

# Literacy, numeracy 'haven't improved since 1960s'

Posted Sun Feb 10, 2008 10:42am AEDT

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**New research released by the Australian National University shows literacy and numeracy among Australian school children has not improved since the 1960s.**

The research has compared performances by children on the same tests over the period.

Researchers Andrew Leigh and Chris Ryan say neither literacy nor numeracy has improved, and may have even declined.

He says the two main changes since the 1960s have been the reduction of class sizes and the stagnation of teacher salaries.

Dr Leigh says the results are disappointing.

"Our first tests are administered when the *Mavis Bramston Show*, the Beatles and the Holden Torana are the next big thing, that to me feels a very long time ago," he said.

"I feel Australian society has come a long way in that time we're a lot richer our education attainment is a lot higher

"I think we should have expected a lot more out of our schools in that time given the extra resources we've poured in."

Dr Leigh says the results are similar to other OECD countries.

But he says the fact there has been no improvement suggests the additional education spending in recent decades may have been misdirected.

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*Literacy and numeracy among Australian school children has not improved since the 1960s, a new study says. (File photo) (ABC: Jonathan Beal)*

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## Teen performance on three Rs in decline

Ari Sharp  
February 11, 2008

CHILDREN today are no better at reading, writing and arithmetic than their parents and grandparents were, despite better technology, smaller class sizes and developments in theories of education. Advertisement

That was the surprising finding by a pair of economists at the Australian National University who compared results for 13 and 14-year-olds on a set of tests, with data stretching back to 1964 for numeracy, and 1975 for literacy.

In numeracy skills, the typical young teenage student in 2003 was about a quarter of a grade level behind his or her counterpart in 1964, the research found, while a decline was also evident in literacy.

The research uses data from the Longitudinal Surveys of Australian Youth and the International Association for the Evaluation of Educational Achievement.

Economists Andrew Leigh and Chris Ryan set out to test educational outputs such as test scores, rather than inputs — such as class sizes and school funding — which have more traditionally been used to measure advancement in education.

The research, titled *How Has School Productivity Changed in Australia?* challenges the assumption that class sizes and school funding have a strong impact on academic results.

By comparing school funding with test results over time, the research measures the "productivity" of schools. With per-child spending rising but results almost unchanged, the researchers say this represents a decline in school productivity of 13% with regard to the numeracy data, and 73% in the area of literacy.

The lack of improvement in Australian schools is consistent with overseas experience, meaning local schools have not declined relative to their foreign counterparts, the researchers said. "Previous research has suggested that test scores in other OECD countries may also have flatlined over recent decades," they said.

Because of the difficulties in gathering reliable data, the research focuses only on literacy and numeracy skills, leaving open the possibility that improvements have been made in other areas, such as verbal communication and social skills.

Education expert Kevin Donnelly and author of *Dumbing Down* said the research confirmed his view that more money and smaller class sizes did not necessarily lead to better results.

"We need to look at teacher training, teacher professional development, how we reward teachers in the classroom, especially the more successful ones," he said.

Australian Education Union (Victorian) president Mary Bluett said other measures beyond literacy and numeracy needed to be considered to assess the productivity of schools. "You've got to look at social engagement, retention, completion of schooling."

University of Melbourne education professor Richard Teese argued the data was not reliable because of changes in the composition of students and in the tests themselves.

"It's not certain that they are comparing like with like," he said, although he was not certain that numeracy and literacy skills had improved.

<http://econrsss.anu.edu.au/~aleigh/>

This story was found at: <http://www.theage.com.au/articles/2008/02/10/1202578601344.html>



## [ABC Online](#)

### **AM - Researchers claim Australia behind in numeracy and literacy**

[This is the print version of story <http://www.abc.net.au/am/content/2008/s2159073.htm>]

**AM - Monday, 11 February , 2008 08:19:00**

**Reporter: Barney Porter**

TONY EASTLEY: 1964 - it was the time of the Beatles, the Mavis Bramston Show, the EH Holden and prime minister Robert Menzies.

We've seen a lot of changes since then but there are suggestions this morning that there's been little or no improvement in children's literacy and numeracy skills since then.

Researchers claim little has changed despite the millions of dollars pumped into the education system.

