



## **Principal Sabbatical Report 2018**

***“The effect heterogeneous grouping has on student achievement, while also exploring the different approaches schools have used to move teachers from only using ability grouping, to also incorporating flexible and responsive heterogeneous grouping into the teachers' skill set”***

**Janine Irvine  
Cornwall Park District School (CPDS)  
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### **I wish to acknowledge and thank:**

- the Cornwall Park District School (CPDS) Board of Trustees for supporting my application,
- my wonderful staff at CPDS who kept the focus on learning in my absence, and by fully supporting me in this sabbatical, allowing me to step back from the day to day tasks, even though that was harder than I thought it would be, to start with. I know they will be eager to find out what I have learnt so they can see how we can move our school on to be even 'Better Than Before'
- all the CPDS children who I really missed during my term off.
- the Ministry of Education for offering these necessary sabbaticals, that are so important for principals' well-being. In order to sustain their effectiveness, it is important for leaders to step back and have the time to reflect and refresh, which is extremely difficult to do on a day to day basis in a role that is becoming more demanding each year.
- the Principals, leadership teams and teachers in Auckland and Melbourne who have welcomed me into their schools and helped me by:-
  - letting me observe the way they did things
  - openly sharing their planning
  - challenging my theory with the practicalities of everyday classroom life
  - being able to contextualise my study across the two systems
- the wonderfully articulate students in these schools who answered all my questions and shared their work and thoughts on their life in their classrooms.
- Bruce Dixon (Co-founder of modernlearners.com) in Melbourne, for introducing me to some like-minded colleagues making my visit possible, as well as giving up valuable time in his busy schedule in order to meet and have some great professional dialogue.

### **Background**

I have been the Principal of Cornwall Park District School for the past eight years and during that time there have been many changes. The pedagogy of the school has moved from predominantly teacher directed learning to one where student agency is promoted throughout the school. Six main learning dispositions have been developed and are being embedded. There are eight innovative learning spaces (16 teachers), as well as a number of single cell classrooms. Through various professional development initiatives teaching practices have evolved and teachers are constantly looking to refine further. A number of teachers operate non-negotiated/negotiated learning and provide workshops to meet specific needs and I believe they would view heterogeneous grouping as a possible new tool to add to their existing skill set. Most teachers still organise their Reading, Writing and Mathematics programmes using a

homogeneous (ability grouping) approach. In 2017, after reading 'Becoming a High Expectation Teacher-Raising the Bar' (2015) by Christine Rubie-Davies I became more interested in how we can approach the way we group differently, and as I saw this a possible next step for our teachers, it was a natural choice for my sabbatical project as I needed to find out more.

### **Purpose**

I have always had some reservations regarding ability grouping, especially regarding self-esteem, as well as the worry that by applying external expectations of where a child is deemed to be coping can mask true potential.

Therefore, the purpose of my sabbatical through research, is to further my own understanding of the effect grouping has on children, as well as explore the practicalities of implementing any new approaches across Reading, Writing and Math. This would include support needed for teachers, i.e. content knowledge and classroom management, and also ensuring any change implemented still aligns with the strategic direction of the school.

### **Methodology**

#### **Survey-**

*This was sent electronically to all Auckland Primary Schools in order to identify schools where heterogeneous groups were already being implemented effectively. Information sought from this survey was intended to highlight whether the approach was widespread across the entire school or only occurring at specific levels and whether it was being utilised across Reading, Writing and Mathematics or only in isolated subjects.*

#### **Visits-**

*To four Auckland and two Melbourne schools to speak to leadership, teachers and students, as well as observe lessons, look at associated planning and transference across subjects if any.*

### **Discussions**

*Leadership discussions revolved around:*

- professional development undertaken and any issues that arose through it*
- the effect on school culture*
- the effect on students*
- the effect on data*
- transference across subjects if relevant*
- expansion plans across school if applicable*

*Teacher discussions revolved around:*

- practical organisation and planning*
- effect on teaching practice*
- effect on student data and student perceptions*

- *advantages and disadvantages to different groupings*
- *transference across subjects if relevant*

*Student discussions revolved around:*

- *how their lessons operated*
- *their perceptions about different groupings*
- *advantages and disadvantages to different groupings*

## **Findings**

My first finding was that the majority of the principals who responded to my initial survey had not yet started this approach in their schools, although some did express some interest in the topic. Of the schools who indicated that they had started to implement heterogeneous groupings in their schools, the majority had used Mathematics as the starting point, as there was professional development being offered by some providers. Most schools have only been implementing this approach for one to two years.

