

# SOCIAL DIVERSITY AND CLASS SIZE

<sup>1</sup>BORIS HANDAL, <sup>2</sup>KEVIN WATSON, <sup>3</sup>MARGUERITE MAHER

<sup>1,2,3</sup>The University of Notre Dame Australia

E-mail: <sup>1</sup>boris.handal@nd.edu.au, <sup>2</sup>kevin.watson@nd.edu.au, <sup>3</sup>marguerite.maher@nd.edu.au

---

**Abstract**— Class size remains a contentious issue. While studies appear to agree that smaller class sizes are effective for students from under privilege background and in the earlier schooling years not much has been written in regard to the broad spectrum of student diversity. In this study, teachers recommended small classes for diverse cohorts such as students from low socio-economic, low and high academic performance, non-English speaking, gender, Indigenous, rural background and a range of learning exceptionalities. The qualitative analysis of teachers' responses shows that class size generates, for each cohort a particular instructional dynamic, although differentiation and classroom management are commonly perceived as the best outcomes of having smaller numbers of students.

---

**Index Terms**— Class Size, Inclusion, Diversity, Differentiation, Teachers' Perceptions, Instruction.

---

## I. INTRODUCTION

Once upon a time student diversity was understood as providing specific curricula to specific groups. Therefore, we had and still have single-sex schools, mission schools for Indigenous children, race based schools, denominational schools, schools for the mildly intellectually disabled and for the migrant child, and even schools for the rich and for the poor. The development of educational psychology empowering teachers to develop differential instructional approaches in their classes, and more cynically, due to budgetary constraints, opening the way for governments to normalise diversity and mainstream it in the regular classroom.

Diversity, as opposed to uniformity, not only facilitated the acceptance of individual differences but enhanced classroom experience by providing an assorted space which resembled the real fabric and the dynamic of daily life. Students learned therefore in an environment where diversity was not a deficit but a place expected to minimise individual differences by enriched social interactions and cross-fertilisation. Diversity was considered as the great equaliser that would strengthen the foundations of any democratic society. As Dietsche (2009) indicated:

*The processes that exist in most institutions today are based on a 20<sup>th</sup> century industrial age model that largely ignores student diversity and delivers a 'one size fits all' learning environment (p. 37).*

It is in this context that the comprehensive Australian public school began to take shape under the premise "Education for all" (Campbell & Sherington, 2013). The egalitarian sentiment found in those local institutions the instrument to preserve and reproduce such values and achieve the great Australian dream of unity in diversity (Wu, Tu, Wu, Le & Reynolds, 2012). Differentiation, in the context of social diversity, is not only a strategic pedagogical skill to deal with individual differences but also facilitates social participation to achieve equitable educational

outcomes for all within a pluralistic, multicultural and multiracial society.

In New South Wales mainstreaming diversity was developmental. Student diversity was dealt with through segregation during the 1960s and 1970s. Students were integrated during the 1980s and inclusion strategies were employed during the 1990s. During these transitions a view has emerged that instructional differentiation is an effective approach to address diversity in the classroom where individual needs are catered (Smith, Robinson, Arthur-Kelly & Morgan, 2004).

In general, a body of research was established using large quantitative studies that recommended small class sizes for disadvantaged groups and minorities including early schooling (Watson et al., 2013). Although much has been written about whether small classes influence student achievement (Handal, Watson & Maher, 2014), little has been done to explore class size in the context of student diversity. Diversity is now viewed as an inclusive concept with cultural roots (Burton, Dowling, Dorman & Brodie, 2015) where classroom heterogeneity positively enhances overall student achievement (Michaelowa & Bourdon, 2006). Hence, this study viewed at class size not only from a cognitive-developmental perspective but also inclusive of a differential dimension.

A related study conducted by Handal, Maher and Watson (2015) on the perceptions of twelve secondary mathematics teachers on class size revealed that teachers do not always advocate for small class sizes. The participants believed that small classes were appropriate for low-achieving and socioeconomically disadvantaged groups. Although, a number of them indicated that quality teaching was a more influential instructional variable. The former were of the opinion that large class sizes provide an effective arena for synergies between low and high achievers where both types of students engage together in communication and collaboration. These teachers also said a critical mass of students was

necessary in the classroom to secure and maintain a rich collective learning environment.

