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For questions –

Amany Saleh, Ph.D. E-mail: asaleh@astate.edu

Cross-Cultural Narratives
Stories and Experiences of International Students
Edited by Ravichandran Ammigan (2021)

Reviews

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Remote Learning and Foregoing the Dream

Stephen Kotok
St. John's University, USA

Due to Covid-19, almost all public-school districts across the U.S. suspended in-person learning and shifted over night to remote learning. I am writing this in May of 2020. The future of the pandemic is unclear. However, we need to think critically how this challenging time informs post-Covid educational policies and curriculum. School choice advocates- especially proponents of home school and virtual charter schools- point to success stories of students who continued to learn at high levels during the pandemic or tout the efficiency of online delivery in terms of time and monetary costs (Barbour, 2012). Conversely, many scholars point out that the various pedagogical and equity issues result in low-academic achievement and large opportunity gaps (Ahn & McEachin, 2017; Mann & Kotok, 2019; Woodworth et al., 2015). As these debates persist, we also need to consider purposes of schooling related to socialization and civic responsibility (Banks, 1997). Students benefit greatly academically and socially from physically attending schools with diversity in race/ethnicity, language, and even different political views (Kotok & DeMatthews, 2018; Campbell, 2008; Carter, 2009; Mickelson & Nkomo, 2012) and it is unclear if remote learning offers the same level of interaction needed to foster meaningful relationships. I contend it is more important than ever to return to in-person learning experiences when we can while integrating digital technology as a supplement rather than a replacement.

Research finds that students learn more when working alongside students of different socioeconomic and racial backgrounds (Coleman et al., 1966; Johnson, 2019; Wells, Fox, & Cordovo-Cobo, 2016), but remote learning limits genuine peer interaction. Theoretically, students can interact with different peers virtually, but these remote experiences differ drastically from students sitting in a class together (Mann, 2019). As the parent of a 2nd

grader, I have witnessed the difficulty of creating interactive digital learning experiences. Although my daughter's teacher and teachers all around the U.S. have done a great job of mobilizing to provide individualized learning experiences, the on-line classroom is mostly devoid of peer-to-peer interaction. Some video conferencing platforms allow break out rooms, but younger children require more assistance in logging in and transitioning to different online learning spaces, putting unrealistic demands on the teacher and/or parents of the children. Adolescent students can handle these break out groups easier than younger students, but we again run into issues of the digital divide and access as some students share devices with siblings and rely on slower Wi-Fi.

   Another important aspect of schooling involves community and civic engagement (Pai & Adler, 2001). Putnam (2000) famously commented that Americans are increasingly "bowling alone" rather than joining leagues as a metaphor for a changing civil society. Although Americans may engage in political discourse on Facebook rather than the local Elks club or church, something is lost when people – including students—only interact digitally. The "Black Lives Matter" and the "March for Our Lives Rallies" serve as powerful examples of grassroots movements that took advantage of digital media (Bodovski, 2019). However, our increasingly polarized society in the U.S. means an over reliance on digital platforms results in gravitating to your bubble rather than freely exchanging ideas. In my own experience attending one of the most racially and economically integrated high schools in my state, these interchanges of views often took place at lunch, in between classes, and playing basketball during gym in addition to structured classrooms.

   Despite my criticism of full-time remote learning, it also introduces some supplemental opportunities for people of different backgrounds to interact virtually. Mann (2019) points out that virtual school districts could be designed to serve large diverse student bodies, but such an arrangement would be difficult in a country such as the U.S. with hyper-localized funding and curriculum. Moreover, massive on-line education further isolates students from their own communities and runs counter to other goals of civic engagement. A better alternative is to seek hybridized learning opportunities that build off of a strong in-person school community. A few years back, I toured a school in New Jersey where the Spanish class consisted of video conferencing with a peer English class in Madrid, Spain. In this case, video conferencing opened a new opportunity rather than replacing the school community.

   After we get through the pandemic, I fear that some school districts may be tempted to use their new found technology to offer an online option or that increasing amounts of parents may seek online charter options. I am reminded of a quote by the late, Dr. Martin Luther King Jr. who said, "The function of education is to teach one to think intensively and to think

critically. But education which stops with efficiency may prove the greatest menace to society. The most dangerous criminal may be the man gifted with reason but no morals. … We must remember that intelligence is not enough. Intelligence plus character—that is the goal of true education." Although chat rooms and educational apps pass the efficiency test, I do not think they provide enough for our children

REFERENCES

Ahn, J., & McEachin, A. (2017). Student enrollment patterns and achievement in Ohio's online charter schools. *Educational Researcher*, *46*(1), 44-57.

Banks, J. A. (1997). *Educating citizens in a multicultural society*. Teachers College Press.

Barbour, M. K. (2012). Are virtual schools more cost-effective compared to traditional, brick- and-mortar schools?" *Technology in schools: Debating issues in American education.* Ed. K. P. Brady: Sage.

Bodovski, K. (2019). Childhood and education in the United States and Russia: Sociological and comparative perspectives. Emerald Publishing.

Campbell, D. E. (2008). Voice in the classroom: How an open classroom climate fosters political   engagement among adolescents. *Political Behavior*, *30*(4), 437-454.

Carter, P. (2009). Equity and empathy: Toward racial and educational achievement in the Obama era. *Harvard Educational Review*, *79*(2), 287-297.

Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., Weinfeld, F., &   York, R. L. (1966). Equality of educational opportunity (Report No. OE- 3800). *Washington, DC: National Center for Educational Statistics*.

Johnson, R. C. (2019). *Children of the dream: Why school integration works*. Basic Books.

Kotok. S., & DeMatthews, D. (2018). Challenging school segregation in the 21st century: How districts can leverage dual language education to increase school and classroom diversity. *The Clearinghouse: A Journal of Educational Strategies, Issues, and Ideas, 91*(1), 1-6.

King Jr, M. L. (1947). The purpose of education. *The maroon tiger*, *10*, 123-124.

Mann, B. & Kotok, S. (2019). Stratified Choices: How market assumptions and performance outcomes relate to cyber charter enrollments. *Teachers College Record, 121*(3), 1-11.

Mann, B. (2019). Whiteness and economic advantage in digital schooling: Diversity patterns and equity considerations for K-12 online charter schools. *Education Policy Analysis Archives*, *27*, 105.

Mickelson, R. A., & Nkomo, M. (2012). Integrated schooling, life course outcomes, and social cohesion in multiethnic democratic societies. *Review of Research in Education*, *36*(1), 197-238.

Pai, Y., & Adler, S. A. (2001). Cultural foundations of education (3rd edn). Prentice Hall.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon and Schuster.

Wells, A. S., Fox, L., & Cordova-Cobo, D. (2016). How racially diverse schools and classrooms can benefit all students. *The Education Digest*, *82*(1), 17.

Woodworth, J. L., Raymond, M. E., Chirbas, K., Gonzalez, M., Negassi, Y., Snow, W., & Van Donge, C. (2015). Online charter school study 2015. *Center for Research on Educational Outcomes. Available at https://credo. stanford. edu/pdfs/Online% 20Charter% 20Study20Final. pdf*, *165*.

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iv

What We Choose to Remember: Imagined Shared Narratives of Education During COVID-19

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ABSTRACT

The impacts of the COVID-19 pandemic on educational policies and practices are unprecedented. Our pre-COVID-19 lives in education were defined by boundaries that shaped taken-for-granted meanings about what counts as education, whose responsibility it was to educate, and what it meant to lead, teach, and learn. In this essay, we imagined education in 2030, through the lens of our COVID-19 experience and asked: What will we choose to remember and what generative impact do we want to take pride in claiming?

The impacts of the COVID-19 pandemic on educational policies and practices are unprecedented. With the majority of educational institutions

forced to limit face-to-face interactions, teaching and learning have rapidly taken on vastly new meanings. Even in the midst of the uncertainties of this pandemic, predictions for the post COVID-19 world have begun to emerge (e.g., Karlgaard, 2020; Kim, 2020). Yet as we move forward, we collectively create the past. That is, historical implications are never objective descriptions of what occurred, but rather collective decisions about how we choose to remember the past (Anderson, 1991; Breuilly, 2016). In this spirit, we ask: *As educators imagining education in 2030, through the lens of our COVID-19 experience, what will we choose to remember and what generative impact do we want to take pride in claiming?*

Our pre-COVID-19 lives in education were defined by boundaries that shaped taken-for-granted meanings about what counted as education, whose responsibility it was to educate, and what it meant to lead, teach, and learn. Though each one of us has tried to disrupt these boundaries in our own work, we continually found ourselves butting up against sociopolitical and historical structures that made the status quo – and inequitable educational opportunities and outcomes – more likely. Our efforts to recognize and address implicit bias, de-track, and replace rigid discipline systems with restorative justice, among other things, have therefore repeatedly fallen short of our vision.

The COVID-19 crisis has magnified the inequities that have plagued our educational system for years: opportunity gaps, digital divides, persistent tracking, and the effects of discrimination, racism, xenophobia, and classism, among other forms of oppression. Layers of traditional practices and roles woven into the historical tapestry of school cultures are rapidly unraveling amidst this pandemic. With that unraveling comes the opportunity to rethink, reimagine, and disrupt boundaries that perpetuate oppression and inequity. For example, Mr. B, a sixth-grade teacher in Fort Worth, TX, disrupted the new norm of distance learning by delivering math instruction to an autistic student, who was struggling with online learning, in his driveway, using a whiteboard and maintaining social distancing (Reece, 2020). While this is an example of a teacher disrupting boundaries that perpetuate oppression and inequity, we recognize that this kind of "teaching during a crisis" is not sustainable, and more systemic changes need to be made.

Rather than narrowly defining goals of education in terms of skills, proficiencies, benchmarks, test scores, or grades, we could shift to include goals such as democratic or civic engagement, connection and community, and lessons tied to problem solving in real time given the urgency of current events. For example, students at schools and colleges across various states

have designed and used 3D printers to produce protective masks for healthcare workers (Byrne, 2020; Francies, 2020; West, 2020).

Human development encompasses not only increased cognitive complexity, but increased empathy, as we acknowledge and respect the strengths and challenges of those around us, and increased generosity of spirit and action, as we take the health and wellbeing of others to matter as much as our own. Aligned with this perspective, countless teachers have been checking in on students by phone, Zoom, and other creative ways. For example, first grade teacher LaRinda Neal made arrangements with her students' parents and drove by their homes, waving an encouraging sign and shouting to each student that they are missed and loved (personal communication, May 5, 2020). In addition, in North Carolina (USA), local non-profits partnered with a large urban district to give families 10,000 refurbished laptops so that every student has the technology needed to learn at home (Pounds, 2020). That same district served over 1 million meals across more than 100 school and neighborhood sites within the first seven weeks of the pandemic (WXII12 Web Staff, 2000). It is important, though, to recognize that this is not enough. Despite receiving free devices, there are some families who are unable to utilize those resources, especially those in rural areas like our mountain communities in North Carolina. Instead, we hope that these exemplars serve as a call to action for us all.

Considering these examples, can we finally balance what we do on a daily basis in the service of learning with our highest ethical standards? The goals of equity are enduring; their (im)possibility, however, has been demonstrated in study after study in which the status quo is so easily reproduced. In the COVID-19 world, with the urgency of needs brought into sharper relief, we see cracks in the system that has so handily perpetuated injustice and maintained artificial boundaries between stakeholders' roles, content areas, families, communities and schools. We may never have labeled the disruption we believe we need in education as a "seismic shift" the size of COVID-19, as we do not often invite change that feels like it should be measured on a Richter scale. However, that is the scale of change we need, and this may be our moment.

Post COVID-19, as educators perhaps we can take pride in our regained focus on communities' well-being as a central goal of education beyond cognitive outcomes; our renewed appreciation of and strategies for cultivating our own and our students' assets; and our reinvigorated efforts to promote social justice in education so that the inequities we have witnessed will no longer be the status quo. In years to come, when we look back, may we choose to remember and preserve the powerful boundary crossings that

have rescued and re-formed education in a pandemic. Let us not have lost the "pockets of greatness" (Collins, 2001) we have witnessed; let us spread them.

REFERENCES

Anderson, B. (1991). *Imagined communities: Reflections on the origins and spread of nationalism.* Verso.

Breuilly, J. (2016) Benedict Anderson's imagined communities: A symposium. *Nations and Nationalism, 22*(4), 625-659.

Byrne, K. (2020, April 22). *College students using 3D printers to make face masks for coronavirus first responders.* Fox News. https://www.foxnews.com/tech/college-students-3d-printers-coronavirus-face-masks-first-responders

Collins, J. C. (2001). *Good to great: Why some companies make the leap and others don't.* Harper Business.

Francies, S. (2020, May 2). *WSU student uses 3D printer to make protective masks.* The Spokesman-Review. https://www.spokesman.com/stories/2020/may/02/wsu-student-uses-3d-printer-to-make-protective-mas/

Karlgaard, R. (2020, April). *Five bold predictions for the post Covid-19 world.* Forbes Asia.

Kim, J. (2020, April 21). *Teaching and learning after Covid-19: Three post-pandemic predictions.* Inside Higher Ed. https://www.insidehighered.com/digital-learning/blogs/learning-innovation/teaching-and-learning-after-covid-19

Pounds, J. (2020, April 16). *Guilford Education Alliance raises enough money to buy 8,100 laptops for Guilford County Schools students.* Greensboro News & Record.

Reece (2020, May 4). *Driveway math: teacher goes the extra mile for socially distanced geometry lesson.* WFAA News.

West, D. (2020, May 6). *Answering the call: Schools, teachers and students use 3D printers to make face shields, masks for health care workers on the front lines.* The 74.

WXII12 Web Staff. (2020, May 3). *Guilford County Schools serves 1 million meals during pandemic.* WXII News.

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Short-Essay

A Look at Empathy, University Belonging, and Intersectionality: How to Support a Diverse Student Body Amid the COVID-19 Crisis

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ABSTRACT

The present short essay discusses the impact COVID-19 has had on college students. As universities work to build supportive learning environments during these unprecedented times, it is important for practitioners to consider how mental health and student identity impact student success. The framework proposes that empathy, university belonging, and an intersectional approach to academic support can contribute to a student's mental health, identity, and emotional well-being as they transition back to academic life.

Due to the COVID-19 pandemic, students across the country moved to online learning environments while caring for themselves and their families. Few studies have explored the potential impact the pandemic has had on student's mental and emotional wellbeing, specifically the onset of chronic stress, PTSD, depression, somatization, and other forms of mental illness that may be linked to COVID-19 experiences (Lederman, 2020 & Horne, 2020). The

conditions mentioned above may be further exacerbated for students who are more vulnerable to inequalities in higher education. These inequalities could include previous difficulties in academic and social integration at a university or gaps in relevant interventions required to care for their physical or mental health. This article examines the relative impact of empathy, university belonging, and an intersectional approach to academic support on students' transition from COVID-19 stress to academic success.

TRAUMA AND COVID-19

Studies conducted before COVID-19 found that traumatic events may show severe impairment to comprehend lessons, maintain attention during class instruction, meet deadlines, or suppress impulse-control appropriately (Cole, 2013; Carrion et al., 2013). More recently, the Active Minds (2020) student survey found that eight in 10 of students reported having a difficult time focusing on their studies and avoiding distractions, and 74% found it challenging to maintain a routine due to COVID-19. The significant challenge for educators working with highly stressed or traumatized college students then comes down to finding ways to help students move from COVID-19 stress to feeling safe enough to learn.

Understanding Intersectionality

One best practice on how to support students is an understanding of students as a whole person and the implications of their intersecting identities. Crenshaw (1991) first coined the term "intersectionality" to describe how power operates to create systems where black women are oppressed based on their gender and race. Since its emergence, intersectionality has been used to describe oppression more broadly across a wide array of identities. In her words, "intersectionality is a lens through which you can see where power comes and collides, where it interlocks and intersects. It is not merely that there is a race problem here, a gender problem here, and a class or LBGTQ problem there. Many times that framework erases what happens to people who are subject to all of these things." The understanding and application of intersectionality are critical as we work to support students through this crisis, as they all carry intersecting identities that may marginalize and exclude them from their educational pursuits.

The Practice of Empathy

Researchers define empathy as a form of social communication that recognizes and responds to another person's thoughts or feelings with an appropriate emotion (Hybels & Weaver, 2009). When students with trauma histories come to college, it is essential to connect with them through empathy and to work to understand their unique identities, backgrounds, and experiences as they grapple with the stressors of COVID-19. In university settings, practicing empathy means (a) using the student's preferred name, (b) encouraging students to express themselves (c) being fully present (d) giving genuine recognition and praise (e) show students care and have a natural curiosity about their lives (f) not interrupting or rushing to give advice (g) observing non-verbal communication.

University Belonging

A first step in creating university belonging is to have a proactive communication plan for students that will engage them within the institution in meaningful ways and to build trust and resilience in times of uncertainty (Wilson & Gore, 2013). Maslow (1954) identified belonging as a basic human need. Students, especially those from underrepresented and marginalized backgrounds, want to feel respected and valued at their institution. This means that creating a sense of belonging for students helps them to feel valued at the university. Strayhorn (2012) defined a sense of belonging as "students' perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued by, and essential to campus community or others on campus (e.g., faculty, peers)" (p. 3). One method for identifying and supporting students belonging is to connect them early on to people whom they will have frequent interaction with like faculty members, mentors, and academic advisors (Schreiner, Noel, Anderson, & Cantwell, 2011). Staff and administrators from diversity, equity, and inclusion centers are experts in understanding underrepresented and marginalized students and are excellent partners for providing resources and support as well.

CONCLUSION

Our students bring their hidden stories to us. It is our goal to translate what we know about university belonging, empathy, and intersectionality into student support services as we navigate through the COVID-19 crisis.

REFERENCES

Active Minds (2020). "The Impact of COVID-19 on Student Mental Health."
    COVID-19 Student Survey.

Chessman, H., Morgan T, (2019). "College Student Mental Health and Well-Being:
    A Survey of Presidents."

Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and
    Violence against Women of Color. *Stanford Law Review*, 43(6), 1241-
    1299.

Horne, L. (2020) "Supporting a Healthy Campus Community During COVID-19."
    Active Minds Blog. April 20, 2020.
    https://www.activeminds.org/blog/supporting-a-healthy-campus-
    community-during-covid-19/

Hybels, S. & Weaver, R. (2009). Communicating effectively. New York. NY:
    McGraw-Hill.

Lederman, Doug. (2020). "Presidents Fear Financial, and Human, Toll of
    Coronavirus." Inside Higher Ed, March 27, 2020.
    https://www.insidehighered.com/news/survey/college-presidents-fear-
    financial-and-human-toll-coronavirustheir-campuses.

Maslow, A. H., Frager, R., Fadiman, J., McReynolds, C., & Cox, R. (1987).
    Motivation and personality (3rd). *New York*.

Strayhorn, T. (2012). College students' sense of belonging: A key to educational
    success for all. New York, NY: Routledge.

Schreiner, L. A., Noel, P., Anderson, E., & Cantwell, L. (2011). The impact of
    faculty and staff on high-risk college student persistence. *Journal of
    College Student Development*, 52(3), 321–338

Wilson, S., & Gore, J. (2013). An attachment model of university connectedness.
    Journal of Experimental Education, 81(2), 178–198.