Due to this being a relatively new endeavour for most of the schools I visited, or only being done by one or two teachers, I was not able to get comprehensive data on shifts in academic achievement, however, I did gather a lot of anecdotal data around perceptions, motivation and self-esteem and through observations and discussions with leadership, teachers and students, I was able to capture the benefits they believe have occurred due to their work being done in this area.

## **Teachers Needs versus Student Needs in Reading**

I have always believed that student needs should always be placed first, however, it is evident and no surprise that teachers needs still strongly determine teacher pedagogy and therefore we need to help our teachers understand the potential damage delivering only a homogeneous grouping approach can do to our students and help them to explore and develop more effective and manageable strategies to move towards incorporating some more flexible groupings in their programmes.

For decades now teachers in New Zealand have been trained to believe that ability grouping is the best way to achieve the best outcomes for children. The most common example is in Reading where Christine Rubie-Davies points out...*'there is almost a fixation on students having to be reading at their correct level.'* (pg. 135). There is no doubt that teachers have also been convinced over time that this approach is also a very effective way of managing all the children's needs.

However, for many years now there has been a move in New Zealand education to ensure learning that takes place at school is authentic and yet the way we continue to group children for ability, does not reflect what happens in the real world. As adults, we read a variety of text; some pieces that challenge our comprehension and may require re-reading and thoughtful discussion with others to gain deeper understanding, while there are other occasions where we read texts that are way below our reading level just for enjoyment and so we do not have to tax our brain power. So why do we still believe in many schools that

children can **only** be successful if they only read within a certain age-band with other children of similar ability.

I am aware many people reading this may be starting to protest that there is a difference between instructional reading and fluency, however, I still maintain that we want to ensure our children want to grow up with a love of reading. If we destroy their self-esteem by pigeon-holing their ability from the time they come into school and not place 'student interest' at the centre of our approach, I am fearful we may be killing off a generation of future readers and life-long learners.

Another thing educators need to be careful of is avoiding '*throwing the baby out with the bath water*' and I don't think the changes we need to make, based on the research I have done and the practice I have witnessed, will need to be that radical. Like most things that work well, I am proposing a more balanced approach that utilises all the positives of each approach.

### **Student Perception and Teacher Expectation**

One of the most damaging aspects of homogeneous grouping I believe is the damage that labelling can do to children. Regardless of how a teacher may try to hide the different abilities by labelling groups innocuous names like Giraffes, Tuis etc it is evident by research that children are very aware of why they have been assigned to a particular group and where that group sits within the wider class structure. (Hallam *et al.* 2004). Research shows that unfortunately a side effect of homogeneous grouping is that students often perceive children placed in higher ability groups are valued more by their teacher. Weinstein (2002).

Children of lower ability placed in homogenous groupings can also be disadvantaged in a number of other ways. Without being aware of it, teachers can have lower expectations of the expected rate of progress, and often have a reluctance to push lower ability children upwards until they have proved themselves to a much higher degree than what children of higher perceived ability are required to do. Even though this is done with what I believe are the best intentions of the teacher, the impact can still be negative on the children they are trying to help. Often texts presented to lower groups are of less interest to the reader and follow up activities are less challenging or exciting than what other groups experience, resulting in these children having less opportunity to show their true ability as Kulinski and Weinstein (2001) state "*...lower levels of achievement will be achieved if they are not given cognitively challenging tasks*". This is evident in many classrooms I have visited over the years, where you often see children in higher groups experiencing a much higher degree of choice and in-depth reading opportunities, while lower groups complete more 'skill and drill' repetitive activities eg more worksheets. I believe by doing this we run the real risk of turning these children off developing a love of reading.

One cannot underestimate the impact that teacher expectation has on student achievement. Work done by Rubie-Davies (2015) found that teachers expectations of lower ability students can decrease through the year while it increases for children of middle to high ability. Students are very attuned to the

perceptions teachers have of them and their self-perception fell or grew in correlation to the expectation of the teacher.