More on the story from Barney Porter.

BARNEY PORTER: The researchers from ANU (Australian National University) looked at literacy and numeracy tests between 1964 and 2003 in which successive groups of students were asked the same questions.

They found a typical young teenager in 2003 was about a quarter of a grade level behind his or her counterpart in 1964.

One of the study's authors is Dr Andrew Leigh.

ANDREW LEIGH: Well the test scores have flat-lined over this period. In fact, there's even a little bit of evidence suggesting they may have fallen a smidgin. That's quite surprising given that in many other sectors of the economy, when we put in more money, we expect better outcomes.

One possible theory is the spending was misdirected. We spent a lot of money on getting smaller classes in Australian schools and in the process we allowed teachers' salaries to stagnate. Maybe that was a bad decision in retrospect.

BARNEY PORTER: Are you suggesting that the quality of teaching has dropped?

ANDREW LEIGH: Yes. I mean, we certainly know from previous research the academic aptitude of those entering the teaching profession is lower today than it was 20 years ago.

BARNEY PORTER: That comment's drawn the ire of Angelo Gavrielatos, the president of the Australian Education Union.

ANGELO GAVRIELATOS: What I can assure you and your listeners is that Australia's teachers continue to strive to achieve the best possible outcomes in their classrooms. We

strive to achieve the highest possible standards on a daily basis, and I'm yet to meet a teacher who enters the classroom with any intention other than to improve the educational outcomes of students.

**BARNEY PORTER:** But Mr Gavrielatos also acknowledges a teacher shortage is becoming more serious and that the true extent is being masked by the fact that many teachers are giving classes outside their specialist subjects.

And he agrees money, or lack thereof, does play a role.

**ANGELO GAVRIELATOS:** A competitive professional salary to attract and retain the best teachers in our system is absolutely necessary.

**BARNEY PORTER:** Next May, up to one million students in more than 9000 schools across Australia will be tested in literacy and numeracy as part of the National Assessment Program.

The Education Minister, Julia Gillard, says for the first time, it will produce truly comparable national data to indicate what's working in the classrooms, and what isn't.

**JULIA GILLARD:** We've got to make sure that children leave school literate and numerate. We've got to make sure that literacy and numeracy is formed as early as possible in life because it's the foundation stones for all other learning.

**BARNEY PORTER:** Now, over the years we've had several subtle changes in approaches to teaching. Does that suggest that over these decades, educators are still trying to get the right balance, the right mix?

**JULIA GILLARD:** I think we've reached the stage where the general consensus now is that you need a mix in teaching children to read and write. You need phonics, the way perhaps we were taught, as well as word recognition. These are things for teachers and educationalists to work through.

**TONY EASTLEY:** The Federal Education Minister Julia Gillard ending Barney Porter's report.

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Monday, 11 February 2008

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## Literacy rates stuck in the '60s

Emma Macdonald

Literacy and numeracy performance among Australian students is no better now than it was in the 1960s and 1970s, according to new research from the Australian National University.

The research, by ANU economists Andrew Leigh and Chris Ryan, tracked long-term changes in the performance of successive cohorts of 13 and 14- year-old Australian students on literacy and numeracy tests.

Analysing spending on education over the past four decades, the study questions whether a 258per cent increase in spending between 1964 and 2003 was "misdirected" into reducing class sizes, given literacy and numeracy outcomes have not improved.

According to Dr Ryan, "over the past three to four decades, neither literacy nor numeracy have improved, and may even have declined slightly".

"For example, in numeracy the typical young teenage student in 2003 was approximately a quarter of a grade level behind his or her counterpart in 1964," he said.

"Over this time, per-child spending has increased substantially.

"Yet this additional expenditure does not seem to have succeeded in raising literacy or numeracy." The report recorded a "small but statistically significant" fall in numeracy between 1964 and 2003 and a fall in both literacy and numeracy between 1975 and 1998. There appeared an equal drop in performance for boys and girls.

The researchers noted their findings were not inconsistent with Australia's solid performance on international literacy and numeracy tests.

"On international tests such as the Trends in International Maths and Science Study, and the Programme for International Student Assessment, Australian children do about as well as one would expect, given our GDP per capita," Dr Leigh said.