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Short Essay

Are Schools Replaceable?
Creative Destruction in the Post-Pandemic Society

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ABSTRACT

Lockdown measures and school closures in response to coronavirus have exposed and amplified the relationship between wealth and richer home-learning environments as well as the digital divides among students and among schools. Simultaneously, innovation processes seem to be occurring in response to the restrictive measures. The purpose of this short essay is to discuss the consequences of COVID-19 for students, pedagogy, and schools, particularly the relationship between socioeconomic conditions and possibilities of innovation in education. Based on Joseph Schumpeter's concept of creative destruction, we suggest that while some institutions may have the possibility of reinventing themselves by developing blended models of education, for a vast worldwide majority of students, traditional – which is to say, face-to-face and disconnected – schools are irreplaceable.

Keywords: Blended Learning, Education, Educational Innovation, Schools, Socioeconomic Influences

SCHOOL CLOSURES AND EQUITY

While writing these lines, the coronavirus pandemic stands as a worldwide crisis with almost no certainty about how events will unfold.

In this scenario, teaching has already been altered. Due to mandated nationwide closures, 1,500 million students are not attending school, which represents almost 90% of the world student population (UNESCO, 2020). With the pressure to carry on with the academic year, governments, schools, and teachers have been forced to find different and new ways to ensure learning continuity.

Initiatives across the world, however, have shown marked differences (Chang & Yano, 2020). And not surprisingly, these differences match each country's level of development and the socioeconomic status (SES) of the students the initiatives target. These variables had already created disparities in the students' learning opportunities before the crisis (OECD, 2016). But in the Coronavirus pandemic context, schools' potential to guarantee equity has become even more limited.

The resources that states and schools have been able to provide and the resources that students and their families have at home have shaped the different initiatives for distance teaching and learning. While some schools have successfully migrated to virtual learning platforms and have continued teaching through the use of video communication applications and diverse virtual resources, other institutions are struggling with basic issues such as keeping in contact with their students due to their lack of internet or phone connection. While economically advantaged families with higher levels of education have been able to support students, help them with their homework and provide activities to fill learning gaps, families living in poverty are struggling to balance work obligations with childcare. Now, more than ever, we can observe the strong association between wealth and richer home-learning environments for young children (UNICEF, 2019).

What is more, "home" is a wide and diverse concept. We can´t forget that millions of students live in contexts of high levels of poverty, hunger, family and environmental stress and exposure to violence, abuse, neglect, and exploitation. Worldwide, 3 in 4 young children are regularly subjected to violent discipline by their caregivers (UNICEF, 2017). Undernutrition is the cause of 3.1 million child deaths annually (UNICEF, World Health Organization [WHO], & The World Bank, 2018) and in many countries, school meals are often the only regular and nutritious meal a child receives daily (WFP, 2020). In the context of mandated school closures, not only have millions of students seen their learning opportunities disrupted, some have also lost their access to basic nourishment and to a safe space.

At the same time, the COVID-19 crisis shows the existing gap between those who have access to information and communication technologies and those who do not, a gap commonly known as the "first-level digital divide." It also allows us to better differentiate the existing gap in terms of *usage* of these technologies, a gap known as the "second-level digital divide". Moreover, it has shed light upon a "third-level digital divide:" the *institutional* gap, meaning the difference between schools that are able to give information and communication technologies an educational approach, thanks to their innovative attitude, the leadership skills of their principals and the level of instruction, training and dedication of their teachers, and those who are not (Fernandez Enguita, 2020). Sadly, we can expect the coronavirus pandemic to amplify these second and third divides since only some teachers will continue teaching through the use of such technologies and thus acquire or further develop experience in doing so, and only some students, *their* students, will continue to learn through the use of such technologies and thus acquire or further develop the needed skills. As a result, the COVID-19 crisis will enlarge the already existing socioeconomic gap among students regarding access to knowledge and school achievement. In turn, it will also affect their chances and possibilities of building their own future.

THE DAY AFTER LOCKDOWN: CREATIVE DESTRUCTION

And what about pedagogy in the post-pandemic crisis? For once, we could argue that the coronavirus pandemic presented itself as a powerful and accelerating force for innovation in schools. As described above, institutions all over the world had to find new and distinctive ways to continue teaching. Could this be the case of "creative destruction"?

In 1942, Austrian economist Joseph Schumpeter argued that innovation allows for dynamic efficiency, as firms compete to create new and distinctive products which are more valuable than those already existing in the market, thus displacing – destroying – those which become obsolete.

In the coming future we could expect innovative schools replacing traditional, face-to-face, and disconnected ones, by being able to give a more efficient and higher-quality education, responding to the characteristics of society in the digital era. However, it seems that one of the greatest dangers we could face in the post-COVID crisis is creative destruction happening only for some, while perpetuated obsolescence happening for many.

Most likely, the socioeconomic status of educational institutions and their communities will be an even stronger variable when it comes to define the future of education. Presumably, high-SES schools, those better standing on the digital divides, will be the case of innovation, further developing pedagogic approaches such as blended learning. This will add to an already rising trend before the COVID crisis (Picciano, Seaman et al., 2012). But by the same token, low-SES schools, those on the other side of the digital gap, will likely go back to traditional, exclusively face-to-face teaching. With little chance of changing their long-standing dynamics due to the lack of resources both at the institution and at home, and due to the key role they play in their students' welfare, these schools will stay the same.

The coronavirus pandemic shows that for some countries, and for wide sectors of the world population, there is still no available technology that could substitute schools as we know them without causing more inequality. For many schools, there is no chance of creative destruction. For their students, a traditional, disconnected, and face-to-face school is still irreplaceable.

REFERENCES

Chang, G. & Yano, S. (2020, March 24). How are countries addressing the Covid-19 challenges in education? A snapshot of policy measures. *World Education Blog.* Retrieved from https://gemreportunesco.wordpress.com/2020/03/24/how-are-countries-addressing-the-covid-19-challenges-in-education-a-snapshot-of-policy-measures/ [Accessed 30 March 2020]

Fernández Enguita, M. (2020, March 31). Una pandemia invisible ha traído la brecha previsible. *Cuaderno de campo.* Retrieved from https://blog.enguita.info/2020/03/una-pandemia-imprevisible-ha-traido-la.html [Accessed 2 April 2020].

OECD. (2016). *Pisa 2015 results (Volume I): Excellence and equity in education.* OECD. https://doi.org/10.1787/9789264266490-en

Picciano, A. G., Seaman, J., Shea, P., & Swan, K. (2012). Examining the extent and nature of online learning in american k-12 education: The research initiatives of the Alfred P. Sloan foundation. *The Internet and Higher Education*, *15*(2), 127-135. https://doi.org/10.1016/j.iheduc.2011.07.004

UNESCO (2020, March). COVID-19 Educational Disruption and Response. *UNESCO Institute for Statistics data.* Retrieved from https://en.unesco.org/covid19/educationresponse [Accessed 30 March 2020]

UNICEF (2019, October). Home Environment. *UNICEF Data.* Retrieved from https://data.unicef.org/topic/early-childhood-development/home-environment/#_ftn1

UNICEF, World Health Organization [WHO], & The World Bank. (2018, May 14). Levels and trends in child malnutrition. *UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates. Key findings of the 2018 edition.*

UNICEF (2017) *A Familiar Face: Violence in the lives of children and adolescents.* UNICEF. Retrieved from https://www.unicef.org/publications/index_101397.html

WFP (2020, March). WFP and UNICEF joint response to COVID-19. *World Food Programme* Retrieved from. https://www.wfp.org/school-health-and-nutrition [Accessed 30 March 2020]

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The COVID-19 Pandemic, Massive Online Education, and Teacher Learning

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ABSTRACT

When the COVID-19 pandemic was at its peak in China this spring, I was one of the 16.7 million Chinese teachers who were expected to grasp online education within an extremely short period of time. This essay is a very personal reflection of mine on teacher learning at a time of crisis.

Keywords: COVID-19, online education, teacher learning

"I've uploaded all readings for our next class and the assignment to CANVAS. Everyone, happy reading and don't forget to submit your journal!" I finished my last sentence and closed the ZOOM window. That was the Monday of the 11th week of my online course, which began on March 2, 2020. Two months earlier, I barely knew what *Zoom* was and had never used *Canvas*. As the course progressed, I became an expert on both.

Due to the COVID-19 pandemic, over 30,000 students at my university were being kept off campus from January to August; in the whole country, over 268.4 million (Ministry of Education, 2019a). The coronavirus has led to lockdown of all educational institutions in China, from kindergartens to universities. In February, the Ministry of Education kicked off the "Teaching and Learning Online" Project (literally known as the 'Suspend classes, continue teaching and learning' Call), and required all

levels of schools to practice online teaching. I was one of 16.7 million Chinese teachers (Ministry of Education, 2019b) who were expected to grasp online education tools and techniques within a short period of time (in my case, two weeks). All of a sudden, preparing teachers for online education became the central concern for all school administrations in China. The following is a very personal reflection of mine on teacher learning against the background of the breakout of COVID-19.

Korthagen (2017) defined 'professional development 3.0' for the teaching profession as a combination of theory, practice and person. Of the three dimensions, *person* plays an essential role in teacher learning yet has been largely neglected in the traditional professional development literature. The person dimension refers to '[w]hat teachers think, feel, want, what are their ideals, what inspires them, what kind of teachers do they want to be?" (Korthagen, 2017, p. 399). In teacher learning, the *person* determines how far theory and practice may connect and integrate with each other. In Chinese teachers' learning of practicing online education, the *person* stood out in comparison with learning about online teaching techniques. I exemplify this with a story that was widely reported in the Chinese media.

Xiaolan, a secondary science teacher, was not able to travel back to her school in Hangzhou because of the pandemic. In order to teach, she would take two stools—along with her laptop and teaching materials—and climb to the top of a hill – simply because the internet connection there was more stable. She avoided turning on the camera as she did not want her students to know where she was working. Of the many issues worth of discussion in the story, in the spotlight was how Xiaolan managed to teach in a difficult situation. In contrast, how she learned about online education and whether her teaching was effective seemed less important. As a matter of fact, despite all kinds of challenges faced by a massive online education during the pandemic, way more attention was given to teachers as persons with commitments and responsibilities.

My class session was set 6:00-7:40pm on Monday, and I would deliver the classes in my office on the second floor of the Education Building. Every time when I had finished and went through the corridor, I would see a middle-aged professor sitting in the front of a large classroom, talking to a computer screen in a loud voice and full of facial expressions. 'Teaching presence' is considered as one of the three components that ensure a robust online learning environment (Davis, Greenaway, Moore, & Cooper, 2019). It refers to a teacher's role in designing, facilitating and guiding a course (she is there). Embedded in this role is a teacher's *person*. By being physically present in the classroom and delivering classes with emotions, this professor

was creating an educational space comparable to a face-to-face teaching setting.

The pandemic made many Chinese teachers online educators. Of the many things for teachers to learn in order to deliver quality teaching on the Internet, the *person* is what makes teaching meaningful and hopefully, learning effective.

REFERENCES

Davis, C., Greenaway, R., Moore, M., & Cooper, L. (2019). Online teaching in social work education: understanding the challenges. *Australian Social Work, 72*(1), 34-46, DOI: 10.1080/0312407X.2018.1524918

Korthagen, F. (2017) Inconvenient truths about teacher learning: towards professional development 3.0. *Teachers and Teaching, 23*(4), 387-405, DOI: 10.1080/13540602.2016.1211523

Ministry of Education (2019a). *Number of Students of Formal Education by Type and Level.* Retrieved from http://www.moe.gov.cn/s78/A03/moe_560/jytjsj_2018/qg/201908/t20190812_394239.html on May 15, 2020.

Ministry of Education (2019b). *Number of Schools, Educational Personnel and Full-time Teachers by Type and Level.* Retrieved from http://www.moe.gov.cn/s78/A03/moe_560/jytjsj_2018/qg/201908/t20190812_394241.html on May 14, 2020.

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Elementary School Size and Student Progress Differences by Ethnicity/Race: A Multiyear, Texas Study

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ABSTRACT

In this investigation, the degree to which student enrollment (i.e., school size) at elementary schools was related to student progress on the State of Texas reading and mathematics state-mandated assessments was examined for White, Black, and Hispanic students. Archival data available on the Texas Academic Performance Report were analyzed for the 2013–2014, 2014–2015, 2016–2017, and 2017–2018 school years. Inferential analyses revealed the presence of statistically significant differences, with below small to small effect sizes. Large-size schools had statistically significantly higher reading and mathematics progress rates than Small-size schools in 6 of the 9 analyses for White students. In 6 of the 9 analyses, school size was not related to student progress in reading or mathematics for Hispanic students. Small-size schools had statistically significantly higher progress rates in mathematics for Hispanic students than Moderate-size schools. Large-size, Moderate-size, and Small-size schools had similar progress rates in reading and mathematics for Black students in 8 of the 9 analyses. Implications for policy and practice, as well as recommendations for research, are provided.

INTRODUCTION

In a historic decision, Brown vs. Board of Education (1954), the Supreme Court ruled that segregation in public schools in the United States was unconstitutional. Since that time, efforts have been implemented to close achievement gaps among Asian, Whites, Black, and Hispanic students. In legislation such as the No Child Left Behind Act, currently reauthorized as Every Student Succeeds Act, schools were required to demonstrate that all students are proficient in the core subjects (United States Department of Education, 2018). Despite these historic decisions and federal mandates, large achievement gaps continue to persist.

Achievement gaps begin at an early age and increase as students' progress through school (Lockwood, 2007; Reardon & Galindo, 2009). Researchers (e.g., Chapin, 2006; Sonnenschein & Sun, 2017) have documented that Black and Hispanic students had lower reading and mathematics scores than White students when they began Kindergarten. After more than 15 years of implementation of the No Child Left Behind Act, Black and Hispanic students continue to perform poorly on reading and mathematics exams (National Assessment of Educational Progress [NAEP], 2018; Venzant-Chambers & Huggins, 2014). Although average scores for reading and for mathematics have improved for all ethnic/racial groups, the gaps between ethnic/racial groups remain relatively the same (NAEP, 2018).

Other factors that may influence ethnic/racial achievement gaps can include issues such as tracking, segregation, and teacher quality (Kotok, 2017; Williams, 2011). Schools often have courses set up on tracks to complete during high school, usually divided into remedial, general, and honors level coursework (Bromberg & Theokas, 2014). Once students begin one of these tracks, they are not likely to move into more advanced coursework (Bromberg & Theokas, 2014; Contreras, 2005). Black and Hispanic students are more likely than White students to participate in lower track courses even when the students of color have scored at a high percentile in other courses and exams (Bromberg & Theokas, 2014; Contreras, 2005). Another structural factor is that Black and Hispanic students are more likely to attend lower-income schools than White students (Goldsmith, 2011). Schools with a higher percentage of students in poverty have difficulty hiring and retaining quality teachers, obtaining resources, and have lower parental involvement (Carter & Welner, 2013) than schools with a lower percentage of students in poverty. These factors increase opportunity gaps for students of color. It is important for schools to continue to try and close these achievement gaps, as the repercussions reach beyond the classroom. Students who do not perform as well in mathematics and science can lead to missed opportunities in

employment in engineering and technology careers (Mau, 2003; Mau & Li, 2018).

Another school factor that should be taken into consideration is school size, with respect to student enrollment. School leaders are faced with many decisions—which include addressing an increasing student population. In the State of Texas, student enrollment has increased by 67.4% in the last 30 years. Student enrollment from 2008 to 2018 increased from 4,671,493 to 5,399,682 students, a 15.6% increase (Texas Education Agency [TEA], 2018a). With this enrollment growth in Texas, educational leaders are faced with making decisions about how to address the needs of a larger student population. Decisions must be made about school size and whether to place additional students in current facilities or to build additional structures. Financially, having a larger number of students in fewer buildings can result in savings in operational costs as well as combining additional resources under one roof (Boser, 2013; Stanislaski, 2015). Savings can be experienced in the areas of personnel costs, supplies, and materials (Dodson & Garrett, 2004). This ability for large-size schools to operate a school at a lower cost per student than small-size schools is reflective of the economies of scale model (Werblow & Duesberry, 2009). In this model, large-size schools function with more economic efficiency giving them the ability to provide more resources, additional opportunities, higher-level courses, and a more diverse course selection (Werblow & Duesberry, 2009) than can be provided by small-size schools. Schools that save money in operating costs can redistribute those expenditures to instructional needs.

Though financial benefits are present for large-size schools, school leaders still need to address the achievement gaps previously described. Educational leaders strive to be fiscally responsible while at the same time meeting the instructional needs of all students. In state accountability systems, such as the one in Texas, each campus is assessed and rated to determine if those instructional needs are being met. The ratings are based on student achievement, student progress, and efforts to close achievement gaps (TEA, 2018c). Examining how schools of different student enrollment sizes perform on state assessments is important to school leaders. Thus, researchers (e.g., Barnes & Slate, 2014; Fitzgerald et al., 2013; Riha, Slate, & Martinez-Garcia, 2013; Zoda, Combs, & Slate, 2011) have conducted studies in Texas schools and have provided evidence that students who attended Large-size schools performed at statistically significantly higher rates on state assessments than students who attended Small-size schools.

Evidence supporting the success of English Language Learners in Large-size school districts was documented by Barnes and Slate (2014). Data on the Texas Assessment of Knowledge and Skills (TAKS) English Language Arts, Mathematics, Science, Social Studies, and Writing tests were analyzed for the 2010–2011 school year for English Language Learners in Texas. In all five

subject areas, English Language Learners in Large-size school districts (i.e., 10,000–203,066 students) had statistically significantly higher passing rates than English Language Learners in either in Moderate-size (i.e., 1,600–9,999 students) or in Small-size (28–1,599 students) school districts.

Additional success in Moderate-size schools and in Large-size schools was documented by Fitzgerald et al. (2013) in the 2008–2009, 2009–2010, and 2010–2011 school years. Fitzgerald et al. (2013) analyzed high school completion rates among White, Black, and Hispanic students in Texas enrolled in different size schools. In their multiyear study, Fitzgerald et al. (2013) defined the school sizes as Small (i.e., 327 students and below), Medium (i.e., 328–1,337 students), and Large (i.e., 1,338 students and higher). After conducting statistical analyses, Black and Hispanic students had the highest completion rates when enrolled in a Medium-size school for two of the three years, and Black students had the highest completion rates in Medium-size and Large-size schools in the third year studied. Readers should note that Black and Hispanic students who were enrolled in Small-size schools had statistically significantly lower completion rates than their peers in Large-size schools.

Hispanic students have also been documented as performing statistically significantly better in Large-size Schools (i.e., 1,000 or more students) than in Small-size Schools (i.e., 100–499 students). Riha et al. (2013), in a Texas statewide investigation, analyzed Grade 8 data on the TAKS Reading, Mathematics, Science, and Social Studies state assessments over a 5-year time period. Consistently in the 2005–2006 through the 2009–2010 school years, Grade 8 Hispanic students in Large-size schools had statistically significantly better performance on the TAKS Reading, Mathematics, Science, and Social Studies tests than Grade 8 Hispanic students in Small-size schools. Effect sizes ranged from small to moderate for these statistically significant differences.

