# Delivering the primary curriculum: The use of subject specialist and generalist teachers in NSW

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The delivery of the primary curriculum has been subject to recent debate in Western countries. In Australia, the primary teacher is by and large considered a generalist; however a current paradox exists whereby there are claims that specialists are needed to deliver the curriculum. This study explores this claim by first addressing the prevalence of specialist use in NSW government schools before examining principals' views regarding the current work of primary teachers. Data was collected using a mixed method sequential QUAN+QUAL design. In phase I questionnaires were distributed to all principals (N = 1608) in government primary schools in one Australian state (New South Wales) with a response rate of 25%. Follow-up interviews were conducted with 14 principals in phase II. The findings suggest that there is a disjuncture between the assumption that the primary curriculum can be delivered by a generalist and current practices which forces us to consider whether it is time for a different model.

#### Introduction

Currently there is a great deal of discussion regarding the minimum standards required of pre-service primary teachers in Australia. It would appear underlying this, is an assumption that primary teachers are generalists who have an ability to provide instruction in all key subject areas. In contrast, there seems to be a parallel discourse increasingly promoting the need for specialist teachers in the primary school setting. In England it has been argued that the idea of the generalist is outdated and does not reflect practice (Alexander, Rose & Woodhead, 1992) and as such, four types of primary specialist teachers were introduced (OFSTED, 1997). Moreover, in 1998 preservice teachers were required to specialise in at least one area (OFSTED, 2001). In Australia, no such debate or sanctioned change in practice has occurred. Despite this there is increasing evidence which suggests that specialist teachers in primary schools are relatively common (Angus, Olney & Ainley, 2007). This paper aims to draw attention to this apparent disparity by reporting on the general use of specialist teachers in government schools in one state in Australia (New South Wales [NSW]) and exploring the rationale for this practice. Exploring NSW alone reflects the governance of the education system of Australia where each State has its own regulations and curriculum.

#### A growing interest in the primary specialist teacher

Although NSW public primary schools acknowledge the employment of a limited number of specialists<sup>[1]</sup>, commonly the generalist teacher is expected to deliver a diverse range of subject matter in the primary curriculum. For example, the NSW

Institute of Teachers [NSWIT] (2009) stipulates that pre-service primary teachers must undertake a pattern of study that prepares them to teach all six Key Learning Areas (KLAs). It is unlikely however, that teachers approach all subjects with the same level of competence. This is apparent in the varying patterns of study which pre-service teachers may undertake to meet content requirement which allows students to focus on some areas more than others (NSWIT, 2009). In addition, teachers are also required to meet other essential requirements in 'Nominated Areas of the Standards' which include literacy, Aboriginal Education and Special Education for example (NSWIT, 2007).

In other contexts it has been argued that the generalist primary teacher might be more appropriately employed as an 'expert' deliverer of prioritised key learning areas such as literacy, numeracy and science. In his review into improving Literacy, Numeracy and Science Learning in Queensland, Australia, Masters (2009, p. 73) claimed that "ideally, every primary school teacher would be an expert teacher of literacy, numeracy and science", thus explicitly prioritising the development of teacher competencies in some subject areas over others. This review further recommended that teachers be offered the opportunity to develop specialised subject knowledge and also advocated the employment of specialist teachers. Williams (2009, p.10) further articulated this vision by suggesting that primary schools would emulate the practice of high schools, forming curriculum departments with specialist teachers, whereby the specialist teacher "would hone their knowledge by teaching across year levels, and by delivering the same lessons to numerous classes within the same year level." Williams (p.10) further claimed that "curriculum and learning objectives would become truly standardised as specialists not only deliver deep knowledge but also uniformly plan and evaluate lessons". Support for this position was found in an OFSTED (2009, p.7) survey which reported that when teachers "were less secure about aspects of a lesson which required subject-specific knowledge" they were unable to provide students with opportunities for deep learning. Such discourses represent a shift from the ideologically valued position of the subject generalist to one which appears to value the 'deep knowledge' of the subject specialist.