The issue of mainstream diversity in the comprehensive public school has been much debated in past decades. Although it has been previously argued that students should study within homogenous cohorts there is an increasing trend to promote diversity as a feature of the everyday classroom. For years, differentiation was proposed as the main strategy to deal with diversity and so teaching was to personalise in order to address individual learning needs. However, the complexity that diversity brings to the classroom means that the increasing number of students pose additional management and behavioural challenges (Englehart, 2006). Therefore, the number of students in class in the context of additional demands becomes an issue worth exploring. This paper explores the way teachers see differentiation per each cohort within the class size constraints.

## II. METHODOLOGY

The purpose of the study was to explore and understand what teachers thought about the implications of smaller classes for low achievers, students from non-English background (NESB), students from low socio-economic background (SES), Indigenous students, boys and girls, rural and remote students, gifted and talented students and students with special learning needs.

Teachers' perceptions were collected using a questionnaire. The questionnaire provided spaces where participants could share their views about class size and diversity. The comments were analysed using a thematic analysis where qualitative data were grouped by sub-themes representing categories of similar responses which were iteratively compared and collapsed on more homogenous themes until data saturation occurred (Cohen, Manion & Morrison, 2011). A total of 1061 teachers from 321 K-12 schools in New South Wales (Australia) provided comments.

## III. FINDINGS

### 3.1 The Case for Differentiation for All

In general, small class size is perceived by teachers as a vehicle not only to increase academic performance but to promote social and emotional development in the children because of increased personal attention. As one teacher said,

*Students in smaller classes tend to be more comfortable voicing their opinions, or asking questions, or for assistance, therefore it is a great environment for debating issues or discussion of ideas. It also offers more opportunities for student-centred activities, were possible.*

As discussed in the next sub-sections, differentiated instruction and classroom management were found to

be the immediate benefits of smaller classes. Other advantages included providing more teacher feedback, more physical space, development of positive social skills, flexibility with seating arrangements, allowances for small grouping and less administrative workload.

Teachers appeared unanimous in presenting small classes as a catalyst for more thorough, constructive recurrent and prompt feedback. As two teachers said: "With smaller groups, marking and feedback can be more in-depth and frequent" because "both feedback and quality teaching are dependent on a reasonable number of students within a classroom." Likewise, several teachers said the role of feedback in teaching and learning was important:

*I believe one-on-one feedback is an important factor when it comes to the development and improvement of students understanding/ability of work covered/taught and to students development of self esteem, belonging and success.*

In particular, teachers felt that feedback given as students' work in class is highly valuable. It can take the form of "individual consultation and informal discussion" and "marking of work was often done with the child present, so feedback was immediate". According to one teacher: "I was able to mark and give feedback to students in class rather than marking after school and handing back for students to read (they never do in primary school) unless you mark/feedback on the spot its worthless". The same applies to assessment feedback: "You are not rushing a student and saying 'read the comment' you are able to work with the student". In particular, "oral/observation assessments" can take place more frequently. This is a strategy that is fundamental for "the important basics of reading and number skills". Teachers also pointed out that "smaller class sizes enable more time to talk with parents on a more regular basis about the progress of their child."

Fewer students in class also means more space in the classroom enabling hands-on activities and movement within the classroom. Teachers felt that with small classes "students had physical room to do more hands-on activities", such as "art making practice", cooking, Technology and Applied Studies (TAS) classes learning activities and lab work, "the need to move furniture", "more physical space for groups" and "room to isolate students when the need arises". Teachers also said that "active, kinetic learning is easier to accommodate" and that they were "physically more able to circulate in the room and talk to / support each student". Similarly, "having less children in a class gives more space available in the classroom for children to move around, tending to set up more group work activities as there is more equipment available to be used by each child (not having to share)" ... "especially in older style buildings".