In a study that is most relevant for this article, Zoda et al. (2011) conducted a 5-year, Texas statewide study for Grade 4 students on the TAKS Reading, Mathematics, and Writing assessments. Zoda et al. (2011) defined school size in four categories: Very Small (i.e., less than 400 students), Small (i.e., 400–799 students), Large (i.e., 800–1,199 students), and Very Large (i.e., 1,200 or more students). Data analyses for all students across the five years revealed statistically significant results for Reading, Mathematics, and Writing in 12 of the 15 analyses, with small effect sizes. When compared to students enrolled in Small or Very Small schools, students who were enrolled in Large-size elementary schools had statistically significantly higher passing rates on all three subjects.

Additional analyses by Zoda et al. (2011) was conducted to determine the degree to which school size differences were present for Black, Hispanic, and White students. For each of the five years, statistically significantly higher

passing rates were present for Black students who were enrolled in Large and Very Large schools in each subject than for Black students who were enrolled in Small or Very Small schools. In addition, in four of the five years, statistically significantly higher passing rates were present for Hispanic students and White students who were enrolled in Large-size schools compared to their peers who were enrolled in Small-size schools or in Very Small-size schools, with small effect sizes. The larger the school size, the higher the passing rate was for Black, Hispanic, and White students.

In these investigations, researchers (Barnes & Slate, 2014; Fitzgerald et al., 2013; Riha et al., 2013; Zoda et al., 2011) analyzed student achievement based on performance on state assessments. Although researchers have analyzed overall average grades or test scores when conducting studies on ethnic/racial achievement gaps (McKown, 2013), another measurement of student achievement is student progress. The State of Texas administers the State of Texas Assessments of Academic Readiness (STAAR) each year in the areas of Reading, Mathematics, Writing, Science, and Social Studies for Grades 3 through high school. During years that students have two consecutive years of data in the same subject, students are given a progress measure. Two consecutive years of STAAR results in the same subject are needed to calculate the progress the student has made from one year to the next. The progress measure is provided to show the amount of improvement, or progress, students have made in that subject area (Texas Education Agency, 2018d). A lack of literature is present in which researchers use student progress as a measure in their studies. As such, the effect of school size on student progress should be examined to determine if the ethnic/racial achievement gaps previously documented are also present with respect to student academic growth.

Statement of the Problem

School districts operate on funds from the state and from local property taxes. New facilities are funded through bond referendums, which the districts repay with revenue from property taxes. School districts receive a specified amount per student for each cent of tax effort to pay the principal of and interest on eligible bonds issued to construct, acquire, renovate, or improve an instructional facility (TEA, 2018b). With rising property taxes in Texas, community members expect district leaders to determine the most fiscally responsible approach to housing additional students. Decisions about building new schools or increasing the enrollment at current facilities must be considered.

In addition to being fiscally responsible, leaders must ensure that students are being educated fairly and equitably. Years of legislation such as the No Child Left Behind Act, currently reauthorized as the Every Student Succeeds

Act, requires schools to demonstrate that all students are proficient in the core subjects (United States Department of Education, 2018). The results are reported on the following ethnicity/races: Hispanic, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian/Other Pacific Islander, and White. Thus, school leaders must take into consideration the effect school size (i.e., student enrollment) has on student performance for the major ethnic/racial groups in Texas.

Purpose of the Study

The purpose of this study was to determine the degree to which student enrollment (i.e., school size) at elementary schools was related to student progress on the State of Texas state-mandated assessments. Specifically examined was the reading progress and the mathematics progress of White, Black, and Hispanic students. For these three ethnic/racial groups, the reading progress and the mathematics progress measures were analyzed for five school years to determine the extent to which trends might be present.

Significance of the Study

The effect of school size on student achievement has been investigated for many years. Evidence for small-size schools has been documented by researchers in the past (e.g., Eberts, Kehoe, & Stone, 1984; Leithwood & Jantzi, 2009; Wendling & Cohen, 1981). In more recent research studies conducted in Texas, extensive evidence for large-size schools has been established (Barnes & Slate, 2014; Fitzgerald et al., 2013; Gilmore, 2007; Riha et al., 2013; Zoda et al., 2011). Although extensive research exists regarding school size and student achievement, no published articles were located regarding school size and the current Texas state-mandated assessment, the STAAR. In addition, student achievement on the STAAR test was examined using student progress rather than the traditional pass or fail measurement. Researchers should continue to conduct investigations on school size to add to the current literature in Texas supporting large-size schools. If trends toward large-size schools continue, educational leaders could use that information to make informed decisions regarding school size.

One overarching research question was addressed in this study: What is the difference in student progress in reading and mathematics of elementary school students as a function of school size (i.e., Small-size, Moderate-size, and Large-size)? Sub questions under this overarching research question were: (a) What is the difference in the reading progress measure as a function of elementary school size?; (b) What is the difference in the mathematics progress measure as a function of elementary school size?; (c) What trend is present on the reading progress measure and elementary school size across

five school years?; and (d) What trend is present on the mathematics progress measure and elementary school size across five school years? Each research question was answered separately for White, Black, and Hispanic students. The first two research questions were repeated for the 2013–2014, 2014–2015, 2015–2016, 2016–2017, and 2017–2018 school years. The last two research questions involved results for all five school years.

RESEARCH METHOD

For this study, a nonexperimental, causal-comparative research design was conducted (Johnson & Christensen, 2017). The data used in this study were archival data from the Texas Academic Performance Report and reflected events that occurred in the past. As such, neither the independent variable nor the dependent variable could be manipulated in this study.

The original intention herein was to use elementary school size recoded into four sizes based on previous research by Zoda et al. (2011): Very Small-size (i.e., 50–399 students), Small-size (i.e., 400–799 students), Moderate-size (i.e., 800–1,199 students), and Large-size (i.e., 1,200 or greater students). Data frequency distributions were generated and examined for the four school sizes and very few schools were present that had 1,200 students or greater. Accordingly, school size was recoded into three categories: Small-size (i.e., 50–399 students), Moderate-size (i.e., 400–799 students), and Large-size (i.e., 800 or greater students). The dependent variables in this study consisted of the reading progress measure and the mathematics progress measure on the STAAR Reading and Mathematics assessments. These data were analyzed separately by the three major ethnic/racial groups (i.e., White, Hispanic, and Black) of students in Texas.

Participants and Instrumentation

Data for this study were archival datasets downloaded from the Texas Academic Performance Reports available on the Texas Education Agency website for the 2013–2014, 2014–2015, 2015–2016, 2016–2017, and 2017–2018 school years. Participants were Grade 4 and 5 students in Texas who received a progress measure result on the STAAR Reading assessment and Grade 4 and 5 students in Texas who received a progress measure on the STAAR Mathematics assessment for each school year analyzed. The progress measure provides information about the amount of improvement, or growth, a student has made from year to year. For each assessment, the progress is measured as a gain score, subtracting the prior year's score from the current year's score. Student results are categorized into three labels: Did Not Meet, Met, or Exceeded (TEA, 2018d). Students whose gain score was higher than the expected target are assigned the progress measure Exceeded

Progress. In contrast, students whose gain score was below the expected target are labeled Did Not Meet Progress. Students who make the expected amount of progress from one year to the next are assigned Met Progress. In this study, the school data, reported as the percentage of students who have met or exceeded student progress, were analyzed. During the 2014–2015 school year, mathematics progress rates were not reported. Revised mathematics TEKS were implemented in the classroom in the 2014–2015 school year. Accountability calculations excluded Mathematics for Grades 3–8. Therefore, the progress rate for mathematics was not analyzed for the 2014–2015 school year.

For the purpose of this study, elementary campuses were limited to campuses that are Kindergarten through Grade 5. Any campus that did not meet this configuration was eliminated. Campuses that were identified as charter schools were also eliminated. The independent variable of school size was identified by the number of students enrolled at each educational facility. Data frequency distributions were generated and examined for the three categories: Small-size (i.e., 50–399 students), Moderate-size (i.e., 400–799 students), and Large-size (i.e., 800 or greater students). Another frequency distribution was generated by ethnic/racial membership and revealed that the number of schools that had data on Asian students was insufficient for statistical analyses. As such, only the academic performance of White, Hispanic, and Black students could be examined.

RESULTS

For this investigation, an Analysis of Variance (ANOVA) procedure was calculated for each school year and for the three major ethnic/racial groups (i.e., White, Hispanic, and Black) in Texas to determine the extent to which differences were present in student progress in reading and mathematics as a function of school size for the 2013–2014, 2014–2015, 2015–2016, 2016–2017, and 2017–2018 school years, excluding mathematics in 2014–2015. Prior to conducting inferential statistical procedures to answer the research questions delineated above, checks for normality and Levene's Test of Error Variance were conducted. The majority of these assumptions were not met. Field (2009), however, contends that the parametric ANOVA procedure is sufficiently robust that these violations can be withstood. Accordingly, parametric ANOVA procedures were justified to address all of the research questions.

Reading Results for White Students for All Five School Years

With respect to the degree to which differences were present in the reading progress rates of White students as a function of elementary school size in the

2013–2014 school year, the parametric ANOVA revealed a statistically significant difference, $F(2, 1270) = 3.60$, $p = .03$, partial $n^2 = .01$, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that differences were present between only one pairwise combination. Large-size schools had statistically significantly higher progress rates in reading for their White students than Small-size schools. Moderate-size schools had similar progress rates in reading of their White students as Small-size and Large-size elementary schools. Readers are directed to Table 1 for the descriptive statistics for this school year.

Table 1

Descriptive Statistics for Reading Progress Rates of White Students by Elementary School Size for the 2013–2014 Through the 2017–2018 School Year

School Size	n of schools	M	SD
2013–2014			
Small-size	167	63.98	8.77
Moderate-size	895	64.99	8.39
Large-size	211	66.23	7.04
2014–2015			
Small-size	187	67.20	10.63
Moderate-size	940	69.58	8.64
Large-size	235	72.20	8.70
2015–2016			
Small-size	186	67.01	8.88
Moderate-size	956	67.60	9.07
Large-size	248	69.00	8.06
2016–2017			
Small-size	204	70.57	10.49
Moderate-size	1,033	71.51	10.57
Large-size	255	73.30	8.32
2017–2018			
Small-size	218	68.11	10.06
Moderate-size	1,051	69.02	9.24
Large-size	269	71.05	6.93

For the 2014–2015 school year, the parametric ANOVA revealed a statistically significant difference, $F(2, 1359) = 16.61$, $p < .001$, partial $n^2 = .02$, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that differences were present between all pairwise combinations. Large-size schools had statistically significantly higher progress rates in reading for their White students than Moderate-size schools and Small-size schools. Moderate-size elementary schools had statistically significantly higher progress rates in reading of their White students than Small-size schools. As

school size increased, the reading progress rates of White students increased. Delineated in Table 1 are the descriptive statistics for this school year.

Concerning the 2015–2016 school year, a statistically significant difference was revealed, F (2, 1387) = 3.25, p = .04, partial n^2 = .01, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that although two pairs approached the conventional level, no pairs reached the conventional level of statistical significance. Large-size, Moderate-size, or Small-size schools had similar progress rates in reading for their White students. Descriptive statistics for this analysis are presented in Table 1.

With respect to the 2016–2017 school year, a statistically significant difference was revealed, F (2, 1460) = 10.73, p < .001, partial n^2 = .01, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that all pairwise comparisons of school sizes were statistically significantly different. Large-size schools had higher progress rates in reading for their White students than Moderate-size or Small-size schools. Moderate-size schools had higher progress rates in reading for their White students than Small-size schools. As school enrollment increased, so too did the reading progress rates of White students. Table 1 contains the descriptive statistics for this school year.

Figure 1

Reading progress rates by school size for White students across all five school years.
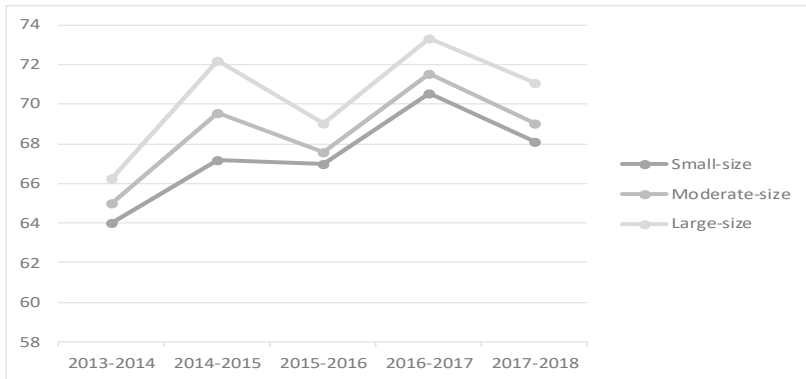
Regarding the 2017–2018 school year, the parametric ANOVA yielded a statistically significant difference, F (2, 1535) = 7.48, p = .001, partial n^2 = .01, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that differences were present for all but one pair of school sizes, Small-size and Moderate-size. This pair had similar progress rates in reading for their White students. Large-size schools had statistically significantly higher progress rates in reading for their White students than Moderate-size schools

and Small-size schools. Delineated in Table 1 are the descriptive statistics for the 2017–2018 school year.

With respect to the trend present on the reading progress measure and elementary school size across five school years, a line graph was used to illustrate the trends across the five school years. Large-size schools tended to have higher progress rates in reading for their White students than Moderate-size and Small-size schools. Depicted in Figure 1 are the trends in reading progress rates for White students for the three school sizes in the 2013–2014 through 2017–2018 school years.

Reading Results for Hispanic Students for All Five School Years

Concerning the 2013–2014 school year for Hispanic students, a statistically significant difference was not revealed, $F(2, 2345) = 0.56$, $p = .57$. Large-size, Moderate-size, and Small-size schools had similar progress rates in reading for their Hispanic students. Descriptive statistics for this analysis are presented in Table 2.

Table 2
Descriptive Statistics for Reading Progress Rates of Hispanic Students by Elementary School Size for the 2013–2014 Through the 2017–2018 School Year

School Size	n of schools	M	SD
2013–2014			
Small-size	211	63.52	9.35
Moderate-size	1,755	63.17	7.72
Large-size	382	62.83	6.94
2014–2015			
Small-size	226	64.99	9.00
Moderate-size	1,772	63.75	7.96
Large-size	407	65.42	7.42
2015–2016			
Small-size	265	65.29	8.76
Moderate-size	1,857	65.29	7.90
Large-size	397	65.78	6.78
2016–2017			
Small-size	285	60.38	9.77
Moderate-size	1,894	60.72	8.33
Large-size	373	61.31	8.24
2017–2018			
Small-size	333	67.96	9.09
Moderate-size	1,918	67.36	7.91
Large-size	365	67.70	6.18

For the 2014–2015 school year, the parametric ANOVA yielded a statistically significant difference, $F(2, 2402) = 8.58$, $p < .001$, partial $n^2 = .01$, small effect size (Cohen, 1988). Scheffé's post hoc tests revealed that differences in progress rates in reading were present for only one pair, Large-size and Moderate-size schools. Large-size schools had statistically significantly higher progress rates in reading for their Hispanic students than Moderate-size schools. Similar progress rates in reading were present for Hispanic students in Moderate-size schools, Small-size schools, and Large-size schools. Delineated in Table 2 are the descriptive statistics for this school year.

With respect to the 2015–2016 school year, the parametric ANOVA did not reveal a statistically significant difference, $F(2, 2516) = 0.64$, $p = .53$. Small-size, Moderate-size, and Large-size schools had similar progress rates in reading for their Hispanic students. Readers are directed to Table 2 for the descriptive statistics for this school year. With respect to the 2016–2017 school year, a statistically significant difference was not yielded, $F(2, 2549) = 1.08$, $p = .34$. Small-size, Moderate-size, and Large-size schools had similar progress rates in reading for their Hispanic students. Table 2.2 contains the descriptive statistics for this school year. Regarding the 2017–2018 school year, a statistically significant difference was not yielded, $F(2, 2613) = 0.99$, $p = .37$. All three school sizes had similar progress rates in reading for their Hispanic students. Presented in Table 2 are the descriptive statistics for the 2017–2018 school year.

Figure 2
Reading progress rates by school size for Hispanic students across all five school years.
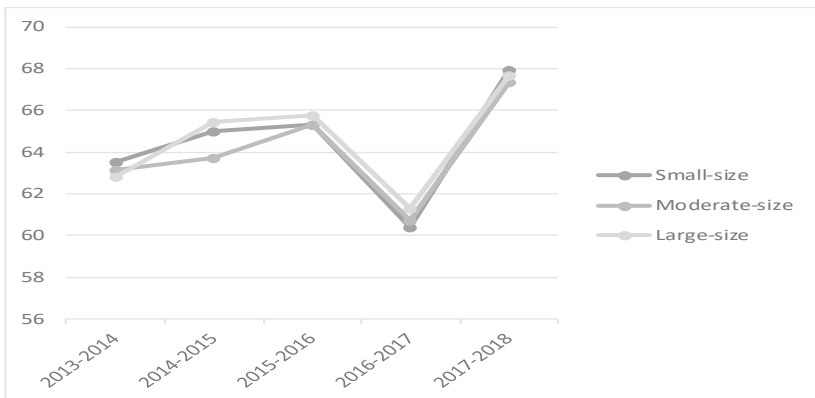
With respect to the trend present on the reading progress measure and elementary school size across five school years for Hispanic students, a line graph was used to illustrate the trends across the five school years. Large-size schools tended to have higher progress rates in reading for their Hispanic students than Moderate-size and Small-size schools in three of the five years. Depicted in Figure 2 are the trends in progress rates in reading for Hispanic students for the three school sizes in the 2013–2014 through 2017–2018 school years.

Reading Results for Black Students for All Five School Years

Regarding the 2013–2014 school year for Black students, a statistically significant difference was not yielded, $F(2, 647) = 0.66$, $p = .52$. Large-size, Moderate-size, and Small-size schools had similar progress rates in reading for their Black students. Readers are directed to Table 3 for the descriptive statistics for this school year.

Table 3

Descriptive Statistics for Reading Progress Rates of Black Students by Elementary School Size for the 2013–2014 Through the 2017–2018 School Year

School Size	*n* of schools	*M*	*SD*
2013–2014			
Small-size	37	63.19	13.58
Moderate-size	464	61.40	9.95
Large-size	149	62.01	9.67
2014–2015			
Small-size	34	64.24	12.35
Moderate-size	506	63.47	9.77
Large-size	176	65.62	9.50
2015–2016			
Small-size	46	68.30	9.88
Moderate-size	606	66.59	10.40
Large-size	201	67.57	8.61
2016–2017			
Small-size	55	62.29	11.29
Moderate-size	561	60.58	10.32
Large-size	181	60.19	10.16
2017–2018			
Small-size	72	67.93	11.62
Moderate-size	720	68.65	10.45
Large-size	216	68.02	9.49

For the 2014–2015 school year, a statistically significant difference was yielded, $F(2, 713) = 3.14$, $p = .04$, partial $n^2 = .001$, a below small effect size (Cohen, 1988). Scheffé's post hoc tests revealed that differences were present in progress rates in reading for Black students between Large-size and Moderate-size schools. Large-size schools had statistically significantly higher progress rates for their Black students in reading than Moderate-size schools. Across all other school size comparisons, the reading progress rate of Black students was similar. Delineated in Table 3 are the descriptive statistics for this school year.