Although the research evidence is scant, there is literature that shows that classroom teachers themselves may support the use of specialist teachers in certain subject domains. Morgan and Hansen (2007) found that 60% of their sample of NSW primary school teachers (N = 189) would prefer to have a specialist teacher in the subjects of Music, Creative and Practical Arts, Computers and Science and Technology. Much of the current research posits that specialist teachers bring a number of important dimensions to a subject. Hennessy, (2000) for example, argues that specialist teachers bring greater confidence to the classroom, while Wilson Macdonald, Byrne, Ewing, and Sheridan (2008) contend that subject specialists use their specialised content knowledge to empower students to produce a higher quality of work. Emotional and values-based claims have also been made about the use of specialist primary teachers. Fromyhr (1995) reported that these specialists show greater 'enthusiasm' while others report that specialists 'value' the subject more highly (DeCorby, Halas, Dixon, Wintrup & Janzen, 2005). Asked specifically about Physical Education (PE), these teachers attributed their desire for the use of specialists to the belief that PE would be taught consistently by specialist teachers. Similar arguments have also been made for

Music (Australian Government, 2005) and Science (Abell, 1990; Jones & Edmunds, 2005).

Although there is evidence of emerging support for the specialist primary teacher, there is little evidence of the extent or breadth of specialist teacher use in NSW government schools. The suggestion that specialist teacher use might be relatively common in Australian schools is supported by only one study revealing that specialists are at work as teachers of literacy, Music and PE (listed in order of frequency) (Angus et al., 2007).

#### Conceptualising the specialist teacher

In the absence of an accepted practice of using specialist teachers, it is important to explore the meaning and definition of the term 'specialist' as described in the Australian literature. In their study, Angus et al. (2007) did not report or define the qualifications of the subject specialist; therefore it is difficult to conceive of the conditions or standards by which one is deemed a 'specialist'. The Ramsey Review (2000, p. 151) indirectly defined specialisation as part of its discussion on accreditation as "teachers who have undertaken significant further studies ... gained through specifically designed courses". Focusing on PE, Tinning, Kirk and Evans (1993, pp. 143-144) question whether a specialist is "someone who has done a major study in physical education/human movement studies in their initial teacher training? Is it someone who has done a 'specialist' four-year degree in physical education?' or 'Is it someone who is appointed to the position of physical education at a school regardless of his or her qualifications or interest in the area?" They suggest that the first definition is concerned with expertise while the second is concerned with responsibility for the subject, and hence reflecting the possibility of contextual and standards based elements in concepts of the specialist teacher.

One contextual element in the use of specialist teachers can be found in Queensland where specialist teachers are systematically allocated to fill relief time<sup>[2]</sup>. These specialists deliver subject content in areas such as PE and are specifically trained in the delivery of this subject (DinanThompson, 2009). In a contrasting example of contextual variation, Hargreaves (1992) found that in one Canadian state, teachers preferred that the 'relief time' teacher deliver a discrete subject, however these teachers were not specifically trained in the delivery of this subject.

In addition to contextual or standards based concepts of the specialist teacher, is the nature of the subject to which a specialist might be allocated and the values implicit in this decision. In the emerging discourse supporting the use of specialist teachers, the 'subject' is prominent in even this limited debate. For example Masters (2009) prioritises the core areas of literacy, numeracy and science and suggests the deployment of specialists, while research by Morgan and Hansen (2007) suggests that classroom teachers in NSW seem to defer the "skills and frills" (Stodolsky, 1988, p. 4) subjects of Creative Arts and PE to the specialist teacher. Indeed, there is an extensive body of work which suggests that delivering the curriculum is not a values free exercise but rather is influenced by epistemological beliefs about the subjects

themselves. Stodolsky called this the 'subject matters'. Over time researchers in this area have used the lens of the subject to focus on: how cultural norms and assumptions relate to the subject; subject status; the body of subject knowledge; teachers' work; and how school leaders' influence the delivery of subjects. For example, in the USA Burch and Spillane (2003) described how factors such as district policy, threat of closure and exam performance resulted in Mathematics and Literacy being prioritised by school leaders. In another study Burch and Spillane (2005) found that even when outwardly there were no differences in the value placed on Literacy and Numeracy reform, senior administrators acted in ways which supported an epistemological hierarchy. Put simply, epistemological beliefs can shape and influence policy (Rowan & Miskel, 1999). In considering the use of specialist teachers the value of the subject itself may shape the decision about the allocation of a specialist teacher.

