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A Call to Address Academic Difficulties Resulting from the COVID-19-Related Change in Education Delivery

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Abstract

As the corona virus pandemic forced school closures worldwide, online platforms have become invaluable tools for allowing instruction to continue smoothly and, hopefully, for mitigating the severity of any student learning disruptions associated with the COVID-19 forced school closures. Although distance-learning is currently necessary, it is a blunt tool that may prove to be inadequate, compared to face-to-face teaching content delivery, for meeting students' educational needs resulting from COVID-19-forced school closures. It is very likely that the sudden shift to distance-learning has will disadvantage many students who are not experienced with or prepared for the dramatic changes that have occurred in the delivery of formal education. Here, we proffer a call to education-scholars to engage in investigations designed to provide research-informed knowledge and understanding of what pedagogical methodologies are needed for addressing learning deficiencies inherent in distance-learning instruction, and to effectuate the changes needed to provide an equitable educational experience to all students, during the uncertain times of the COVID-19 pandemic.

Keywords

distance-learning, COVID-19, pedagogical methodologies

Under "normal" educational situations, American students have experienced academic performance disparities attributable to the negative influences of Socio-Economic Status (SES) and other environmental factors. Academic performance is also influenced by biological characteristics, such as racial and ethnic differences among students. Educational disparity among K-12 and university students has a long history of plaguing the American educational system. Indeed, the United States has been

concerned with educational disparity for over 75 years. Research shows that throughout that time, university graduation rates have been significantly higher among students from high-income families than from low-income families (see Pell Institute report for a comprehensive list of factors that impede educational success, Cahalan, Perna, Yamashita, Wright-Kim, & Jiang, 2019).

Race and ethnicity are among the key factors associated with academic success or lack thereof. Notably, Hispanic and African-American higher education enrollment has significantly increased in recent years (Carnevale & Strohl, 2013), indicating that the enrollment gap observed between minority versus White and Asian-American university students is narrowing. Although this is encouraging news on the surface, a more critical examination of the historical data shows that the gap in university completion rates persists, with the greatest disparity existing between Whites and Asian-Americans versus Hispanics and African-Americans. It has been noted that as more students arrive on campus, wealth and race-based inequality continues to increase (Cahalan et al., 2019). Such disparity, collectively known as the academic achievement gap, has its roots in the early education years, widens through the high school years, and persists during higher education (Cahalan et al., 2019). Students who graduate as the products of long-term, low-quality education, along with those who suffer from socio-economic disparity and especially those from ethnic minority backgrounds, may be less successful at attaining high-income, professional careers after graduation (Cahalan et al., 2019). Thus, the academic gap has been shown to transform into a career chasm for poor academically underserved students.

Historically, researchers have attempted to close the gap, but they have met with limited success due to persistent poverty and lack of enriched educational experiences and opportunities that preclude educational and socioeconomic success among many American children and their families. Given these existing social realities, a current fear among education scholars, teachers, policy makers and the general public is that the unprecedented COVID-19 compulsory shift in the delivery of quality education will likely pile on with existing educational success impeding factors to deepen and widen the academic achievement gap. Thus, development, testing, and successful implementation of a broad scientific approach to education intervention, is essential for addressing negative educational outcomes associated with COVID-19-forced education delivery changes that many fear will pile on to existing academic achievement impeding factors to widen and deepen the ever-present academic achievement gap.

Although somewhat controversial, research exists that shows that students returning from summer break, especially low-income students, often exhibit academic performance levels lower than they had at the end of the previous school year. This phenomenon, (often referred to as summer lag, summer learning loss, or summer slide) has been of interest to education researchers as far back as 1906 (Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996). Attempts to address educational disparity in general also have a long history. For example, following World War II, President Truman expressed concern about the academic achievement gap that existed among American students. In an attempt to address this issue, Truman tasked the Commission on Higher Education with investigating the matter

and recommending solutions. Unfortunately, Truman's and the Commission's dream of achieving educational parity among U. S. students remains largely unfulfilled. Moreover, sudden events, like the appearance of COVID-19, simply make a difficult situation worse, wreaking further havoc on the educational system by forcing students out of the traditional classroom.

COVID-19 stress-related factors may also amplify negative influences on academic achievement. An extensive recent study found that after summer break, student performance dropped 25 to 30% on average as compared to performance at the end of the previous school year (Atteberry & McEachin, 2016). Moreover, Atteberry and McEachin reported that Black and Latino students who come from poorer homes tended to gain less academically over the school year and lose more over the summer as compared to students from economically and socially-advantaged homes. Entwisle, Alexander, and Olson (2000) offered a theory as to why lower-income students might suffer greater learning loss over the summer compared to higher-income students. According to their "faucet theory," resources are available to all students throughout the school year. However, this "resource faucet" slows during the summer break for students from disadvantaged environments but not for students from advantaged households.

Other scholars offer their own explanations for summer lag, theorizing that students from higher SES continue to have access to significant resources, such as parents with higher levels of education and higher discretionary incomes that facilitate and support academic skill retention (Borman, Benson, & Overman, 2005). Overall, highly educated middle- and upper-middle class parents have been observed to have more daily social interactions with their children than less educated, poorer parents (Borman, Benson, & Overman, 2005). Wealthy parents also provide education-enhancing experiences for their children throughout the summer, such as travel and attendance at social and cultural events. Such summer experiences help higher SES children maintain and increase the classroom knowledge and skills they gained during the previous school year. Borman, Benson, and Overman (2005) noted that while children from economically deprived homes also acquire knowledge during the regular school year, their parents lack the resources to provide them with rewarding social and cognitive expansion experiences during summer break. This is true both during the K-12 and higher education years (Borman, Benson, & Overman, 2005). Students from homes with greater resources and better-educated parents experience education-enhancing events beyond the classroom, whereas limited financial resources often preclude low-income parents from providing such experiences to their children.

We propose a need for implementing research to explore what effects the shift in learning delivery is having on students and to search for research-informed academic success interventions that will ameliorate or eliminate diverse students' accentuated academic lag resulting from the switch from the traditional classroom to remote, on-line, distance learning. Research should examine factors that can predict academic success, such as GPA, student morale, homework package completion rates, individual subject grades, and curriculum participation, and to analyze their interactions students' SES, race, and gender. Additionally, researchers should collaborate globally by sharing their data sets to

achieve a clearer sense of the impact of COVID-19 factors combined with and independent of traditional academic achievement-impeding variables on education delivery and outcomes.

Although research shows that a lack of financial resources can negatively impact the lives and education of students in general, there is empirically-based hope for establishing a methodology to stem, if not abolish, the academic achievement gap and its negative consequences for children traversing the American educational system (Náñez, Kaur, & Chavez, 2018). Data indicate that American K-12 and university education performance is strengthened by ensuring that all students get equal access to enriched academic experiences that have been shown to be associated with academic success. For example, virtual academic enrichment and university acculturation summer camps for high school students should be utilized to familiarize them with the whole university experience prior to their university matriculation. Such programs may prove especially useful during times of increased social, mental, and environmental stress, such as the forced Coronavirus school/classroom closures.

The COVID-19-related change in educational delivery raises important questions regarding how distance-learning may affect academic success (e.g., student morale, homework package completion rates, grades, and program participation by students from different ethnic, racial, and socioeconomic groups). Now is an opportune time to assess academic challenges that arise from random environmental events and to develop intervention strategies to successfully mitigate their negative impact on education.

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