Concerning the 2015–2016 school year, a statistically significant difference was not yielded, $F(2, 850) = 1.20$, $p = .30$. Large-size, Moderate-size, and Small-size schools had similar progress rates in reading for their Black students. Descriptive statistics for this analysis are presented in Table 2.3. With respect to the 2016–2017 school year, a statistically significant difference was not revealed, $F(2, 794) = 0.88$, $p = .42$. Similar to the previous school year, Large-size, Moderate-size, and Small-size schools had similar progress rates in reading for their Black students. Readers are directed to Table 3 for the descriptive statistics for this school year. Regarding the 2017–2018 school year, a statistically significant difference was not yielded, $F(2, 1005) = 0.41$, $p = .67$. Large-size, Moderate-size, and Small-size schools had similar progress rates in reading for their Black students. Table 3 contains the descriptive statistics for the 2017–2018 school year.

Figure 3

Reading progress rates by school size for Black students across all five school years.
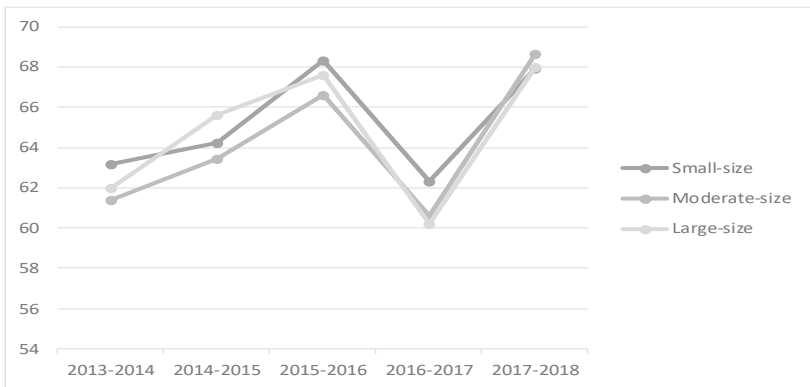
With respect to the trend present on the reading progress measure and elementary school size across five school years, a line graph was used to illustrate the trends across the five school years. Small-size schools tended to

have higher progress rates in reading for their Black students than Moderate-size and Small-size schools in three of the five years. Depicted in Figure 3 are the trends in progress rates in reading for Black students for the three school sizes in the 2013–2014 through 2017–2018 school years.

Mathematics Results for White Students for All Five School Years

With respect to the 2013–2014 school year, the parametric ANOVA did not reveal a statistically significant difference, F (2, 1469) = 2.35, p = .10. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for their White students. Readers are directed to Table 4 for the descriptive statistics for this school year.

Table 4

Descriptive Statistics for Mathematics Progress Rates of White Students by Elementary School Size for the 2013–2014 Through the 2017–2018 School Year

School Size	*n* of schools	*M*	*SD*
2013–2014			
Small-size	202	71.40	13.18
Moderate-size	1,022	72.06	11.60
Large-size	248	73.60	10.24
2014–2015			
Small-size	N/A	N/A	N/A
Moderate-size	N/A	N/A	N/A
Large-size	N/A	N/A	N/A
2015–2016			
Small-size	190	69.84	10.29
Moderate-size	943	70.94	10.72
Large-size	251	71.85	9.12
2016–2017			
Small-size	204	70.57	10.49
Moderate-size	1,033	71.51	10.57
Large-size	255	73.30	8.32
2017–2018			
Small-size	201	66.82	13.36
Moderate-size	1,012	70.00	10.64
Large-size	262	71.31	10.04

Concerning the 2015–2016 school year, a statistically significant difference was not yielded, F(2, 1381) = 2.03, p = .13. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for their White students. Descriptive statistics for this analysis are presented in

Table 4. With respect to the 2016–2017 school year, a statistically significant difference was revealed, F (2, 1489) = 4.55, p = .01, partial n^2 = .01, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that differences were present for all but one pair of school sizes, Small-size and Moderate-size. This pair had similar progress rates in mathematics for their White students. Large-size schools had statistically significantly higher progress rates in mathematics for their White students than Moderate-size schools and Small-size schools. Delineated in Table 4 are the descriptive statistics for this school year.

Regarding the 2017–2018 school year, the parametric ANOVA revealed a statistically significant difference, $F(2, 1472)$ = 10.09, p < .001, partial n^2 = .01, small effect size (Cohen, 1988). Scheffé's post hoc procedures revealed that differences were present for all but one pair of school sizes, Large-size and Moderate-size. This pair had similar progress rates in mathematics for their White students. Large-size schools had statistically significantly higher progress rates in mathematics for their White students than Small-size schools. Moderate-size schools had statistically significantly higher progress rates in mathematics for their White students than Small-size schools. Table 4 contains the descriptive statistics for the 2017–2018 school year.

Figure 4
Mathematics progress rates by school size for White students across all four school years.
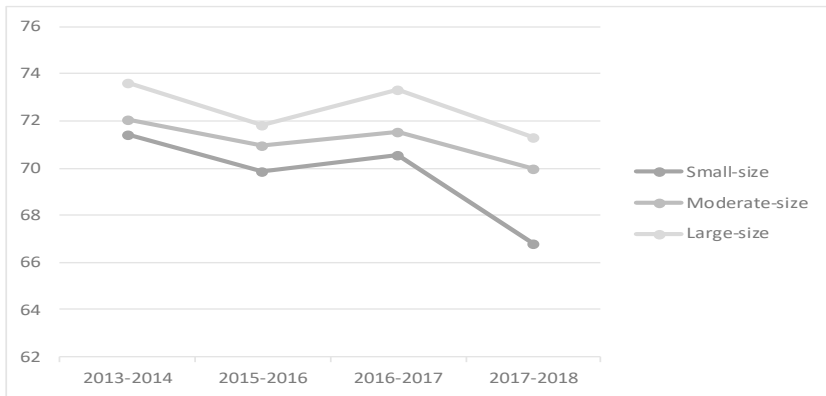
With respect to the trend present on the mathematics progress measure and elementary school size across five school years, a line graph was used to illustrate the trends across the five school years. Large-size schools tended to have higher progress rates in mathematics for their White students than Moderate-size and Small-size schools. Depicted in Figure 4 are the trends in

progress rates in mathematics for White students for the three school sizes in the 2013–2014 through 2017–2018 school years.

Mathematics Results for Hispanic Students for All Five School Years

Concerning the 2013–2014 school year, a statistically significant difference was revealed, F (2, 2508) = 3.51, p = .03, partial n^2 = .03, small effect size (Cohen, 1988). Scheffé's post hoc tests revealed that differences in progress rates in mathematics were present for only one pairwise comparison, Moderate-size and Small-size schools. Small-size schools had statistically significantly higher progress rates in mathematics for their Hispanic students than Moderate-size schools.

Table 5
Descriptive Statistics for Mathematics Progress Rates of Hispanic Students by Elementary School Size for the 2013–2014 Through the 2017–2018 School Year

School Size	n of schools	M	SD
2013–2014			
Small-size	257	71.97	12.53
Moderate-size	1,864	70.34	9.92
Large-size	390	71.12	8.87
2014–2015			
Small-size	N/A	N/A	N/A
Moderate-size	N/A	N/A	N/A
Large-size	N/A	N/A	N/A
2015–2016			
Small-size	258	69.69	10.26
Moderate-size	1,835	68.54	9.10
Large-size	395	68.24	8.32
2016–2017			
Small-size	308	71.12	10.32
Moderate-size	1,908	68.99	9.78
Large-size	371	69.29	8.24
2017–2018			
Small-size	325	69.03	10.99
Moderate-size	1,893	67.51	9.92
Large-size	365	68.14	9.16

Large-size schools had similar progress rates in mathematics for their Hispanic students when compared to Moderate-size or Small-size schools. Descriptive statistics for this analysis are presented in Table 5.

With respect to the 2015–2016 school year, the parametric ANOVA did not reveal a statistically significant difference, F(2, 2485) = 2.17, p = .11. Large-size, Moderate-size, and Small-size schools had similar progress rates

in mathematics for their Hispanic students. Presented in Table 5 are the descriptive statistics for this school year. Concerning the 2016–2017 school year, a statistically significant difference was yielded, $F(2, 2584) = 6.46$, $p = .002$, partial $n^2 = .002$, below small effect size (Cohen, 1988). Scheffé's post hoc tests revealed that differences in progress rates in mathematics were present for all but one pairwise comparison, Large-size and Moderate-size schools. Large-size schools had similar progress rates in mathematics for their Hispanic students as Moderate-size schools. Small-size schools had statistically significantly higher progress rates in mathematics for their Hispanic students than either Large-size or Moderate-size schools. Readers are directed to Table 5 for the descriptive statistics for this school year.

Regarding the 2017–2018 school year, the parametric ANOVA yielded a statistically significant difference, $F(2, 2580) = 3.48$, $p = .03$, partial $n^2 = .003$, a below small effect size (Cohen, 1988). Scheffé's post hoc tests revealed that differences in progress rates in mathematics were present for only one pairwise comparison, Small-size and Moderate-size schools. Small-size schools had statistically significantly higher progress rates in mathematics for their Hispanic students than Moderate-size schools. Table 5 contains the descriptive statistics for the 2017–2018 school year.

Figure 5
Mathematics progress rates by school size for Hispanic students across all four school years.

With respect to the trend present on the mathematics progress measure and elementary school size across five school years for Hispanic students, a line graph was used to illustrate the trends across the five school years. Small-size schools tended to have higher progress rates in mathematics for their Hispanic students than Moderate-size and Small-size schools. Depicted in

Figure 5 are the trends in progress rates in mathematics for Hispanic students for the three school sizes in the 2013–2014 through 2017–2018 school years.

Mathematics Results for Black Students for All Five School Years

Regarding the 2013–2014 school year, the parametric ANOVA did not reveal a statistically significant difference, $F(2, 931) = 0.32$, $p = .73$. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for their Black students. Readers are directed to Table 6 for the descriptive statistics for this school year.

Table 6
Descriptive Statistics for Mathematics Progress Rates of Black Students by Elementary School Size for the 2013–2014 Through the 2017–2018 School Year

| School Size	*n* of schools	*M*	*SD*
2013–2014			
Small-size	57	74.40	13.70
Moderate-size	671	73.30	11.89
Large-size	206	73.01	10.37
2014–2015			
Small-size	N/A	N/A	N/A
Moderate-size	N/A	N/A	N/A
Large-size	N/A	N/A	N/A
2015–2016			
Small-size	49	69.14	14.24
Moderate-size	541	67.70	12.85
Large-size	184	67.98	10.03
2016–2017			
Small-size	61	71.82	12.08
Moderate-size	639	69.00	11.62
Large-size	207	69.64	10.07
2017–2018			
Small-size	75	69.48	16.24
Moderate-size	648	67.65	11.63
Large-size	190	67.41	10.77

Concerning the 2015–2016 school year, a statistically significant difference was not yielded, $F(2, 771) = 0.32$, $p = .73$. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for their Black students. Descriptive statistics for this analysis are presented in Table 6. With respect to the 2016–2017 school year, a statistically significant

difference was not revealed, $F(2, 904) = 1.84$, $p = .16$. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for their Black students. Readers are directed to Table 6 for the descriptive statistics for this school year. Regarding the 2017–2018 school year, the parametric ANOVA did not reveal a statistically significant difference, $F(2, 910) = 0.89$, $p = .41$. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for their Black students. Table 6 contains the descriptive statistics for the 2017–2018 school year.

With respect to the trend present on the mathematics progress measure and elementary school size across five school years for Black students, a line graph was used to illustrate the trends across the five school years. Small-size schools tended to have higher progress rates in mathematics for their Black students than Moderate-size and Small-size schools. Depicted in Figure 6 are the trends in progress rates in mathematics for Black students for the three school sizes in the 2013–2014 through 2017–2018 school years.

Figure 6
Mathematics progress rates by school size for Black students across all four school years.
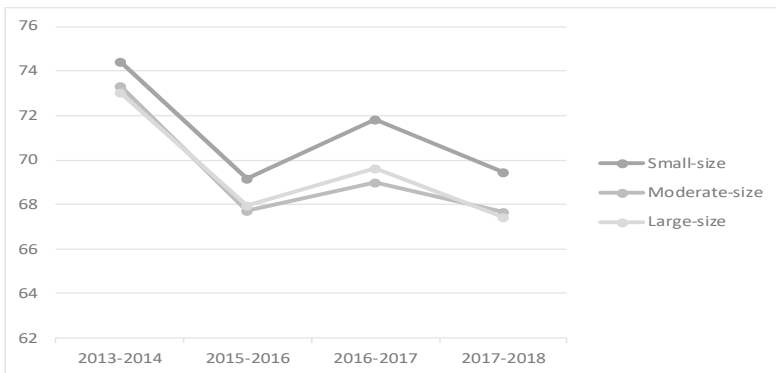
DISCUSSION

In this investigation, the degree to which student enrollment (i.e., school size) at elementary schools was related to student progress on the State of Texas state-mandated assessments was examined, specifically the reading progress and the mathematics progress of White, Black, and Hispanic students. Data were obtained from the Texas Academic Performance Reports for five school years (i.e. 2013–2014, 2014–2015, 2015–2016, 2016–2017, and 2017–2018). Inferential statistical procedures were used to determine if elementary school size contributed to the progress rates of students in Texas.

Five years of data were analyzed to determine the extent to which trends might be present.

Summary of Reading Results

Large-size schools had statistically significantly higher progress rates in reading for their White students in four of the five school years than either Moderate-size or Small-size schools. Moderate-size schools had statistically significantly higher progress rates in reading for their White students in two of the five years. Overall, as school size increased, so did student progress in reading for White students. All three school sizes had similar progress rates in reading for Hispanic students in four of the five school years. Data from only one school year revealed Large-size schools had statistically significantly higher progress rates in reading for their Hispanic students than Moderate-size schools. For Hispanic students in Texas, school size was not related to reading progress rates. Large-size, Moderate-size, and Small-size schools had similar progress rates in reading for Black students in four of the five school years. During one school year, Large-size schools had statistically significantly higher progress rates than Moderate-size schools. With the exception of the one school year, student enrollment was not related to the reading progress rates of Black students.

Summary of Mathematics Results

Large-size schools had statistically significantly higher progress rates in mathematics for their White students in two of the four school years than Small-size schools. Moderate-size schools had statistically significantly higher progress rates in mathematics for their White students than Small-size schools in one of those years. In two of the four years, similar progress rates in mathematics were present for White students for all three school sizes. In three of the four years, a statistically significant difference was present in the progress rate of Hispanic students in mathematics. In these three years, Small-size schools had a statistically significantly higher progress rate in mathematics for their Hispanic students than Moderate-size schools. Small-size schools tended to have higher progress rates in mathematics than Moderate-size or Large-size schools for Hispanic students in Texas. Large-size, Moderate-size, and Small-size schools had similar progress rates in mathematics for Black students in all four school years analyzed. School size was not related to student progress in mathematics for Black students.

Connections with Existing Literature

Current researchers (e.g., Barnes & Slate, 2014; Fitzgerald et al., 2013; Riha, Slate, & Martinez-Garcia, 2013; Zoda et al., 2011) in Texas have provided evidence that Large-size schools had statistically significantly higher achievement rates on state assessments than students who attended Small-size schools. In this study, when analyzing results for the three school sizes for White students, results were congruent with current researchers (e.g., Barnes & Slate, 2014; Fitzgerald et al., 2013; Riha, Slate, & Martinez-Garcia, 2013; Zoda et al., 2011). In contrast, Small-size schools had statistically significantly higher progress rates for their Hispanic students than Large-size schools. School size was not related to student progress in reading or mathematics for Black students. These findings are not congruent with the results of Zoda et al. (2011) in which Large and Very Large schools had statistically significantly higher passing rates in reading, mathematics, and writing for Black students than Small or Very Small schools.

Connections to Theoretical Framework

In this study, the economies of scale theory were utilized as the theoretical framework which economists describe as the ability to have higher production at a lower cost per output unit (Boser, 2013; Bowles & Bosworth, 2002). Many costs are associated with an educational setting, such as construction, maintenance and operations, transportation, and instructional opportunities. Large-size schools can save money in operating costs so that they are able to provide broader course selection, mentoring, and tutoring opportunities (Stanislaski, 2015; Werblow & Duesberry, 2009). Based on this theory, Large-size schools should have higher progress rates than Moderate-size, or Small-size schools. However, the results of this study did not strongly support this hypothesis for Hispanic or Black students, but did support Large-size schools for White students.

Implications for Policy and Practice

Based upon the results of this multiyear analysis, several implications for policy and for practice can be made. With respect to policy implications, Texas legislators should consider the effects that school size has on student progress. Although recent researchers in Texas (e.g., Barnes & Slate, 2014; Fitzgerald et al., 2013; Riha, Slate, & Martinez-Garcia, 2013; Zoda et al., 2011) support Large-size schools, the current study suggests that not all students achieved academic progress in Large-size schools. School leaders must demonstrate that all students, reported by the different ethnic/racial groups, are proficient in the core subjects (Texas Education Agency, 2018c;

United States Department of Education, 2018). In this study, school size was related to student achievement for White and for Hispanic students. Large-size schools were favored for White students, whereas Small-size schools were favored for Hispanic students. This information should be taken into consideration as school leaders make decisions about addressing increased student enrollment. Policymakers should not implement legislation regarding school size. The decisions regarding school size should be left to the individual school districts to make the best decision based on the school district's demographics.

Regarding practice implications, school district leaders can use this information to guide them in decisions to address increased student enrollment. Enrollment in Texas schools has increased by 67.4% in the last 30 years. Continued enrollment increases mean that school leaders must address building new schools or increasing enrollment on current campuses. Members of the community as well as school leaders are affected by the decision as it has the possibility of increasing property taxes. Often, the most cost-effective solution is to increase enrollment and consolidate resources under one roof (Stanislaski, 2015; Werblow & Duesberry, 2009). However, saving money cannot result in students being educated unfairly or inequitably. As school leaders make these decisions, they must ensure that the needs of all of their students are being met. Based on the results of this study, that could mean if school enrollment must be increased on their campuses, leaders should ensure that instructional supports are in place to address Hispanic students who did not make the same academic progress as White students in Large-size schools.

Recommendations for Future Research

Based on the results of this investigation, several recommendations can be made for future research. First, further examination of the student progress measure should be conducted. In this study, data analyzed were the reading and mathematics progress rates, which measures the amount of progress a student makes from one year to the next on the STAAR assessment. At the time of this research, no published articles were located in which the student progress measure was examined. Schools are responsible for demonstrating that all students are proficient in the core subjects. The progress measure is another tool for measuring that success. Research using the progress measure can be conducted to determine if opportunity gaps between ethnic/racial groups exist to a similar degree when using other achievement measures. Second, the purpose of this study was to determine the degree to which school size at elementary schools was related to student progress on the State of Texas state-mandated assessments. Additional research should be conducted examining student progress at the middle school and high school level. The

third recommendation for future research is to extend the research to other states. It should be determined if the same results exist in states other than Texas. Finally, additional studies should be conducted on school size and additional measures of achievement. Only one measure was analyzed in this study. Additional measures may include passing rates on state or national assessments, attendance rates, graduation rates, and college readiness. Multiple measures of student success will allow for a more conclusive decision regarding the effect of school size on student achievement.