We also need to be mindful of the concern that many parents may have; that more capable students will be disadvantaged or 'held-back' by working with children of a lower ability. Research around this differs. Work undertaken by Wang (2013) states that "... *high and medium level ability students benefit more in homogenous groups*". However, this is disputed by work done by Marsh (1987) and Ireson et al (2005) whose research in fact shows that high achievers are not advantaged by being placed in homogeneous groups, while middle ability groups "... *are more likely to report they are given work that is too easy*" Gamoran (1992).

In Reading, teachers can utilise different approaches to grouping, while still providing a rigorous programme. This can be applied even for our younger children. From what I witnessed when visiting schools, children benefit from working in homogeneous groups when they are developing their decoding skills, especially when teachers are focusing on teaching or reinforcing a specific skill. However, research shows that children learning to decode also need to be exposed to real examples of 'what good readers do' so they can demystify the process. When children are only ever placed in homogeneous groups, if a child has a question, other children may be confused as they have similar ability levels, and therefore the modelling defaults back to the teacher, whereas in heterogeneous groups other children are able to share knowledge and skills that build understanding for the questioner. (Wang 2013). By being exposed to skills that are new to you and seeing first-hand how people apply these is of huge benefit to any learner.

When we are able to remove the focus from the decoding by utilising a shared reading approach, all children can be exposed to a more sophisticated piece of text and be able to offer opinions and ideas regardless of their actual reading age. This focus provides a perfect opportunity for a heterogeneous grouping. Of the few classes where I saw attempts at mixed ability grouping in Reading, teachers spoke about how some higher ability children were initially surprised by the knowledge and understanding that the lower ability children possessed, which at times, surpassed their own. This became a real leveller for all and all children began to develop more appreciation for what each member in the group was able to bring to the task, taking the emphasis away from 'the stage a child was at' or the level they were reading at and the negative connotations that can exist around that.

When speaking to children at the schools I visited, children who were in mixed ability groups generally were unable to tell me what reading group others in the class were in, or even which children were the best readers/ mathematicians because the groups were so fluid that all participants obviously felt valued for the input they had into discussions, and did not fixate on their decoding ability being the only valuable measure of success.

The most important thing for teachers to always consider is; what is the specific purpose of the lesson and whether it would be better suited for an

homogeneous or heterogeneous group of children, to ensure success and the correct amount of challenge is provided for all.

Therefore, I now believe that if a teacher starts each year with a different mindset that does not define children's ability by the group they are put in but rather provides a mixed approach throughout the year where heterogeneous groups form the basis of programme organisation and then teachers provide targeted lessons/workshops to identified children in homogenous groups when needed to consolidate a skill, Davidson (1990), it would result in children of all ability levels feeling valued as well as teachers providing all children equal opportunities to show what they are truly capable of.

Schools spoke to also talked about how there was also less pressure by parents for their children to be in the 'highest' reading group and more emphasis being placed on a collaborative and supportive learning environment where everyone is expected to progress.

### **What about Mathematics?**

Mathematics is an interesting subject, because it is the subject more than most where people tend to hold a fixed mindset. For years, I have heard parents say they are not surprised their child is struggling, as they were hopeless at Math at school. Because of a tendency towards a fixed mindset, it is a subject that is often "*... taught as a performance subject the role of which, for many is to separate students into those with the maths gene and those without*" (Boaler, 2015) .

With all the work that has been done on the power of the brain over the past few decades, we now know that everyone can learn Math well. However, like I pointed out above, like Reading, children in lower traditional Math groups are more likely to suffer trauma, low self-esteem and be denied access to higher quality mathematical learning opportunities.

### **The work currently being done in Math**

During my visits, the majority of schools had used Math as the vehicle to move classroom practice from homogeneous to heterogeneous grouping. Most schools using this approach had all completed, or were in the process of having Professional Development across the whole school focusing on problem solving in Math, while at another school a teacher was developing her own similar programme through work being undertaken in her Community Of Learning. The professional development I saw, appeared to be underpinned by the research by Jo Boaler, who has promoted rich open ended problem based learning in Mathematics. Talking to the leadership in these schools they shared that many of their teachers found the move from ability grouping challenging to begin with, however, once observing first-hand the benefits to their children they have continued to grow their practice and are all working towards embedding a mixed ability approach with none reverting back to an ability grouping approach.

