# **Inequality in K-12 Virtual Education**

"Hatem Alotebi, "Regina Giraldo-García, "Mamta Roy "Doctoral Program, ".""Dept. of Curriculum & Foundations ".".""Cleveland State University, Cleveland, Ohio, USA

# Abstract

Virtual schools are presented as being capable of providing numerous economic and social advantages in the long term. Compared to traditional schools, virtual schools are introduced as more flexible and unbiased in structure, thereby providing greater opportunities to people from different socio-economic levels to consider alternative education for their children. It also proposes to significantly reducing the achievement gap between students in poverty and those living in more economically advanced geographic areas. Although virtual schools are founded to provide access to high-quality education for disadvantaged and low-income students, virtual schools nationally served fewer students from low-income families, studies also indicate that minority students, such as African Americans, tended to enrol less in virtual schools but when they do enrol, they drop out more than the others due to many reasons such as poverty, issues with internet access. Therefore, minority students such as African Americans who come from low-income families are more likely to drop out from virtual schools than their White advantaged peers. The authors recommend there has to be a more critical analysis on the way these and other related factors have an effect on academic performance of the low income students in virtual schools.

#### Keywords

Virtual School, Inequality, Retention, Structural And Cultural Forces, Minority Students, Internet Access.

# I. Introduction

Virtual schools was introduced in the beginning of the 1990s as a potential solution to the problem of educational inequality. The early promise of virtual school was to provide disadvantaged students with access to high-quality educational opportunities including access to qualified teachers and personalized learning (Davis & Roblyer, 2005). The advent of virtual school provides parents and students with alternative choices to traditional or face-to-face schools. Virtual school can motivate and engage students because of the flexible nature of online education. It allows students to learn at their own pace and select subjects based on personal interest (Molnar et al., 2014).

Virtual schools use a variety of technological tools such as social media to allow students to interact with others and establish social capital. Bourdieu (1986) defines social capital as "the aggregate of actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (p. 248). Social capital can affect student academic performance. Research showes that students with higher levels of social capital achieve higher scores in math and reading than students with lower levels of social capital. Also, research indicates that students who belonged to a virtual school community had a significantly high level of social capital (Tomai et al., 2010).

Virtual schools are public schools, which are financially supported by the government. Most of these virtual schools are managed by for-profit companies such as K12 Inc. These for-profit companies usually make contracts with school governing boards and school districts to manage and support different areas including curriculum, software, and administrative management. More than seventy percent of virtual school students are enrolled at schools that are operated by for-profit companies (Molnar et al., 2014). The model of virtual schools differs dramatically from face-toface school models in terms of the way these types of schools are organized and what policies they tend to follow. There are various forms of virtual schools. The two most common formats of virtual schools are full-time virtual schools and supplemental or blended virtual schools. In full-time virtual schools, students study all courses online using advanced technological tools. The teaching and learning process takes place while children are at home and the teachers are at distant locations. However, supplemental or blended virtual schools refer to a combination of face-to-face and online instruction (Miron et al., 2013).

Although virtual school has the potential of increasing disadvantaged students' access to high quality educational opportunities and eventually improving their education, there are indications that virtual school tends to benefit the already-advantaged students (Roblyer & Davis, 2008). Therefore structural and cultural forces will be utilized, in this paper, as an analytical lens to examine the inequality in virtual schools.

# II. Structural and Cultural Forces

Wilson (2009) defines social structure as ways that create and organize social positions, social roles, and networks of social relationships in a society. Social structure can have a great influence on nearly all institutions in the community, including education. Thus, social structure mainly affects children's learning and development. Structural forces can widen and increase racial inequality in a society in two different ways: social acts and social processes. Social acts refer to the behavior of individuals, such as stereotyping and discrimination by those who hold power over other individuals within the society.

