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## CLASS SIZE REDUCTION: WHAT THE LITERATURE SUGGESTS ABOUT WHAT WORKS

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### EXECUTIVE SUMMARY

#### WHAT IS CLASS SIZE REDUCTION?

The Ontario Ministry of Education has initiated several compatible strategies to support school boards, schools and teachers in meeting achievement targets in elementary schools as measured by provincial assessments. Among the initiatives is Primary Class Size Reduction, with its aim to reduce the large majority of kindergarten through Grade 3 classrooms to twenty (20) or fewer students by 2008.

Class size reduction is a deliberate strategy to reduce the number of students who work together with a teacher in order to increase the potential for teachers to meet the specific learning needs of each student. Student learning is also intended to be positively affected by more opportunities for students to get to know one another, for teachers to pay more attention to individual students and to maintain classroom discipline. Primary grades are often the target of class size reduction initiatives because those years are critical to students' development of reading and mathematical literacy skills, and some research has shown that class size reduction has the most benefits if the early years are targeted. Class size reduction policies are particularly popular with parents and teachers. Ontario is one of many jurisdictions to have introduced a version of a class size reduction policy.

#### CONTENTS OF THE LITERATURE REVIEW

An analysis of over eighty reports and articles from a variety of Canadian, American, British, New Zealandian, Australian and Dutch sources. While several other thorough literature syntheses have been conducted, this review critically assesses the quality of the evidence and conclusions reached by the existing body of research.

The review also contains five in-depth descriptions of large-scale class size reduction initiatives (Edmonton, Tennessee, Wisconsin, California and England) as well as the research published on these initiatives, and critiques of the research among educational policy analysts. These descriptions provide useful illustrations of some initiatives in practice, as well as a flavour of the research and debates in the field.

#### CONCLUSIONS DRAWN FROM THE RESEARCH FINDINGS

Class size reduction can help improve student achievement on standardized tests, increase student academic engagement and decrease negative social consequences, but it is not a "magic bullet". In practice, class size reduction has not always been implemented as evenly or effectively as intended. Educational researchers, furthermore, disagree about whether and how class size reduction works because of the many different ways it has been implemented and researched. Its effectiveness appears to depend on a number of factors:

- Whether long term goals and design elements of a class size reduction initiative are clearly articulated from the onset.
- Whether the initiative is gradually phased in to give school boards and schools time to adjust budgets and staffing.
- Whether professional development support is provided to teachers emphasizing practices appropriate for smaller class sizes.
- Whether sustainable funding and other resources are secured.

### SEVERAL SHORTCOMINGS IDENTIFIED IN THE REVIEWED RESEARCH

The datasets used by researchers of class size reduction policies have often been originally developed for other purposes, and are unable to inform a comprehensive evaluation of the success of the initiative. Missing data (e.g. on teacher quality/certification, student mobility, demographics) makes it difficult to generalize results, and hinders the possible impact of the research.

- There is little consensus on what class size reduction means. Some research focuses on class size (the actual number of students working with a teacher in a classroom); other research is concerned with pupil-to-adult ratio (the ratio of the number of students in a school compared to the number of adults). Similarly, class size reduction initiatives vary widely in the way they are carried out.
- Research on class size reduction has often not taken into account some of the factors that make significant differences in the quality of teaching and learning, such as student characteristics, leadership practices, teachers' expertise, school resources, and the curriculum.

Given this lack of basic agreement, it is unsurprising that existing class size reduction studies contradict one another.

### RECOMMENDATIONS FOR FUTURE RESEARCH

Class size reduction research might be more credible and useful to decision makers if certain consistent research strategies were adopted, such as:

- Developing more organized, longer-term research programs that build on prior knowledge.
- Being aware of the limitations of available evidence from existing studies when forming conclusions.
- The development of comprehensive and easily readable research syntheses, and drawing on research beyond topical boundaries.



### The Effects of the Ontario Primary Class Size Reduction Policy

The Canadian Education Association received funding from the Ontario Ministry of Education for a study on *The Effects of the Primary Class Size Reduction Policy*. It includes a literature review, an analysis of data, and field research.

The full literature review is available on the CEA website at: [www.cea-ace.ca](http://www.cea-ace.ca)