Smaller classes can make “such a difference even to the seating arrangements for students” because they “allow flexibility” to set different structures according to the group and the task. As oneteacher indicated “sitting elbow to elbow is inhibiting to learning, concentration and writing ability”. In regard to cooperative learning, a teacher commented that “smaller classes enable the teacher to do less whole class lessons and more group based or collaboration lessons”.

A consistent body of research shows that large classes have been perceived by teachers as an obstacle to deliver quality teaching. This large-scale study sought to investigate further those differential effects by asking 1,119 teachers from 321 K-12 schools in New South Wales (Australia) their perceptions of ideal class size for a variety of student cohorts. In general, there was unanimous support for smaller class sizes particularly for the earlier years of schooling. Teachers also recommend small classes for diverse cohorts such as students from low socio-economic backgrounds, low and high academic performance, non-English speaking, Indigenous, rural background and a range of learning exceptionalities.

### 3.2 Low Achievers

Teachers related the benefits of class size more closely to differentiation; that is, the ability to provide instructions based on each child’s individual needs. Low ability/achievers students are characterised as “less able to work independently” who “really suffered for the lack of specific attention to help them improve”. A teacher remarked that in mainstream classrooms “smaller classes are much more significant for lower achieving students” and “it is far too easy for low achieving students to become invisible in a class of 30 students”. When talking about their experiences working in small classes teachers said: “There was scope to help low achieving students”, “The lower achieving students received more intensive instruction in their area/s of need” and “Underachieving students were more confident to participate, felt nurtured and part of the group”. Similarly, teachers were “able to provide more individual support, feedback for low achievers and “to differentiate the curriculum, catering for the individual learning needs of students.” For low-achievers, these small classes allow “for more time spent with individual students” and “for remediation of students because there are fewer in the class”.

From an affective perspective “relationships, essential for trust in learning, were developed more fully” because “I knew the child and their family”. Similarly, “classroom management was also possible with low academic and a poorer behavioural class”. Likewise, with the creation of a more encouraging learning environment small classes “provided better conditions for successful classroom management which then created a positive cycle of behaviour – learning – achievement – positive behaviour”

including less chance of students “slipping through the system”.

### 3.3 Non-English Speaking Background (NESB)

Many comments that relate to the differentiation of NESB students were about the need to provide more time for learning. Teacher comments about NESB students’ demands were usually provided with comments about other groups such as low socio-economic status (SES), the gifted and talented (GAT), low achievers and special needs students. No references were made to ethnicity although one comment referred to the need to make mainstream cohorts 20 to 21 students with a reasonable spread of social, cultural and personal backgrounds.

Teachers made more specific comments about NESB students’ age ranges. For Stage One students (Years 1 and 2), a teacher wrote “educational achievement is not something they have come to school with” and s/he was able to give “more individual direction and spent more time on hand-on activities with the student.” Other participants wrote:

*I currently teach a K-1 composite class of 24. The groups for language and maths are all big in numbers and broad in abilities so there are always some students who will find the work too hard or too easy.*

*My experience with ESL and Stage 1 classes of 20 or 22 has been positive. I feel I can interact with the students more intimately and personally get to know each child better and find out how they learn best. When teaching reading / literacy smaller classes with less groups allows me to develop each child's potential and increase their skills - understanding on a deeper level. I know each child and what works for them to reach their potential.*

*My ESL/5 classes have ranged from 17-21 students. There is always a diverse range of abilities and I use groupings to differentiate. I do not adjust my teaching but smaller sizes do make teaching easier especially with students with special educational needs.*

Smaller classes facilitate an environment where NESB students can develop their skills. For example, “students from non-English speaking backgrounds could be given more attention whilst others got on their essay-writing etc.” and “increased time speaking / practising also lowers waiting time for others”. Another teacher commented: “... with ESL children, more time is needed to help them with notes, bags, hats, getting them used to school expectations, pencil sharpening, preparation of resources etc.”. Another teacher said: “I work in a disadvantaged school with students from NESB. They need a great deal of support emotionally and socially as well as academically”.

