

Primary teacher attitudes in achievement-based literacy classes

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A considerable number of primary schools in Australia and overseas organise their students into achievement-based classes for literacy (and/or numeracy): a practice often seen in high school settings. Why school systems do this will be examined elsewhere, though it is safe to say that concern for ongoing student achievement is a consideration. Whilst much of the early research on achievement grouping focussed on academic outcomes, with a general consensus that there are no overall advantages for students, more recent overseas studies have investigated affective outcomes for students. No relevant research in the Australian primary context has been identified. This paper examines the attitudes of participating teachers towards this practice, as evidenced through interviews with eight teachers across three schools. It discusses how teacher beliefs related to the strategy impact on their classroom practice in literacy lessons. The conclusion reached is that teaching practices are negatively impacted by the regrouping strategy, and that this is ultimately detrimental to student learning.

What is regrouping?

In many school systems, including public schools in New South Wales, Australia, there are no set rules as to how school principals must structure their classes. The scant literature on the topic suggests that principals consider systemic and school factors including resources such as numbers of students, teachers and teaching spaces, before applying their own class formation procedures (Burns & Mason, 1998). Historically, students enter school at a certain age, and join an entry level class (often called Kindergarten or Prep). The age at which schooling becomes compulsory varies across western nations. For example, 4.5 - 6.5 years in Australia, similar to 5 - 8 years in various states in the United States of America (USA) (U.S. Department of Education Institute of Education Services, 2009) and Finland where seven years of age is the norm (Kupiainen, Hautamaki & Karjalainen, 2009), compared with France, where non-compulsory, government funded nursery schools are considered (though not officially compulsory) essential school preparation for children aged two years and over ("French education and schooling in France", 2009). After this initial year, students most often progress through the following years, "going up" a grade in each instance. Such age-graded classes are seen to provide familiarity and cohesion – a supportive learning environment (Burns & Mason, 1998), but these can only be implemented where school size allows. Very small schools, often in rural areas, need to implement multi-age classes. Australian state and national curriculum documents outline stages of learning, and these often provide a structure on which to base classes. In New South Wales this has resulted in many primary schools moving to a Stage-based organisation of classes, with each Stage (with the exception of Early Stage 1) lasting two years as outlined in curriculum documents such as the primary English syllabus (Board of Studies NSW, 2007).

Within Stage-based classes there exists (even more than in a single year class) the possibility of a wide range of student prior achievement levels; for example, a Stage 3 class may consist of low achieving Year 5 students up to high achieving Year 6 students. A three year age range is also common. Perhaps partially in response to this, a number of schools operating with Stage-based classes have implemented achievement-based classes for numeracy and/or literacy, the latter of which is the focus of this paper. Students attend a literacy session with one teacher, possibly a numeracy class with another teacher, and then have the rest of the school day in a mixed-achievement “home” class. Thus they may have three different teachers in one day. This organisational strategy is employed with students in Years 1 through 6 in some schools (including 3 of 4 reported on here), but this study incorporates data specifically from classes in Years 3-6.

The practice outlined above is relatively common in United Kingdom primary schools where it is termed “setting” (streaming by separate Key Learning Areas [KLAs]) (Boaler, 1997), and has been actively encouraged by government initiatives suggesting that the practice could positively affect standards (Hallam, Ireson & Davies, 2004). The practice also operates in some United States (US) elementary schools, where the term “regrouping” (and sometimes “tracking”) is used. The term “regrouping” will be used in this paper as it is the name used by the teachers involved in the current study. Until now there has been little or no research in the Australian context on this practice. In recent years UK researchers have investigated the primary school context (for example, Hallam, et al., 2004), but most of the existing literature refers to secondary schools, and often relates to areas of learning other than literacy. Hence, much of the research referred to here relates to international contexts in secondary education in subjects such as mathematics.

Many aspects of the regrouping practice are worthy of investigation. This paper will outline teacher attitudes towards the regrouping practice in a number of New South Wales primary schools, and how those attitudes impact on classroom practices in the teaching of literacy. The results discussed were obtained through interviews with teachers in three schools as part of a larger mixed method study into both academic and affective outcomes of the regrouping practice.