In NSW it is the principal who allocates teachers and hence is responsible for the generalist or specialised delivery of the curriculum. This study examined the prevalence of specialist use in NSW government primary schools and the factors influencing principals' decisions to appoint specialists to certain subject domains. Furthermore, it specifically focused on whether epistemological beliefs had a role in the work of primary school teachers. In other words, asking questions about individual subjects provided a framework to explore what principals perceive is the role of the primary school teacher.

# Methodology

The study employed a sequential quantitative-qualitative (QUAN+QUAL) design. This was chosen as it allows for the collection and analysis of quantitative data followed by the analysis of qualitative data produced by a purposeful criterion sample (Tashakkori & Teddlie, 2003).

## **Participants**

The potential sample of the study consisted of all principals of NSW government primary schools (N = 1608) who were invited to participate in the study. A total of 401 respondents participated in the quantitative phase of the study representing a response rate of 25%. Unsolicited mailed questionnaires are notorious for their low response rates and although disappointing, it is above the minimum acceptable and still represents a sizable sample. Moreover, Keeter, Miller, Kohut, Groves & Prosser (2000) have shown that there is minimal difference in answers between response rates of 20 to 40%. There is no reason to think that the principals who responded might have a different view from those who did not, particularly given that responses reflected an adequate demographic profile of NSW principals including a representation of all 10 administrative regions and all of the six different school sizes as identified by NSWDET (New South Wales Education and Training). There were more male (n = 217) than female (n = 184) respondents, although in schools these positions are held equally between the sexes (NSWDET, 2008). In the qualitative phase a purposeful criterion sample of 14 principals was selected from those who had returned the questionnaire and belonged to one of the following categories: had never considered using a subject specialist; had considered but never used a subject specialist; had used a subject specialist. Attempts were made to select two principals from each category of specialist use, drawing on a variety of geographical (urban and rural), administrative regions (rural, metropolitan, city) and school sizes (small, medium, large). It was not always possible to recruit the same number of representatives for each of the purposive criterion. For example, although the questionnaire data found that principals of urban schools wanted to use specialists, none of these principals consented to an interview.

#### Measures

For the quantitative phase a questionnaire was developed to assess five issues, three of which are detailed here and employed a combination of quantitative and open ended self-report data. Sections 1 and 2 asked about school and principal characteristics while the third section focused on the prevalence of subject specialist use. Because this was the first time such data was being collected and in order to capture the broad spectrum of possible specialist use, the items were couched in general terms only. Indeed the difficulty of exploring specialist use was identified in the pilot stage as a number of respondents asked for clarification of the term. As suggested in the piloting, to avoid misinterpretations of the term specialists, the front page explained that the study was not interested in 'career specialists'. Data about the use of teachers who work as consultants or in reading recovery, for example already exists. Therefore this study wanted to capture those generalists who instead of teaching the entire curriculum were limiting their teaching to a particular KLA or strand. Subject specialists were defined as an RFF (Relief from Face to Face) teacher or other NSWDET teacher who teaches in one specific Key Learning Area or a Strand or activity and/or an outside provider teaching the same. This paper addresses the use of specialists who are defined as an RFF teacher or other NSWDET teacher. In this third section there were three questions and seven sub questions. The first question asked whether the school considered the use of any type of specialist. The second question asked whether the school currently used a specialist in each of the three categories identified above and the third question asked principals to list the KLA, strand or activity each type of specialist taught. Data regarding the hours specialists were employed were not collected.

The subsequent qualitative phase reported in this paper explored the factors influencing the decision to use subject specialists. This paper focuses on three areas of investigation: views regarding the delivery of the curriculum by both the generalist and specialist teacher; perceptions of the subject specialist; and explanations of the use of specialists.

