

The Effect of Summer Vacation on Student Achievement for Disadvantaged Students

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Some know it as the “summer learning effect” (SLE), others call it summer learning loss or the “summer slide.” Regardless, educators are not talking about time spent on the playground when they use these terms. They are referring to loss of academic skills during the summer months, which most significantly impacts students from low socio-economic backgrounds. These students lose an average of three months grade-level equivalency during the summer each year (Smith & Brewer, 2007, p. 2). Educational researchers have been studying this phenomenon for decades, attempting to discern potential causes for this loss. The purpose of this study is to identify the effectiveness of an enrichment-based summer program on student achievement during the summer as a potential solution to reducing the effects of summer learning loss for disadvantaged students.

Impact of Socio-Economic Status on Academic Achievement for Students

Ready (2010) provides some explanations for the academic inequality low-income students experience upon entry into kindergarten. Unlike their more advantaged counterparts, students from low socio-economic backgrounds begin school at a significant disadvantage which begins with exposure, or lack thereof, to language. These students are more apt to experience disparities in their family life, school and community and higher mobility rates and chronic illness which only exasperates attendance issues. Each of these factors can negatively impact student achievement prior to and upon entry into school (p. 82-83). Downey, von Hippel, and Broh (2004) reported disparity in language exposure prior to entering kindergarten with students from low income families being exposed to approximately 70% fewer words than children in more financially stable homes (p. 615).

The relationship between socio-economic status (SES) and children’s school outcomes is significant upon entry into school at kindergarten (Burkam, Ready, Lee, & LoGerfo, 2004, p. 2).

Alexander, Entwisle, and Olson (2001) referenced a myriad of factors that have a negative impact on school readiness for disadvantaged youth: “the drag of poverty, family stress, and community decay” (p. 172). Realistically speaking, these factors do not disappear once school begins; instead, these out-of-school factors continue to negatively impact children throughout schooling, significantly impacting them the most when they are not in school.

Rate of Progress of Learning for Students

Studies have consistently shown that low SES and high SES students progress at similar rates during the school year; however, an achievement gap continues to exist (Alexander et al., 2001, 2007; Burkham et al., 2004; Downey et al., 2004). Although low SES students are able to keep up with the middle and upper SES peers during the school year, having entered school already behind, the negative effects of the summer slide put them at a greater disadvantage (Alexander et al., 2001, p. 177-178). Summer learning loss has a significant negative impact on student achievement in literacy with the cumulative effect contributing to more than half of the difference in literacy achievement, after five years, the differences being greater than literacy scores at the time of enrollment in school (Jesson, McNaughton, & Kolose, 2014, p. 45).

Barriers to Equity for Disadvantaged Students

Burkam et al. (2004) suggested that students from disadvantaged homes “lack the financial, psychological, and cultural capital” necessary to adequately prepare children for schooling or sustain academic progress during summer months after entering formal school (p. 6). Research conducted by Ready (2010) supports the clearly established notion that children from disadvantaged homes enter school behind their advantaged peers with fewer academic skills, and suggests that the disparity between these two groups only widens as students continue in school (p. 274). His assertion

that chronic absences from school by children living in poverty also contribute to lack of progress in school for these students is significant. This assertion by Ready was supported in the findings from the National Center for Education Statistics' 2006 report which concluded "children living in poverty are 25 percent more likely to miss three or more school days per month" (p. 272).

Summer Learning Loss

Ready's (2010) assertion that the existing cognitive differences between advantaged and disadvantaged students at school entry persist, actually increasing as they move through the formal years of schooling should not be discounted (p. 271-272). This widening achievement gap can be attributed to the summer slide. A review of the literature on summer learning loss or the summer slide identified four major studies over a span of ten years (1978-1998) which yielded similar results.