Effects of regrouping

Ability or achievement grouping

The organisation of classes described in this paper is a form of what is usually termed “ability grouping”, but will be referred to in this paper as “achievement grouping”, as this better describes current practices. Since achievement grouping was made popular by the development of standardised tests in the 1920s, considerable research has been conducted regarding its effectiveness (Barker Lunn, 1970; Jackson, 1964; Slavin, 1987, 1990). Many reviews of the research have also been compiled, with the consensus indicating that achievement grouping provides no overall academic benefit (Barker Lunn, 1970; Jackson, 1964; Slavin, 1987, 1990). A large UK study involving 660 primary schools, found that the practice of streaming (allocating students to one

achievement-based class for all KLAs based on some measure assessment) had many negative effects including inequity, inaccurately formed groups, lowering of students' self efficacy, and lowered standards for some groups (Jackson, 1964). More recent research involving several hundred UK primary schools suggests that these problems may also manifest in regrouped or setted classes (Hallam, Ireson & Davies, 2004).

Teacher-student relationships

According to Burns and Mason (1998), primary classes have traditionally remained as a stable group with one teacher for the whole of the teaching day, allowing teachers to build strong relationships with their students, and for students to feel secure in the classroom environment (Burns & Mason, 1998). The use of separate achievement-based classes for literacy (and/or mathematics) resembles the model used in most secondary schools, where students move between classrooms and teachers for separate subject-based classes. In this situation, the opportunity to build relationships between teacher and students, and also between students and their cohorts, is reduced (Pianta, 1999). Studies have shown that student-teacher relationships are positively linked to student achievement at all levels of education (Burchinal, Peisner-Feinberg, Pianta & Howes, 2002; Hamre & Pianta, 2001; Moos, 1979), and special education interventions often reduce the number of teachers with whom students interact (Pianta, 1999). In primary schools practising regrouping, where teachers are responsible for up to three combinations of students each day, there is less opportunity for teachers to develop knowledge of individual students' interests and needs.

Teacher attitudes towards achievement-grouping

Teacher beliefs are inextricably linked to their decision-making and therefore practices (Pajares, 1992). Such beliefs can change, however, depending on the teachers' experiences (Hall, 2005). It is to be assumed that, in schools which practise regrouping, there are stakeholders who view achievement grouping favourably. These may or may not be teachers. Regardless, teacher decisions and practices are affected by school guidelines and the expectations of officials (Davis, Konopak & Readance, 1993). This may lead teachers to implement practices which do not stem from their own attitudes or beliefs, though in such cases they may not do so wholeheartedly.

Jackson (1964) reported on teacher attitudes at a time when streaming was the norm in schools large enough to implement it. Respondents suggested that if the practice of streaming was stopped, academic standards would suffer, as would discipline and the morale of "A" stream teachers. Most respondents also felt that gifted as well as less gifted children would be disadvantaged. At this time streaming was a well established practice, where the lower ("C") classes were often taught a very restricted curriculum by the least experienced teachers (Jackson, 1964). Of 655 teachers surveyed, 85% supported streaming, with the strongest support coming from teachers in larger schools, particularly teachers of "C" classes. It is interesting to compare this with more current studies as shown below.

When determining grouping strategies, UK school considerations include "raising attainment, the introduction of the National Literacy Strategy, facilitating ease of

teaching” (Hallam, Ireson & Davies, 2004, p. 137) according to a survey with responses from 804 primary schools. Although the paper does not document who within the schools completed these surveys, it seems likely that these responses generally reflect teachers’ views. In a study with data from over 1500 UK secondary teachers in 45 schools employing varying levels of setting, researchers investigated teachers’ attitudes towards, and beliefs about achievement grouping (Hallam & Ireson, 2003), as well as teaching practices in setted and mixed-achievement classes (Hallam & Ireson, 2005). Teacher responses were found to be influenced by the amount of setting in their current school, school ethos, length of time in mixed achievement schools, and qualification. Those who worked in schools with high levels of setted classes expressed more positive views towards that practice (Hallam & Ireson, 2003). Teachers with higher education qualifications expressed less favourable views about achievement grouping, and those with longer experience in mixed-achievement schools were more positive about mixed- achievement classes.

Tracking (achievement-based classes) was almost unanimously seen as an effective classroom management strategy in a study using anonymous surveys with 124 elementary school teachers in lower New York state (Ansalone & Biafora, 2004). More than half the teachers surveyed agreed that high achieving students benefit from working with similar peers. Also, over three quarters agreed that lower achieving students benefit from working with higher achieving peers. More than half agreed that tracking may limit future opportunities for some students, and 60 per cent believed that tracking impacted negatively on the self-concept of low achieving students. These responses demonstrate an understanding, on the part of most teachers surveyed, of the complex issues involved in achievement grouping, and generally reflect research findings.