According to Wilson (2009), social processes refer to the "machinery" of a society that promotes and supports continuous relationships among a large number of group members. Social processes such as laws and policies can directly influence unequal racial group outcomes. These polices would give more privileges and advantages to the dominant group in society, such as White people in American society, while depriving other groups from having access to resources and practicing their rights. Discrimination between groups that stems from the implementation of social policies is based on race and ethnicity. Also, such policies can have direct or indirect impacts on the marginalized groups in a society.

There are a number of structural forces that produced structured inequality through American history. In 1862, the Homestead Act provided African Americans who inherited a legacy of two and half centuries of slavery a legal right to own land; however, the way the law was implemented denied African Americans equal opportunities for land ownership and provided White people greater access to the land (Oliver and Shapiro, 1995). The establishment of the Federal Housing Administration (FHA) in 1934 enabled American citizens to become homeowners by underwriting mortgages (Wilson, 2009). The FHA had a positive influence in reducing housing shortage, but it had a major negative impact on African Americans who were prevented from buying desirable homes in suburban neighborhoods. The concern of FHA was that property value would decline if a rigid black and white segregation was not maintained (Oliver and Shapiro, 1995). Thus, the FHA used a redlining policy to restrict mortgages based on the racial composition of the neighborhood (Wilson, 2009). The African American neighborhoods were marked with red color because they were considered risky investment. Even the African Americans who were able to buy homes found themselves stuck in central cities where their home lost value in comparison to suburban homes. Oliver and Shapiro (1995) indicated that FHA had a lasting impact on the wealth portfolios of African Americans.

The federal transportation and highway policies, which were seemingly non-racial, also had a damaging impact on the African American neighborhoods. The highways created barriers between impoverished African American neighborhoods and White neighborhoods where central businesses were located. This caused a job spatial mismatch in which a particular group of people and jobs were located in two different places (Wilson, 2009). The lack of public transportation within and across cities made it more difficult for African Americans to commute to work (Sharkey, 2013). Thus, the job opportunities available for African Americans decreased, and the poverty level in inner cities increased, which dramatically influenced the social and cultural lives of African Americans. Sharkey (2013) indicates that the changing demographic patterns in American cities produced a new type of concentrated poverty in ghetto neighborhoods, which was characterized by economic dislocation, rising violence and crime, poor school systems, and the decline in the traditional two parent family structure.

In addition to structural forces, cultural forces contribute to racial inequality. Culture is a way of life in which individuals who encounter similar place-based circumstances or come from a particular race or ethnicity or social class background accept and share similar values, beliefs, and behaviors (Wilson, 2009). Cultural frames reflect the way individuals who live and interact in the same social and physical environment develop an understanding of how the world works and create a vision about the people around them. These individuals create meanings and make decisions based on that understanding and vision.

African Americans who lived in segregated ghetto neighborhoods that have high rates of violence and crime developed informal rules and codes such as "the code of street" to govern their interactions and regulate their behaviors. These codes are a cultural adaption to an unsafe and poor environment, which is the result of racial and non-racial structural forces. Young black males, for instance, wear certain clothes and talk in a certain way to develop a predatory attitude to their neighbors. Most young males in ghettos adapted this negative culture not only on the street but also in the school as a way of self-defense (Wilson, 2009). This behavior is not the cultural capital valued in school, which reflects the middle class culture of schools. Cultural capital is a set of valued resources such as language, clothes, and ways of interacting. The adaption of cultural codes leads to the identity mismatch between racial identities and the "white" identities understood as being needed within a culture that equates "white" with "academic" and often requires an abandonment of a social identity tied to communities of color for succeeding in school (Moje & Martinez, 2007).

Sharkey (2013) argues that understanding the structural and cultural forces and their consequences that have an impact on African American lives and communities is not sufficient for fully understanding the transition and persistence of racial inequality. Sharkey argues that the neighborhoods where African Americans live are another important element of inequality in American society, which is usually overlooked. Contextual mobility refers to "the overall degree of movement in U.S. society across neighborhoods that are characterized by different levels of economic resources and status" (Sharkey, 2013, p.16). Studying the persistence of a neighborhood's disadvantages and advantages shows the relationship between racial inequality and neighborhood inequality. For example, African Americans who experienced the influence of the extremely disadvantaged neighborhoods during the civil rights era have passed on disadvantaged neighborhoods to the current generation. The inequality of neighborhoods is multigenerational, which is passed down from generation to generation like transitioning wealth across generations.

