CLASS SIZES DO MATTER

Most government school systems around Australia have in recent years faced pressure to reduce resource levels. Increased class sizes have been a frequent result, and we are seeing renewed claims that this does not matter.

Such claims are often surprising for parents, teachers or students, who have relied on commonsense to conclude that class sizes are indeed important. There is also now a substantial body of significant research which clearly demonstrates the benefits of reduced class sizes.

CLASS SIZE AND STUDENT ACHIEVEMENT

In a comprehensive analysis of class size research, Mitchell et al (1989) reported that some of the most misleading conclusions about class size research have been repeated again and again. One of the most important examples related to the 1978 finding by Glass and Smith, that major benefits for reduced class size are obtained as size is reduced below 20 pupils. The oft-cited conclusion is that class size variations in the range between 20 and 40 students per year have only an insignificant impact on achievement.

Mitchell et al showed that even if the modest impact of such reductions was accepted, it would be substantial if sustained over thirteen years of schooling. Their research concluded that reducing class size has a substantial and cumulative effect on student learning (Mitchell et al, 1989).

Project Prime Time was established in Indiana (USA) in 1981. When first-grade classes were reduced from around 22 to 18 there was 'overwhelming evidence' of better scores on achievement tests and on affective measures (Gilman in Bain and Achilles, 1986).

In Tennessee, ***Project STAR*** analysed student achievement and development in classes of 13-17 and 22-25, some with full-time aides. It followed students from kindergarten through to third grade from 1985-6 to 1988-9. The results show that the positive benefits of smaller classes are cumulative. In kindergarten, small classes made up 55% of the top scoring 10% of STAR classes. By third grade, the small classes made up 78% of the top 10% of classes (Bain et al, 1992).

THE IMPACT ON TEACHING AND LEARNING

Teachers involved in *Project Star* said that smaller classes meant that:

- basic instruction was completed more quickly, providing increased time for covering additional material;
- there was more use of supplementary materials and enrichment activities;
- there was more indepth teaching of the basic content;
- there were more opportunities for children to engage in first hand learning activities;
- there was more time to meet individual learners' needs using a variety of instructional approaches.

The study concluded that students continued to show the advantages on every achievement measure even one full year after returning to full size classes. In addition, class size appeared to have been a contributing effect to the success of the most effective teachers (Bain et al, 1992).

In his study of Year Five classes in Melbourne primary schools, ranging from 12 to 33 students, Bourke found that, when classes had equal prior ability, larger classes had lower end-of-term achievement in mathematics.

One of the major causes was the strong affect of class size on teaching practice. Teaching practices found in small classes that help to explain their higher achievement include:

- effective whole class teaching;
- the need for fewer procedural interactions (e.g. asking for clarification);
- the use of probing or prompting when asking students questions;
- more homework;
- quieter classrooms (Bourke, 1985).

Professor Jack Campbell has undertaken detailed and practical analysis of the effect of naturally occurring changes in primary class sizes in Brisbane. His conclusion was that *'there can be little doubt from these data that small is beautiful.'*

When classes were reduced from around 35 to around 26, the percentage of time which students spent actively engaged on the learning task set by the teachers increased from 73.62% to 84.75%.

Campbell noted that over a year this represents an increase of 22 school days of active learning. This increase in on-task time was *'at the expense of time otherwise spent 'tuned out' or engaged in aggressive acts.'*(Campbell 1991)

More than twenty years ago, Dr. Olsen undertook extensive research that involved close to 19,000 classrooms across the U.S. (cited in Simpson and Cavenagh, 1992). As a result, he developed *Nine Defensible Generalisations* relating to smaller classes;

1. Teachers employ a wider range of instructional methods and strategies, and are more effective with them.
2. Students benefit more from individualised instruction.
3. Students engage in more creative and divergent thinking processes.
4. Students learn how to function more effectively as members and leaders of groups.
5. Students develop better human relations and have greater regard for others.
6. Students learn the basic skills and master more subject matter content.
7. Classroom management and discipline are better.
8. Teacher attitude and morale are more positive.
9. Student attitudes and perception are more positive.

Today's curriculum is complex and challenging, and requires the most effective and enriching teaching and learning approaches. The research clearly demonstrates what every parent, student and teacher really knows already: class sizes do matter.

In 1984 the Commonwealth Schools Commission analysed the evidence on class size, in the context of its paper on the establishment of Commonwealth Standards for Australian schools. It noted:

> *It is widely recognised that one teacher preparing and delivering lessons and supervising and assessing the work of 35 students of mixed ability and varied experiences, will have more to do than another teacher who has to carry out these tasks with a class of 25 students and who should therefore have more time available for individualising learning programs and counselling students. Most teachers attest to a belief that they can give their students better learning opportunities and educational outcomes if their classes are smaller, even if the improvements are intangible.(C.S.C. 1984)*

The Commission established a set of class size standards which, while not immediately attainable, were seen to be *'educationally defensible and a reasonable aspiration in the longer term.'*

Primary

Prep	Years 1-2	Years 3-6
15	20	25

Secondary	Junior	Senior
Pastoral care	20	20
Practical classes	15	15
Other classes	25	20

From its perspective in 1984, the Commission said:
Assuming that the necessary overall funding was available at some time during the next decade, the standards might then be regarded as a general entitlement for all children.

The Commission saw the need for further teaching and other resources to enable even smaller class groupings to occur on occasions, and argued the importance of some flexibility. The Commission warned, however, that such flexibility *'should not be exercised to such a degree that the sizes of classes are significantly higher than those determined to be educationally preferable.*'

READING

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