There continues to be strong agreement that teaching is easier in setted classes, as is classroom management (Ansalone & Biafora, 2004; Hallam & Ireson, 2003, 2005; Kulik & Kulik, 1982). This is relevant as teacher workload impacts on teacher-student relationships (Pollard, Osborn, Croll, Abbott & Broadfoot, 1991), and therefore on student self-esteem. Pollard et al. (1991) found that increased demands on teachers related to a crowded curriculum, assessment and administrative duties increased teacher workload and stress. As a result, teachers felt less able to adequately plan and prepare for teaching, and less able to respond to students. This is not conducive to positive student/teacher relationships which, it was noted earlier, are beneficial for student progress. As setting increases so do teacher reports of time spent dealing with the behaviour of lower achieving students and a view that groups of low achieving students lack positive role models (Hallam & Ireson, 2005). Teachers report that different teaching practices need to be employed depending on students’ achievement levels, with many feeling that achievement grouping (by class) better meets student needs. Teacher expectations of students differ according to the level of setting employed in their schools.

Differential teacher attitudes towards students in levelled achievement groups may also impact on student academic outcomes, as teacher expectations have been shown to impact on students’ learning opportunities (Rubie-Davies, Hattie & Hamilton, 2006).

Rosenthal and Jacobson (1968) applied the concept of self-fulfilling prophecy based on teacher expectation in relation to student achievement in their oft cited experimental study. They theorised that increases in student achievement were affected by changes in teacher behaviour (caused by their expectations) in areas such as increased attentiveness and reinforcement, and altered non-verbal communication. The landmark study has been well documented elsewhere and so will not be described at length here. Research on teacher expectation has now been ongoing for nearly 50 years, providing evidence that teacher expectations can impact on both the performance and the academic achievement of students (Rubie-Davies, et al., 2006). A study of streamed classes by Brophy and Good (1970) found that some classes' achievement levels were higher than expected, whilst others' were lower. Whilst all teachers in the study treated students differently according to achievement level, and the direction of difference was constant for all, the degree of differential treatment was found to vary between teachers. Differential teacher expectations of students' academic performance are of interest in the current study, as students allocated to low, middle or high achievement classes are clearly identifiable by teachers and may therefore be subjected to such conditions.

Teaching practices

The apparent success of within-class ability grouping (as opposed to between-class grouping) has been thought to lie in the appropriate differentiation of materials provided to students (Lou, Abrami, Spence, Poulsen, Chambers & D'Apollonia, 1996). Logic suggests that this strategy should have equal benefit in achievement-based classes, and this was found to be the case in research related to enrichment programs for gifted and talented students in secondary schools, but not in programs designed for low achieving students (Kulik & Kulik, 1982, 1992). Instead, there is much evidence to suggest that there is an overall lack of benefit to academic achievement in achievement-based classes (Barker Lunn, 1970; Jackson, 1964; Slavin, 1987; Slavin, 1990; Wiliam & Bartholomew, 2004). Previous research has found that primary and secondary teachers alter classroom practices, providing different content and activities depending on whether a class contains low, middle or high achieving learners (Boaler, Wiliam & Brown, 2000; Hallam & Ireson, 2005; Haskins, Walden & Ramey, 1983; Wiliam & Bartholomew, 2004), and these changes (detailed in the next paragraphs) in practice may be the reason that between-class achievement grouping does not have the same benefits for student achievement as within-class grouping.

Achievement-based groupings may influence interactions between teachers and their pupils. Observation of the interaction between teachers and individual students in four streamed Year 1 classes, indicated that the quality of interaction differed between high and low achieving students, with high achieving students receiving increased praise and support (Brophy & Good, 1970). High quality work was emphasised more with high achieving students. Low achieving students were criticised more often for incorrect responses, and poor quality work was more often accepted from them. A meta-analysis by Harris and Rosenthal (1985) identified behaviours impacting on student outcomes, including wait time, praising high-expectation students and smiling at them. That study also suggested that some differences in teacher behaviours directed

towards low-achieving students (such as ignoring them more often) may actually be beneficial.

Teacher expectations in achievement-based classes can lead to differences in curriculum. In a study with over 900 students from six UK secondary schools, students in low achieving classes suffered from low-level, repetitive work, whilst those in high achieving classes were disadvantaged by the fast pace of work with little emphasis on understanding (Boaler, et al., 2000). Wiliam and Bartholomew (2004) found similar effects: secondary mathematics students in low classes were presented with undemanding work through a reduced range of instructional methods. Hallam and Ireson (2003, 2005) found that secondary teachers used more rehearsal and repetition, more structured and practical work, less variety of activities, and less homework with low achieving classes. Teachers in an Australian secondary school study likewise suggested that work in low classes was less academically challenging (Charlton, Mills, Martino & Beckett, 2007). Interviews with Israeli high school teachers showed that almost half the teachers of low achieving classes felt that higher order thinking tasks were inappropriate for their students (Zohar, Degani & Vaaknin, 2001). This is of concern, as intellectual quality has been shown to have particular benefits for students with low prior achievement (Newmann, Bryk & Nagoaka, 2001). In cases where teachers try to improve the learning of low achieving students, additional instruction may be given, but it is likely to be low in quality (Babad, 1993).