CONCLUSION

The purpose of this study was to determine the degree to which student enrollment (i.e., school size) at elementary schools was related to student progress on the State of Texas state-mandated assessments, specifically the reading progress and the mathematics progress of White, Black, and Hispanic students. Statistically significant differences were revealed for students that supported both Large-size and Small-size schools. Consolidating schools may be the most cost-efficient solution for school leaders (Boser, 2013; Stanislaski, 2015). However, based on the results of this study, it may or may not be the best academic decision for all students. School leaders must make decisions that will support the academic achievement of all students while at the same time addressing increasing enrollment needs. Leaders that decide to increase enrollment in elementary school need to also ensure the academic needs of that schools' student population are not compromised.

REFERENCES

Barnes, G. & Slate, J. R. (2014). School district size and Limited English Proficient student performance: A statewide analysis. *Journal of Education Research, 8*(3), 123-128.

Boser, U. (2013). *Size matters: A look at school district consolidation.* Center for AmericanProgress.https://www.americanprogress.org/issues/education-k-

12/reports/2013/08/08/71849/size-matters-a-look-at-school-district-consolidation/

Bromberg, M., & Theokas, C. (2014, April). *Falling out of the lead: Following high-achievers through high school and beyond.* The Education Trust.

Brown v. Board of Education of Topeka, (1954). 347 US 483.

Carter, P. L., & Welner, K. G. (2013). *Closing the Opportunity Gap: What America must do to give every child an even chance.* Oxford University Press.

Chapin, J. R. (2006). The achievement gap in social studies and science starts early: Evidence from the early childhood longitudinal study. *The Social Studies, 97*(6), 231-238.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.)*.* Lawrence Erlbaum Associates.

Contreras, F. E. (2005). Access, achievement, and social capital: Standardized exams and the Latino college-bound population. *Journal of Hispanics in Higher Education, 4*, 197-214. doi:10.1177/1538192705276546

Dodson, M. E. & Garrett, T. A. (2004). Inefficient education spending in public school districts: A case for consolidation. *Contemporary Economic Policy, 22*, 270-280.

Eberts, R., Kehoe, E., & Stone, J. (1984). *The effects of school size on student outcomes*. Eugene, OR: Oregon University. (ERIC Document Reproduction Service No. ED 245382)

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Sage.

Fitzgerald, K., Gordon, T., Canty, A., Stitt, R. E., Onwuegbuzie, A. J., & Frels, R. K. (2013). Ethnic differences in completion rates as a function of school size in Texas high schools. *Journal of At-Risk Issues, 17*(2), 1-10.

Gilmore, K. L. (2007). *The relationship between school size and student achievement in Texas middle schools.* (Doctoral dissertation, Texas A& M University-Commerce, 2007).

Goldsmith, P. R. (2011). Coleman revisited: School segregation, peers, and frog ponds. *American Education Research Journal, 48*(3), 508-535.

Johnson, R. B. & Christensen, L. (2017). *Educational research: Quantitative, qualitative, and mixed approaches*. Sage.

Kotok, S. (2017). Unfulfilled potential: High-achieving minority students and the high school achievement gap in math. *The High School Journal, 100*(3), 183-202. doi:10.1353/hsj.2017.0007

Leithwood, K. & Jantzi, D. (2009). A review of empirical evidence about school size effects: A policy perspective. *American Educational Research Journal, 79*, 464-490.

Lockwood, A. T. (2007). *An agenda for the future: Closing the achievement gap for underrepresented groups in gifted and talented education*. Storrs, CT: National Research Center on the Gifted & Talented, University of Connecticut.

Mau, W. C. (2003). Factors that influence persistence in science and engineering career aspirations. *The Career Development Quarterly, 51*(3), 234-243.

Mau, W. C. & Li, J. (2018). Factors influencing STEM career aspirations of underrepresented high school students. *The Career Development Quarterly*, *66*, 245-258. doi:10.1002/cdq.12146

McKown, C. (2013). Social equity theory and racial-ethnic achievement gaps. *Child Development, 84*(4), 1120-1136.

National Assessment of Educational Progress. (2018). *The nation's report card*. https://www.nationsreportcard.gov/reading_math_2017_highlights/

Onwuegbuzie, A. J. & Daniel, L. G. (2002). Uses and misuses of the correlation coefficient. *Research in the Schools, 9*(1)*, 73-90.

Reardon, S. F., & Galindo, C. (2009). The Hispanic-White achievement gap in math and reading in the elementary grades. *American Educational Research Journal, 46*, 853-891.

Riha, M., Slate, J. R., & Martinez-Garcia, C. (2013). Middle school size and Hispanic student achievement. *Journal of Education Research, 7*(1), 73-82.

Sonnenschein, S. & Sun, S. (2017). Racial/ethnic differences in kindergarteners' reading and math skills: Parents' knowledge of children's development and home-based activities as mediators. *Infant and Child Development, 26*(5), 1-21. doi:10.1002/icd.2010

Stanislaski, T. (2015). School consolidation: Weighing risks, costs, and options. *School Business Affairs*, *81*(8), 12-15.

Texas Education Agency. (2018a). *Enrollment in Texas public schools 2017–18*. (Document No. GE18 601 06). https://tea.texas.gov/sites/default/files/enroll_2017-18.pdf

Texas Education Agency. (2018b). *Instructional Facilities Allotment Program*. https://tea.texas.gov/Finance_and_Grants/State_Funding/Facilities_Funding_and_Standards/Instructional_Facilities_Allotment_Program/

Texas Education Agency. (2018c). *State accountability.* Retrieved from https://tea.texas.gov/Student_Testing_and_Accountability/Accountability/State_Accountability/

Texas Education Agency. (2018d). *State of Texas assessments of academic readiness (STAAR) progress measure questions and answers.* http://tea.texas.gov/student.assessment/staarprogressmeasureQandA.pdf

United States Department of Education. (2018). *No Child Left Behind*. https://www2.ed.gov/nclb/landing.jhtml

Venzant Chambers, T. & Huggins, K. (2014). The influence of school factors on racial opportunity cost for high-achieving students of color. *Journal of School Leadership, 24*(1), 189-220.

Wendling, W. & Cohen, J. (1981). Education resources and student achievement: Good news for schools. *Journal of Education Finance, 7*, 44-63.

Werblow, J. & Duesbery, L. (2009). The impact of high school size on math achievement and dropout rate. *The High School Journal, 92*(3), 14-23.

Williams, A. (2011). A call for change: Narrowing the achievement gap between White and minority students. *The Clearing House, 84*, 65-71. doi:10.1080/00098655.2010.511308

Zoda, P. F., Combs, J. P., & Slate, J. R. (2011). Black student performance and elementary school size: A 5-year statewide investigation. *The ACEF Journal, 2*(2), 43-64.

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Teachers Acceptance of the Use of Smartboard in Riyadh Region, Saudi Arabia

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ABSTRACT

This study aimed to validate an extended Unified Theory of Acceptance and Use of Technology (UTAUT) based on the data derived from mathematics teachers of Riyadh Region, Saudi Arabia. Taking into account perceived enjoyment, anxiety, and self-efficacy in using smartboard, the study extended the original UTAUT model. It assessed the effects of these three main factors on the teachers' behavioural intention to use smartboard. The study evaluated computer training-invariant of the causal structure of the hypothesized model. The data were collected from a self-reported questionnaire administered to 150 female mathematics teachers in the Saudi intermediate public schools in Riyadh. The results of structural equation modeling supported the adequacy of the hypothesized interrelationships. Moreover, computer training groups appeared to moderate the structural relationships among the constructs of the extended model.

INTRODUCTION

Technological advancement has impacted various sectors such as in health, transportation, media, communication and education sectors since its evolution in early 2000. These technologies have enabled a sharp improvement in the way people interact, deliver, travel and cure diseases, among others (Bilbao-Osorio, Dutta, & Lanvin, 2013). The classroom environment, especially in the pedagogical approach, has seen a major shift with the presence of technological tools as teaching aids that assist teachers to deliver the curriculum so that students become more receptive of the lesson in engaging and interactive ways (Trayek & Hassan, 2013). Reformation has been implemented to make learning more practical, fun, long-lasting and capable of spreading messages at a faster speed than before the existence of these technologies (Davies, Jindal-Snape, Collier, Digby, Hay, & Howe, 2013). Technology serves as a tool for teachers to achieve the learning outcomes and objectives of the lessons.

One of the technology-based instructional tools in classrooms nowadays is the interactive whiteboard. This interactive whiteboard comes with many different brands, among others are the SMARTboard, eBeam, Mimio, and Promethean (Khambari, 2014 quoted from SMART Technologies Inc., 2006). Other literature refers to Smartboard as an interactive whiteboard (Dilger, 2015; Spears, 2011) that share features of an interactive whiteboard such as extending and projecting what is being displayed on the computer screen while permitting active interaction on the board.

Since the wake of instructional technology and the evidence of its benefits, ample support has been established for the integration technological use in education, particularly in the classroom. For example, Tosuntas, Karadağ and Orhan (2015) found that performance expectancy and the social and effort expectancy produced positive implication impact on behavioural intention; these factors directly affected the acceptance and use of interactive whiteboard among high school teachers. Such relationships extended the understanding of technology beyond Davis's model of technology acceptance (1989), and it is widely referred to as the Unified Theory of Acceptance and Use of Technology (UTAUT). In the context of technology utilization, UTAUT tool has shown both partial and full invariance, including when assessed based on gender differences (Parameswaran, Kishore, & Li, 2015).

The UTAUT model comprises of four exogenous constructs including social influence, effort expectancy, performance expectancy, and facilitating constraints. Numerous other studies adopted the UTAUT model to examine and investigate technology adoption, which include an international comparison between Korea and the US on the use of mp3 player and Internet banking (Im, Hong, & Kang, 2015), predictors of the

approval and use of open data technologies (Zuiderwijk, Janssen, Dwivedi, 2015), and proposed theoretical framework on combining innovativeness with the acceptance behaviour on technology adoption (Turan, Tunc, & Zehir, 2015).

LITERATURE REVIEW

The latest and wide-ranging Technology Acceptance Model (TAM) that has been evolved is int what is now called the Technology Acceptance Model 3 (TAM3) developed by Ventakesh and Bala (Gahtani, 2016). Four anchors proposed in TAM3 included *computer anxiety*, *computer self-efficacy*, *computer playfulness* and *perceptions of external control*. Two additional characteristics-related adjustments recommended in TAM3 are *perceived enjoyment* and *objective usability* which are determinants of perceived ease of use.

Enjoyment

Perceived enjoyment stems from the use of technology; it is the intrinsic reward that comes as a result of performing tasks using technology. Enjoyment is perceived to increase over time as experience in the use of the technology develops (Gahtani, 2016). In a cpmarative study of the use of the Electronic Health Record portal between the US and Portugal, the UTAUT model found that usually those who have health issues had less enjoyment influences on the behavioural intention to use the technology (Tavares & Oliveira, 2017). In another study, teachers' usage of multimedia-enhanced content is directly affected by their enjoyment levels (Mtebe, Mbwilo & Kissaka, 2016); if they find it less enjoyable, then the probability of using it is less.

Self-Efficacy

According to Teo (2015), self-efficacy is the degree of confidence of one capability to use the computer. Jeong and Kim (2017) state that computer self-efficacy has an undeviating effect on computer technology acceptance. A common theme emerged that affect the intention to use technology includes computer self-efficacy (Ahmad et al., 2010; Teo, 2015). The potential entrepreneurial model to measure self-efficacy of business people is an important and direct determinant with behavioural intention to use technology (Moghavvemi, Mohd Salleh & Standing, 2016).

Anxiety

Computer anxiety was hypothesized to decrease over time as user gain more exposure and experience with the system specifically the hands-on experience (AL Gahtani, 2016). In a study conducted by Hussein (2017), it is described as the level of unfavourable affective or emotional response to the use of technology or any related ideas. The anxiety deficiency in using the system is related to students' effort expectancy of their behavioural intention (BI) for the use of technology (McKeown & Anderson, 2016).

The Study Hypotheses

After having considered the theoretical and conceptual foundations of the study, the study used three main constructs (perceived enjoyment, self-Efficacy, and anxiety) as the independent's factors that could influence the dependent variable (Behaviour Intention to use interactive smartboard), and then the following hypotheses were drawn:

H1. The main three exogenous constructs of acceptance and the use of interactive smartboard technology are valid and reliable.
H2. Perceived enjoyment has a direct influence on the teachers' behaviour intention to use interactive smartboard.
H3. Self-Efficacy has a direct influence on the teachers' behaviour intention to use interactive smartboard.
H4. Anxiety has a direct negative influence on the teachers' behaviour intention to use interactive smartboard.

RESEARCH METHOD

The study sample comprised of 150 female mathematics teachers in Saudi intermediate public schools in Riyadh (the capital city of Saudi Arabia). The sample size was deemed adequate for the application of structural equation modeling (SEM) to address the research hypotheses. For data collection process, the study administered a self-reported questionnaire containing 15 items measuring the main four constructs of the study which are Perceived Enjoyment (3 items), Self-Efficacy (4 items), Anxiety (4 items), and Behavioural Intention to use the interactive smartboard (4 items). These constructs consist of items to which respondents would indicate on a 5-point Likert scale the extent of their agreement or disagreement with each assertion. The 5-points Likert scale ranging from: (i) as 'strongly disagree,'' to (ii) as 'strongly agree.'' The content validity of questionnaire items was developed by experts before being commissioned for this study. The Cronbach's Alpha indices were

comfortably above the threshold of α >.70, hence meeting the requirement of using reliable data.

To achieve the objective of testing the study's hypotheses, the study applied a three-stage structural equation modeling, using the *AMOS* (version 22) model-fitting program to test the research hypotheses. The study first assessed the validity of the measurement model using the confirmatory factor analysis for the main four constructs. Next, the study examined the good-fit of the full-fledged model. Finally, the study cross-validated the model to explore the likelihood of the moderating effects of computer training of the model. The hypothesized models were estimated using the covariance matrix derived from the data; thus, the estimation procedure satisfied the underlying statistical distribution theory, and yielding estimates of desirable properties.

The study adopted maximum likelihood estimation in generating estimates of the full-fledged model. Once a model was estimated, we applied a set of conventionally accepted criteria to evaluate its goodness of fit. In deciding what constitutes a good fit model, we assessed the, (1) consistency of the hypothesized model with the empirical data, (2) reasonableness of the estimates, and (3) the proportion of variance of the dependent variables accounted for by the exogenous variables. Data analysis further employed fit indexes that include CFI (Comparative Fit Index), RMSEA (Root Mean Square Error of Approximation) and the relative Chi-square ($\chi2/df$). Hair, Black, Babin, and Anderson, (2013) recommend that value of between 2 and 5 is the measurement acceptable for the normed chi-square (CMIN/df), while a value must be greater than 0.90, but not reaching 1.0 ($1 > CFI \geq 0.90$) for comparative fit index (CFI), A CFI value of less than 0.90 and more than 1.0 shows that the hypothesized models did not fit the data. Lastly, for rational error of estimation of Root Mean Square Error of Approximation (RMSEA), a value of 0.00 implies an exact fit; a value of less than 0.05 indicates a close approximate fit; a value of between 0.05 and 0.08 suggests a reasonable error of approximation (a fair/moderate fit); a value of between 0.08 and 0.10 denotes a mediocre fit; and a RMSEA value of > 0.10 suggests poor fit. Furthermore, to test the moderation effect of computer training multi-group analyses were done to determine computer training variance of the study's model. A two-step simultaneous analysis on both the teachers with training (n_1=78) and teachers without training (n_2=72) was conducted, to establish the variance. This was done through the use of un-constraining the factor loadings, intercepts, and residual errors; the results derived a baseline Chi-square value. Second, all loadings intercepts of the residual errors were constrained to be equal in the two samples.

Table 1

Measurement of the variables of the hypothesized model

Construct	Code	Item	Mean	SD	Alpha
Behaviour Intention to use interactive smartboard	BI1	I intend to use an interactive smartboard in the future.	4.23	0.97	0.90
	BI2	I predict to use an interactive smartboard in the future.	4.25	0.87	
	BI3	I plan to use an interactive smartboard in the future.	4.08	1.05	
	BI4	I will strongly recommend others to use interactive smartboard.	4.07	1.02	
Perceived Enjoyment	EN1	Using interactive smartboard is exciting.	3.98	0.95	0.89
	EN2	Using interactive smartboard is a good idea.	4.00	0.99	
	EN3	I have fun while using interactive smartboard.	3.89	1.07	
Self-Efficacy	SE1	I could use a smartboard to teach mathematics if I am trained on how to use it before.	4.48	0.85	0.80
	SE2	I can use a smartboard to teach mathematics if I saw someone use it before.	4.27	0.92	
	SE3	I can use a smartboard to teach mathematics if I can call someone for help when I get stuck.	4.26	0.97	
	SE4	I can use a smartboard to teach mathematics if I have just the built-in help facility for assistance.	4.28	0.86	
Anxiety	AN1	The interactive smartboard doesn't make me feel comfortable and relaxed.	2.33	1.02	0.87
	AN2	I feel apprehensive about using interactive smartboard.	2.25	1.30	
	AN3	It scares me to think that I could lose a lot of information using interactive smartboard by hitting the wrong key.	2.71	1.35	
	AN4	The interactive smartboard is somewhat intimidating.	2.23	1.31	

RESULTS

Descriptive analysis was first applied to the items that measured the four constructs of interest. Then the internal consistency index, that is the value of Cronbach's alpha for each of these constructs was calculated. The reliability indexes, ranged between .80 and .90. Table 1 lists the, items, mean scores, standard deviation, and internal consistency indexes of the constructs used in the hypothesized model of the study.

To achieve the objective of testing the first hypothesis of this study, a confirmatory factor analysis (CFA) technique was used first to test each of the hypothesized measurement model. This was to ascertain the constructs were both reliable and valid. The data used to analyze the relationship between both the observed and unobserved latent variables deemed appropriate and yielded good results as per the first hypothesis of this study. Four measurement models were tested. Table 2 indicates the goodness of fit of the measurement models.

Table 2

Results of the fit goodness of measurement models of the study

Model	DF	CMIN	χ^2	CFI	RMSEA
Behaviour Intention to use	2	1.48	1.48	0.99	0.057
Perceived Enjoyment	2	0.92	0.46	1.00	0.00
Self-Efficacy	2	2.12	1.06	0.99	0.02
Anxiety	2	0.91	0.45	1.00	0.00

Degree of Freedom = DF; Normed Chi-square = CMIN; Chi-square = χ^2; Comparative Fit Index = CFI; Root Mean Square Error of Approximation = RMSEA.

The chi-square for the four models was ranging in between 0.45 to 1.48 indicating a good fit of the four models with the data. The RMSEA was between the required estimates which were in between .00 to .057, and the CFI estimates which were in between .99 to 1.00. It therefore means that the findings of the models with its items from data of the study were reliable. Furthermore, the inter-correlation among the indicators did not exceed 0.85, indicating sufficient levels of discriminant validity. Based on the results of CFAs we can conclude that the four models are valid and reliable, and hence further analyses are in order.

The hypothesized structural model of this study was analyzed using the results generated from the measurement model. This model used constructs namely perceived enjoyment, self-efficacy and anxiety as exogenous variables; and behaviour intention to use as an endogenous variable. The results from the analysis of the model yielded consistency of the

hypothesised causal relationships with the data (relative Chi-square = 94.060; Normed Chi-square = 1.12; DF = 84; CFI =.99; RMSEA =.028).