The effects of exposure to disadvantaged, unsafe neighborhood environments in early life have an enduring influence on children's development, educational attainment, and skills for parenting in adulthood. The effects of disadvantaged neighborhoods on children not only expand to adulthood but also affect the next generation. For example, Sharkey (2013) found that children from families that lived in impoverished neighborhoods for consecutive generations scored 16 points lower than their counterparts who came from families who never lived in poor neighborhoods on the board reading test. This is a cognitive deficit comparable to missing four to eight years of schooling. Also, when looking at multigenerational impact, the results showed that children who live in poor neighborhoods, but whose parents were not raised in poverty, scored better than children who live in poor neighborhoods and who also have a parent raised in poor neighborhoods. Therefore, the influence of a disadvantaged neighborhood may be increased when it is experienced across multiple generations. Sharkey (2013) suggestes durable urban policies to confront racial inequality. These policies should disrupt multi-generational patterns of neighborhood inequality, generate transformative changes in places and in families' lives, and withstand fluctuations in the political mood and the business economic cycle

#### **III. Inequality in Virtual Schools**

The discourse surrounding virtual schools emphasizes the benefits of full-time virtual schools. Burch (2009) argues that virtual schools are presented as being capable of providing numerous economic and social advantages in the long term. Compared to traditional schools, virtual schools are introduced as more flexible and unbiased in structure, thereby providing greater opportunities to people from different socio-economic levels to consider alternative education for their children. The most important feature associated with the functioning of virtual schools is that they present the mission of significantly reducing the achievement gap between students in poverty and those living in more economically advanced geographic areas (Burch, 2009; Voithofer & Nespor, 2013). Although there is a dearth of research that supports the effectiveness of virtual school, federal officials hold the cultural frame and ideology that virtual schools enable more students from low-income families to be enrolled into efficient forms of education, without compromising the quality of their academic performance (Burch, 2009). They also proposed bills and funded research that is associated with the overall idea to advocate for the development of an extensive number of virtual schools. The other additional advantages could be that small school districts or students in rural areas find it difficult to hire highly qualified teachers. Teachers that can teach AP Math's or Physics classes, as there are very few students that take these subjects, and it is difficult for school districts to find these teachers. Through virtual schools, the needs of these students can be met, and these students can then compete with other students nation-wide.

For-profit virtual schools, such as the Electronic Classroom of Tomorrow, claim that they serve students who do not fit into the traditional classroom environment. However, the majority of for-profit virtual schools are often serving relatively few marginalized students such as African Americans and Hispanics, which contradicts the discourse and claim of for-profit virtual schools. Research shows that the student populations at the typical virtual school are mainly identified as White and considered disqualified to receive discount meals, while the typical students in traditional school are black and receiving free or reduced-price lunches (CREDO, 2011).

Although virtual schools are founded to provide access to highquality education for disadvantaged and low-income students, virtual schools nationally served fewer students from low-income families who qualified for free and reduced-price lunch than traditional schools nationwide. Rauh (2011) indicates that students from high poverty districts are less prone to attempt virtual schools. They are also more likely to drop out if they enroll. Some argue that high rates of student dropout in virtual schools are due to virtual student characteristics. Roblyer and Davis (2008) state that minority students, such as African Americans, tended to enroll less in virtual schools but when they do enroll, they drop out more. Therefore, minority students such as African Americans who come from low-income families are more likely to drop out from virtual schools than their White advantaged peers. The intersectionality, which is a way of considering the similarity and difference of a certain problem and its relation to power helps understand the problem of student dropout in virtual schools (Daley, Solomon, Newman, & Mishna, 2007). Thus, instead of looking to a virtual student's race or socioeconomic background independently to study this problem, which might lead to limited findings, it is imperative to study the influence and interaction of race and class simultaneously on students' withdrawal from virtual schools.