#### **Procedure**

This study received ethical approval from the Macquarie University Ethics Review Committee and the NSWDET. All principals in NSW government primary schools were mailed an information package containing a participant information letter, letter from NSWDET, the questionnaire and a return paid envelope. Special schools were excluded because of the differences in their curriculum, staffing expertise and student to teacher ratios. Principals who agreed in the questionnaire to be interviewed and who

were subsequently selected, were sent a copy of the interview schedule two days prior to the interview. All semi-structured interviews were conducted face to face where there was an openness that allowed for follow-up of answers that uncovered "the stories" (Kvale, 1996, p. 124). Each audiotaped interview was transcribed verbatim and analysed.

The analysis occurred in three stages described by Attride-Stirling (2001) as 'thematic networks'. 'Meaning categorisation' was used first whereby every transcript was coded according to basic themes (Kvale, 1996). All interviews were coded by the sole researcher. To increase reliability two of the interviews were also coded by an independent researcher. The percentage agreement for interrater reliability was 90%. Any discrepancies were discussed and resolved. These basic themes were then grouped conceptually into 'organising themes' or clusters. In this study while the data analysis was clearly shaped by some prior expectations, it was impossible to know what principals were going to report, or indeed, to form prior descriptions of all findings. As a result inductive analysis was employed here to develop clusters. The constant comparative method which is mostly associated with grounded theory (Glaser & Strauss, 1967) was employed by comparing an account with all other similar accounts across the data set. Units of data were sorted into similar groups and hence 'themes within clusters' were formed. Units of data were required to be both meaningful in the context of the study and to be self-contained as possible or interpretable in their own right (Lincoln & Guba, 1985). The third level of analysis aimed at identifying relationships among the clusters and how they worked together at a global level. Such "theorising" (Merriam, 1998, p. 188) about the data was conducted in relation to the broader research aims of identifying the views and factors influencing NSW primary principals in their decisions about who delivers the curriculum.

## Results

## Documenting the use of subject specialists

A total of 293 (73%) principals explicitly endorsed the use of subject specialists by reporting that they had used a subject specialist while a further 6% reported they had considered their use. No significant differences in use of a specialist were found for regional location ( $\chi^2$ =2.61; df=2; p<0.05) or school size ( $\chi^2$ =0.19; df=2; p<0.05). Nor were there any significant differences in the use of specialists as a function of the years of experience of the principal ( $\chi^2$ =56; df=5; p<0.05) or gender ( $\chi^2$ =0.81; df=2; p<0.05). Table 1 reports the use of subject specialists according to KLAs and demonstrates the reported use of specialist teachers in this study is not consistent across KLAs. Rather, specialists are used more frequently in Science and Technology, Creative Arts and Personal Development, Health and Physical Education (PDHPE).

#### Who is teaching what and why?

Given that 73% of principals used subject specialists, subsequent qualitative analysis explored the responses of 11 principals to establish their reasons for using specialists. Analysis elicited three main reasons. The first reflected broad philosophical beliefs about the role of the primary school teacher. The second revealed a perception that

primary teachers have variable subject expertise and that the expectation that generalists teach everything was problematic. Linked to this was the final reason which found that specialists were often used to resolve administrative issues.

Table 1: The reported number of subject specialists used according to KLAs

KLA**	No. of specialists used*
Creative Arts	113
(Band, Music, Visual Arts)	
English	14
Human Society and Its Environment (HSIE)	0
Mathematics	0
Personal Development Health and Physical	62
Education (PDHPE) (Dance, Gymnastics, PE, Sport)	
Science and Technology	159

<sup>\*</sup> Cell counts add up to >293 as it was possible for principals to report multiple use of subject specialists

The philosophy of primary schooling and the role of the primary teacher

It was clear that decisions about curriculum delivery were strongly influenced by principals' educational philosophies and their beliefs about the role of primary schooling and teaching. Principals regularly returned to discussing primary schooling in terms of subjects and teachers' responsibility for the attainment of specific skills by students, in particular, for English and Mathematics. Their accounts go to the heart of

students, in particular, for English and Mathematics. Their accounts go to the heart of explaining how educational philosophies sit within epistemological beliefs. Every principal incorporated within their response their philosophy that primary schooling should provide the foundation for English and Mathematics.