"But this is not inconsistent with the finding that Australian test scores have failed to rise over time, since previous research has suggested that test scores in other OECD countries may also have flat-lined over recent decades."

Their research cites another 2001 international study which indicated test scores in OECD countries were essentially level between 1970 and 1994.

The researchers emphasised that their findings pertained only to trends in literacy and numeracy.

"We cannot rule out the possibility that Australian students today are doing better on outcomes that were not measured in the 1960s, such as verbal communication or social skills," Dr Leigh said.

"But it is possible that the additional education spending over the past few decades was misdirected.

"For example, decisions to reduce class sizes while allowing teacher salaries to decline relative to other professions may not have been in the best interests of students."

Considering the issue of expenditure and its impact on literacy and numeracy outcomes, the authors calculated that lowering class sizes had accounted for much of the increased spending over the past 40 years.

Students undertaking numeracy testing in 1964 were in average classes of 36, compared with 26 for

students in 2003.

But given the lower test scores, the report calculates overall school productivity has declined by 12-13 per cent between 1975 and 1998 and by 73 per cent between 1964 and 2003.

"This contrasts starkly with multifactor productivity across the economy, which rose by 34 per cent in the period 1975-98 and 64 per cent from 1964-2003," the report said.

The authors said they could not rule out the effect of factors such as changing family structure, social norms and entertainment media.

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**The Canberra Times**

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## Literacy, numeracy standards stuck at '70s levels

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James O'Loan  
October 04, 2008 12:00am

**TODAY'S students are no better at English or maths than those of the 1970s, despite the billions of dollars annually pumped into schools.**

[Australian Council for Educational Research](http://www.acer.edu.au/) (<http://www.acer.edu.au/>) findings, presented in Brisbane recently, showed no improvement in young people's literacy and numeracy skills from 1975 to 1998.

The most instructive study asked identical and similar questions of 14-year-olds across the country over the 23-year period.

There was no increase in averaged scores. Boys' literacy dropped and girls' rose slightly.

Other, more recent, findings collated by the Australian National University confirmed the trend in classrooms around the country has continued since 2000, in particular a decline in reading skills.

The results make Queensland's second last placing among the states and territories at this year's first national tests even more alarming.

Education agitator [Kevin Donnelly](http://www.onlineopinion.com.au/author.asp?id=95), (<http://www.onlineopinion.com.au/author.asp?id=95>) who wrote *Dumbing Down and Why Our Schools Are Failing*, slammed Queensland's education establishment for its lack of progress.

Dr Donnelly said the Queensland Studies Authority, and successive education ministers and departments, had failed for 20 years by adopting "pretty new-age" methods.

"Kids just aren't being taught formal grammar," he said.

"Ministers come and go, governments come and go but bureaucrats don't change. The minister jumps up and down for a week but the people given the job to fix it are the same people who created the mess."

Dr Andrew Leigh, an ANU economist and author of the report, said Australian governments proved it was easy to waste money on education.

A report by Dr Leigh and Chris Ryan showed government spending per student in Australia had more than doubled between 1964 and 2003.

"The real question is why we've increased school funding so dramatically yet seen no improvement in literacy and numeracy," Dr Leigh said.

Education Minister Rod Welford refused to comment yesterday, two weeks after admitting his department's entrenched funding practices had failed to improve results in low socio-economic areas.

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## Report shows students in 1960's better educated

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Article from: [Herald Sun](#)

Jane Metlikovec  
February 11, 2008 12:00am

### **SCHOOL students in the 1960s could read, write and count better than those today, according to a new report.**

Australian National University researchers found student literacy and numeracy had not improved since Sir Robert Menzies was prime minister and the Beatles topped the charts.

Dr Andrew Leigh and Dr Chris Ryan tracked literacy and numeracy standards by comparing student results from the same tests over successive years for their report, *How has school productivity changed in Australia?*

"Over the past three to four decades, neither literacy nor numeracy have improved, and may even have declined slightly," Dr Ryan said.

"In numeracy, the typical young teenage student in 2003 was approximately a quarter of a grade level behind his or her counterpart in 1964."

