LEARNING OPPORTUNITIES FOR LOW ECONOMIC STUDENTS

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Reducing the Low SES - Advantaged Student Achievement Gap

The No Child Left Behind Act (2001) brought attention to the achievement gap between low income students and advantaged students, as well as gaps between children of minority ethnicities. At the high school level, these gaps are closely related to graduation and dropout rates as well as college attendance for specific groups of students. (Darling-Hammond, Zielezinski, & Goldman, 2014) Students that are provided with multiple opportunities for learning demonstrate higher achievement than those low socioeconomic status (SES) students.

The one of the most pronounced differences in low income and advantaged students is the access to electronic devices and access to the internet. Internet access breaks down classroom walls and connects us globally. A 2013 PEW Research Study found that "56% of teachers of students from higher income households say they or their students use tablet computers in the learning process, compared with 37% of teachers of the lowest income students." (Purcell, Heaps, Buchanan, & Friedrich, 2013) Low SES students are less likely you own a computer or other internet device than advantaged students as well as less frequent internet access. "Only 3 percent of teachers in high-poverty schools agreed that "students have the digital tools they need to effectively complete assignments while at home," compared to 52 percent of teachers in more affluent schools" (Darling-Hammond, Zielezinski, & Goldman, 2014, p. 3). Through use of technology, students can explore areas of the globe that were previously inaccessible to them, explore new concepts in a variety of methods including simulations, maps, videos, 3D models and more. Additionally, research has shown that students learn more when they also create the content in a digital format. (Darling-Hammond, Zielezinski, & Goldman, 2014). Using technology allows for a flexible learning environment so that students of all abilities can learn at their own pace.

Teachers can provide additional avenues to complete assignments using the schools technological resources. While teachers can not directly affect the number of low SES students

that have access to digital technologies in their home, they can provide a multitude of opportunities to use classroom technologies to complete assignments. Additionally, minimizing the amount of "homework" utilizing technology can be effective in reducing the technology barrier between low SES and advantaged students. Many schools have received grant funding to purchase Google Chromebooks for their students, providing a 1:1 device ratio. When given 1:1 access, students are more likely to access learning opportunities regularly (Darling-Hammond, Zielezinski, & Goldman, 2014). Furthermore, utilizing technology in the classroom, mimics real world experiences and provides students with 21st century skills for the future. Utilizing these skills, students can achieve higher income jobs, increase graduation/reduce dropout rates and end the cycle of poverty within their family.

Standardized intelligence tests show a correlation between poverty and lower cognitive achievement, and low-SES kids often earn below-average scores in reading, math, and science and demonstrate poor writing skills" (Jensen, 2009, p. 1). Studies have additionally shown that low income students who are provided with educational materials such as books at home, have more success than those who are not provided with the same materials (Jensen, 2009). Providing a classroom library of resources that can be loaned out is one method of combatting this issue. Secondly, allowing access to the school library school computer labs, as well as the local library provides additional reading resources for low SES students. However, just providing the resources is not enough, internet access and educational resources are still unequal between low SEs and advantaged students. Studies have shown that students with home educational resources and personal computers have more time to pick and choose sources than those low SES students. Low SES students do not have the time, resources or bandwidth to go through the results one by one. Parents of higher income, advantaged students typically educate students on the validity of sources

both online and paper. Educating parents on the needs of educational materials in the home and on digital literacy is one step in reducing the achievement gap between low SES and advantaged students.

Children in poverty make up more than 50% of our students (Darling-Hammond, Zielezinski, & Goldman, 2014). Children who are food insecure have limited access to meals. Children who experience hunger are more likely to have issues with memory and concentration because they do not have the energy to properly carry out these brain functions. The brain needs energy to function properly. We obtain our energy from food in the form of calories. Without the energy obtained from the calories in food, students are more tired, lack energy and struggle to focus cognitively. Additionally, malnutrition can affect sleeping patterns, making a long day of classes difficult to get through (Walthouse, 2014).

In the science classroom, eating is not allowed due to the presence and use of chemicals and sensitive laboratory equipment. However, providing a drawer full of heathy snacks such as granola bars that any student can grab to take with them to their next class or to eat in between class breaks in block scheduled classes can help to combat student hunger and increase cognitive ability. Providing snacks to all students increases student trust and classroom community (Spies PhD., Morgan Ph.D, & Matuura, 2014). Teachers can additionally provide morning snacks such as cereal and fruits during homeroom, as well as during afterschool homework sessions. In addition to classroom teachers, administrators should be continually implementing strategies and techniques to identify students that are suffering from hunger on a year round basis.

Teachers can additionally educate themselves on the socioeconomic status of all their students. Understanding their student populations, family factors and educational needs of their

students not only will help to reduce achievement gaps between low SES and advantaged students but also create a classroom community of trust and respect between students and educators.

Teachers can combat the achievement gaps between low SES and advantaged students through implementing access to technology, computer and library resources, educating parents on educational needs, providing classroom snacks ot combat hunger and educating themselves on their students socioeconomic status and needs. Providing additional opportunities and rigorous learning opportunities for all students will increase student cognition, memory and comprehension, as well as increase gradation/reduce dropout rates and increase college admittance rates for students.

References

Darling-Hammond, L., Zielezinski, M. B., & Goldman, S. (2014). *Using Technology to Support At-Risk Students Learning.* Standford, CA: Standford Center for Opportunity Policy in Education (SCOPE).

DoSomething.org. (n.d.). *11 Facts About Hunger in the U.S.* Retrieved from Do Something: https://www.dosomething.org/facts/11-facts-about-hunger-us

Jensen, E. (2009). Chapter 2: How Poverty Affects Behavior and Academic Performance. In E. Jensen, *Teaching with Poverty in Mind* (p. November). ASCD. Retrieved from http://www.ascd.org/publications/books/109074/chapters/How-Poverty-Affects-Behavior-and-Academic-Performance.aspx

Purcell, K., Heaps, A., Buchanan, J., & Friedrich, L. (2013, February 28). *How Teachers Are Using Technology at Home and in Their Classrooms.* Retrieved from PEW Research Center: http://www.pewinternet.org/2013/02/28/how-teachers-are-using-technology-at-home-and-in-their-classrooms/

Spies PhD., T., Morgan Ph.D, J. J., & Matuura, M. (2014). The Faces of Hunger: The Educational Impact of Hunger on Students with Disabilities. *Intervention in School and Clinic*, 5-14.

Walthouse, E. (2014, July 2). *The Effects of Hunger on Education.* Retrieved from The Borgen Project: http://borgenproject.org/effects-of-hunger-on-education/