... that's [English and Mathematics] been our bread and butter for time immemorial (L.2);

... in the early stages of your life, if you don't have those good foundation skills [English and Mathematics] ... you really need to acquire them in the early years and I would say that kindergarten, year one and then two are the most important years of your entire school career (L.1).

They go on to describe with no uncertainty what they believe is the core work of primary teachers.

I really believe that teachers need to teach their own class those particular skills [Maths and Literacy] because they are skills that are transferred across all other key learning areas throughout the week (L.6);

... their classroom teacher should be teaching the basic skills (L.9).

<sup>\*\*</sup> Strands/activities listed by principals that fall under the KLA

These views are not surprising given that teaching 'Reading, Writing and Arithmetic' have long been viewed as the purpose of primary schooling.

## Variable expertise

Not surprisingly, given their philosophical position described above, almost all principals believed that primary teachers were experts in English and Mathematics. One principal sums this up quite simply:

If you say to me that you are a primary teacher and you don't have an interest in maths then I think there is a major problem. I'd say to go to high school and be an English teacher (L.9).

A belief that teachers were required to have a similar level of expertise in all other KLAs however was not evident. Moreover, the decision to use specialists was justified by a perception that teachers lacked the expertise or had variable expertise in the delivery of other curriculum areas. When further unpacked, the issue for some principals was the level of expertise required, and although related, for others it was the breadth of skill required. For example, some chose to use subject specialists as a result of their beliefs that students need enrichment and that generalists were unable to always provide the requisite experience. Phrases such as "rich and full as possible" (L. 1); and a "range of experiences" (L. 3); describes their belief that primary schooling should offer a breadth of opportunities. Other principals considered that teaching all subjects well was close to impossible:

Any teacher coming into a school ... would probably have in their bow other KLAs of strong interest and skill and would probably have a few that they would try to avoid, as a general rule (L.9);

It's a na $\ddot{\text{u}}$  and simplistic view that everybody in primary education can cover all areas of the curriculum (L.1).

Table 2 provides a summary of the areas considered by principals as difficult to teach and some of the reasons why. The three most frequently reported strands are Music, PE and Computers. Of note, English, Mathematics, Science and HSIE (Human Society and Its Environment) do not appear.

# Tensions around administrative practicalities

Another reason for using subject specialists was the difficulties encountered when trying to administer a traditional generalist classroom teacher model while managing a crowded curriculum. Every principal spoke of how difficult teaching has become for the classroom generalist:

primary teachers ... are flat out teaching any science at all because everything's a priority, you know, whether its Road Safety or Drug Education or Sex Education or Child Protection, everything must be done in the primary school (L. 2).

Other principals spoke of the impact of additional NSWDET expectations for quality teaching and learning including new assessment and reporting procedures. Principals similarly found themselves trying to manage under increasing expectations.

Principals are really pushed to the hilt these days to try and keep up with the demands and expectations from head office and still have a sensible approach to running their school and manage their teachers and students (L. 4).

Table 2: Subject areas reported by principals as difficult to teach and the reasons why

- I just couldn't teach music because I'm tone deaf and I can't sing and I don't play a musical instrument (L. 1)
- just a couple of people who are happy to do that [teach computers, music or sport] where as the rest would much rather hand it over (L. 2)
- My teachers have been trained in how to judge [athletics], ... how to teach it [but not demonstrate it] (L. 3)
- It's very rarely someone within the school has got skills, especially for PE (L. 4)
- Unless you have a music background it would be really hard to teach it efficiently (sic) (L. 5)
- like most schools, it's [computers] an area where you really need that expertise
- There are certain areas in ... [PE] ... haven't got staff who can do it (L. 10)
- People maybe haven't had the experiences or the training or expertise for meeting the high expectations that the community now has for subjects like music and PE (L. 11)
- I think languages need to be taught by a specialist language teacher (L. 14)

At the same time principals need to make decisions regarding the allocation of the teacher workforce in a system where schools have only limited control over the selection of teachers. The NSWDET allocates teachers to government primary schools using a formula based on the number of students in a school. Although there is some provision within staffing to request the NSWDET assign a teacher with a particular skill, principals reported that the depth of expertise is variable. This study revealed that decisions around RFF allocation often took into account an identified need for expertise in a particular curriculum area. The RFF teacher may come from the pool of permanent teaching staff at the school or, if casual positions exist, be employed by the school in this capacity alone. The following examples outline how views about subjects have clearly played a role in the development of notional subject teachers, under the guise of RFF provision.