I was particularly impressed with a class session I witnessed, where the level of thinking, being undertaken by **all** children, was far beyond what I have witnessed in most sessions I had seen using a traditional ability grouping approach. There is no doubt that this higher order thinking would be completed by the above to

well above students in ability groups, however, what impressed me was the student modelling and talk taking place by all children, working through a complex concept. I don't believe all children necessarily achieved true understanding in the one lesson I saw, however, all children were exposed to a level of problem that they usually would not have been. Through listening to student talk the teacher was then able to effectively target specific misunderstandings that some children had. The real value was children consolidating and challenging each other's understanding and for children with a lower Math ability being able to see how 'good' mathematicians do things, like I had previously mentioned in the Reading section above. Throughout the session I saw, it was clear to me that all children were being challenged, and children were able to work at the level that suited them e.g. some children grabbed concrete materials while others worked with sketches and others used mental calculations. Children also saw that the better mathematicians still made mistakes and these were celebrated by all. I was also impressed with the level of the teacher's content knowledge and their ability to hone in on the children they wanted to include in sharing sessions.

In another school I visited, the teachers were very specific about the skills they were targeting during a session, and this was clearly outlined in their planning. Unlike the lesson mentioned above, the teachers had split their classes in half and then they had grouped the children in deliberately mixed ability groups of three. A lot of work had been done previously on group protocols and the roles that were assigned, so all children knew what was expected of them. While one half of the class worked on independent problem solving and related math tasks, the teacher worked with the other half of the class and presented them with a problem/provocation. As the small groups went about solving it, the teacher was roaming around listening to the different strategies being used and identifying misunderstanding that were arising, again honing in on the focus strategies/knowledge highlighted in their planning.

By working cooperatively, children were able to reorganise their thoughts, and then to tease these out and the thoughts of others. The interactions allowed them to reorganise information based on their own understanding, and then share it with others; allowing cognitive elaboration (Larson et al., 1984; Slavin 2010). Teachers were then able to capitalise on this further during sharing time by deliberately selecting specific children to share- thus exposing the larger group to a more advanced strategy or to reinforce a concept or misunderstanding previously identified. Some teachers also shared how they combined this group approach with deliberate workshops within the week that targeted and reinforced specific needs identified during the problem solving approach.

Teachers in both situations shared with me how their pre-conceptions of ability had been challenged through this new approach and how children of so called lesser ability had surprised others with their actual knowledge and insight and the teachers did not believe this would have had the opportunity to be demonstrated in the usual ability group approach where children of the same level were grouped.

### **Teacher Content Knowledge**

This was one of the biggest challenges that the schools found undertaking this professional development. It takes real skill on the part of the teacher to be able to identify quickly and accurately the misunderstandings students have or how they could connect the next level of understanding when a child grasped something. Teachers “...need knowledge to help them recognise, and then act upon, the teaching opportunities that come up without warning” (Anthony, Walshaw 2009). In a traditional ability group approach, teachers can still control the speed at which things are done and are able to take the time to re-question individuals. The ‘Effective Pedagogy in Mathematics Report’ (Anthony, Walshaw 2009), also points out that teachers who have limited knowledge tend to structure their group work around discrete concepts instead of concentrating on making the necessary wider connections between facts, concepts, structures and practices that are crucial for good mathematicians to develop. This means that in the problem solving group, teachers need to be purposefully tuned into the different conversations occurring during each session to see how children are thinking, and then ensuring they revisit these during teaching times. They need to identify the children who can help others by sharing a more advanced strategy, while also being able to select children (to share) who will be able to highlight misunderstandings and create valuable learning dialogue that reinforces, consolidates and also challenges others. Teachers also need to be able to identify or access the rich problems necessary to promote the right type of discussion. Content knowledge is paramount if student progress is to be sustained. However, the best results will be achieved when high teacher content knowledge is paired with quality practice. When either one of these elements is lacking progress will suffer.

### **Organisation and a Balanced Approach**

During my visits I saw a range of organisational approaches. Some schools were implementing a totally mixed ability Math group approach, where all teaching and learning was happening during the discussion times. Other schools were having a mixture of mixed ability groups, discussions and also regular workshops that focused on a specific strategy.

In Reading, again I saw different approaches. Some were operating a totally mixed ability approach that concentrated on shared reading and related discussion, while others again delivered a mixture of the two approaches.

Regardless, of whether they were delivering a mixed or totally flexible approach, most schools visited had moved away from using ability groups as the foundation of their programme organisation in Math, while some had also began to transfer this approach into their Reading organisation.

