Je-LKS
Journal of e-Learning and Knowledge Society
The Italian e-Learning Association Journal
PEER REVIEWED PAPERS
Vol. 15, n.2, 2019
ISSN: 1826-6223 | eISSN: 1971-8829

ENGAGING PARENTS INVOLVEMENT IN K – 12 ONLINE LEARNING SETTINGS: ARE WE MEETING THE NEEDS OF UNDERSERVED STUDENTS?

Tim Chen[1], Rim C. Wanberg[2], Elizabeth T. Gouioa[3], Marcia J. S. Brown[4], J. C.-Y. Chen[5], Judy J. Kurt Kraiger[6]

[1] Faculty of Information Technology, Ton Duc Thang University, Ho Chi Minh City, Vietnam
[2] Carlson School of Management, University of Minnesota, Minneapolis, USA
[3] Department of Psychology, Colorado State University, Fort Collins, Colorado, USA
[4] The Business School, University of Colorado Denver, Denver, Colorado, USA
[5] Faculty of Management Science, Covenant University, Ota, Ogun State, Nigeria
[6] School of Educational Foundations, Leadership & Policy, Bowling Green State University

Keywords: online learning, social-economic status, underserved populations, parent involvement, academic achievement.

Despite historical failure trends and mixed results on the effectiveness of online learning for all students, schools are witnessing the continual emergence of electronic instructional mediums. Research shows that

for citations:
Chen T. *et al.* (2019), *Engaging parents Involvement in K – 12 Online Learning Settings: Are We Meeting the Needs of Underserved Students?,* Journal of e-Learning and Knowledge Society, v.15, n.2, 113-120. ISSN: 1826-6223, e-ISSN:1971-8829
DOI: 10.20368/1971-8829/1563

students from educationally underserved homes experience less parent involvement (Hill & Tyson, 2009; Smith, 2006), and less academic gains than students from higher social economic families (Smith, *op.cit.*). With the rapid infusion of online learning in traditional learning environments, some may perceive less need for parental guidance and intervention, however research shows that online learning may actually require parents to shoulder an increasing instructional role in their child's learning (Borup, Graham, Davies, 2013; Liu *et al.*, 2010). This quantitative study examines the relationships between online learning, socioeconomic status, and parental understanding and involvement in a diverse k – 12 districts. Findings show that relationships exist between these variables, calling into question the development, implementation and evaluation of such instruction for populations already at risk.

1 Introduction

Parent embroilment in a child's initial education is consistently perceived to be emphatically associated with a child's academic achievement (Hara & Burke, 1998; Hill & Craft, 2003; Marcon, 1999; Stevenson & Baker, 1987; Heymsfield, 2018). According to the National Center for Education Statistics, an 11-year trend shows that low income students, most notably African Americans, consistently score below every other student sub-group surveyed on standardized assessments (NCES 2013) with an average mean difference of 26 points. Often noted are variables related to socio-economic status such as living in impoverished neighborhoods with impoverished schools, being taught by less qualified teachers, using inadequate teaching materials and substandard infrastructure, excessively high turnover of school leaders, and a lack of parental involvement (Howard & Reynolds, 2008). Impacting variables that significantly correlate to student achievement have been the source of substantial study for decades (Coleman, 1966; Tyak, 1974; Wiggin, 2007).

Despite historical failure trends for those most vulnerable and in light of the mixed results on the effectiveness of technology in the classroom for all students (Judge, 2005), Greer, Rowland, and Smith (2014) reported on the swiftly growing adoption of fully online and/or blended learning in the United States. K - 12 online learning, for the purposes of this study, is defined as the use of a computer or other electronic devices to deliver some or all student learning, including course content, course material, and course assessments (Welsh *et al.*, 2003). Many K - 12 online learning tools embody an instructional process where students are more responsible for their learning (Johnson & Galy, 2013) predicated on a students' ability to work independently as a self-directed learner (Manochehi & Sharif, 2010) assuming the need for less parental guidance and intervention. However, research shows online teaching tools may actually require parents to shoulder an increased instructional role in their child's learning (Borup, Graham, Davies, 2013; Liu *et al.*, 2010). Greer, Rowland, and Smith (2014) suggested that the "online product" can become the "primary teacher"

and that online lessons dictate increasing parental participation especially in facilitation of "lesson completion" (p. 81). Additionally, misinterpretation of the purpose of the learning tool may lead to teacher expectations that parents make instructional decisions in lesson modifications. Despite the increased need for parental involvement, Borup, Graham, and Davies (2013) offered a research analysis reflecting that parents not only do not comprehend the gravity of their role in K - 12 online learning environments, but even those who may be aware, need on-going training, assistance, and resources.