One principal from a large school used RFF time to deliver two subjects, namely PE and Drama, across a number of classes. This decision appeared to be made as a pragmatic response to a perceived lack of expertise and willingness to teach these subjects by other staff members as well as the principal's desire for students to improve their current performance in these areas. This model of allocating a subject or subjects to RFF appeared to be the preferred model for all but two principals. The following

quote shows that the process is complex while again highlighting the desire of permanent generalist teachers to teach certain KLAs.

because you don't have control of your staffing, it means that you don't necessarily get a balanced staff as far as skills go. And I think people have looked out and said "well, if we use our RFF this way ... we can actually balance our staffing a lot better." I've been in schools where there's been no one who's prepared to take, but don't do a very good job or as good as possible in the PE area, ... they bring somebody in. The next year it might be dance and the next year it might be something else, music for instance. You may have a whole staff that are all good at music but no one's good at PE or vice versa (L. 10).

This study has found that some primary school teachers are not delivering all six KLAs; instead a 'specialist' is used to address contextual demands and/or perceived comparative weakness in subject expertise. Indeed, by using subject specific lenses this study confirms that different subjects matter differently with English and Mathematics thought to be the core of primary teaching. This seems to result in a situation whereby principals could not conceive of English and Mathematics being taught by someone other than the generalist classroom teacher but allows for other subjects to be taught by someone else.

#### **Discussion**

The current study investigated the prevalence and practices associated with the use of specialist teachers in NSW government primary schools. The findings provide significant evidence of the use of subject specialists, which is consistent with the limited and anecdotal reports previously available. There is also evidence of increasing perceptions that specialist skills are required for teaching primary school subjects (e.g. Appleton, 2003; Goulding Rowland & Barber, 2002; Hennessy, 2000; Wilson et al., 2008). As principals have no official policies or procedures to guide their decision making in regards to specialist teachers, this study has found that they resort to their own (sometimes deeply held) beliefs to provide them with guidance. Consistent with the hypothesis that the "subject matters" (Stodolsky, 1988), there is a perception that primary teachers should, and do, treat different subjects differently. It appears that principals believe that primary teachers think in terms of subjects (rather than generalisms), which is more in line with their high school colleagues and also have particular subject identities and fields of knowledge. In this way the majority of principals saw generalists as teachers of English and Mathematics who had limited ability to cover everything at an 'expert' level. The focus on these subjects reflects the primacy of numeracy and literacy reflected in previous calls for the development of teacher expertise in these areas (Masters, 2009). Australia is not alone; in England OFSTED (2009, p. 4) reported that although teachers have been provided with professional development for Literacy and Numeracy, "with notable exceptions there has been relatively little opportunity for primary teachers to identify and remedy weaknesses in subject knowledge beyond English and mathematics".

This study found that both contextual and standards based elements have given rise to a standard of practice whereby the generalist delivers the high status subjects, English and Mathematics, and the subject specialist delivers the other KLAs. The first contextual issue relates to the issue of RFF. Arising from an industrial condition where a relief teacher is used in place of the regular teacher, many principals have actively decided to fill this time as one dedicated to a single subject. In this study, this appeared to be Science and Technology, Creative Arts or PDHPE. Although finding a relieving teacher is paramount, it seems that when making the decision about who will fill this position, principals also consider how students might be given opportunities to engage in an enriching curriculum. For many principals providing a subject specialist to deliver RFF offers a single solution to both concerns. In such a framework the subject specialist is used for "only the add on bits" (L. 10) as stated by one principal.