All these fit indices satisfied their critical required parameters; the results, therefore, indicated a fitting of the model with the data. From the results of the study, it can be observed that perceived enjoyment positively influences behaviour intention to use (.59 with a p-values of .001) was statistically significant and practically important which was supported by the data for the second hypothesis of this study, self-efficacy. Self-efficacy positively influences behaviour intention to use (.29 with a P-value of .001),was statistically significant and practically important, which was supported by the data for the third hypothesis of this study, anxiety. Anxiety negatively influences behaviour intention to use (-.01 with a P-value of .87). The relationship is negative and statistically not significant and not practical importance hence not being supported by the data for the fourth hypothesis. Figure 1 below summarises the results of structural equation modeling of the hypothesized model.

Figure 1
The hypothesized structural model with fit indexes
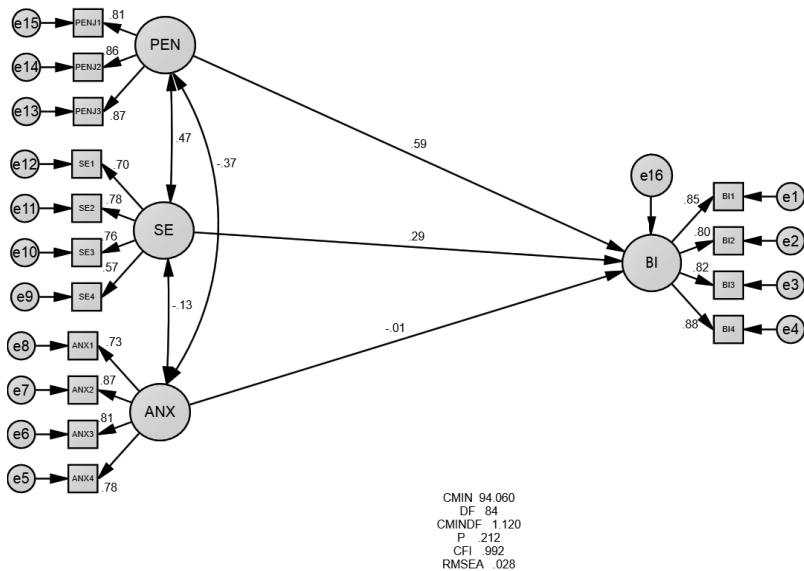
This study was also to test the structural invariance of hypothesized model across computer training groups as the moderator. To test computer

training-invariant, a simultaneous analysis on both those who received training (n1 = 78) and those did not get any training (n2 = 72) samples was conducted. First, without constraining the structural paths; the results derived a baseline Chi-square value. Next, the structural paths (perceived enjoyment → behaviour intention to use; self-efficacy → behaviour intention to use; anxiety → behaviour intention to use) were constrained to be equal for both groups. The analysis of this constrained hypothesized model produced another Chi-square value, which was then tested against the baseline value for statistically significant differences. The invariance analysis across the trained and non-trained groups resulted in a statistically significant change in the Chi-square value, Chi-square (df = 3, alpha = .005) = 9.636 with a critical value of 12.8. Simply said, the difference in the Chi-square values between the unrestricted model and the constrained model did not produce a poorer fit model, specifically, the constrained model was not much worse than the unrestricted model. Hence, computer training moderated the causal relationships. The result of the multiple-group structural equation modeling is presented in Table 3.

Table 3
Results of the multiple group modeling

Variable	Mode	χ^2	DF	Critical Value	Result on moderation
Computer Training	Unconstrained	213.182	168	12.84	Insignificant
	Constrained	222.818	171		
	Change	9.636	3		

DISCUSSION AND CONCLUSION

The findings of the present study have expanded the existing body of knowledge on UTAUT in several ways. First, the results substantiated the psychometric adequacy of the measure of the teachers' acceptance of using a smartboard in their classroom. The measures seemed sufficient to represent the main four constructs in this study which are behaviour intention to use, perceived enjoyment, self-efficacy, and anxiety among female mathematics teachers in Saudi intermediate public schools in Riyadh. The present study provides indications that the extended model did not explain the use of smartboard among those who received training and those did not get any training. The study found that those who did not get any training have more trouble accepting smartboard as a teaching tool in their field. The present study found statistically insignificant effects of computer training as a moderator on the structural relationships between the

main constructs of the current study. It is very likely that the training was inadequate to make a difference in the interrelationships.

The analysis of the three constructs of the suggested model showed that two of the hypotheses were supported while the other was rejected. Perceived enjoyment and self-efficacy have a significant and practically important relationship with behavioural intention to use, whereas anxiety has no significant relationship with Behavioural Intention to use. The result from the findings of this study is hoped to be able to give ministry of education in Saudi Arabia a clearer understanding of how far teachers accept the new technology which is the Smartboard that been introduced to the teachers at Saudi Arabia. The study concludes that the acceptance factors of the Smartboard among teachers are that the teachers believe that the Smartboard is an enjoyable teaching tool that can increase the teaching performance; they also claimed that they need technical infrastructure, technical team, and support from the administration in the use of the Smartboard in their teaching and learning process. Therefore, perhaps the MOE in Saudi Arabia can organize more training with regards to the use of the Smartboard for the teachers.

This new field of researching in Saudi Arabia, as a developing country, attracts many Scholars to analyze the technology acceptance in the Saudi culture. This study was conducted to find the factors that affect teachers' acceptance of the use of smartboard in their classroom. The study was carried out using Unified Theory of Acceptance and Use of Technology (UTAUT), based on three main factors; perceived enjoyment, self-Efficacy, and anxiety. The study also analyzed the relationship between these factors and teachers' acceptance of the use of smartboard. This study will contribute to:

I. Determining the most influential factors in using smartboard by analyzing three factors that affect teachers' acceptance of the use of smartboard.

II. Enhancing the educational level in Saudi Arabia by inserting new educational methods in the learning process such as smartboard.

III. Encouraging Saudi teachers and students to study the new curriculum of computer technology with the use of a new enhanced model which is smartboard.

This was the first study which utilized and applied the UTAUT in Saudi Arabia to determine and investigate the factors that influence the intermediate mathematics teachers' intention to accept and use interactive smartboards among Saudi teachers. The study added barriers as the independent variable and changing the experience moderator in the original UTAUT model to teaching experience. The study developed and validated the proposed UTAUT in order to support the relationships among the key factors within the Saudi context. Finally, the study validated and confirmed

the significant role of barriers as a potential factor which influence the behavioural intention to use interactive smartboards in Saudi schools is another theoretical contribution. Furthermore, this study suggested that future research should apply longitudinal approach for data collection in order to investigate the factors that have an influence on the interactive smartboard's adoption.

REFERENCES

Ahmad, T. B., Madarsha, K. B., Zainuddin, A. M., Ismail, N. A. H., &   Nordin, M. S. (2010). Faculty's acceptance of computer-based   technology: Cross-validation of an extended model. *Australasian Journal of Educational Technology, 26*(2), 268-279.

Al-Gahtani, S. S. (2016). Empirical investigation of e-learning acceptance and assimilation: A structural equation model. *Applied Computing and Informatics*, *12*(1), 27-50.

Bilbao-Osorio, B., Dutta, S., & Lanvin, B. (2013). The global information technology report 2013. *In World Economic Forum* (pp. 1-383).

Davies, D., Jindal-Snape, D., Collier, C., Digby, R., Hay, P., & Howe, A. (2013). Creative learning environments in education-A systematic literature review. *Thinking Skills and Creativity*, 8, 80-91.

Dilger, A. (2015). *Receptive labeling for common school items for students with autism*. Eastern University.

Hussein, Z. (2017). Leading to Intention: The Role of Attitude in Relation to Technology Acceptance Model in E-Learning. *Procedia Computer Science*, 105, 159-164.

Im, I., Hong, S., & Kang, M. S. (2011). An international comparison of technology adoption: Testing the UTAUT model. *Information & management*, 48(1), 1-8.

Jeong, H. I., & Kim, Y. (2017). The acceptance of computer technology by teachers in early childhood education. *Interactive Learning Environments*, 25(4), 496-512.

Khambari, M. N. M. (2014). *The impact of interactive whiteboards on teaching and classroom dynamics*. The University of Wisconsin-Madison.

McKeown, T. & Anderson, M. (2016). UTAUT: capturing differences in undergraduate versus postgraduate learning?. *Education+Training*, 58(9), 945-965.

Moghavvemi, S., Saleh, N. A., & Standing, C. 92016). Entrepreneurs adoption of information system innovation: The impact of individual. perception and exogenous factors on entrepreneur's behavior. *Internet Research*, 26(5), 1181-1208.

Mtebe, J. S., Mbwilo, B., & Kissaka, M. M. (2016). Factors influencing teachers' use of multimedia enhanced content in secondary schools inTanzania. *The International Review of Research in Open and Distributed Learning*, 17(2).

Parameswaran, S., Kishore, R., & Li, P. (2015). Within-study measurement invariance of the UTAUT instrument: An assessment with user technology

engagement variables. *Information & Management*, 52(3), 317-336.

Spears, A. Y. (2011). *Investigating SMARTBoard technology for mathematics education to improve the learning of digital native students*. Doctoral dissertation, Lindenwood University.

Tavares, J., & Oliveira, T. (2017). Electronic Health Record Portal Adoption: a cross country analysis. *BMC medical informatics and decision making*, 17(1), 97.

Teo, T. (2015). Comparing pre-service and in-service teachers' acceptance of technology: Assessment of measurement invariance and latent mean differences. *Computers & Education*, 83, 22-31.

Tosuntaş, Ş. B., Karadağ, E., & Orhan, S. (2015). The factors affecting acceptance and use of interactive whiteboard within the scope of FATIH project: A structural equation model based on the Unified Theory of acceptance and use of technology. *Computers & Education*, 81, 169-178.

Trayek, F. A., & Hassan, S. S. S. (2013). Attitude towards the Use of Learning Management System among University Students: A Case Study. *Turkish Online Journal of Distance Education*, *14*(3).

Turan, A., Tunç, A. Ö., & Zehir, C. (2015). A theoretical model proposal: Personal innovativeness and user involvement as antecedents of unified theory of acceptance and use of technology. *Procedia-Social and Behavioral Sciences*, 210, 43-51.

Zuiderwijk, A., Janssen, M., & Dwivedi, Y. K. (2015). Acceptance and use predictors of open data technologies: Drawing upon the unified theory of acceptance and use of technology. *Government Information Quarterly*, 32(4), 429-440.

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What Makes Teachers Well? A Mixed-Methods Study of Special Education Teacher Well-Being

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ABSTRACT

Using a longitudinal convergent-mixed-methods approach, researchers explored how secondary special education teachers understand and experience well-being in their work as educators. Researchers were interested in how teachers' reported levels of well-being, as well as interpretations of well-being, shifted over the course of the school year. Evidence from this study suggests that teachers' subjective experiences matter, but the contexts in which they teach can shift their experiences, which may be connected to overall well-being. Simply reducing stressors and/or burnout will not necessarily result in improved well-being for teachers. School-wide efforts to improve relationships within the school building, providing space for teacher leadership, explicitly naming shared values, and recognizing the emotional calendar of the school year may facilitate teachers' well-being.

INTRODUCTION

Special education teacher attrition and teacher shortages are well-documented challenges that have continued to threaten the stability of K -12 school districts globally (Conley & You, 2017; Skaalvik & Skaalvik, 2010. In the United States, for example, special educators have a particularly high risk of stress, burnout, and attrition, leaving the field at twice the rate of general education teachers (Boe, 2014). Burnout is associated with disengagement, exhaustion, and depersonalization, which leaves teachers emotionally unavailable to connect with students, negatively impacts student-teacher relationships, and is correlated with lower levels of self-efficacy (Brouwers & Tomic, 2000; Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2010). Teacher burnout leaves the most vulnerable population of students with the least stable, and often most inexperienced, population of teachers (Sutcher et al., 2016).

LITERATURE REVIEW

Consequences of Teacher Stress and Burnout

Solutions to burnout and high rates of turnover often look to systemic or administrative remedies such as improving the teacher pipeline, increasing pay, or loan forgiveness programs, but few consider the importance of teacher well-being or the relationship between teacher well-being and student well-being. While there has been significant attention to indicators of stress, burnout, or working conditions that lead to attrition, such as isolation, challenging student behavior, low salaries, or lack of administrative support, there has been little exploration of factors that significantly improve teacher well-being and retention (Brunsting et al., 2014; Kyriacou, 2001; Levine, 2013; Player et al., 2017; Schaefer et al., 2012; Sumsion, 2007). Even less attention has been paid to special educator well-being.

The persistence of burnout suggests the need for new approaches to support teachers that go beyond traditional reform measures and consider the relevance of well-being for teacher retention and student outcomes. The Dual Factor Model of Mental Health (DFM; Keyes et al., 2012) suggests that positive mental health occurs not only in the absence of psychopathology but also in the presence of optimal psychological functioning and well-being (Renshaw & Cohen, 2014). Cultivating positive well-being is not only valuable in and of itself, but can also serve as a protective buffer against stress, burnout, or mental illness (e.g., Seligman, 2004). Research on teacher well-

being has traditionally focused on negative indicators such as classroom management challenges or lack of administrative support and has not, until recently, considered *positive* facilitators, such as sense of belonging or positive emotions.

The purpose of this study was to investigate special education teacher well-being at an independent, secondary school serving students with learning disabilities and differences. Using a longitudinal convergent-mixed-methods approach, researchers explored how teachers understand and experience well-being in their work as educators. Additionally, researchers were interested in how teachers' reported levels of well-being, as well as interpretations of well-being, shifted over the course of the school year in response to changing demands, stress, and motivators.

What is Teacher Well-Being

Teacher well-being is critical for two reasons: (a) teacher stress and burnout impact teacher retention, and (b) teacher well-being has significant consequences for daily classroom activities, student-teacher relationships, and student outcomes (Brouwers & Tomic, 2000; Jennings & Greenberg, 2009). Broadly speaking, well-being includes both objective and subjective dimensions. Objective definitions of well-being are often associated with factors external to the individual (e.g., economic resources or political power) or those associated with discrete health measures. Subjective well-being includes internal factors such as authentic happiness, satisfaction, competence, or engagement.

Most teachers consistently cite external (i.e., objective) working condition factors, such as additional duties, lack of administrative support, pay, or increased accountability measures, as reasons for undue stress and ultimately for leaving the field (Sutcher et al., 2016). However, there has been growing interest in what subjective factors facilitate teacher well-being such as cognitive (mental) factors, community beliefs or values, individual experiences and culture, and perceptions of context, including school climate (Anderson et al., 2019; McCallum et al., 2017; Viac & Fraser, 2020).

Although interest in teacher well-being has grown dramatically in the past decade, there are few definitions of well-being that specifically relate to teachers (McCallum et al., 2017). Those that do exist range in interpretation but include both objective and subjective domains. For example, Burns and Machin (2013) draw from other organizational definitions of well-being that incorporate teachers' subjective feelings about their job or organization, attitudes towards work, and more objective measures of work performance,

absenteeism, or retention. Aelterman and colleagues (2007) define teacher well-being as "a positive emotional state, which is the result of harmony between the sum of specific environmental factors on the one hand, and the personal needs and expectations of teachers on the other hand" (p. 286). Acton and Glasgow (2015) define it as "an individual sense of personal professional fulfilment, satisfaction, purposefulness and happiness, constructed in a collaborative process with colleagues and students" (p. 101). However, current definitions of teacher well-being have been formulated and theorized by researchers but have not intentionally leveraged the voices of teachers themselves.

Even without a clear definition, there is general consensus that the well-being of teachers is important — as a value in and of itself, as related to the health and performance of students, and as an economic imperative (Coleman, 2009; McCallum & Price, 2010; Roffey, 2012; Sutcher et al., 2016; Viac & Fraser, 2020). Given this, there has been ample interest in identifying what factors facilitate the well-being of teachers and how teacher well-being relates to student outcomes. Teachers who have high degrees of well-being are more likely to have positive relationships with students and report a greater sense of self-efficacy (Herman et al., 2018; Warren, 2013; Warren & Hale, 2016), and students with high degrees of well-being have higher academic performance and lower psychological distress (Adler, 2017). Teachers who work in positive school climates report less stress, better organization, and more time focused on instruction (Billingsley, 2004; McLean et al., 2018). Preliminary international research suggests teacher well-being can enhance schools' ability to retain teachers in the field and serve diverse student populations (e.g., Roffey, 2012). Thus, improving special education teacher well-being may help mitigate teacher turnover, and simultaneously improve outcomes for students with disabilities.

However, few studies have explored teacher well-being over the course of time. Given the cyclical nature of the school year, it is important to understand if teacher well-being fluctuates or if there are particular times during the year in which well-being is either high or low, or if current measurement scales are stable over time. At the same time, efforts to investigate teacher well-being are complicated, because there is also no consensus as to how to *measure* teacher well-being. Yet, researchers and practitioners tend to agree that teacher well-being is an outcome variable of interest, and thus have taken many different approaches to measure it. These approaches have primarily made use of questionnaires and surveys (e.g., Renshaw et al., 2015), with few studies investigating teachers' qualitative experiences of professional well-being. Current teacher well-being scales have not been paired with qualitative

interviews to identify if they adequately capture the core components of teacher well-being or if there are other factors teachers feel are more salient to their lives as teachers. Thus, the purpose of this study was to explore the construct of teacher well-being over time using a mixed-methods approach.

Theoretical Framework

The theoretical framework for this study was informed by the Person-Environment-Occupation Fit Model (PEOF; Jansen & Kristof-Brown, 2006). Drawing upon this framework, we propose a strength-based psychosocial model of teacher well-being. A PEOF model capitalizes on individual strengths as well as environmental contexts, and provides a framework for understanding how the interactions between the person and the environment promote or inhibit optimal functioning and work-related outcomes (Jansen & Kristof-Brown, 2006). This multidimensional model suggests that both individuals and the environment they inhabit include internal factors (e.g., personality, values, attitudes, emotions, and goals) and external factors (e.g., job requirements, behavior, organizational culture, and pay; Edwards & Billsberry, 2010), which widens the interactions and influences that each domain may exert on one another. Understanding how individual teacher traits interact with environmental variables to produce or inhibit optimal occupational experiences can provide insight into environments that promote school-based well-being. Framing teacher well-being within a person-environment-fit framework suggests that variations in well-being can be accounted for by a number of driving factors, including personal and environmental domains, and that these factors often interact with one another.

RESEARCH METHOD

Study Purpose and Research Questions

This study aims to investigate facilitators of and influences on special education teacher well-being. The purpose of this study is to increase teacher voice in understandings of teacher well-being, and to compare changes to teachers' quantitative experiences and qualitative interpretations of well-being over the course of one academic year by investigating the following research questions:

1. Quantitative: What are levels of special education teacher well-being at a school serving students with learning disabilities/differences at

the beginning and end of the school year, and do levels of well-being change over time?

2. Qualitative: How do secondary special education teachers define and characterize school-based well-being, and how do those definitions change over time?
3. Integrated/Mixed: How do quantitative levels of teacher well-being compare to teachers' qualitative interpretations of well-being?