The Disparity between Advantaged and Disadvantaged Student Academic Progress

In 1978, Heyns conducted a study of 6th and 7th grade students in Atlanta with a goal of demonstrating the substantial effect schooling can have on student achievement. Cooper, et al. (1996) supported Heyns' finding that schooling results in outcomes that are more equal than expected for students from both advantaged and disadvantaged homes through their findings in their meta-analytic review of 13 research studies on the impact of summer vacations on retention of academic skills and learning over summer months (p. 243). This finding was also supported by studies conducted by Helf, Konrad, and Algozzine (2008, p. 421) and Burkam et al. (2004, p. 3). Although advantaged students learn at faster rates than their disadvantaged peers during the school year, the disparity in cognitive growth between advantaged and disadvantaged students only widens during summer months (Burkam et al., 2004, p. 3). This inequality of cognitive skills emerges primarily during summer months when school is not in session (Downey et al., 2004, p. 632).

In an analysis of the findings of the Early Childhood Longitudinal Study (ECLS), Alexander

et al. (2007) reported that learning gains for advantaged and disadvantaged students are nearly equal during the school year (p. 168). This study of the kindergarten cohort of 1998-99 was comprised of a nationally representative sample of children in kindergarten and first grade during the summer of 1999. Alarming, economically advantaged children begin school with both higher verbal and math skills than their disadvantaged peers, placing them at a deficit before formal schooling begins.

Findings from the Baltimore-based Beginning School Study (BSS) point to experiences outside of school having a greater influence than formal schooling. Factors including socio-economic status and opportunities for experiential learning both prior to the start of formal schooling and during the summer must be considered when researching potential effects of summer vacation on academic progress and retention during summer months. Alexander et al. (2007) asserted that the disparity in academic achievement between advantaged and disadvantaged students begins to develop substantially during the years prior to first grade, continuing throughout formal schooling during the summer months. Statistically relevant are the impacts on future schooling with only 13 percent of disadvantaged students attending college preparatory programs compared to 62 percent of advantaged students. With 33 percent of disadvantaged students dropping out of high school compared to 3 percent of advantaged students, it's no wonder only 7 percent of disadvantaged students attend college compared to 60 percent of advantaged students. The initial gap between high and low socio-economic students identified as a result of the BSS study was found to be 26.48 ($p \leq .05$) at entry in first grade. At the end of year 9, the gap widened significantly to 73.16 ($p \leq .05$) further supporting the notion that out of school learning or lack thereof, greatly impacts future schooling experiences (p.70).

Downey et al. (2004) suggest the importance of studying the effects of summer learning loss during elementary schooling as cognitive growth rates are higher during early grades (p. 616). The significance of early learning when brain development and cognitive growth is greatest must

be considered when attempting to address early academic growth, especially during summer months. The potential for reducing the achievement gap should begin with a look at early learning experiences which must reduce the inequities faced by children in less-advantaged homes. Although advantaged and disadvantaged students learn at similar rates during the school year and more efficiently when they are in school, consideration must be given to the inequity between early learning experiences for these two groups while developing summer programming to minimize negative effects of out-of-school contexts during summer months, especially for disadvantaged students (Alexander et al., 2001, p. 177).

Student achievement scores decline over summer months when students are not in school. On average, this loss equates to one month of a grade level equivalency or 1/10 of a standard deviation as evidenced in the meta-analysis of 39 studies to determine the effects of summer learning loss conducted by Cooper et al. (1996, p. 266). Cooper, Valentine, Charlton, and Melson (2003) support these findings. Cooper et al. (1996) also found that summer learning loss is more detrimental for math than it is for reading for both advantaged and disadvantaged students, whereas, greater negative effects are seen in reading for disadvantaged students. The negative effects of summer learning loss markedly increase as students progress through grades (p. 265).

Contradicting Evidence

Research supporting the existence of summer learning loss and negative effects on both reading and math requires attention be given to summer programming efforts for students; however, a study by Helf et al. in 2008 contradicts these studies. Their study involved 151 students in kindergarten through second grade found that young children from disadvantaged home did not show a drop in early literacy skills during summer months. They suggest that their findings differ from Heyns, the ECLS, the BBS, and Cooper et al. (1996) due to the nature of their study which focused on younger students and fluency/decoding as the reading

measure whereas the other studies focused on math, reading comprehension, and spelling (p. 427).