This concurs with the work of Thornton (1990, p. 36) in England, who found that while the majority of teachers supported the use of specialists they did not want them to replace generalists. Instead, they saw them used as supernumerary consultants or "in special circumstances, for only some subjects and provided there was not too much of it" (original italics). This view is consistent with the research of Hargreaves (1992, p. 100) who found that teachers preferred that their preparation-time was covered by "segregated cover arrangements, in which a colleague comes in and teaches a selfcontained speciality for which he or she holds complete responsibility". In contrast, 'integrated cover' where programming is shared between the classroom and relieving teacher was seen less positively. Like teachers in Hargreaves' (1992) study, principals in the current study reported that they believed teachers had less expertise in the "frill" subjects: Music and PE. This supports the view of teachers themselves where Morgan and Hansen (2007) found a preference for specialist teachers in such subjects and is confirmed in a wider study by Angus et al. (2007) who reported that only a minority of Australian teachers felt they had 'all the expertise needed' to teach either the Arts or Health and PE.

The second contextual factor is accountability. This concurs with observations of leadership practices by Burch and Spillane (2003; 2005) who found that English and Mathematics were priorities for leaders in Chicago primary schools. In reality NSW primary school principals have little choice, given policy dictates that over 50% of time be apportioned to these two subjects (Board of Studies NSW, 2006). These findings concur with those of Angus et al. (2007, p. 17) who not only reported that: "literacy and numeracy continue to dominate the primary school curriculum", but that "there has been very little change in the time allocated since the 1920s, when English and Mathematics together occupied slightly more than half of the instructional time". In fact, Angus et al. (p. 22) make the claim that "to some extent, the problem of defining what is 'core' for primary school has been resolved. There is no campaign to displace either English or Mathematics from the top tier or to reduce their time allocation". Indeed, the pre-eminence of these subjects continues to increase as evidenced by growing accountability measures. For example students in kindergarten now have their literacy and numeracy skills assessed (NSWDET, 2007).

Intertwined with contextual factors which influence the decisions regarding who delivers the subject is a concern for standards. It is clear from this study, that when teachers are perceived as being weak in a subject area, principals will seek support. Such decisions may be interpreted in one of two ways. On one hand it is a concern that some teachers are excused by their principals from delivering some parts of the curriculum. This abrogation of responsibility can be read as being in conflict with not only "the principle of curriculum entitlement [which] means that subjects must be taught equally well" (Alexander et al., 1992, p. 24), but also the 1990 NSW Education Act, which is supposed to provide children with "high quality education that meets students' needs, including quality teaching and a decent standard of resources" (NSW Public Education Council, 2005, p. 2). On the other hand, designating the delivery to specialists may be argued as an attempt by some principals to improve the teaching and learning; however the determination of 'quality' in teaching is a contestable area and as yet an untested assumption about specialist teachers in the Australian context. Indeed judgments regarding the implementation of subject specialists are beyond this study. One thing is clear, principals do not have the expectation that teachers should have equivalent expertise across all subjects.

Indeed the release of the Australian Primary Principals Association's Charter on Primary Schooling [Charter] (2007) reflects the concerns of many principals in this study in advocating for both a core and non core curriculum in primary schools. The core curriculum is referred to as English, Mathematics and to a lesser extent, Science and Social Education while non-core curriculum refers to PDHPE and Creative Arts. Not only does this dichotomy reflect the traditional and expected subject hierarchies discussed by Stodolsky (1988) and others, but it also contains an implicit suggestion that the core is the focus of the generalists while the later would be taught according to the available expertise.

The release of the Charter (2007) along with the evidence from this study indicates the need for a debate into the contemporary role of the primary school teacher in Australia. The Charter itself offers two alternate policy directions. The first maintains the status quo, which according to NSWDET is where all KLAs are taught by the generalist albeit within a hierarchical curriculum. The second reprioritises subjects so that they are all of equal status, or perhaps more realistically, treated as equally important and resourced accordingly. The third alternative of course is to formally adopt the use of specialist teachers in some guise or another. Just how this might be managed in such a large centralised system such as NSWDET is beyond the scope of this paper; however there is evidence from England that it is possible to improve the delivery of the primary curriculum by focusing more specifically at the subject level.