Individual differences among students occur when any number of students are grouped together for instruction (Boaler, 1997), and achievement grouping is not the only strategy for catering for the range of students existing in a classroom. Differentiation of instruction, task, resources and/or classroom organisation can be employed (Tomlinson, 1999). Unfortunately, teachers of regrouped classes have been found to treat the entire class as being of exactly the same achievement level (Wiliam & Bartholomew, 2004), however this may also occur in mixed achievement classes (Tomlinson, Callahan, Tomchin, Eiss, Imbeau & Landrum, 1997).

The integration of curriculum areas has been found to benefit student learning (Ladwig & King, 2003). Integrated curricula more closely resemble the broader experiences of life in which areas overlap rather than being neatly compartmentalised as occurs in a separate-subject approach to education (Beane, 1995). Integrated programs are more relevant for students (McBride & Silverman, 1991; Venville, Wallace, Rennie & Malone, 2002) as well as being efficient in addressing the crowded curriculum. An increased emphasis on achievement in the UK saw a reduction in the use of integrated programs in the 1990s (Hallam et al., 2004), which may be linked to the regrouping practice (Whitburn, 2001; Hallam et al., 2004; Wiliam & Batholomew, 2004). A survey of 246 primary head teachers in the UK found that few schools integrated all KLAs, with mathematics the subject least often integrated, English taught separately in the majority of schools, and KLAs relating to humanities and science integrated to some extent in over half the schools surveyed (Lee & Croll, 1995). Knowledge integration can be more difficult to implement in regrouped classes where teachers are responsible for a number of different cohorts each day, with limited knowledge of work the students may have completed in their other classes.

As evidenced in the review of the literature, achievement grouping is a complex issue, given its multiple effects on a wide range of factors including, but not limited to, teacher attitudes, student-teacher relationships and teaching practices. The results are likely to impact on both academic and affective outcomes for students.

Regrouping study method

The larger study from which this paper is drawn aimed to investigate the practice of regrouping primary students by achievement for literacy and numeracy in Australian primary schools. Specific areas of investigation included the impact of the practice on academic achievement, student attitudes towards school, and classroom practices. This paper presents results related to the effects of regrouping on teacher attitudes and practices as obtained through teacher interviews, with background information taken from interviews with principals.

Three primary schools using separate achievement-based literacy and numeracy classes were included in the data examined in this paper. All schools were in the greater Newcastle area of New South Wales. The schools were similar in size and socioeconomic status. Schools identified as employing regrouping all had student populations of between 200 and 300 students and were located in areas of low socioeconomic status.

Two of the three schools providing teacher interview data were State schools, receiving funding under the Priority Schools Funding Program (PSFP) whilst the remaining school was not eligible for this funding as it was not a State school. It did, however, draw its population from an area in which the nearby State school attracted PSFP funding, and could therefore be seen as similar in socioeconomic terms as the other two schools. That the two State schools are similar is confirmed by the fact that they are situated in the same Like School Group (LSG) by the Educational Measurement Directorate, New South Wales Department of Education and Training, being Metro B, the second lowest category for “metropolitan” schools, according to socioeconomic status.

The way the streamed groups were implemented in the schools differed in terms of duration and student allocation. Two of the schools allowed students to move across Stages for these groups, but in few cases. In the remaining school, the regrouped classes were organised solely within Stage groups. In all cases, classes were organised so that the classes for lower achieving students were smaller in size than classes for higher achievers. In two out of three schools, additional staff were utilised to create three regrouped literacy classes from two mixed ability home classes, which lowered all class numbers further. Also differing was the level of mobility in the groups. Two schools stated that students could move between groups at any time, on merit. The third school kept groups stable after Term 1, citing the different pace of classes making it too difficult for students to move between groups without missing work.

All principals and teachers of Stage Two (Years 5 and 6) classes at these schools were invited to participate in a taped interview. Principals were questioned as to the history

of and reasons for using achievement-based classes, and the effects of these on various aspects of schooling (see Appendix A for principals' questions). Teachers responded to questions about their initial and current attitudes toward the use of achievement-based classes, advantages and disadvantages of the structure, and its effects on various aspects of their teaching. It was also noted whether they taught low, middle or high achievement classes, and they were asked to describe their teaching methods in their own words (see Appendix B for teachers' questions). These questions were designed, where possible, not to lead teachers to expected answers. Responses from interviews were analysed for comments related to the research foci, and were compared for patterns, similarities and differences. Teachers were also asked to permit classroom observations (one day per teacher) to be conducted, where classroom practices would be noted. The classroom observations, though not discussed here, supported statements made in the interviews in relation to teaching strategies.