Context

The school of focus in this study is a small, independent (private) school serving approximately 385 students in grades K-12. The school specializes in serving students who exhibit language-based learning differences, learning disabilities, and/or Attention Deficit/Hyperactivity Disorder (ADHD). The school uses a college-preparatory, arts-centered curriculum across all subject areas. Researchers partnered with secondary (9th-12th grade) teachers at this school.

At the time of this study, the school had been working in partnership with the researchers for four years and had a shared interest in school-based well-being for students and teachers. This school was also selected for participation in the present study as it represents a positive outlier in terms of teacher retention and student outcomes; school administrators report high levels of teacher retention, and over 90% of graduates continue to postsecondary education. Research of positive outliers can help identify what works in functional school environments and may enable other schools to adopt best practices (LeMahieu et al., 2017).

School administrators were interested in ways to further support staff and, in partnership with researchers, designed a year-long professional development program to promote teacher well-being. Teachers met with researchers twice per month in two groups of 10-12 to learn about and discuss strategies to promote individual and school-wide well-being. Researchers introduced a wide variety of topics including optimism, self-compassion, resilience, and mindfulness, among others, to teachers. Participants had the opportunity to practice well-being strategies and provide feedback as to how the construct or intervention may be adapted to better suit the needs of teachers. This participatory pilot project facilitated the creation of a Teacher Well-Being Resource Guide to be used in future studies and professional development sessions.

The participatory pilot project served as the backdrop for the data collected and analyzed in this particular study. While data were collected

throughout the school year to inform well-being sessions and the resource guide, this particular study will report on the teacher survey, focus group, and interview data from two distinct time points: in late summer of 2018 prior to teacher well-being sessions and in late spring of 2019, after well-being sessions had been implemented. As the central focus of this study is how teachers define well-being and how that definition shifts over time, researchers were not interested in teacher responses to targeted professional development sessions, but rather in teachers' global understandings and experiences of well-being in a school environment that explicitly promotes a focus on well-being.

This project was conducted by a team of four researchers, all of whom identify as White women and have prior experience as Special Education teachers at the early childhood, elementary, and secondary levels. The researchers were keenly aware of how their personal experiences might influence interpretation of participants' experiences so were careful to interrogate findings with participants through member checks and also together as a research team.

Participants

Teacher participants were affiliated with the secondary school. According to school administrators, participants were highly trained, with over 80% holding advanced degrees, most in special education. Of the 29 teachers who reported years of experience, 82.7% ($n = 24$) had over 9 years of teaching experience, 13.8% had 4-8 years ($n = 4$) of experience, and 3.5% ($n = 1$) had 1-3 years of experience. Additional demographic data was not provided per the request of school partners, to protect the confidentiality of teacher participants. All secondary teachers were required to participate in the sessions on teacher well-being as a component of their professional development for the school year. However, teachers were given the option to opt out of having survey or focus group data included in the study or analysis. Although no teachers who participated in the survey or focus groups opted out of including their data, teachers who were absent during data collection sessions did not all participate in later opportunities to make up sessions. Thus, participation numbers for survey respondents, focus groups, and data collection time points varied.

Research Design

This study used a longitudinal convergent-mixed-methods design involving two sets of parallel data collection (Figure 1; Creswell & Plano Clark, 2018). Convergent-mixed-methods design involves simultaneous collection of quantitative and qualitative data followed by separate analyses of each data set. The data sets are then merged for interpretation to compare and contrast results. In the current study, surveys of teacher well-being were used to quantify well-being and determine average levels of teacher well-being among secondary staff. The qualitative data explored how teachers interpret and experience well-being and how this changes over time. Quantitative surveys and qualitative focus groups and interviews were conducted at two time points: fall of 2018 and spring of 2019. As this study was considered to be part of existing educational practice (teacher professional development), it was deemed exempt from review by the university's Institutional Review Board.

Quantitative Survey Instruments

Quantitative data was collected in the fall of 2018 and again in the spring of 2019. In the fall of 2018, 100% of participating teachers responded to the survey ($n = 29$). In the spring of 2019, 59% of participating teachers responded to the survey ($n = 17$). Participants were assigned an identification number to confidentially link their fall and spring responses. Participants responded to two survey measures: The Teacher Well-Being Scale (TWBS; Collie et al., 2015) and the Teacher Subjective Well-Being Questionnaire (TSWQ; Renshaw et al., 2015).

The Teacher Well-Being Scale (TWBS) is a 16-item instrument that assesses three factors of teachers' work-related well-being: (a) workload well-being, related to teacher workload and associated pressure; (b) organizational well-being, including perceptions of school leadership and culture; and (c) student interaction well-being including teachers' perceptions of student motivation, behavior, and relationships (Collie et al., 2015). Participants are asked to rate their well-being as a teacher from negatively (1) to positively (7) with respect to different aspects of their work. High scores reflect high levels of well-being. Researchers adapted the scale to (1) low and (5) high in response to school-administrator feedback to reduce participant burden. In previous studies, internal reliability estimates (Cronbach's alpha) ranged from .82–.90 on the TWBS (Collie et al., 2015). Internal reliability estimates on the full-scale TWBS were acceptable in the fall (.87) and in the spring (.92).

Note. Quantitative and qualitative data were collected and analyzed concurrently at Time 1 and Time 2. Following data analysis at Time 2, results were merged to identify meta-analyses, or themes and patterns, across the quantitative and qualitative data.

Figure 1
Convergent Mixed Methods Data Collection
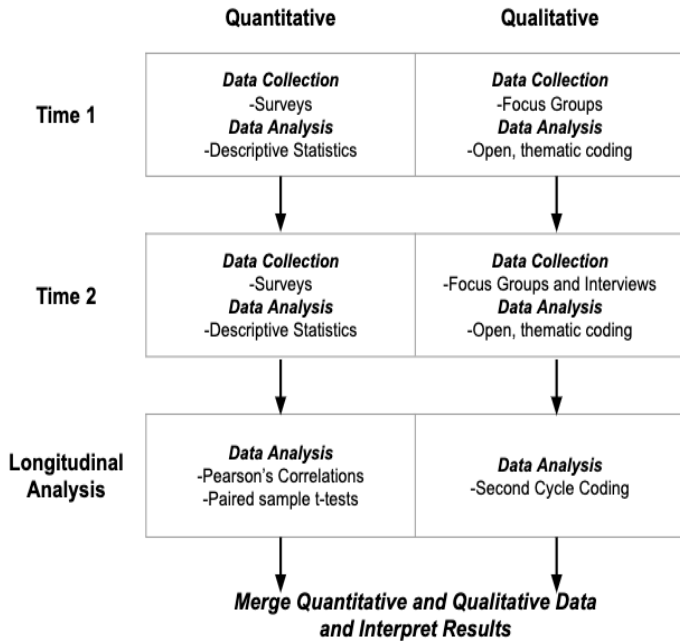
The Teacher Subjective Well-Being Questionnaire (TSWQ) is an 8-item instrument that assesses two factors of teachers' work-related well-being: (a) teacher self-efficacy (e.g., "I am a successful teacher"), and (b) a teacher's sense of school connectedness (e.g., "I feel like I belong at this school"). Participants were asked to rate on a 4-point Likert-type scale (1 = almost never, 2 = sometimes, 3 = often, 4 = almost always) their well-being with respect to different aspects of their work as a teacher. High scores reflect high levels of well-being. In previous studies, alpha levels were .86 on the TSWQ (Renshaw et al., 2015). For our sample, internal reliability estimates as measured by Cronbach's alpha on the full-scale TSWQ were acceptable in the fall (.95) and in the spring (.92).

Qualitative Focus Groups and Interviews

In August 2018, teachers participated in semi-structured focus groups ($n \cong 10$ per group, 3 groups). Individuals were asked to describe what a "well school" meant to them, to describe and define teacher and administrator well-being, and to discuss how their school climate could facilitate teachers' well-being. Due to time constraints during professional development days prior to the first day of school, the three focus groups took place in three rooms at the school, simultaneously. For each focus group, one researcher (first, second, and third authors) asked questions and took extensive, verbatim notes on teacher responses. Per administrators' request, sessions were not audio recorded and responses were anonymous so that teachers felt they could speak freely. Following focus group sessions, the researchers compared notes to check for consistency.

In the spring of 2019, teachers participated in semi-structured focus groups ($n \cong 10$-15 per group, 2 groups, total $n = 24$) to revisit their perceptions of teacher and school-wide well-being at a different point in the school year. Two focus groups took place during the teachers' regularly-scheduled professional development sessions, one before school and one after school. Teachers who were unable to join the focus group, or felt they had more to say in response to focus group questions, opted into additional one-on-one interviews. Six teachers participated in individual interviews. Individuals in the focus groups and interviews were asked to once again describe what a "well school" meant to them, to describe and define teacher and administrator well-being, and to discuss how their school climate could facilitate teachers' well-being. Additionally, teachers were asked if their original definitions and thoughts regarding teacher well-being had changed over the course of the school year. Teachers were provided with a summary of previous statements regarding teacher well-being from August sessions.

As was the case in August, school administrators requested sessions not be audio recorded. Focus groups and interviews were facilitated by one researcher (first author) while another researcher took extensive notes on teacher responses (third or fourth author), noting verbatim responses as much as possible while ensuring confidentiality of responses. Following focus groups and interviews, researchers compared notes for consistency.

Data Analysis

Quantitative Analysis

In response to the first research question (i.e., What are levels of special education teacher well-being at a school serving students with learning disabilities/differences at the beginning and end of the school year, and do levels of well-being change over time?), researchers analyzed responses to the two teacher well-being surveys. Analysis was conducted using SPSS Statistics Version 25. Descriptive statistics were conducted for Time 1 and Time 2. Paired sample t-tests were used to determine if there were differences across sub-scale factors within each time period. Pearson's correlations and paired sample t-tests were also conducted to compare scale subscale mean differences across time. The assumption of equal variance at Time 1 and Time 2 was met. At Time 1, 29 teachers participated. At Time 2, 17 teachers participated. Given our interest in comparing teacher well-being across time, only participants who completed the survey at both Time 1 and Time 2 were included in this analysis ($n = 17$).

Qualitative Coding and Theme Development

Data analysis was conducted by four members of the research team (four authors). Researchers first analyzed teacher data from fall focus groups using descriptive, thematic, and in vivo codes to summarize words and chunks of text (Miles et al., 2014). Researchers then developed consensus around major categories of descriptive, thematic, and in vivo codes and associated subcodes. Six key categories emerged (e.g., "school policies and procedures" or "values"). These categories were then used for secondary coding, which was conducted by one member of the research team (first author). Member checks were also conducted; researchers shared overarching categories with teacher participants during fall professional development sessions. During these sessions, teachers had the opportunity to comment on how well the identified categories resonated with their own experience of school well-being; at the time, all teachers indicated the categories accurately reflected factors that affected their school well-being. To analyze spring focus groups and interview data, researchers used existing categories and sub-categories from the fall and also identified any new, emergent descriptive, in vivo, or thematic codes that were not captured in earlier sessions. All four members of the research team coded teacher responses from spring sessions. A consensus-building process was then used to transform categories into

overarching themes. This process of theming allowed researchers to connect data sources from the two time points and helped develop inter-rater reliability among team members. All researchers contributed to all phases of the coding and theming process, resulting in 100% consensus across all codes and themes.

Integrated Analysis

Integration in a convergent design involves merging quantitative results with qualitative results (Creswell & Plano Clark, 2018). Data were integrated using a parallel-database variant in which two parallel strands of data are collected and analyzed separately and then brought together during interpretation. Integrated analysis involved a joint display to array the quantitative and qualitative data side-by-side and to note where results converged or diverged (Creswell & Plano Clark, 2018). The research team also independently memoed and routinely reflected together about how findings converged, diverged, and changed over time.

RESULTS

Quantitative Results

Teacher Subjective Well-Being Questionnaire

Of the 29 total participants, 17 completed the TSWQ at both time points and thus were included in analysis. According to the Teacher Subjective Well-Being Questionnaire (TSWQ; scale of 1-4, 1 = low well-being), teachers reported medium to high levels of well-being in the fall ($M = 3.07$, $SD = 0.71$) and in the spring ($M = 3.04$, $SD = 0.66$). Teachers reported medium to high levels of self-efficacy in the fall ($M = 3.01$, $SD = 0.75$) and in the spring ($M = 3.06$, $SD = 0.74$). See Table 1.

Teacher Well-Being Scale

As with the TSWQ, 17 of the 29 participants completed the TWBS in the fall and in the spring. According to the Teacher Well-Being Scale (TWBS; scale of 1-5, 1 = low well-being), teachers reported medium to high levels of well-being in the fall ($M = 3.82$, $SD = 0.47$) and in the spring ($M = 3.63$, $SD = 0.74$). However, differences across sub-scales were observed at both Time 1 and Time 2. Organizational well-being was statistically significantly higher than workload well-being in the fall ($p < 0.001$) and in the spring ($p < 0.001$). Student interaction well-being was also statistically significantly higher than workload well-being in the fall ($p < 0.001$) and in the spring ($p < 0.001$).

Table 1
Teacher Well-Being Levels Across Time

	Time 1 Mean (*n* = 17)	Time 1 *SD*	Time 2 Mean (*n* = 17)	Time 2 *SD*
TSWQ	3.07	0.71	3.04	0.66
TSWQ SE	3.01	0.75	3.06	0.74
TSWQ SC	3.13	0.73	3.03	0.71
TWBS	3.82	0.47	3.63	0.74
TWBS Org	4.24	0.58	3.85	0.98
TWBS Work	3.16	0.69	3.15	0.88
TWBS Student	4.19	0.53	4.00	0.66

Note. TSWQ = Teacher Subjective Well-being Questionnaire (1-4). SE = Self-efficacy, SC = School Connectedness. TWBS = Teacher Well-Being Scale (1-5). Org = Organizational well-being, Work = Workload well-being, Student = Student interactions well-being.

Longitudinal Findings

While the TWBS (fall) and TWBS (spring) were not significantly correlated ($r = .26$, $p = .31$), the TSWQ (fall) and TSWQ (spring) were significantly correlated ($r = .57$, $p = .02$). Paired sample t-tests were conducted to compare teacher well-being across time on both scales and all subscale factors. Teacher well-being according to the TSWQ was consistent over time ($p = .85$) and consistent on both the self-efficacy and school connectedness subscales ($p = .77$ and $p = .62$). The TWBS was also consistent over time ($p = .30$). Workload well-being was very similar in the fall and in the spring ($p = .97$). While Teacher Organizational Well-Being and Student Interaction Well-Being were lower in the spring as compared to the fall, these differences were not statistically significant ($p = .15$ and $p = .27$).

Qualitative Results

From the analysis of teacher focus groups and interviews, three major themes emerged: (a) teacher well-being is a balancing act, (b) resources help,

but relationships are most important to well-being, and (c) teacher well-being is active and requires sustained intentional action.

Theme 1: Teacher Well-Being is a Balancing Act

Though teachers had overwhelmingly positive things to say about school-level factors that facilitated their well-being, when asked about their individual well-being, there was a sense that it is a delicate balancing act. Balancing was sometimes a literal "act," often favoring teaching responsibilities over personal ones, and teachers felt boundaries slip away when external demands conflicted with personal values.

Balancing as a literal act. Some teachers reported a high sense of skepticism that individual well-being was even possible as a teacher. One teacher said, "I don't know any 'well' teachers," while another shared, "I can't think of someone who fits that description entirely – I'm suspicious of people who are always great." The need to put aside personal challenges in order to perform the job was a common sentiment. Some felt this was because "a huge part of teaching is acting; your personal life is on fire, but it's show time." Another agreed that their "well-being as a teacher is mostly an act," sharing, "my personal life is a wreck. I often feel overwhelmed, frightened to lose my job, or worried about my students reflecting negatively back to me."

Balancing external pressures with individual values. Individuals felt extreme pressure to balance the demands of teaching with personal responsibilities. The external demands that teachers felt the most cumbersome included highly-involved or upset parents, feelings of administrative micro-managing, and pressure to meet academic standards. These demands stood in sharp contrast to teachers' need for autonomy and control over their work. To one teacher, "there is a certain amount of material to get through and that puts pressure [on us]" but student needs make that even more challenging. There is "pressure from the state. . . parents' implied pressure to 'fix' their children, and admin[istration] in turn feels pressure from both avenues, and [that] puts pressure on the teacher." One teacher shared that "there's autonomy until a parent complains and then autonomy is taken away and you're micromanaged." Many teachers felt there was a "shift" once parents became more involved. Another stated, "I need as a teacher to feel trusted that I'm a professional and a specialist - and the parent is not the specialist. . . . I need admin to defend that. . . believe you hired me because I'm good at my job, trust that I'm good at my job." In sum, when teachers felt their autonomy was challenged (e.g., by administrators or parents) and that they had limited

control over their work (e.g., standards-based-curricula), they felt the most unwell.

Theme 2: Resources Help, But Relationships are Most Important to Well-Being

Teachers described a number of school-level factors that supported or hindered their individual well-being. Physical resources were beneficial, but feeling connected to colleagues, feeling supported by administrators, and sharing values as a community were more important to teachers.

Physical Space and Resources. The secondary school's facilities had been recently renovated and offer state of the art classroom technology, shared learning spaces, a design lab, an art studio, and a plethora of natural light and bright, clean aesthetics. Participants reported that the "openness of space" allowed teachers to collaborate more frequently and have "space [for] sharing." Teachers reported they had the physical resources needed to teach and that nice facilities and space allowed them to "focus on more high-level interactions" and teaching. Some teachers contrasted this ambiance to other schools with more limited resources or out-of-date facilities.

Sense of Community. While the physical climate was conducive to supporting teaching, teachers reported that a sense of community and positive emotional climate were more critical to their well-being. One teacher commented that there is a "feeling you get when you walk into any school that is welcoming or not welcoming" and that this school always felt "welcoming." Another teacher shared that the school is the "most collegial school I have ever taught at" while a colleague stated that teachers "are never isolated here. I never have to think alone or be the sole expert on something." Many teachers described informal social gatherings with fellow staff members and positive talk about their work. Teachers also felt generally supported by the administration, indicating that "they will look for ways to help you with what you need" and that this contributed to a stronger sense of openness and support within the school community. Relationships with students similarly contributed to this strong sense of community; one teacher shared, "a sense of family among staff and students" while another said there are "intimate relationships between teachers and students; teachers get to know students really well." One went as far as to say, "if I didn't have my people, there's no way I would have lasted here."

Aligned Values. The alignment of a teacher's individual values with broader school values contributed to a sense of meaning, purpose, and connection to the school. Teachers talked about these values as being distinct and different from other schools' values in a very positive way. Three core values emerged as fundamental to teachers' well-being: (a) diversity and inclusion, (b) autonomy and creativity, and (c) a continuous improvement orientation.

Diversity was cited as "very important to the school" as it contributes to positive learning environments for students who "need to see themselves reflected in the staff and share classes with other students who are diverse." Teachers described the school as inclusive and accepting, but did note that the school could be "more direct about nurturing of diversity" to ensure all community members felt valued.

The ability to "be creative" was also seen as a strong facilitator of well-being. Teachers felt the school encouraged intellectual freedom and autonomy and allowed for flexibility to adapt to "student wishes and needs without fear of reprimand." One teacher shared, "I think it helps when you are in a place . . . where there are nice people, creativity, [and] laughing." As a school that works with students with learning disabilities and differences, art and visual methods are highly valued in the curriculum as a supplement to traditional academic disciplines.