Arising from a concern that not all subjects were being taught equally well and a position that primary teachers cannot have equivalent expertise across all subjects (Alexander et al., 1992), in 1998 all preservice primary teachers in England were required to study at least one specialist subject. Specialist knowledge was defined as having "secure knowledge ... to at least a strand approximating to GCE Advanced level" (OFSTED, 2001, p. 11). Levels of expertise were translated into four categories of teachers with the following responsibilities.

- The generalist teacher "teaches most or all of the curriculum, probably specialising in age-range rather than subject";
- The generalist/ consultant teacher "combines a generalist role in part of the curriculum with cross-school coordination, advice and support in one or more subjects":
- The semi-specialist teacher "teaches his/her subject, but who also has a generalist and/or consultancy role";
- The specialist teacher "teaches his/her subject full-time" (OFSTED, 1997, p. 43).

In a report some seventeen years after the concern was raised, a review found a number of supports and barriers to improving teachers' subject knowledge. Primary amongst the supports is the role of the subject leader and perhaps formally developing such a role in NSW government schools may broaden expectations around teachers' abilities. Subject leaders are charged with a number of tasks including supporting the development of subject knowledge of other teachers and overseeing the delivery of the subject across the school. The review noted, however, that the level of subject expertise was inequitable across schools, and was "largely a matter of chance" (OFSTED, 2009, p. 7).

The results of the current study similarly point to such a concern arguing that by relying on available expertise as described in the Charter (2007), the socio-economic and geographic disadvantage already present within the NSW community might be exacerbated. For example, for subjects like Music, which the Charter advocates should be offered on the basis of a school's ability to "respond to individual and local needs, interests and circumstances" (p. 3) it is likely that some schools will have less ability to "respond". Indeed Gill argues that relying on specialism that is dependent on resources "is a form of education discrimination ... the kids in the private schools who have music regularly from prep right through to high school have an advantage in every single way" (2009, 12).

The current practice points to a need to formally explore how the role of a primary teacher might be changing at the grass roots level. It seems that for many of the respondents in this study a generalist is an expert in the core subjects of English and Mathematics who should be supported by a range of specialist teachers. If this position is becoming accepted practice and the data from this study and the Charter (2007) strongly suggests that it is, it is important to acknowledge that this may change primary schooling for both teachers and students. It will be interesting to see whether the introduction of Phase 2 of the National Curriculum which covers subjects not previously identified within the NSW six KLAs (e.g Languages) results in an increase in the use of specialists. It may be useful to replicate this research from a national perspective when the new curriculum is implemented.

## Conclusion

This study has demonstrated that there is wide support for and use of specialist teachers in NSW government primary schools. While it is difficult to speculate on the fraction

of time specialists are used to deliver subjects, this preliminary study provides scope for further more explicit exploration of the use of those who are currently working alongside the generalist.

This study has established that delivering the curriculum in NSW public primary schools today is no easy task. Intertwined with the tension of delivering an increasingly crowded and demanding curriculum is the practical need to manage the teacher workforce, especially as it relates to RFF. Almost three quarters of the principals related difficulties in achieving a balanced teacher workforce due to a combination of staff assignments by the NSWDET and perceived gaps in subject expertise. One response that has drifted into practice rather than a result of systematic review and implementation is the use of subject specialists. Such data clearly shows that we are in a time when not all generalists are teaching all KLAs which begs the question; should we continue to expect them to do so? Drawing on the English experience, if subject specialists are thought to be a useful contribution to the quality of curriculum delivery, establishing a clearer definition and purpose of the subject specialist teacher would be an important place to start. Not acknowledging the use of specialists is problematic. Although this study cannot comment on the quality of the teaching and learning experiences when subjects are delivered by specialists, the findings demonstrate that the learning and teaching experiences in schools are certainly not uniform and that the gaps are not being managed at a higher policy level. Such variable patterns of teacher allocation point to the real possibility that students are experiencing quite different educational opportunities.

# **Endnotes**

- [1]. Counseling, library, reading recovery, computer coordination, special education, Languages Other Than English, and English as a Second Language (NSWDET, 2002)
- <sup>[2]</sup>. Introduced in NSW government primary schools in 1984, it provides every full-time teacher with two hours to undertake administrative and educational tasks (NSWDET, 1987).

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