The researchers said this was despite increased government spending on education over the past 40 years.

Spending increased by 238 per cent from 1964-2003, they said.

"It is possible the additional education spending over the past few decades was misdirected," Dr Leigh said.

"This additional expenditure does not seem to have succeeded in raising literacy or numeracy."

Dr Leigh said government policy could have contributed to the declining student standards.

"Decisions to reduce class sizes while allowing teacher salaries to decline relative to other professions may not have been in the best interests of students," he said.

Dr Leigh said lower salaries had led to a fall in teacher quality from 1983-2003, which would have contributed to a decline in student results.



State education departments need to focus on evidence-based policy making, he said.

"We need to measure different practices to see which are the best," Dr Leigh said.

"Results from one class with small student numbers should be compared against another class which has a top teacher."

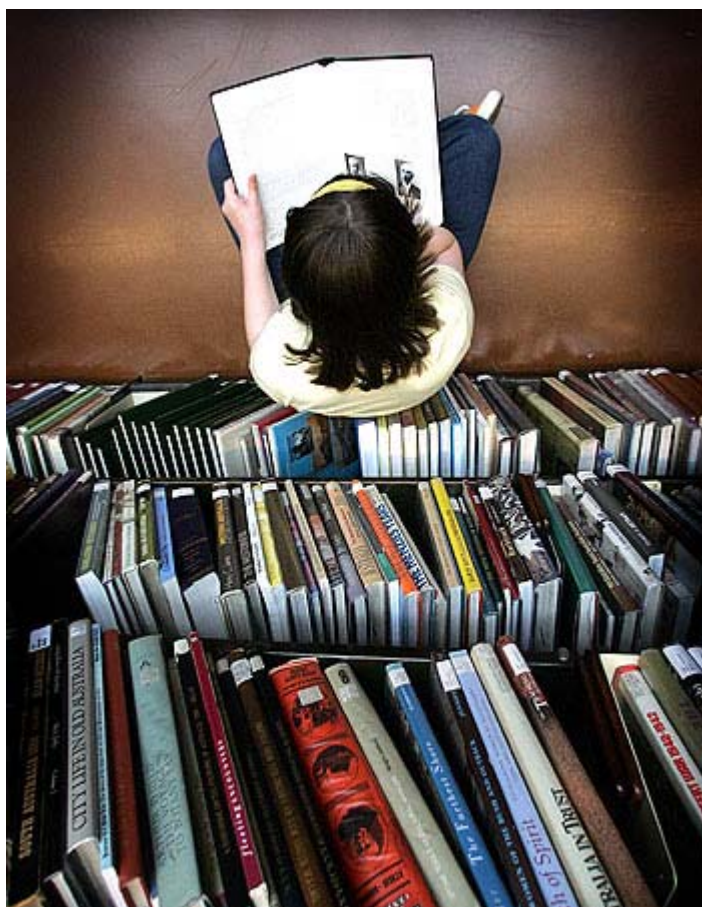
State Education Minister Bronwyn Pike recently applauded Victorian grade 3, 5 and year 7 students for meeting, and often exceeding, national benchmarks for literacy and numeracy.

Figures from the National Report on Schooling in Australia, released earlier this month, showed more than 96 per cent of grade 3 and 5 students met the writing benchmark, out-performing every state and territory in Australia.

The State Government has also committed \$11.7 million to employ 45 literacy specialists.

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Behind the times: Child literacy and numeracy rates have fallen since the 1960's.

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 **THE AUSTRALIAN**

February 11, 2008 02:16am AEDT

## **Students trailing those of the 60s**

Justine Ferrari and James Madden | February 11, 2008

**TEENAGERS' reading and maths skills have declined over the past four decades, despite education spending per student more than doubling.**

A study by Australian National University economists released yesterday suggests 14-year-olds today are, in learning terms, about three months behind their counterparts in the 1960s.

The researchers from ANU's Research School of Social Sciences suggest the piling of resources into creating smaller classes, at the expense of paying more for better teachers, could be to blame.

Andrew Leigh and Chris Ryan say the fall is not due to demographic changes, such as an increase in non-English-speaking migrants. In fact, the decline is even more marked after those changes are taken into account.

