Reading Comprehension and Numeracy among Junior Secondary School Students in Australia

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EXECUTIVE SUMMARY

This report examines the performance, and levels of mastery, on tests of reading comprehension and numeracy of Australian students in junior secondary school between 1975 and 1995. Data for the analyses reported were drawn from two national monitoring studies and other studies of representative samples of junior secondary school students designed to monitor the progress of young people through school into further education, training and work. In each of the studies students completed tests that are similar to those conducted in the Australian states and territories and overseas to monitor student performance. The tests focussed on reading skills (which correlate highly with other aspects of literacy) and numeracy.

Although both the reading and numeracy tests were not identical over time they included a substantial number of common items. The existence of common items allowed the construction of single measures of achievement in reading and numeracy. In addition to reporting average levels of achievement on these two scales, the concept of mastery developed for the 1975 study was applied at later points in time. Mastery was defined as competence in the basic skills necessary for active participation in society. Non-mastery on the reading tests does not correspond to 'illiteracy' in the conventional meaning of the term.

The analyses reported include: comparisons of the percentage of students correctly answering common items; the mean levels of achievement and percentage of students attaining mastery at different times; and comparisons over time of achievement and in some instances mastery, by gender, ethnicity, and social background. In addition, the report discusses the results obtained from multilevel multivariate analyses of both school-level and individual-level factors.

Over the period from 1975 to 1995 there was little systematic change in the performance on the common items in the reading tests. There were two counteracting tendencies. Performance on items referring to newspapers articles improved slightly, but declined on items dealing with more difficult textual passages.

With the numeracy tests there were also counteracting tendencies; performance declined marginally on computational items but improved on conceptual items. Analysis of the common achievement scales showed no change in the mean levels of either reading comprehension or numeracy. There was no substantial change in the proportion of 14 year-old students achieving mastery in reading since 1975 but the percentage attaining mastery in numeracy appears to have increased.

Associations between achievement and social and educational factors are detailed in the report. Some of the findings include: a decline in the proportion of boys attaining mastery in reading; a decline in differences in achievement relating to parental occupation for both reading and numeracy; little net change in the performance of students whose home language is not English; and an improvement in the performance of Aboriginal and Torres Strait Islander students in numeracy.