Others argue that high dropout rates of virtual students are not solely due to student characteristics, and there are structural and cultural forces that play a crucial role in shaping student characteristics and contributing to the discrepancy between advantaged and disadvantaged students in virtual schools (Rauh, 2011; Miron et al., 2013). The inability to provide every student with access to Information and Communication Technology (ICT) such as a computer and high-speed Internet has created a digital divide, which is defined as the gap between demographics and regions that have access to ICT and those who do not have access (Hargittai & Shafer, 2006). Minority students such as Black and Hispanic who live in impoverished neighborhoods are the most influenced by the digital divide. Unlike White and Asian Americans, Blacks and Hispanics are more likely to not have access to Internet and computers at home (Mason, & Dodds, 2005).

Despite the fact that some virtual schools provide qualified low-

income students with computer equipment and Internet access, those low-income students usually lack the required technology skills to effectively engage in virtual schools and harness the academic potential of technological resources. The shortcoming in students' abilities to utilize digital and technological resources is known as the second-level digital divide (Hargittai & Shafer, 2006). Technical problems that are caused by the second-level digital divide or a virtual learner's lack of familiarity with digital system are the salient reasons for student dropout from virtual schools. de la Varre, Irvin, Jordan, Hannum, and Farmer (2014) found that students tended to withdraw from virtual schools due to several reasons including technological problems and problems with the online medium and lack of teacher immediacy. They also found students who appear to be competent with technology and surfing the internet surrendered when they face technical problems. Rauh (2011) mentioned that students with limited technology skills and experience seemed to perform less than students with broad technology skills and knowledge such as navigating the internet and discerning whether the information is accurate.

Another structural force that might influence virtual students in general, and disadvantaged and low-income students in particular, is the existing policy that allows virtual schools to enrol a large number of students, which often results in a high student-teacher ratio. For instance, in 2011, a for-profit virtual school in Nevada indicated that the student-teacher ratio was 60 to 1, while the school's district average value was presented at 22 to 1 (Molnar et al., 2014). At such a ratio, it is questionable if a teacher can really enhance students' learning by giving them the sufficient attention and time students need to thrive. This is difficult enough in a traditional school setting where there is face to face interaction so it might be argued that it is more difficult in a virtual learning setting. It would be expected that this phenomenon would be further exacerbated as the age of the student decreases. Also, this would especially have a negative impact on disadvantaged students who need more time to interact with their teachers than their advantaged counterparts. For-profit schools aim to reduce the cost of labor, ignoring the need to provide quality education to the students (Miron et al., 2013).

#### **IV. The Culture of Making Profits**

For-profit virtual schools, such as K12, hold special beliefs and vision about how virtual school should be operated. The culture of making profits guides the policies and practices of for-profit virtual schools even if it is at the expense of virtual students' education (Miron et al., 2013). For instance, some for-profit virtual schools do not require students to attend live teaching sessions even though teachers showed concern over their incapability to help disadvantaged students who did not attend live study sessions. Roblyer and Davis (2008) indicate that at risk and disadvantaged students require more facilitation, help, and monitoring than advantaged students in virtual schools. Those teachers played the role of empowerment institution agents, which is defined as an individual who occupies one or more hierarchal positions of relatively high-status within an institution. The empowerment institution agents are motivated to go against the grain, achieve justice, and enable the empowerment of low-status individuals in need. In contrast, the administrators of for-profit virtual schools played the role of gatekeepers whose actions reflect an uncritical adherence to social structure and the stratification system (Stanton-Salazar, 2011). The motive behind virtual school policy is to please home-schooled children and their parents and not to lose profits.

This would mainly have a negative influence on disadvantaged students and make a clear division between the marketing culture of pleasing customers and the learning needs of disadvantaged students (Meyn-Rogeness, 2010).