In general, the benefits for NESB students appear to be related to the benefits of personalisation and more interaction as this teacher remarked:

*I was able to spend more one on one time with NESB and students struggling with content. There was more opportunity for student discussion and self-directed learning as the numbers are so much more manageable. Students felt much more confident to ask questions and raise issues as there was less competition from other students.*

### **3.4 Students from Low Socio-Economic Status (SES)**

SES students seemed to benefit from smaller classes in terms of been exposed to a differentiated curriculum and a more pastoral care oriented instruction. There was a view that students from socio-economic disadvantaged schools “need a great deal of support emotionally and socially as well as academically”. Some teachers’ comments expressed the view that students from low SES “tend to exhibit behavioural issues” and “often need more nurturing and encouragement to learn, so smaller classrooms allow the teacher to identify and concentrate on the behaviour and ways to prevent it before it escalates”. Teachers feel that in smaller classes in disadvantaged schools they “could plan for each child individually and give them personal feedback” particularly “on specific literacy strategies”.

### **3.5 Indigenous Students**

Smaller class sizes also facilitates the learning from Indigenous students though more personalised attention. Curriculum guidelines for Indigenous students were met because the “program and assessment regime became more individualised” and there was “time to spend with students in the class who need assistance”. A teacher who taught mainly Aboriginal students commented that:

*Smaller class size enabled me to differentiate my teaching across achievement levels, and (by using small ability based groups in literacy and numeracy) ensure students receive quality teaching & learning time with me every day.*

Similarly, the ability to engage on a one-to-one basis with students is re-emphasised by another teacher as a benefit of small classes when Aboriginality is linked to low achievement:

*More individual explanation. More individual programs aimed at each student's individual progress. With a smaller class size I am able to more appropriately individualise program to student need. With mainly primary (y3-6) experience in a low-socio/low achiever and indigenous population it is vitally important to meet individual need. It is/and*

*can be quite common to have a straight class with an academic range of at least 4-5 years.*

### **3.6 Boys and Girls**

Comments that connect class sizes and boys were about managing their behaviour. If there are fewer boys in class it is easier to manage poor behaviour particularly when are associated with low academic performance:

*In year 9-10 the 30 least able - lowest motivated - most troubled boys are in one class together. There is no time to engage each individually; it is little better than riot control and baby-sitting. Fighting mobile phones and gameboys is almost a full time role.*

Another comment about boys and small classes was that they facilitated building rapport with teachers. As a teacher explained:

*Classroom management is more effective. A wider range of teaching strategies can be used. It is easier to build solid teacher-pupil relationships and it is easier for students to "learn about their teacher". e.g. boys learn about their teacher before they learn subject content. Differentiation works better and is more effective. Students are more comfortable about asking questions.*

A third theme identified the need for boys to physically move:

*Small class sizes enable in my school more kinaesthetic learning/experiential learning experiences for students, excellent for boys - I teach in a boys' school.*

The only mention to girls and small classes was about interaction with boys. What one teacher called ‘puberty blues’:

*Girls and boys are more 'interested' in each other (causing discipline issues). The actual size of the students themselves makes the room more hazardous.*

### **3.7 Rural and Remote Students**

Class size issues in rural and remote schools are more complex because of the lower number of enrolments that, despite being in different year levels and having various ability ranges, they have to be put together in composite classes. Rural schools can be very small. For example a teacher wrote:

*I am presently in a rural P6 with 4 students, Last year we had 6. Before this school I was in a remote area P6 with 12-15 students. In 2007 a remote school had 3 students, 2 in kinder, 1 in year 4, brother and sister and their cousin. It was my first P6 and my hardest year teaching.*

Because of their size, in a way, teaching in rural schools presents some instructional advantages due to the small student population. As a teacher said:

*Smaller classes [in rural schools] allow you to tailor units of work to each individual's strength or weaknesses. There is no down time for discipline, children are always working. There is always time to explain. Small classes let you get to know each child and their family on a deeper level. This then helps you target specific areas for development.*

However, another teacher noted "In rural schools classes tend to have a much wider variety of ability, from very bright and gifted to very poor ability - all in the one class". Another teacher stated that in rural schools: "The possible variables that affect student achievement and performance is wide and cannot be limited to one factor such as class size".