A balanced approach to how we group children can have many benefits if teachers are deliberate about when and why they chose a particular grouping option. According to Davidson (1990), “if a task is focusing on a skill, facts, or procedure then homogeneous groupings are useful”. However, when an open-ended problem solving task is used then heterogeneous groups are most

appropriate, as students will learn more with others of differing ability, as every member will be able to contribute in brainstorming potential solutions.

The key is to ensure the opportunities are balanced across all subjects, and during the school day and year. This avoids the pigeon-holing and self-esteem issues that homogenous grouping can create.

### **Assessment**

Now the emphasis has moved from National Standards, schools are able to once again rethink the role of assessment. It is important that we assess what we value or else we run the risk of valuing what we assess. Assessment we know needs to focus on the learning and teaching and not be used just to grade a child. When doing this well teachers are easily able to identify children who need extra support and possible intervention and those who may need another degree of challenge. However, (Hattie and Yates 2013) point out that teachers are not as skilled at creating objective test as they believe they are. Therefore there is a need to increase teacher knowledge in this area as well as possibly adding an element of peer moderation as a cross check. The benefit of e-asTTle tests is that they allow teachers to access formative and summative information as a form of triangulation.

### **Professional Development**

One thing that shocked me when completing the research was how much of the research in this area was carried out prior to 2000, and yet we still see so little evidence of a change in most classrooms and schools to date. As mentioned in my introduction the work recently published by Rubie-Davies (2015) was the catalyst for me pursuing this topic as my sabbatical. The main professional development currently available is in Mathematics and the schools who have completed this have made and maintained a huge change in their teacher practice. However, there was very little evidence anywhere of how schools were transferring this new practice across to other subject areas. This of course may be due to the limited time they have been working on this.

In order to be successful professional development we already understand that the school culture must be one with a strong foundation of trust and where risk-taking is encouraged. It is also important that all school systems and expectations support any change introduced. The ideal is when there is a school wide agenda with everyone working towards common goals.

### **Summary and Implications for Cornwall Park District School**

For decades now, New Zealand teachers have been trained to group children in ability groups, as this is a way of being able to manage the number of children a teacher needs to work with each day, and this is also how most teachers at Cornwall Park District School (CPDS) continue to do this. However, for many years now there has been emerging research that is starting to challenge the effectiveness of this approach, especially in regard to the effect homogeneous grouping has on self-esteem and progress.

Results at CPDS are very good, however, it is important that we do not become complacent. It is important that we are teaching the breadth of each subject and

not just a narrow pathway that may still allow us to achieve the necessary results, but is not providing the real variety of experiences needed to build a child's true understanding across an entire subject. I believe most teachers at CPDS have a good content knowledge of subjects, however, we need to see how confident they are applying that in a fluid 'in the moment' environment that the problem solving approach demands.

A change in the fundamental way classrooms are organised can be unsettling for parents who most likely have only experienced the homogeneous approach. Many cling on to the traditional, because it is familiar, and they understand it, regardless of whether their past experiences were positive or negative. Many unfortunately may still equate quality with formal teaching (homogeneous teaching) and many may find a shift challenging.

However, I believe we are doing our children a great disservice if we ignore the research that clearly shows that there are better ways of approaching learning. At Cornwall Park District School, there has been a huge amount of work done already on ensuring children have student agency, and this already has been challenging for some of our parents. As a principal, I am aware that I need to do a better job of opening up conversations around quality learning with our community, and this needs to be an ongoing area of focus for me.

CPDS Leadership needs to continue to ensure our school environment supports the changes it wants to see embedded across the school. It needs to provide the necessary professional development and support to build teachers' content knowledge, as well as providing the resources and flexibility in timetabling as and when required. It must also ensure that the assessment demands of teachers are in line with work being undertaken. Leadership also needs to provide support and to take a lead role in educating parents about the reasons practice may be changing.

As other schools have used Math as a starting point, due to the quality professional development currently available in this subject area, it is a obvious subject for our school to focus on, to start this journey.

As teachers start to witness the benefits of including both approaches in their practice, I would expect to see teachers starting to utilise both approaches, moving most teachers from their current default approach of ability grouping, to being able to utilise whichever approach is better suited to the intent of any given lesson, thus benefiting the child(ren)'s academic and well-being needs.

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