Research continues to show a significant gap in access to computer use and Internet capabilities between African American and white households. A 2013 report by the US Department of Commerce (as cited in Jaggers, 2014) found that 55% of African American and 58% rural households had Internet access at home, as compared to 74% of white and 81% of Asian American homes. Jaggers also found that students with less academic preparation, particularly African American males, had far more difficulty with online than in face-to face learning. If the ability to access and make effective use of technology is dependent, in part, on a student's socioeconomic status (Sun & Metros, 2011; Stanton-Salazar, 1997), then it would seem that the onset of the digital transformation may deepen the existing inequities.

Parental involvement in the education process continues to be a significant component in student success and studies point to a positive relationship between parent involvement academic achievement (Arnold, Zeljo, Ortiz, 2008; Barnard, 2004; Marcon, 1999) regardless of race or socio-economic status (McCarron & Inkelas, 2006; Barnhard, 2004). Lopez cited Hill and Tyson (2009) define parent involvement as interactions with the schools and children to encourage academic progress and offer support with school activities (2011, ¶4). Research also shows that students from low-income, educationally underserved homes experience less parent involvement (Hill & Tyson, 2009; Smith, 2006) and as a result net less academic gains than students from higher social economic families (Smith, *op. cit.*).

The role of parent involvement in the academic achievement of students has not only influenced the work of researchers, it has also affected the work of policy makers who have attempted to create policies promoting increased involvement (Topor *et al.*, 2010). This study asserts that a significant void exists between theory and praxis of K – 12 online learning environments, further widening the achievement gap between the low socio-economic students and their more affluent peers.

2 Methods

This inquiry focused on relationships between the variables of parental

involvement, use of k – 12 online learning, and academic achievement. Of the 9 schools in the sample district, there are 6 elementary schools, one middle school, one high school, and two academies. Eighty-one percent of the students in the district surveyed were considered economically disadvantaged with 57% of the student population considered non-white. The district has ambitiously embarked on a transformation plan to improve student success. Parental participation and effective use of innovative teaching and learning strategies are key components of the plan.

The study sample included 212 parents who participated in an anonymous 32 item self-administered 6-point Likert-type survey including demographic. Three elementary schools were categorized as "lower SES" and two of the elementary schools were categorized as "higher SES." The respondent demographics included 34% African American, 49% white, 24% male, 74% female,

The survey included clusters of reverse coded survey questions to gauge parent perceptions of their technology use, school climate, school participation, and teacher interactions and communication. Data analysis utilized a Pearson chi-square test for independence to ascertain if significant relationships existed between variables. Where chi-square was deemed to be invalid because of low sample size in any square, the Fishers exact two-tailed test was utilized at the.01 and.05 significance level. Some data were considered and included here at a 93% confidence level.

3 Findings and Discussion

As with many studies, the inquiry answered some questions and created more. This, as the first of 3 parent studies to be conducted, assisted in creating more targeted areas inquiries for the second data collection in early 2016. Selected results are presented showing several areas of significance with recommendations for further study. Finding show that significant group differences do exist between school level (elementary vs. secondary), Socioeconomic status (by school area), and by race.

While secondary parents were significantly more likely to agree that their children use a computer to complete their homework at home *($p < 0.008$ $X^2 (1)=6.9319$),* elementary parents were significantly more likely than secondary parents to communicate more often with the classroom teacher on their children's work, whether face-to-face or written, relative to both on line and other assignments *($p = 0.0375$).* Elementary parents were significantly more likely than secondary parents to agree that their culture and values were respected at school, but African-American parents as a group were significantly

more likely to disagree that their culture and values were respected at school *($p < 0.05 X^2 (2) = 5.9793$), ($p = 0.0415$)*. And while not statistically significant, white parents were more likely to agree that their children would be comfortable talking to someone at school if they had a problem ($p = 0.0693$). Elementary school parents were significantly more likely than secondary parents to assign their school a grade of "A," whereas secondary parents were more likely to assign their school a "B." White parents were significantly more likely to agree to checking school e-mail at least two times per week *($p < 0.0001 X^2 (1) = 25.35$)*. African American parents were significantly more likely than white parents to agree that their child would be the first generation to attend college *($p < 0.01 X^2 (2) = 9.9169$)*.