Because of this diversity, "teaching very small classes is much, much harder than you think. It is not for everyone". In the words of a teacher:

*I had to plan to have similar topics taught at the same time. Or if the topics were vastly different then I would teach a new topic for one level and have the other levels continue with a topic they were already familiar with. Classroom setting was changed with each level of students sitting together e.g. 5-1-standard etc. the juniors I moved the desks altogether in one long desk (approx 10-12 students) and sat with them to do work and individual tutoring.*

As a teacher suggested class sizes in rural schools are valued because they spread student ability across school stages rather than vertically:

*I am teaching in a small remote school at the moment. It is a school of 23 students K-6. The P & C support the cost of a second teacher so that the class can be split K-2 and 3 to 6 to reduce class size, as it is close to the impossible to effectively teach this many children across 4 stages.*

### **3.8 Gifted and Talented Students (GAT)**

As well as for other cohorts, smaller classes bring to GAT students the benefits of individualised instruction. Teachers think that gifted and talented students (GATs) benefit from a more individualised "environment with more dynamic ideas", "challenging" and differentiated work than "lower achievers" where students "can be extended more easily" with "greater scope and variety" in an environment where the teacher is able to "delve into topics at a deeper level and create more stimulating learning experiences" and "explore techniques more suited to more gifted students". Likewise, a small classes for GATs allows for personalising instruction where the teacher is "able to set goals that are

achievable and monitor progress towards their achievement", "opportunities to work independently using a variety of resources" including project work and investigations as well as a "faster turn-around in assessment marking/feedback". Ability to broach more advanced sub-topics and explore techniques more suited to gifted students.

A minority of teachers, however, emphasised that GATs can work in any class size. For example, a teacher thought that "gifted students can benefit from both large and small classes". Another teacher thought that "talented students work well in larger groups" while another considered GAT students need a "critical mass for sharing ideas".

### **3.8 Students with Special Learning Needs**

Although students with special learning needs were not targeted in the survey, interestingly, there were comments relating to the inclusion in the mainstream classroom.

The sample did not include special needs schools. However, some teachers identified as having taught a special education class. They referred mainly to mild intellectual disability (OM) and moderate intellectual disability (IM). Within "mainstream" classes had special abilities students, Autistic, visual impairment or attention deficit hyperactivity disorder (ADHD).

A theme identified was the disability as a diversity viewed as diversity in mainstream classroom. Such a diversity strategy reflects a developmental focus on streamlining disability including the employment of dedicated teacher aides:

*A class with similar ability can be larger than a class with a vast difference in abilities - as one teacher can only spread their wings so far! As we add Special Needs students into mainstream this only adds to the variety.*

The increase in diversity in the classroom has resulted in increasing demand for teachers who have to simultaneously deal with a broad range of individual needs ranging from learning difficulties, behavioural disorders and intellectual disabilities, while not neglecting the aspirations of low achievers, NESB and gifted and talented students:

*I am currently teaching a class of 32 (7-9 year olds). This class has approximately 2-3 children operating at kinder literacy levels. Another 4-5 I would consider "at risk" academically. 1 on the autism spectrum - at least. Approximately. 10 from dysfunctional family backgrounds. (2-3 of these would have moderate to severe concentration problems). When I last taught a smaller class, I found it easier to initiate productive individual and group-work, I could extend those who need it for a while*

*giving much more of my time to those who need support in literacy and numeracy. Unfortunately, this year with 32, I believe that my goals will not be reached, and children will suffer.*

Hence, no surprise that teachers believe for smaller classes that will allow them to cope with the demands of multi-diverse classrooms. Teacher comments portray some of the advantages small classes have on students with special learning needs when disability is mainstreamed. Some of these comments included:

- students with special needs receive more tuition;
- I was able to focus on visual aids for autistic students;
- I was able to spend more time assessing each student and using these assessments to differentiate the curriculum as I had less students; and
- it is easier to create a connection or relationship with these [special learning needs] students.

