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The summer achievement gap

Looking beyond school to what happens during the summer break could provide new insight into disparities in students' reading achievement.

With an emphasis on schools to close the achievement gap, teachers, both here and overseas, work to address the persistent disparity in achievement between different groups of students, particularly those from disadvantaged backgrounds. However a growing body of research in the USA is looking beyond the progress students make in class, and is examining what happens outside school hours, particularly during the summer break.

Although there is not yet research in Australia examining the phenomenon, Americans call it the 'summer slide', a term used to refer to students' learning losses over the summer break. Documented by researchers over many years, the summer learning setbacks are likely more profound in the case of American schools which break for just over three months. The research encourages an examination of the experiences of students while they are not in school and raises questions as to what extent schools can fully tackle the achievement gap.

A longitudinal study conducted by Alexander, Entwisle and Olson (2001) examined the reading standardised test results of low-, middle- and high-income students in Baltimore, USA. They found that by the time students finished primary school, low socio-economic status (SES) students were even further behind high SES students than when they started school. The researchers went further and analysed the results in relation to seasonal learning gains.

The study found 'little (or no) school-year differentiation of achievement gains by race of family SES level' and despite starting school slightly behind, school played a key 'compensatory role, carrying along disadvantaged children at a pace close to that of their more advantaged classmates'. They also found that children learn more and more effectively when they are in school. In Grade 2, low SES students gained more than their middle and high SES classmates in terms of their reading abilities.

An analysis of the learning gains during the summer break revealed a very different story. Table 1 represents the gains made by the same group of 790 primary students annually during each summer vacation according to SES level. The final column shows the cumulative gains made over the four year period. The disparities are most striking when looking at SES extremes. While students in the high SES group bound ahead each summer, students in the low SES group overall make little improvement meaning they start school where had been the previous year, or in some cases fall even further back.



Table 1: Summer achievement gains in reading by socioeconomic level (assessed using the California Achievement Test)

Class	After 1st summer vacation	After 2nd summer vacation	After 3rd summer vacation	After 4th summer vacation	Total
Low	-3.67	-1.7	2.74	2.89	0.26
Middle	-3.11	4.18	3.68	2.34	7.09
High	15.38	9.22	14.51	13.38	52.49

The cumulative effect of this loss means that by Year 9, summer reading losses could account for around 80% of the reading achievement gap. The researchers use the analogy of a ‘tap’ to provide some insight into these findings; while students are in school there is a flow of resources, and all students have the opportunity to gain equally. However, when not at school, the ‘tap’ is turned off and disadvantaged children cannot access the resources that enable more privileged children to gain valuable additional out-of-school knowledge.

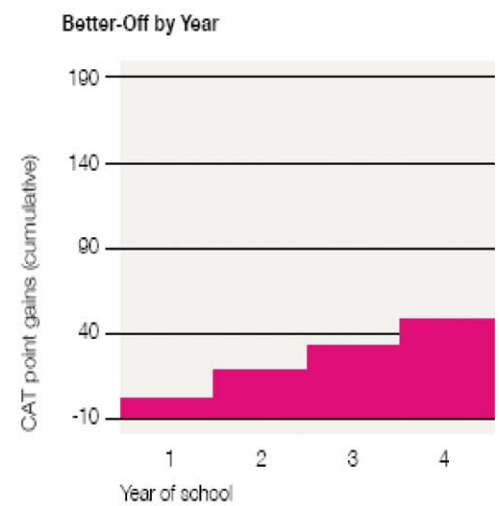
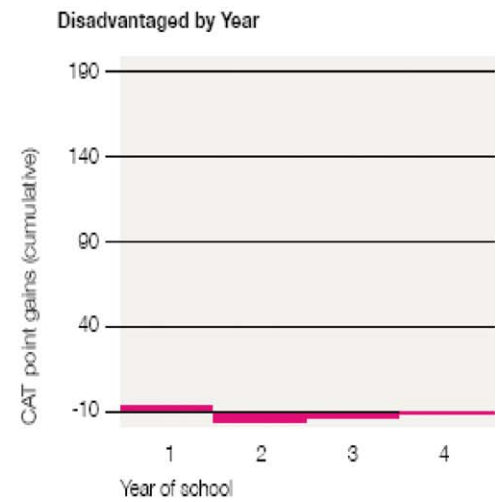
Children access knowledge through a wealth of books and the Internet, and when access to these resources is not available to some their development is hindered. According to Neuman and Celano, children from ‘poor communities live in information poor neighbourhoods, where a lack of resources means they have little access to much information’. They cite a figure that access to books for middle-class children in the USA is about 12 books per child, whereas for poor neighbourhoods it is about one book for every 355 children.