Federal Education Minister Julia Gillard said yesterday the Government's national action plan for numeracy and literacy would address the shortfall.

"The Rudd Government understands that literacy and numeracy skills are the building blocks of a good education," she said.

But Opposition education spokesman Tony Smith said the report highlighted why "a real education revolution needs to be more than delivering computers in boxes to schools".

Dr Leigh said the findings suggested the boost to school funding over the past 40 years had been misdirected.

"In the 1960s, the Beatles were the biggest story around; since then we've moved on in technology, the labour market and Australia has become more productive," he said.

"I was surprised to see test scores haven't risen. There's a whole lot more money put into Australian schools and we don't seem to be getting more out of them in terms of literacy and numeracy."

The study estimates that real spending in schools rose 258 per cent per student between 1964 and 2003. If productivity in schools is estimated as the money spent for each point on the literacy and numeracy tests, the researchers estimate that their productivity has fallen up to 13 per cent between 1975 and 1998 and by 73 per cent since 1964. This is in contrast with productivity across the economy, which rose by 34 per cent from 1975 to 1998 and by 64 per cent from 1964 to 2004.

Dr Leigh said cutting class sizes by about 10 per cent over the past 40 years had increased the number of teachers in schools. At the same time, teachers' salaries were allowed to fall in comparison with those of other professions, also by about 10 per cent.

The newly announced head of the National Curriculum Board, Barry McGaw, agreed that trading teachers' salaries for smaller class sizes across the board was not the best decision.

Professor McGaw, director of the Melbourne Education Research Institute at the University of Melbourne and architect of the OECD international student tests, said a better move would be to have some very small groups of students offset by some larger ones.

Professor McGaw said the study's findings were in line with the OECD's Program for International Student Assessment, conducted among 15-year-olds, with the latest study showing a fall in reading scores among Australian students at the top level.

"We have to target our investment better," he said.

The ANU study compared the results of national numeracy tests undertaken by 14-year-olds in Year 9 in 1964 and in 2003, and in literacy and numeracy tests taken in by 14-year-olds in Year 9 in 1975 and 1998.

Dr Leigh said students today might be performing better in skills not measured in the 1960s such as verbal communication or social skills.

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## Grades worse than in 1960s

Anna Patty Education Editor  
February 11, 2008

THE literacy and numeracy performance of Australian students has not improved since the 1960s, suggesting the increase in money invested on education has been misdirected, a study has found. Advertisement

Research by the economists Andrew Leigh and Chris Ryan, from the Australian National University, said government investment in reducing class sizes, while allowing teacher salaries to decline, relative to other professions, may explain why standards had fallen.

"Over the past three to four decades, neither literacy nor numeracy have improved, and may have declined slightly," Dr Ryan said. "In numeracy, the typical young teenage student in 2003 was approximately a quarter of a grade level behind his or her counterpart in 1964.

"Over this time, per-child spending has increased substantially. Yet this additional expenditure does not seem to have succeeded in raising literacy or numeracy."

The research compared the numeracy and literacy test results of 13- to 14-year-olds. It found a statistically significant drop in numeracy levels between 1964 to 2003 and in numeracy and literacy between 1975 and 1998.

Data was taken from two national sets of tests. Numeracy results were compared from 1964 to 2003 and literacy scores from 1975 to 1998.

The researchers said there was a 10 per cent increase in school expenditure from 1975 to 1998 and a 258 per cent increase between 1964 and 2003.

Productivity was measured in terms of literacy and numeracy points per dollar spent on education. The results suggested a drop in productivity over the past three to four decades.

The researchers did not regard the results as being inconsistent with Australia's strong performance when compared with other countries on international tests, as "the previous research has suggested that test scores in other OECD countries may also have flatlined over recent decades", Dr Leigh said.

"We cannot rule out the possibility that Australian students today are doing better on outcomes that were not measured in the 1960s, such as verbal communication or social skills.

"But it is possible the additional education spending over the past few decades was misdirected.

"Decisions to reduce class sizes while allowing teacher salaries to decline relative to other professions may not have been in the best interests of students."

*This story was found at: <http://www.smh.com.au/articles/2008/02/10/1202578600934.html>*