Teachers of special education classes also referred to students with special needs who tend to “function a lot better in mainstream classes that are smaller in classes” and for whom “One hour a week of aide support for these students does not enrich their learning” because “only provides support so that the teachers can teach the other students without constant behaviour issues”.

## CONCLUSIONS

In general, teacher responses demonstrate that small classes facilitate differentiation and classroom management in line with Biddle and Berliner’s (2002) theory that reduced class size is effective because of increased teacher interaction and increased student engagement. However, each student cohort appears to reflect a particular theme within its own context. For example, when dealing with low achievers, teachers assert that remediation and relationship building are the most immediate benefits of class size reductions. NESB students appear to benefit from increased instructional personalisation and language interaction whereas students from low SES gain in terms of ameliorated behavioural problems. Indigenous students benefit mostly by differentiated instruction as the special needs students.

Small classes provide boys with more space for physical movement and activity. Rural and remote teachers maintain a unique perspective because small classes are difficult to teach. This is because they work with large ranges of mixed ability students in

small classes as a consequence of low enrolments. Other benefits of small classes for all cohorts include the capacity to provide more comprehensive feedback, more physical space for student-to-student interaction and creative sitting arrangements, additional time to engage in relationship building and a better social environment, less marking and reporting and increased opportunities for more work. However, small class pedagogies such as investigative and open-ended tasks, individualised learning programs, fieldwork and the teaching of self-seeking and metacognitive behaviours were rarely mentioned. Explorative learning was only emphasised in the context of teaching gifted and talented students.

## REFERENCES

- [1] Biddle, B. J., & Berliner, D. C. (2008). Small class size and its effects. *Schools and society: A sociological approach to education*, 3, 86-95.
- [2] Burton, Lorelle J. and Dowling, David and Dorman, Marilyn and Brodie, Lyn (2005) *Understanding student diversity and the factors that influence academic success: a preliminary study*. In: Focus on curriculum. Research on Sociocultural Influences on Motivation and Learning (5). Information Age Publishing, Greenwich, Connecticut, United States, pp. 275-298. ISBN 1-59311-207-6
- [3] Campbell, C., & Sherington, G. (2013). *The comprehensive public high school: Historical perspectives*. Palgrave Macmillan.
- [4] Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th edition). Routledge Publishers.
- [5] Dietsche, P. (2009). Small steps to a big idea: Personalizing the post-secondary experience. In B. Leibowitz, A. van der Merwe & S. van Schalkwyk (Eds.), *Focus on first-year success: Perspectives emerging from South Africa and beyond* (pp. 37–46). Stellenbosch: SUN MeDIA.
- [6] Englehart, J. M. (2006). Teacher perceptions of student behavior as a function of class size. *Social Psychology of Education*, 9(3), 245-272.
- [7] Handal, B., Watson, K., & Maher, M. (2015). Multi-positioning mathematics class size: teachers’ views. *International Journal for Mathematics Teaching and Learning*, 1-14. Available online on: <http://www.cimt.org.uk/journal/handal.pdf>
- [8] Handal, B., Maher, M., & Watson, K., (2014). *From large to small classes: A classroom window*. *Australasian Canadian Studies*, 31(1-2), 53-72.
- [9] Smith, S. R., Robinson, G., Arthur-Kelly, M., & Morgan, P. (2004). Teachers’ perceptions of instructional differentiation to cater for student diversity: A pilot survey study. *Australian Association for Research in Education conference*, Melbourne. Available: <http://www.aare.edu.au/04pap/smi04034.pdf>.
- [10] Watson, K., Handal, B., Maher, M. & McGinty, E. (2013). Globalising the class size debate: myths and realities. *Journal of International and Comparative Education*, 2(2), 72-85. Available at: <http://crice.um.edu.my/downloads/3Watson%20et%20al.pdf>
- [11] Wu, R., Tu, Y., Wu, R., Le, Q., & Reynolds, B. (2012). An Action Research Case Study on Students’ Diversity in the Classroom: Focus on Students’ Diverse Learning Progress. *International Journal of Innovative Interdisciplinary Research*, 1(2), 142-150.