Eight out of a possible nine teachers from the three schools providing interviews agreed to participate, although one of these teachers provided a written response to questions rather than completing an actual interview, and failed to answer key questions: hence, that teacher's data has been omitted. Of the eight teachers, seven (4 female, 3 male) agreed to classroom observations, and it is these teachers whose data is presented. The teachers varied in length of teaching career between 15 and 30 years.

Results

See Appendix C for an overview of teacher profiles and results.

Teacher initial and current attitudes

Most teachers said that they had felt favourably towards the idea of regrouped literacy classes when it was first introduced. Reasons for positivity included that it may make teaching easier, would raise teaching standards, and help students gain job skills. One teacher was sceptical initially, due to unfamiliarity, and three had concerns as to possible adverse effects for students placed in lower groups due to stigma. After a period of between five and eleven years working with this class arrangement, little had changed in the teachers' attitudes. Five teachers were similarly or more positive, and one maintained initial concerns related to students' self-esteem. One teacher felt less positive, feeling that KLA integration might be a better strategy (many teachers found this impractical in regrouped classes, as will be discussed later). One teacher's initial concerns about student self-image were no longer an issue: this teacher's school had changed from regrouping across Stages to within-Stage, and this perceived improvement was cited as reason for the change in attitude. Teachers in these schools had not been provided with any training in teaching achievement-based classes prior to their implementation.

Perceived effects on students

All teachers interviewed felt there were advantages for students in the streamed literacy classes. All but one stated that students benefited from working at their own level with

a group of similar peers. Other reasons included: the ability of the higher achieving groups to be extended, enriched and move at a fast pace; the provision of remedial work for low-achieving groups; assistance with the transition to high school where they would have a rigid timetable and move between classrooms; smaller classes; and students having range of teachers, thereby lessening the problem of personality clashes.

There was less agreement among teachers in regard to disadvantages for students. The allocation of students to groups was one issue, with possible negative impact on students' self esteem a concern, particularly for those placed in or moved to low groups. Also, students could be placed into the wrong group (usually the high group) due to manipulating group numbers in an effort to keep lower achieving class numbers small. Lack of KLA integration was a disadvantage with skills learnt in isolation in regrouped classes. The lower group may not cover all Stage 3 outcomes before going to high school, but that may happen in a mixed achievement class anyway. Two teachers felt there were no disadvantages for students.

Perceived effects on teachers

Three main areas of advantage were mentioned as affecting teachers. All eight teachers commented that teaching regrouped classes was easier. This affected programming in particular, due to targeting a similar audience. Reduced group size was also seen as advantageous for the teacher. Lessening of behaviour problems was mentioned due to sharing of disciplinary problems (as a teacher might have a certain student for only part of a day). One teacher felt that having students working "at their own level" reduced behaviour problems. Teachers felt that they were better able to focus on students' academic needs in regrouped classes, and gathering resources to suit one level of achievement was easier.

Disadvantages for teachers included less flexibility, because timetables were more rigid, leaving less time to cover non-core subjects, and KLAs were more likely to be treated in isolation. Reporting required increased work, as teachers sometimes had to contribute to the reports of all students in the Stage (up to 80), rather than just a 'home' class (usually 30 or less). Working with the lower groups could be difficult, as it could be hard to see progress. One teacher commented that the system was difficult for casual teachers who wouldn't know the capabilities of the groups. The decision-making process involved in assigning students to groups could also be difficult.

Most teachers claimed that streamed classes lessened their workload: planning, programming and selecting resources was said to be easier due to there being "one level" in the class. One teacher said that as they taught the lower (and smaller) classes, there was less work in reporting (whereas most found the opposite). Increased work in assessment was required to allocate students to the correct groups. One teacher mentioned the need to ensure that they did not repeat tasks in two years running as they may have some students for both years, although this would be a consideration in any Stage-based class.

Student-teacher relationships

Most teachers said they knew students better if they taught them in more than one group, and it took longer to get to know regrouped students. Two teachers felt that the impact of regrouped classes on relationships was positive, as they got to know more students, whilst another two felt that it did not make a difference, although one of these went on to say that they didn't know students in the lower groups as well, having taught the top groups for a number of years. One teacher also commented that they didn't know "the entire individual" as well, and may not know a student's capabilities in all KLAs.