The culture of making profits also led some virtual schools to control not only teacher-student interaction but also the ability of teachers to evaluate and grade students' assignments. These for-profit virtual schools use grading services that are located in India to grade students' work. This service was ceased because of the violation of student's privacy. Meyn-Rogeness (2010) mentiones that as student enrolment increases, the cost of the virtual schools actually decreases. Therefore, the ideology of making more money regardless of the quality of education leads for-profit virtual schools to hire lobbyists to prevent any attempt to regulate policy pertaining to regulation of student enrolment. For instance, in 2013, Pennsylvania attempted to address profiteering by for-profit virtual schools. Proposals came in different forms, such as decreasing school enrollment rates. However, the proposed bills were not enacted as different factors, such as lobbying that is shaped by social networks among corporate leaders, may have contributed to such failure (Huerta & shafer, 2015).

Meyn-Rogeness (2010) indicates that the increased pressure on for-profit virtual schools to preserve adequate yearly progress of student scores and make more profits could lead these virtual schools to narrow their enrolment to students that can boost test scores and succeed in a virtual setting. Some virtual schools selected and admitted students based on identified criteria in order to address the problem of the high dropout rates and to boost students' scores on standardized tests (Roblyer and Davis, 2008). In this sense, for-profit virtual schools will increase segregation through a selection process whereby lower scoring or special needs students are counseled out of enrolling (Burch, 2009).

#### **V. Conclusion**

The current form of virtual school dominated by for-profit companies seems to increase the educational inequality and harm disadvantaged students who enrol less and drop out more due to the structural and cultural forces, which influence the virtual school environment. For-profit virtual schools appear to be more concerned with profit rather than the success of their students. Therefore, policymakers must understand that the education of students is the first priority and enact policies that limit the student-teacher ratio and the number of students studying in virtual schools. Furthermore, strategies need to be developed in order to support students in ways that help promote retention and success in virtual schools. The emphasis should be on developing strategies to help disadvantaged students succeed rather than preventing them from attending virtual schools.

Virtual schools are presented as being capable of providing numerous economic and social advantages in the long term. Moreover, compared to traditional schools, virtual schools are introduced as more flexible and unbiased in structure, thereby providing greater opportunities to people from different socioeconomic levels to consider alternative education for their children, as well as significantly reducing the achievement gap between students in poverty and those living in more economically advanced geographic areas. Although virtual schools are founded to provide access to high-quality education for disadvantaged and low-income students, virtual schools in the U.S. have served fewer students from low-income families than other groups. Studies also indicate that minority students, such as African Americans, tend to

enrol less in virtual schools but when they do enrol; they drop out more than the others due to reasons such as poverty and limited internet access. Therefore, minority students who come from lowincome families are more likely to drop out from virtual schools than their White advantaged peers. The authors recommend there has to be a more critical analysis on the way these and other related factors have an effect on academic performance of the low income students in virtual schools.

