got six action learning teams” (W4).

Schools in the study reported successfully adopting such an approach. The principal at the school that had implemented the Teams concept (Y) described a snowballing or cascading of learning within the school. Each “Team has moved on. The staff now are on different

Teams”, she disclosed (Y1). A staff member confirmed what had been learnt “would start to filter down. Each of us are in a separate Team this year” (Y4). Similarly, at the other government school (Z), a DP described how teachers gain a knowledge of practitioner research “through ripple effects” via workshops and sharing sessions conducted in the school (Z1).

But some respondents identified barriers. One teacher believed she did not have “the right kind of training” to successfully lead a research team. She “didn’t know how to do it” (Y2). Others described how learning might be choked at a certain level. One SED described, “Some people... are conference junkies ... When they come back into school, they don’t disseminate the information. And it doesn’t change their teaching practices” (W1). Furthermore, one academic ventured that practitioner research is not transmitted as a practice or understood consistently “because people are different” (V1).

Sharing forums and on-line learning.

Respondents also described how practitioner research might be transmitted as a practice through sharing forums within and across schools or through on-line learning. “A lot of the communities of schools now join together to do joint school professional learning days”, an SED stated (W1). A Director of Studies from the private school further described, “There are a few networks that people use. We belong to a group that [our academic partner] set up called the Coalition of Knowledge Building Schools” (X1). However, as noted in Chapter 6, there appeared to be limited opportunities for teachers to share externally, one DP declaring an urgent need to “get everyone attending national conferences more often” (Z1).

Respondents more commonly described opportunities for them to share internally which ranged from formal to informal settings. Teachers “regularly share ... and that’s how they develop the capacity of the faculty” (Z1), reported the DP. One teacher recounted how teachers discussed their research findings during “Friday afternoon drinks” (X2) while another referred to conversations around the pizza oven (Z4).

The Director, PLLD, emphasized that a key strategy of the DET’s PL Continuum is “on-line on-time learning”. Teachers can access PL resources “on-line on-time” relevant to their learning needs “at a particular point and in the particular context” in which they are working

(W5). While conceding there is “wonderful support ... and lots of on-line course and lots of things to do”, a Principal asserted “it goes back to time. If you don’t have time to access that and use it then you are not going to do it” (Y1). She further divulged there were a number of teachers within the school “who have registered for things on-line, but they have only registered. They haven’t done anything yet on-line”. In contradiction to what the policy makers suggested, results tend to indicate teachers from the three schools in this study only rarely were afforded the opportunity to share learning externally or utilized learning resources on-line.

Conclusion

Although there was a variety of views among respondents, generally speaking, it would appear that the identity of a teacher is changing. In both Singapore and NSW teachers increasingly are expected to research their own practice as part of their job scope. However, undertaking research is a complex practice and perhaps beyond the ambit of many teachers. Few teachers have been trained to systematically research their own practice and perhaps not all possess the requisite interest or disposition to do so. Furthermore, attempts to incorporate individuals into the practice are confounded when learning is transmitted wrongly or incompletely or ‘choked’ by the current custodians and therefore not shared with other potential practitioners.

Across the two contexts studied practitioner research appears to have evolved and changed, due, as Schatzki (2005) has described, to the peculiarities of the new circumstances and dispositions of the people involved. The practice has been differentially incorporated into people’s minds. Practitioner research is therefore not understood or transmitted consistently largely because people themselves are different. Significant conceptual differences exist between and within each context studied as to what constitutes research and practitioner research. In effect, what is happening here is that teachers are re-defining these terms compared with existing definitions in the scholarly literature.