Classroom practices

Various teaching methods were described, including teacher-directed, guided reading groups (although these were NOT achievement-based as the teachers considered this to be unnecessary in regrouped classes) and peer mentoring. Two teachers (one high and one middle achievement class) integrated some content from KLAs such as Human Society and its Environment (only one did so consistently), and two said they incorporated research by students (one high and one middle achievement class). One teacher used Bloom's Taxonomy and Gardner's Multiple Intelligences based activities (high achievement class).

Resources teachers claimed to use included levelled readers (four teachers – two of high and two of low achievement classes), community texts (one teacher – low achievement class) and the school magazine (one teacher - high achievement class).

When asked about the use of differentiated tasks or resources in literacy classes, there were few comments. Two teachers mentioned working with a small group of students to assist those in need, one of these noting the support of a Teacher's Aide. One teacher cited the use of an Individual Education Program for a special needs student, and one mentioned the selection of topics to suit student interests. One teacher claimed that differentiation was unnecessary as the students should all be at the same level (this view is reflected in the grouping for guided reading).

Presenting work which students had already completed in other classes (such as a comprehension activity relating to a HSIE topic) could be a problem. Lack of time was another problem - either trying to fit all KLAs other than English and maths plus extra activities such as school musicals into an hour or less per day, or wanting to spend more time on something but being restricted by the structured timetable. Regrouping could prevent them from transferring skills/content from one KLA to another within the home class.

Incidental literacy activities, such as associated reading and writing, occurred during "home" classes, but no targeted literacy teaching. One taught special interest literacy areas (such as poetry) one day per week when regrouped literacy classes were not held.

Discussion

Regrouping and teacher attitudes

Teacher attitudes appear to be affected by the between-class grouping structure employed by these schools, as has been found in other studies (including Hallam & Ireson, 2003). Differences in teacher attitudes demonstrated by regrouping teachers in their language use are of concern. The terminology used in relation to high achieving students (extension, enrichment) was notably different to that for low achieving students (remediation, basic skills), and demonstrates differential teacher expectation as described by Rosenthal and Jacobsen (1968). These attitudes are likely to affect teaching practices, as will be discussed in the following section, and can place limitations on the progress of low achieving students. There is no evidence in this study to suggest that teachers' years of experience or level of qualification affect their attitudes towards regrouping. Rather, it appears that working within this structure influences them positively, supporting earlier findings (Hallam & Ireson, 2003).

The majority of regrouping teachers in the study preferred teaching regrouped classes as they felt it was easier in terms of planning and catering for the range of achievement levels in the classes, which supports findings by Hallam and Ireson (2003). Whilst ease of teaching may not be seen as a valid goal of any educational strategy, it should not be dismissed automatically. The difficulty and workload attached to a teacher's job has been found to affect relationships with students (Pollard, et al., 1991), and is also connected to teacher morale. However, the main focus of schooling is on the development (social and academic) of students, so schools and teachers must be encouraged to undertake those practices which are most beneficial for students. This may require additional professional development in effective mixed-achievement teaching practices, as also recommended by other studies in the field (for example, Ansalone & Biafora, 2004; Linchevski & Kutscher, 1998; Wright, Horn & Sanders, 1997).

Stretching student teacher relationships

In terms of their relationships with students, it was clear that some regrouping teachers felt that they had less knowledge of the "whole student" within regrouped classes, and that rapport was slower to develop. This may be detrimental for students, as research has consistently shown that positive student-teacher relationships are linked to academic achievement (Burchinal, et al., 2002; Hamre & Pianta, 2001). Teachers who know their students well are able to design programs tailored to students' needs based on prior achievement, background knowledge, preferred learning styles and interests. However, this effect may be balanced by a reduction in teacher workload, which may improve teacher/student relationships on some level (Pollard, et al., 1991).

Limiting classroom practices

Classroom practices were affected by the grouping structure used. Regrouping teachers stated a clear belief that the students in each class, regardless of the number of students

included, represented a homogenous achievement level. This belief led them to conclude that no within-class differentiation was needed as to teaching method, resource or task. Similar attitudes were seen in earlier research by Charlton et al. (2007). This also supports the findings of Hallam and Ireson (2005) although they noted that many mixed achievement classes also lacked differentiation. Any factor resulting in a reduction in the use of differentiation is of concern, as any group of students consists of a number of individuals, and therefore a range achievement and various other characteristics (Boaler, 1997). This is particularly pertinent in the case of middle and high achievement groups which are made artificially large in size to allow low achievement groups to be smaller.