# References

- [1] Bourdieu, P. (1986) The forms of capital. In J. Richardson (Ed.), Handbook of Theory and Research for the Sociology of Education (pp. 241-258). New York: Greenwood.
- [2] Burch, P. (2009). Hidden markets: The new education privatization. Place of publication: Rutledge.
- [3] CREDO (2011). Charter school performance in Pennsylvania. Palo Alto, CA: Center for Research on Education Outcomes (CREDO), Stanford University.
- [4] Daley, A., Solomon, S., Newman, P.A., & Mishna, F. (2007). Traversing the lesbian, gay, margins: Intersectionalities in the bulling of bisexual, and transgender youth. Journal of Gay & Lesbian Social Services, 19(3&4), 9-29.
- [5] De la Varre, C., Irvin, M. J., Jordan, A. W., Hannum, W. H., & Farmer, T. W. (2014). Reasons for student dropout in an online course in a rural K–12 setting. Distance Education, 35(3), 324-344.
- [6] Hargittai, E., & Shafer, S. (2006). Differences in actual and perceived online skills: The role of gender\*. Social Science Quarterly, 87(2), 432-448.
- [7] Huerta, L., & Shafer, S. R. (2015). Virtual schools in the U.S. 2015: Politics, performance, policy, and research evidence. Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/files/rb-virt-2015-1-policy. pdf.
- [8] Mason, C. Y., & Dodds, R. (2005). Bridge the dgital divide for educational equity. Education Digest: Essential Readings Condensed for Quick Review, 70(9), 25-27.
- [9] Meyn-Rogeness, T. (2010). Privatization and cyber charter schools. (Master of Arts), DePaul University, Chicago, IL.
- [10] Miron, G., Huerta, L., Cuban, L., Horvitz, B., Gulosino, C., Rice, J. K., & Shafer, S. R. (2013). Virtual schools in the U.S. 2013: Politics, performance, policy, and research evidence. Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/publication/virtual-schoolsannual-2013.
- [11] Moje, E. B., & Martinez, M. (2007). The role of peers, families, and ethnic identity enactments in educational persistence and achievement of Latino and Latina youths. Contesting stereotypes and creating identities: Social categories, social identities, and educational participation, 209-238. NY: Russell Sage Foundation.
- [12] Molnar, A. (Ed.); Rice, J. K., Huerta, L., Shafer, S. R., Barbour, M. K., Miron, G., Gulosino, C, Horvitz, B. (2014). Virtual schools in the U.S. 2014: Politics, performance, policy, and research evidence. Boulder, CO: National Education Policy Center. Retrieved March 25, 2015, from http://nepc.colorado. edu/publication/virtual-schools-annual-2014.
- [13] Oliver, M. L., & Shapiro, T. M. (1995). Black wealth/white wealth: A new perspective on racial inequality. Chicago: University of Chicago Press.
- [14] Rauh, J. (2011). Online education as a toll good: An

examination of the South Carolina virtual school program. Computers & Education, 57(2), 1583-1594.

- [15] Roblyer, M. D., & Davis, L. (2008). Predicting success for virtual school students: Putting research-based models into practice. Online Journal of Distance Learning Administration, 11(4).
- [16] Sharkey, P. (2013). Stuck in place: Urban neighborhoods and the end of progress toward racial equality. University of Chicago Press.
- [17] Stanton-Salazar, R. D. (2011). A social capital framework for the study of institutional agents and their role in the empowerment of low-status students and youth. Youth & Society, 43(3), 1066-1199.
- [18] Tomai, M., Rosa, V., Mebane, M. E., D'Acunti, A., Benedetti, M., & Francescato, D. (2010). Virtual communities in schools as tools to promote social capital with high schools students. Computers & Education, 54(1), 265-274.
- [19] Voithofer, R., & Nespor, J. (2013). "Achievement" and "Learning" in the Discourse of Virtual Schooling: Ideational Regimes in the Organization of Policy Collectives. AERA. San Francisco. Retrieved from https://u.osu.edu/voithofer.2/ files/2006/11/VS paper4.pdf.
- [20] Wilson, W. J. (2009). More than just race: Being black and poor in the inner city. New York: W.W Norton & Company.

# **Authors Profile**

*Mr.* Alotebi is a doctoral student in the Urban Education Program at Cleveland State University. His research work is focused on the use of technology in education. He can be reached via email: hatem09@hotmail.com.



Dr. Giraldo-García is an Adjunct Professor of Educational Research in the Department of Curriculum and Foundations at Cleveland State University, Cleveland, Ohio. She can be reached at Cleveland State University, 2121 Euclid Avenue, JH 376. Cleveland, OH 44115 or via email: r.giraldogarcia@ csuohio.edu



Dr. Roy, worked as college Lecturer M. P College Dabwali in India, Head of the Department at The Westminster School Dubai. Her research work is focused on professional development for teachers. She can be reached via email: mamtaroy@ hotmail.com