Stewart (2007) referenced a myriad of research showing that students make higher academic gains when parents are actively involved in their child's schooling. Citing the research of Ma, Stewart (*Ibidem*) notes that "**students' sense of belonging influences academic achievement.**" (p. 184). Building a positive school climate is a critical component in creating a sense of belonging and Cohen, McCabe, Michelli, and Pickeral site an increasing body of literature indicating a positive school climate is "**associated with and predictive of academic achievement**" (as cited in May & Sanders, 2013, p. 45). School environments where parents who do not feel culturally valued may lack the climate characteristics that support building necessary relationships. If parents are expected to shoulder increased responsibility in their child's online learning (Borup, Graham, Davies, 2013), then a lack of connection between parents/ home and school may exacerbate an already fractured, but essential interaction. Marcario (2012) reported that experts believe the first line of defense for parent help is seeking assistance from the teacher. Is a parent who feels valued more likely to seek assistance? Is a positive climate -parent – teacher relationship a prerequisite for parents to seek assistance? Are there other means by which parents may gain additional help? These key questions relate to how the lines of communication are affected when parents feel their culture may not be respected or valued. Finally Jaggers (2014) cited that a growing body of literature reflects that educators "**caring, connection, encouragement, and guidance are critical…..to support student success**" (on p. ¶13.)

Socioeconomic status and race continue to be a significant variable in educational achievement and studies have shown that "***performance is strongly associated with the socioeconomic status of the child and district***" (May, 2006, p. 43). A myriad of characteristics is attributable to low socioeconomic status, one of which is parental educational attainment. The Department of Education (2011) reported whites are 33% more likely to have a college degree than African Americans. The U.S. Department of Education also reported a relationship between maternal educational attainment and academic

achievement citing a positive connection between student literacy and mothers who were educated (2009). While the results of this study did not explain why white respondents were more likely to check their child's school e-mail, but one could posit that more educated parents may be more aware of the need to check school websites. Another assertion reflects that whites are more likely to possess home technology, with white households being 25% more likely to have Internet than African American homes (Jaggers, 2014).

The first-time college graduate dynamic is complex. Fifty percent of the college population is comprised of first-generation attendees, of which 45% are African American and 49% are Hispanic, while only 28% of whites report parents who did not receive education beyond a high school diploma (US Department of Education, 2010). Assumptions can be drawn relative to parents lacking exposure to opportunities to gain the knowledge to support their children's on-line learning environment. Given current research, we may surmise that students in non-college graduate families may already suffer many existing roadblocks such as their initial preparation and readiness for schooling.

Conclusion and remarks

In sum, if academic achievement is the barometer for success, the educational experience in the United States continues to be one of inequity. This opportunity to learn gap reflects a historical and persistent trend of students in the American system of public education who are "academically at risk and cannot complete on a level playing ground" (May, 2006, p. 39). Underserved populations, most notably African Americans and Hispanics, are more likely to be born in economically depressed and disadvantaged environments to young parents, enter school less prepared than their white peers, lack exposure to educational experiences, suffer from homelessness, neglect, and high mobility rates, (as cited in May, *op. cit.*). As we seek avenues to increase the opportunities for underserved students to achieve, such as online learning, we must provide solid and valid evidence that our strategies meet the needs of the students most vulnerable. The research that is presented, before a series, is related to the attitude of the parents towards the school and their willingness to cooperate. After this stage, providing an answer to the question is benefitable for further studying.

REFERENCES

Arnold, D. H., Zeljo, A., Doctoroff, G.L & Ortiz, C. (2008). Parent involvement in preschools: Predictors and relation of involvement to pre-literacy development.

School Psychology Review, 37, 74-91.

Barbour, M. K. (2009). Today's student and virtual schooling: The reality, the challenges, the promise. *Journal of Distance Learning, 13*(1), 5 – 25.

Barnard, W. M. (2004). Parental involvement in elementary school and educational attainment. *Children and Youth Services Review*, *26* 39 – 62.

Bennett, C. (2001) Genres of research in multicultural education. *Review of Educational Research, 71*(2), 171-217.

Borup, J., Graham, C. R., & Davies, R. S. (2013). The nature of parental interactions in an online charter school. *The American Journal of Distance Education*, *27*, 40 – 55.

Coleman, J. (1966). Equality of educational opportunity. Washington: U.S. Government Printing Office. Retrieved from http://eric.ed.gov/?id=ED012275

Fan, X. T. & Chen, M. (2001). Parental involvement and students' academic achievement: A growth modeling analysis. *Journal of Experimental Education, 70*, 27 – 61.