In addition to a lack of differentiation, regrouping inhibited the employment of KLA integration; an effective and efficient method of programming (Beane, 1995). It is of concern that no teachers in this study incorporated this practice to any notable extent. It is clear that many regrouping teachers felt constrained by the practice of regrouping, both in relation to KLA integration and general flexibility, but increased stage-based planning and communication could circumvent some of these difficulties. Perhaps hardest to overcome would be the restrictions on spontaneity, flexibility and creativity as found by Pollard et al. (1991), and echoed by some teachers in this study. The additional planning and collaborating needed to improve the effectiveness of regrouping would not necessarily work to promote these qualities.

Teacher attitudes towards students in regrouped classes were shown in this study to differ depending on the achievement level of the class. Low achieving groups were seen to have different needs from those in high achieving classes, as evidenced by the language used in relation to these classes. In many cases this language related directly to classroom pedagogical practice, as in the case of “remediation”, for example. This evidence supports other interview and observation data in this and previous studies, suggesting that teaching/learning activities in low achievement classes are often lacking in intellectual quality (Charlton et al., 2007; Hallam & Ireson, 2003, 2005).

Groupwork was also shown to be affected by regrouping, with most small groups in regrouped classes being formed for social or behavioural reasons. The small class size often employed with low achieving students seems also to have contributed to a lack of groupwork for those students. Some regrouping teachers considered that low achieving students were unable to work independently, so that teacher-centred lessons were favoured, as had been described in earlier research by Haskins et al. (1983), which again denies low achieving students the opportunities to develop important skills.

The verdict on regrouping

This study concurs with the existing research that teaching practices are affected by the practice of regrouping students by achievement. It demonstrates that some of the effects are disadvantageous for students, especially those placed in low-achieving groups (Macqueen, 2009), and calls into question the implementation of this practice in Australian primary schools. Whilst the most often cited justification for the use of this practice is student achievement, no contemporary evidence of such effects (particularly

in primary schools) has been produced. Results from the current larger study support previous research stating that no academic benefits result from between-class achievement grouping (Macqueen, 2008). Schools implementing regrouping as a way of reducing the range of student achievement levels in Stage-based classes may need to reconsider that practice. At the very least, further investigation into the regrouping practice is warranted, and ongoing professional development in effective teaching practices for all students remains a need.

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Appendix A: Interview questions for principals in regrouping schools

Participant background data

Sex: Male /Female

Age: 30-40 yrs 40-50 yrs 50-60 yrs 60yrs+

Number of years in the teaching profession:

Qualifications:

NB. The term “regrouping” is used in this questionnaire to describe the practice of reorganising pupils into separately streamed classes for literacy and numeracy so that students are in three different classes (literacy, numeracy and 'home').

1. When did your school begin regrouping for literacy and numeracy?
2. Who made the decision to implement regrouping?
3. How did the decision come about?
4. Was there a period of consultation prior to the implementation? If so, who was consulted, and what issues were discussed?
5. Were teachers given any specific training prior to the implementation of regrouping? If so, what was the duration and content of the training?
6. Please explain how the regrouping works:
 - a) When are literacy, numeracy and “home” classes held?
 - b) Who is involved in each of these?
7. Are regrouped classes the same size as “home” classes? If not, where does the extra staff come from?
8. How were students assigned to the regrouped classes?
9. How were teachers assigned to the regrouped classes?
10. How were teachers assigned to “home” classes?
11. How were students assigned to “home” classes?
12. How is programming managed for literacy and numeracy? Is it a joint effort, or are teachers responsible for programming for their own groups?
13. How are resources managed?
14. Do you perceive regrouping to be effective for literacy/numeracy lessons? If so, in what ways? If not, why not?
15. Do you perceive particular benefits for students? If so, what?
16. Do you perceive particular disadvantages for students? If so, what?
17. Do you perceive particular benefits for teachers? If so, what?
18. Do you perceive particular disadvantages for teachers? If so, what?
19. Do you feel that regrouping impacts on social relationships within the school in any way? If so, please describe.
20. In what ways are you monitoring the effects of regrouping?
21. Have you changed anything about the way regrouping is implemented since its inception? Please give details.
22. Do you intend to continue using regrouping? Why/why not?
23. What would be possible reasons for discontinuing the practice?
24. Is there anything you would like to add on this topic?
25. Do you give permission for the interviewer to contact you in future should a follow up to this interview be required?

Appendix B: Interview questions for teachers in regrouping schools

Participant background data

Sex: Male /Female

Age: 20-30yrs 30-40 yrs 40-50 yrs 50-60 yrs 60yrs+

Total number of actual years you have been teaching:

Qualifications:

NB. The term “regrouping” is used in this questionnaire to describe the practice of reorganising pupils into separately streamed classes for literacy and numeracy so that students are in three different classes (literacy, numeracy and 'home').