However, simply turning on the ‘tap’ and providing low SES students with more books or Internet access is not the solution according to Neuman and Celano. Their research into students’ use of books and the Internet in public libraries indicates that even when disadvantaged children are given equal access, they do not use the resources in the same way as middle-class children. They found that low SES children choose ‘books with less print and computer applications with more entertainment and less information’, leading to what Jan van Dijk labels a ‘usage gap’ between children from different socio-economic backgrounds.

Further, Neuman and Celano reveal that, ‘for every one line of print read by low-income children, middle-class children read three’. Through a competent, discerning utilisation of resources, the middle-class children will make more and more progress in terms of their reading abilities.

To tackle this, Alexander et al. highlight a need to supplement ‘regular schooling through a long-term, coordinated program of intervention’. They suggest that the emphasis should be on ‘minimising the achievement gap at the point of school entry’. Research (Ramey, Campbell & Blair 1998; Schweinhart & Weikart 1998) indicates that good preschools can improve success later in life for disadvantaged children, by reducing the risk of retention or risk of high school drop out for example. The importance of a ‘multidisciplinary approach to children’s learning’ through an integrated and cohesive service system in the early years is highlighted in the DEECD *Victorian Early Years Learning and Development Framework*.

Alexander et al. also stress that attendance at a good preschool should be paired with rich, ongoing supplementation of learning resources throughout school, to enable poor children to gain and maintain an academic edge. They also suggest that home-school partnerships that continue when school is closed would also provide an avenue to address the learning losses experienced by low SES children outside of school.



The graphs show cumulative gains on the California Achievement Test (CAT) in reading over primary school years and summers. Sample consists of Baltimore public school students who entered Grade 1 in 1982.

(From Alexander, K., Entwisle, D. & Olson, L. 2007, ‘Summer learning and its implications: insights from the Beginning School Study’, *New Directions for Youth Development*, 114, pp. 11–32)

For educators, it is difficult to know what happens when a student leaves school. What is clear from the above research is that schools are vital in mitigating the effects that result from the inequalities of an individual's social position. There is an interest in further research to investigate the implications of seasonal learning in Australia, to explore what further can be done to prevent out-of-school learning losses and examine alternative approaches to closing the achievement gap.

Bibliography

Alexander, K., Entwisle, D. & Olson, L. 2001, 'Schools, achievement, and inequality: a seasonal perspective', *Educational Evaluation and Policy Analysis*, vol. 23, no. 2, pp. 171-191.

Allington, R. & McGill-Franzen, A. 2009, 'Why summers matter in the rich/poor achievement gap', *Teachers College Record*, August 2009.

Celano, D. & Neuman, B. 2008, 'When schools close, the knowledge gaps grows', *Phi Delta Kappa*, vol. 90, no. 4, pp. 256-262.

Department of Education and Early Childhood Development 2009, *Victorian Early Years Learning and Development Framework*, Department of Education and Early Childhood Development, Melbourne. <http://www.eduweb.vic.gov.au/edulibrary/public/earlychildhood/learning/veyldframework.pdf>

Gladwell, M. 2008, *Outliers*, Little, Brown and Company, New York.

Ramey, C., Campbell, F. & Blair, C. 1998, 'Enhancing the life course for high-risk children: results from the Abecedarian Project', in J. Crane (Ed.) *Social programs that work*, Sage Foundation, New York.

Schweinhart, L. & Weikart, D. 1998, 'High Scope Perry Preschool Program effects at age twenty-seven', in J. Crane (Ed.) *Social programs that work*, Sage Foundation, New York.

van Dijk, J. 2005, *The deepening divide: inequality in the information society*, Sage, California.



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