

## Collaborative Research on Educational Outcomes

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Project Title	Collaborative Research on Educational Outcomes of Rural and Regional Students in South Australia
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Funding Agency	SiMERR
Organisational Base	SiMERR SA

### Description

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The SiMERR National Survey has contributed significantly to the data on the provision of science, ICT and mathematics education in regional and rural Australia. These data can be characterised as self-reported perceptions about the context, issues and needs.

In line with the emphasis in policy and program development in education in Australia, SiMERR SA proposes to match these data with analyses of existing data on rural students' learning outcomes in South Australia. These analyses will provide the evidence-base for further action — research, development, funding — by relevant organizations in the state. In the first instance the project will create baseline data with respect to student literacy and numeracy achievement over time. The project is a collaborative venture between SiMERR SA and the South Australian Department of Education and Children's Services (DECS). Two main data sets will be used. These are the South Australian Basic Skills Testing Program (BSTP) data for the years 1997 – 2006 and School and Student Information data.

### Participants

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The South Australian Department of Education and Children's Services (DECS), and Flinders University.

### Findings

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It is widely argued that new policies need to be developed to compensate for the disadvantages encountered by students who live in rural and remote areas. While policies and practices have been maintained from the times when compulsory education was first introduced during the later decades of the nineteenth century to provide equitable opportunities for students living in both metropolitan and non-metropolitan regions, it is now strongly contended that existing policies are insufficient and inadequate. Nevertheless, the findings of educational research have not unequivocally supported the claims for the existence of such handicaps for all students who do not live in large metropolitan cities of Australia.

This study is undertaking to investigate those issues that are related to the development of the basic skills of literacy and numeracy using the new analytical techniques that have emerged in recent years and have not been widely employed in Australia following the introduction of the Basic Skills Testing Programs approximately 30 years ago. While this study is primarily concerned with performance in the field of numeracy it is argued that the skills of numeracy are dependent on the capabilities of students to read and write. Consequently the skills of literacy must be considered to be important in this study.

The study is reported at three levels in three separate volumes. The first volume is primarily exploratory and seeks to examine the differences in performance between students living in metropolitan or urban areas and those living in non-metropolitan or rural areas. The second volume is more confirmatory, with stronger testing of statistical significance that makes provision for the structure of the available data in that students are nested within schools and schools nested within areas and with student achievement being measured at three time points. Thus the second report is concerned with change in achievement over time of both individual students and schools. The third report is involved in the processes that operate between schools with different characteristics in metropolitan and non-metropolitan areas and their effects on students with specific characteristics.

The data available for examination are drawn from South Australian testing programs with student achievement measured at year 3, year 5 and year 7 with replication in three cohorts over the five years of schooling. Each volume examines a different aspect of a larger problem and seeks to identify issues that may be resolved, at least in part by the introduction of appropriate policies related to the learning of mathematics (and by implication science) and its dependence on achievement in literacy at the student, school and regional levels.

Key findings from the first exploratory study and reported in the first volume:

### **Analyses at the Student Level**

1. Greater learning gains occur in both numeracy and literacy between year 3 and year 5, than between year 5 and year 7 in both metropolitan and non-metropolitan settings.
2. There is no recognizable effect due to distance from the capital city in performance in both literacy and numeracy in non-metropolitan settings, although there is a recognizable decrease in performance with distance in both fields in metropolitan settings.
3. In both metropolitan and non-metropolitan settings, literacy performance is influenced by aboriginality and numeracy performance is indirectly influenced by aboriginality through literacy performance.
4. Students identified to have a disability, perform at a lower level in both literacy and numeracy in metropolitan and non-metropolitan settings.
5. Different factors influence learning that are associated with the distance of the school from Adelaide and the influence of aboriginality on learning, in both literacy and numeracy in metropolitan and non-metropolitan settings.

### **Analyses at the School Level**

1. The level of literacy performance in the school has a very marked influence on the level of numeracy performance in the school.
2. The level of aboriginal participation in non-metropolitan schools has a greater influence on numeracy and literacy performance than in metropolitan schools.
3. The distance of the school from Adelaide has a very strong influence on numeracy and literacy performance in metropolitan school but there is no significant effect in non-metropolitan schools.
4. The proportion of students with a disability has a significant effect on both literacy and numeracy performance in non-metropolitan schools but not in metropolitan schools.
5. The proportion of students from a non-English speaking background has a significant effect on numeracy performance in metropolitan schools but does not have an influence on literacy performance.

The Country Areas Program has a significant effect on performance in literacy, and through literacy, on numeracy in comparisons between all schools, but not in comparisons between non-metropolitan schools. However when the effect of literacy performance is allowed for in comparisons between non-metropolitan schools, the Country Areas Program has a significant direct effect on numeracy performance at the school level.

## **Outcomes**

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The three significant volumes being prepared for publication are:

- Volume 1: Change Over Time in Learning Numeracy & Literacy in South Australian Primary Schools
- Volume 2: Change Over Time in Learning Numeracy & Literacy in Rural & Remote South Australian Schools
- Volume 3: The Processes and Change in Learning Literacy & Numeracy in South Australian Rural Schools
- Aldous, C, (2007). "Dollars do make a difference". A seminar presented at the Framing Futures for Rural and Remote Education, Remote Educational Research Group, Flinders University, November.

Seminar presentations are planned for the second half of 2008 (Eyre Peninsular and the Riverland).

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Resources have been allocated for the publishing and dissemination of the three reports. Given the high quality of the analyses documented in these reports it is hoped that these reports may be used to impact on policy formation with respect to the education provision to rural and remote schools in South Australia.

## **Related documents**

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