1. How long have you been involved in teaching regrouped classes?
2. What were your initial thoughts about this arrangement?
3. Has your attitude changed? How and why/why not?
4. What advantages and/or disadvantages do you feel regrouping has:
 - Advantages for students?
 - Disadvantages for students?
 - Advantages for teachers?
 - Disadvantages for teachers?
5. Has regrouping affected your relationships with students? If so, in what way?
6. Has regrouping affected your workload? If so, in what way?
7. Do you program for literacy and numeracy with other teachers of your stage, or independently for your groups?
8. Which literacy class do you teach (eg. Low, middle or high ability)?
9. Which numeracy class do you teach?
10. How does teaching regrouped classes differ from teaching a stable class?
11. What teaching methods do you use in literacy?
12. What teaching methods do you use in numeracy?
13. Do you differentiate materials or activities in any way to cater for varying student needs within the class? If so, how?
14. Does the practice of regrouping affect teaching in your “home” class? Please describe.
15. What programs/resources do you use?
16. Do you incorporate additional literacy and/or numeracy activities with your “home” class? Why/why not? Please describe.
17. In the last 2 years, have you changed anything about the way you teach literacy and/or numeracy? Why and how?
18. Is there anything you would like to add about this topic?
19. Do you agree to be contacted should further information be required regarding your answers?

Appendix C: Overview of teacher profiles and results

NB: In areas where a number of themes are mentioned I have lined up similar responses so that patterns are easily seen.

	Teacher A School A	Teacher B School A	Teacher C School A	Teacher D School B	Teacher E School B	Teacher F School C	Teacher G School C
Gender/age	F 50-60	F 50-60	M 40-50	F 40-50	M 40-50	F 40-50	M 40-50
Yrs Experience/ Qualification	30 B Ed	24 Dip Teach	16 Dip Ed	28 Dip Teach	15 Dip Ed	15 <i>Not given</i>	27 B Ed
Regrouping experience	10 yrs 2 schools	7 yrs 1 school	5 yrs 1 school	10+ years 1 school	9 yrs 2 schools	11 yrs 2 schools	2 yrs 1 school
Classes currently taught	Top literacy Low maths	Middle literacy Middle maths	Low literacy High maths	Low literacy Low maths	Top literacy Middle maths	Top literacy Low maths	Middle literacy Middle maths
Initial regrouping attitude	Positive	Optimistic – improve teaching, standards	Open – might be easier	Concerns for low student self esteem	Sceptical - new	Open – might help student job skills	<i>Not given</i>
Current regrouping attitude	No change	Less positive	Positive	Positive	Teaching easier, reporting harder	No change	Makes teaching easier
Advantages for students	Top students extended Easier transition to high school Work at own level Support for low students Low class smaller	Work with peer ability group Range of teachers	Move high group quicker Work at appropriate level Smaller groups – more individual attention	Work with peers at own level	May help transition to high school Students all at same level – work they can do, and help each other Smaller low group	Students work at right level	Top group progress quickly Easier transition to high school Range of teachers
Disadvantages for students	None	Skills in isolation – no KLA integration	Possible stigma for low students	Low group don't cover whole curriculum	Allocation of students to groups not always accurate Self esteem if students need to go to lower group	None	Self esteem of bottom group
Advantages for teachers	Easier planning for smaller range Challenge top group	Easier to program for smaller range Share discipline problems Smaller classes	Easier to program Less behaviour problems	Easier to program for group level Avoid personality clashes Low group smaller	Easier to program Smaller classes	Targeting smaller range of students	Easier to cater for smaller range of students Smaller low group

Disadvantages for teachers	Reporting on students you don't have for all KLAs Difficult for casual teachers	Isolation of KLAs	Lack of progress in low group	Lack of progress in low group	Reporting Allocation of students to groups	More reporting – 3 different classes Large top class Less time to cover topics Less flexibility	Can forget there's still a range of ability Less flexibility
Effect on student/teacher relationships	Get to know more students	Better rapport with students you have for more than one class	No difference	More protective of low group	No difference	Takes longer to get to know home class	Know more students, get break from some
Workload	Same planning More assessment/reporting	Lower	Less planning	Less planning Less reporting for smaller low groups	Less preparation of resources More reporting	More reporting for larger top groups	Less planning
Literacy teaching practices	Teacher directed Independent, guided and shared reading	Very structured Shared and guided reading	Text types 3H strategy Phonics, word attack strategies Levelled readers Focus on reading	Guided reading Peer mentoring Text types Range of spelling levels	Structured Modelled and shared reading Text types	Some chalk and talk Small groups Bloom's and multiple intelligences Research	Teacher directed A little KLA integration

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