The Need for Summer Programming

Findings suggest that math instruction is most needed for all students during summer months with a significant focus placed on reading instruction for students from disadvantaged homes indicate that summer programming should be considered. Such programming should be engaging, relevant, meaningful and non-punitive (Alexander et al., 2001, p. 184). Cooper et al. (2003) indicated that summer programs which focus on remediation, acceleration or enrichment for students have a positive impact on student academic growth. They assert that remedial programs should consist of small class sizes with individualized instruction in order to achieve a greater effect size (p. 7). Burkam et al. (2004) reported findings from Ricciuti and Karweit's 1997 study of Chapter I programs which indicated that only 10 percent of children in high poverty schools attend summer school (p. 4).

Downey et al. (2004) noted that "schools are more a part of the solution than part of the problem" (p. 616) in their ability to serve as an equalizers for both advantaged and disadvantaged students who gain cognitive skills at similar rates during the school year, based on their analysis of Heyn's and Entwisle and Alexander's studies. If this is indeed true, how can schools become part of the solution in the summer months? What types of programming must schools provide for disadvantaged students to reduce the negative effects of the summer slide and decrease the achievement gap between disadvantaged and advantaged students?

Enrichment or Remediation during Summer Instruction

Cammarota (2007) asserted that disadvantaged students who are underperforming should not participate in remedial programs as they "will only solidify their failure" (p. 88). He argued that remedial programs encourage students to become unmotivated and disengaged from school through rote activities and constant drills and "that indicators pointing to low academic performance

should lead to curricular changes that motivate and challenge students, instead of remedial approaches that simplify the curriculum to rote learning” (p. 88). Cooper, et al. (2000) asserted that the optional nature of summer school often encourages students to drop out or choose not to participate (p. 15). Too often, parents of students in elementary school decide that their children do not need extra schooling, they need time to be children and enjoy the summer. With this as a barrier to student participation, efforts to encourage student enrollment and participation become paramount to the successful summer program in hopes of reducing the effect of the summer slide.

Conclusion

With high-stakes testing and an increase in accountability for schools it is imperative that we identify best practice and determine most effective programming for students. Given the disparity which exists between advantaged and disadvantaged students at entry into school, focus should be given to ways to eliminate the increasing achievement gap that occurs as a result of summer vacation and time away from school. Where advantaged students have access to continued learning experiences through the summer months, disadvantaged students do not have equal access. The careful and thoughtful planning of effective programming for instruction through the provision of an extended enrichment summer program for students is warranted. Such a program will engage students in meaningful instruction which will strengthen students’ academic skills which will result in increased student academic achievement for students. This premise is supported by preliminary results collected and analyzed by an urban public school division in southwestern Virginia which provided enrichment Reading Camps for elementary school students during the summer of the 2011 school year. Results from the 2011 Spring Phonological Awareness Literacy Screen (PALS) (grades 1-3) and Reading Standards of Learning (SOL) test pass rates and the 2012 Spring PALS (grades 1-3) and Reading SOL test pass rates indicated increased student academic achievement in reading at sixteen of the seventeen

elementary schools with the final school demonstrating maintenance of student progress.

Further research into programs which encourage involvement of disadvantaged students through an extended enrichment-based learning program might provide insight as to potential for decreasing summer learning loss and increasing effects on both reading and math achievement for these students. Based on the research presented in Heyns, the ECLS, the BSS, and in Cooper et al. (2006), it is expected that participation in an extended enrichment based learning program would benefit both advantaged and disadvantages students with both groups showing similar gains in math and disadvantaged students benefiting more from reading instruction than their advantaged peers. More research on the effects of summer programming are needed in order to guide educators to optimize summer learning experiences for all students.

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