Greer, D., Rowland, A. L., & Smith, S. J. (2014). Critical considerations for teaching students with disabilities in online environments. *Teaching Exceptional Children*, *46*(5), 79-91.

Hara SR, Burke DJ. Parent involvement: The key to improved student achievement. The School Community Journal. 1998; 8:9–19.

Hill, N.E. Craft SA. Parent-school involvement and school performance: Mediated pathways among socioeconomically comparable African American and Euro-American families. Journal of Educational Psychology. 2003; 96:74–83.

Heymsfield SB. A child's walk through nature inspires a research career. Eur J Clin Nutr. 2018 Sep 12. doi: 10.1038/s41430-018-0301-0.

Hill, N.E. & Tyson, D. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. Developmental Psychology, 45, 740-763. doi:10.1037/a0015362

Howard, T. C. & Reynolds, R. (2008, Winter/Spring). Examining parent involvement in reversing the underachievement of African American students in middle-class schools.

Educational Foundations,79 – 98.

Jaggers, S. S. (2014, Winter). Democratization of education for whom? Online learning and educational equity. *Association of American Colleges and Universities, 17* (1). Retrieved from www.aacu.org/diversitydemocracy/vol17no1/jaggers.cfm

Johnson, J. & Galy, E. (2013). The use of K - 12 online learning for improving Hispanic students' academic performance. Journal of Online Learning and Teaching, 9(3). Retrieved from http://jolt.merlot.org/vol9no3/johnson_0913.ht

National Center for Education Statistics (2013).

http://nces.ed.gov/nationsreportcard/naepdata/report.aspx

Liu, F. E., Black, E., Algina, J., Cavanaugh, C., & Dawson, K. (2010). The validation of one parental involvement measurement in virtual schooling. *Journal of Interactive Online Learning, 9*(2), 105-132.

Lopez, R. (2012). The impact of involvement of African American parents on students'

academic achievement. *The Journal of Multiculturalism in Education, 2*(2). Retrieved from https://wtamu.edu/journal/volume-7-number-2.aspx#11

Marcario, D. (2012, Aug 6). Homework hassle: When kids struggle and parents can't help. Retrieved from http://www.today.com/id/48424909/ns/today-back_to_school/t/homework-hassle-when-kids-struggle-parents-cant-help/#.VF0P-kh9KoQ

Marcon, R. A. (1999). Positive relationships between parent school involvement and public-school inner-city preschoolers' development and academic performance. *School Psychology Review, 28*, 395-412.

May, J.J. & Sanders, E. (2013). Beyond standardized test scores: An examination of leadership and climate as leading indicators of future success in the transformation of turnaround schools. *Journal of Urban Learning, Teaching and Research, 9, 42-54.*

May, J. J. (2006) The role of money, race, and politics in the accountability challenge. *Journal of Urban Learning, Teaching, and Research, 2,* 39-47.

National Center for Educational Statistics (2009). *Status and trends in the education of racial and ethnic minorities*. Retrieved fromhttp://nces.ed.gov/pubs2010/2010015/indicator1_5.asp

Stevenson DL, Baker DP. The family-school relation and the child's school performance. Child Development. 1987; 58:1348–1357.

Stewart, E. B. (2007). School structural characteristics, student effort, peer associations, and parental involvement: The influence of school-and individual level factors on the academic achievement. *Education and Urban Society, 40*(2), 179 – 204.

Smith, J. G. (2006). Parental involvement in education among low income families: A case study. *The School Community Journal, 16*(1), 43-56.

Sun, J. & Metros, S. E (2011). The digital divide and its impact on academic performance. *US-China Review*. A 2, 153-161.

Topor, D. R., Keane, S. P., Shelton, T. L., and Calkins, S. D. (2010). Parental involvement and student academic performance: A multiple meditational analysis. *Journal of prevention and intervention in the Community, 38*, 183-197. doi:10.1090/10852352.2010.486297

Tyak, (1974). *The one best system: A history of American urban education*. Cambridge: Harvard University Press.

U.S. Department of Education (2011). *Moving America forward: President Obama's agenda for the Latino community*. Washington, DC. Retrieved from http://www2.ed.gov/about/inits/list/hispanic-initiative/winning-the-future.pdf.

Welsh, E.T., Wanberg, C. R., Brown, K. G., and Simmering, M.J. (2003). K - 12 online learning: Emerging uses, empirical results and future directions. *International Journal of Training and Development, 7(*4), 245-258.

Wiggin, G. (2007). Race, school achievement and educational inequality: Towards a student-based inquiry perspective. *Review of Educational Research, 77*(3), 310-333.