Finally, an improvement orientation was repeatedly referenced as a core value of the school. Teachers felt "striving for continual change" supported an atmosphere that is "not stagnant." This "growth mindset" approach to teaching and learning was seen as a facilitator of well-being. One participant shared "teachers and students know it is a good place to fail," suggesting the culture encourages "learning from failure." Teachers valued the sense that the school was willing to "take risks in reorganization [and] take chances to make things better."

Theme 3: Teacher Well-Being is Active and Requires Action

Teachers recognized that cultivating well-being is an active and ongoing process that requires diligent and supportive school processes and policies. This includes involving teachers as active and valued partners in community decision making and pushing back on policies that may be outdated.

Teachers as Valued Partners. Teachers felt strongly that more transparency from leadership and greater teacher involvement in decision making processes was critical to their well-being at work. One teacher shared "I want a justification [about changes]. I may not agree, but I want a

justification." Another commented that "When I feel less well, it's not as much about if I belong here or if I am in my place - I think it's more about transforming hierarchical structures." Many wanted "staff members' hand in the decision-making process" and that they needed more "avenues for staff to be active in decision making." Another shared, "we aren't privy to everything admin deals with, but often that feeling of 'do you remember what it is like to be in the classroom? Why are you not understanding what I'm asking?'" These sentiments reflect teachers' desires for greater transparency in decision-making and more active involvement in decisions that impact their work and their students.

Challenging "Tradition." While teachers felt that "logistically . . . things run smoothly" at the school, there were a number of policies that were cited as barriers to well-being. The strict structure of the school day and "20th century model of punching the time clock" threatened teachers' sense of trust. Sick-leave policies were considered to be a significant problem for teachers: "the idea of sick days feels a bit negative. Teachers don't fake being sick. Ninety percent of the time they come in anyways" and there is "teacher guilt about not coming in if you don't feel well." One teacher stated, "one of the most impactful stressors on my well-being are meetings outside of the 7:45[a.m.]-3:45[p.m.] school day and needing to use time during lunch or a prep" for non-teaching responsibilities. Others agreed that as work encroached on teachers' personal time, their well-being suffered, particularly when this work was not compensated. The "slow creep of technology in our lives" allows for late-night emails and an expectation of nearly constant availability. Some teachers felt that a lack of consistency in implementing school-policies across departments also potentially threatened their sense of well-being.

Integrated Results

The integration of quantitative and qualitative data allows for a more complete understanding of teacher well-being than that provided by either data set alone (Creswell & Plano Clark, 2018). Integrated analysis often involves looking for areas of convergence (where quantitative and qualitative results support one another) and for areas of divergence (where quantitative and qualitative results are discordant; Creswell & Plano Clark, 2018). Where data diverge, there is often space for new understandings. In the case of this study, two themes emerged from points of divergence of quantitative and

qualitative data across time: (a) an emotional calendar may affect teacher well-being and (b) teacher well-being is a psychosocial phenomenon.

Integrated Theme 1: An Emotional Calendar May Affect Teacher Well-Being

Although teacher well-being levels according to the TSWQ and TWBS did not change significantly from the fall to the spring, qualitative focus groups and interviews suggested that teachers felt particular pressures according to the time of year. An "emotional calendar" may explain the ebbs and flows of teacher well-being over the course of the school year. During qualitative focus groups and interviews, teachers reported feeling more stressed and "unwell" during the spring as compared to the fall: "Part of it is the time of year - the boundaries between school and life are not feeling balanced" because of the "pressures of the end of the school year." Others felt strongly that spring "is traditionally a terrible, stressful time of year. Lots of paperwork due. Students who are at risk of not getting all their credits." Another teacher similarly shared, "this is just a terrible time of the year to gauge teacher wellness - we are all so crabby - [you] would think the end of the year would be exciting but instead [there is a] desperate feeling of what didn't get done and what needs to get done." Thus, although quantitative measures revealed no differences in teacher well-being, focus groups and interviews suggested that teachers experienced their well-being to be qualitatively different in the fall and spring.

Despite these intense feelings of stress and time urgency, most participants recognized that this is just "part of the job" and "ebbs and flows" are to be expected in teaching. Being able to distinguish between the time-of-year stress and school-specific stress may have impacted teacher responses to the TSWQ and TWBS. While teachers complained about springtime deadlines and the pace of work, survey participants may have responded to scales with a general acknowledgement that their feelings towards organizational climate, staff connectedness, or self-efficacy had not changed and stress was mostly predictable based on the time of year. One commented, "as the year goes on, people do get tired."

Integrated Theme 2: Teacher Well-Being is a Psychosocial Phenomenon

How an individual responds to a particular environment varies according to personality, disposition, experience, and circumstances. As suggested by the person-environment-occupation fit framework, well-being at work is related to how an individual interacts with the larger system or school. There is a psychological component (teacher characteristics) and a social component (school characteristics and relationships). This psychosocial phenomenon

involves a series of cumulative individual experiences and perceptions mediated by school staff and administrators, the school's emotional environment, families and parents, and even the broader policy context.

Although there was not a wide range of responses to the TSWQ and TWBS, there was variability across the 17 teachers who participated in the survey at both time points. Average full-scale scores on the TSWQ ranged from 1.75 to 4.00 in the fall and from 2.00 to 4.00 in the spring. Average full-scale scores on the TWBS ranged from 2.69 to 4.50 in the fall and from 2.36 to 4.93 in the spring. Most scores did not vary much over time, but some individuals showed dramatic increases or decreases in their overall well-being over the course of the school year. While average changes on the TSWQ were -0.02 from the fall to the spring, one teacher reported a 1.00 increase on the TSWQ from the fall to the spring whereas another reported a -0.63 decrease from the fall to the spring. On the TWBS, average changes from the fall to the spring were -0.19. However, one teacher reported a 1.5 increase, and another reported a -2.13 decrease on full-scale scores from the fall to the spring. Interestingly, the individuals with the greatest changes from the fall to the spring on the TSWQ were not the same as the individuals with the greatest change from the fall to the spring on the TWBS. Because interviews did not specifically link participants to survey responses, the researchers were unable to further inquire about these changes in response on an individual basis.

While we acknowledge the interdependent nature of teachers within school systems, it is not enough to assume that if the system is well, individuals within it must be too. One teacher commented, "there's been a lot of turmoil in other divisions, they have been very unhappy" while another stated, "I teach in two radically different spaces," suggesting that even for the same individual, well-being shifts depending on their role, department, or what physical space they are in. Some individuals were able to recognize the health of the school, yet still feel they are barely hanging on as individuals or that their "well-being as a teacher is mostly an act." One teacher shared, "I suspect that if you talk to 10 individuals you'd get 10 different answers. It depends." Unhealthy school systems may be more likely to contribute to early burnout and unwell individuals, but a "well" school may not always be enough to support all individuals.

DISCUSSION

This study aimed to explore facilitators of special education teacher well-being, in addition to barriers. Evidence from this study suggests that teachers' subjective experiences matter, but the contexts in which they teach can shift

their experiences, which may be connected to overall well-being and/or mental health. Additionally, the collection and integration of quantitative and qualitative data allowed for a richer and more complete picture of well-being than either data set would have provided alone.

Supporting a Strengths-Based Psychosocial Framework

The person-environment-occupation fit model conceptualizes teacher well-being as an interaction between the teacher and the school environment (Jansen & Kristof-Brown, 2006). The application of this framework facilitated a theory-driven investigation of how individual teacher traits interact with environmental variables to produce or inhibit optimal experiences and provide insight into school-level factors that promote teacher well-being.

Preliminary evidence from this study demonstrated that the nature of teaching is very much an interpersonal job, and that context matters greatly in understanding the well-being of special education teachers. Thus, researchers found that teacher well-being is best understood as a psychosocial model in which teachers' subjective experiences interact with the contexts in which they teach, and this interaction may be connected to their overall well-being and mental health.

Implications for Measuring Teacher Well-Being

Based on the integrated analysis, researchers found divergence between the quantitative and qualitative data over time. Given these differences, it is important to consider what measures would best help researchers understand teachers' individual well-being over the course of the school year. While the scales used in this study were stable over time, teachers' qualitative responses suggested well-being may have been lower in the spring. Future measurement studies should explore scale stability with a larger sample of teachers and include multiple timepoints (e.g., beginning, middle, and end of school year). The TSWQ and TWBS may not be sensitive enough to teachers' changing perceptions from the fall to the spring. Item and person-level analysis over time may also provide insight as to what areas of teacher well-being may be more vulnerable to time-of-year stressors. Given the complexity of well-being and school contexts, researchers and practitioners should consider the benefit of using discrete measures in addition to open, on-going conversations with staff.

Recommendations for Practice

Recommendations for practice, based on quantitative, qualitative, and integrated findings are listed below.

Open Communication and Transparency

Open communication between leadership and teachers is critical to individual teacher well-being and to the overall culture of the school. Teachers reported that communication was not always transparent, particularly around decisions involving parents, and this lack of transparency threatened their sense of autonomy. Administrators need to understand and respect teachers' professional role and expertise, and teachers need to understand administrators' decision-making processes. When school-wide decisions were made that changed existing policy, there was not always a clear avenue for teacher input. While administrators may be trying to protect teachers' time, having clearer guidelines in place for communication that apply to all school-wide decisions may help reduce confusion and frustration.

Building Upon School Values

Teachers reported that having aligned values was a facilitator to their well-being. Shared school-wide values made individuals feel as though they were a part of a mission larger than themselves and that they had intentionally chosen to work in a place that prioritized diversity and inclusion, celebrated creativity and autonomy, and encouraged learning from failure. To foster well-being, administrators can routinely come back to these core values and also acknowledge that there may be friction when decisions do not align with these values.

Create Opportunities for Teacher Leadership

Creating more opportunities for teacher leadership and involvement in school-wide decision making would allow teachers to feel as though they are valued partners in the school. Teachers and administrators can work together more effectively when there are opportunities for all partners to engage in decision making. Opportunities for teacher leadership that allow teachers' choice, connection with others, as well as connection to their school will ultimately strengthen teacher relationships and may increase teacher well-being. Leveraging expertise within the school community could also encourage greater buy-in from veteran teachers to support newer staff.

Help Teachers Prepare for the "Emotional Calendar" of the School Year

Being able to help identify times of the year when teachers feel more stressed and burned out may help teachers (a) become more aware of these emotional cycles and (b) help in preparing proactive strategies that can decrease feelings of stress during those emotional times, such as before breaks and towards the end of the year. Administrators or veteran teachers can help by providing support to teachers before and during these times or lessen the burden of other non-essential tasks to help teachers manage their workloads. Being aware of these cycles is the first step, and creating proactive strategies as a school that is inclusive of all staff members' values are essential.

LIMITATIONS

This study has a number of limitations worth noting. As this study involved a small sample of 29 teachers from one independent school serving students with disabilities and learning differences, findings may not be generalizable. Although participation was limited to special education teachers, the school is both unique in its arts-based approach to education and in its abundance of resources. As mentioned previously, this school represented a positive outlier. Because this case was not compared to other school settings, it is not possible to determine how other factors, such as pay or student needs, may also contribute to teacher well-being. Furthermore, only 17 of the 29 teachers participated in *all* quantitative and qualitative components of this study. Though we emailed the survey to all participants, not everyone completed them, possibly as the result of multiple demands on teacher time at the end of the school year. Due to administrator preferences, demographic data beyond years of teaching experience were not collected. There may have been important differences across gender, department, or race that researchers were unable to explore. Administrators also requested that interviews not be recorded and names not collected to ensure confidentiality. Additionally, the sensitive nature of this topic may have made those who do not experience high degrees of well-being as a teacher more reluctant to share their experiences. Future research should investigate whether this limitation could be addressed using different study designs. While researchers took extensive notes and compared them after data collection, some data may have been missed. Due to the request to avoid collecting names during interviews and focus groups, individual qualitative responses could not be linked to quantitative findings. Given these limitations, researchers are aware that what

has been presented is unique to a particular group of teachers, in a particular school, at a particular time.

CONCLUSION

Special education teachers' experiences in schools are shaped by interactions among individual, contextual, and systems-level factors as well as their personal fit in their school environments. The person-environment-occupation fit model (Jansen & Kristof-Brown, 2006) contributes to a holistic understanding of the factors that facilitate teacher well-being, including characteristics and actions of schools that are able to effectively retain special education teachers. Simply reducing stressors and/or burnout will not necessarily result in improved well-being for teachers. It is important to investigate teacher well-being as a construct distinct from teacher stress and/or burnout to understand what contributes to and are components of teacher well-being, and how well-being may change over time.

REFERENCES

Acton, R., & Glasgow, P. (2015). Teacher wellbeing in neoliberal contexts: A review of the literature. *Australian Journal of Teacher Education, 40*(8), 6. https://doi.org/10.14221/ajte.2015v40n8.6

Adler, A. (2017). *Teaching well-being increases academic performance: Evidence from Bhutan, Mexico, and Peru* (Publication No. 10190088). [Doctoral dissertation, University of Pennsylvania]. ProQuest Dissertations Publishing.

Aelterman, A., Engels, N., Van Petegem, K., & Verhaeghe, J. P. (2007). The wellbeing of teachers in Flanders: The importance of a supportive school culture. *Educational Studies, 33*(3), 285–297. https://doi.org/10.1080/03055690701423085

Anderson, D., Cameron-Standerford, A., Bergh, B., & Bohjanen, S. (2019). Teacher evaluation and its impact on wellbeing: Perceptions of Michigan teachers and administrators. *Education, 139*(3), 139–150.

Billingsley, B. S. (2004). Special education teacher retention and attrition: A critical analysis of the research literature. *Journal of Special Education*, *38*(1), 39–55. https://doi.org/10.1177%2F00224669040380010401

Boe, E. (2014). Teacher demand, supply, and shortage in special education: A national perspective. In T. P. Sindelar, E. D. McCray, M. T. Brownell, & B. Lignugaris/Kraft (Eds.), *Handbook of research on special education teacher preparation* (pp. 67–93). Routledge.

Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education, 16*(2), 239–253. https://doi.org/10.1016/S0742-051X(99)00057-8

Brunsting, N. C., Sreckovic, M. A., & Lane, K. L. (2014). Special education teacher burnout: A synthesis of research from 1979 to 2013. *Education and Treatment of Children, 37*(4), 681–711. https://www.jstor.org/stable/44683943

Burns, R. A., & Machin, M. A. (2013). Employee and workplace well-being: A multi-level analysis of teacher personality and organizational climate in Norwegian teachers from rural, urban and city schools. *Scandinavian Journal of Educational Research, 57*(3), 309–324. https://doi.org/10.1080/00313831.2012.656281

Coleman, J. (2009). Wellbeing in schools: Empirical measure, or politician's dream? *Oxford Review of Education, 35*(3), 281–292. https://doi.org/10.1080/03054980902934548

Collie, R. J., Shapka, J. D., Perry, N. E., & Martin, A. J. (2015). Teachers' beliefs about social-emotional learning: Identifying teacher profiles and their relations with job stress and satisfaction. *Learning and Instruction*, *39*, 148–157. https://doi.org/10.1016/j.learninstruc.2015.06.002

Conley, S., & You, S. (2017). Key influences on special education teachers' intentions to leave: The effects of administrative support and teacher team efficacy in a mediational model. *Educational Management Administration & Leadership*, *45*(3), 521–540. https://doi.org/10.1177%2F1741143215608859

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.

Edwards, J. A., & Billsberry, J. (2010). Testing a multidimensional theory of person-environment fit. *Journal of Managerial Issues*, *22*(4), 476–493.

Herman, K. C., Hickmon-Rosa, J. E., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavior Interventions, 20*(2), 90–100. https://doi.org/10.1177%2F1098300717732066

Jansen, K., & Kristof-Brown, A. (2006). Toward a multidimensional theory of person-environment fit. *Journal of Managerial Issues, 18*(2), 193–212. https://www.jstor.org/stable/40604534

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, *79*(1), 491–525. https://doi.org/10.3102%2F0034654308325693

Keyes, C. L., Eisenberg, D., Perry, G. S., Dube, S. R., Kroenke, K., & Dhingra, S. S. (2012). The relationship of level of positive mental health with current mental disorders in predicting suicidal behavior and academic impairment in college students. *Journal of American College Health*, *60*(2), 126–133. https://doi.org/10.1080/07448481.2011.608393

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology 102*(3), 741–756. https://doi.org/10.1037/a0019237

Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review*, *53*(1), 27–35. https://doi.org/10.1080/00131910120033628

LeMahieu, P. G., Nordstrum, L. E., & Gale, D. (2017). Positive deviance: Learning from positive anomalies. *Quality Assurance in Education, 24*(1), 109–124. https://doi.org/10.1108/QAE-12-2016-0083

Levine, A. C. (2013). The sustaining power of hope: Perspectives of public school teachers. *Research in the Schools*, *20*(1), 57–75.

McCallum, F., & Price, D. (2010). Well teachers, well students. *The Journal of Student Wellbeing, 4*(1), 19–34. https://doi.org/10.21913/JSW.v4i1.599

McCallum, F., Price, D., Graham, A., & Morrison, A. (2017). Teacher wellbeing: A review of the literature. *AIS: NSW, The University of Adelaide, Australia*. https://apo.org.au/sites/default/files/resource-files/2017-10/apo-nid201816.pdf

McLean, L., Abry, T., Taylor, M., & Connor, C. M. (2018). Associations among teachers' depressive symptoms and students' classroom instructional experiences in third grade. *Journal of School Psychology*, *69*, 154–168. https://doi.org/10.1016/j.jsp.2018.05.002

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.)*.* Sage Publications.

Player, D., Youngs, P., Perrone, F., & Grogan, E. (2017). How principal leadership and person-job fit are associated with teacher mobility and attrition. *Teaching & Teacher Education*, *67,* 330–339. https://doi.org/10.1016/j.tate.2017.06.017

Renshaw, T. L., & Cohen, A. S. (2014). Life satisfaction as a distinguishing indicator of college student functioning: Further validation of the two-continua model of mental health. *Social Indicators Research*, *117*(1), 319–334.

Renshaw, T. L., Long, A. J., & Cook, C. R. (2015). Assessing teachers' positive psychological functioning at work: Development and validation of the Teacher Subjective Wellbeing Questionnaire. *School Psychology Quarterly*, *30*(2), 289–306. https://doi.org/10.1007/s11205-013-0342-7

Roffey, S. (2012). Pupil wellbeing - Teacher wellbeing: Two sides of the same coin? *Educational & Child Psychology*, *29*(4), 8–17.

Schaefer, L., Long, J. K., & Clandinin, D. J. (2012). Questioning the research on early career teacher attrition and retention. *Alberta Journal of Educational Research, 58*(1), 106–121.

Seligman, M. E. (2004). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Simon and Schuster.

Skaalvik, E.M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*, 1059–1069. https://doi.org/10.1016/j.tate.2009.11.001

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Challenges Faced by Indian International Students in US Higher Education

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ABSTRACT

Transiting from a home country to a host country in pursuit of higher studies involves various psychological and sociocultural challenges. Accordingly, this phenomenological qualitative study explores the challenges faced by six Indian international graduate students in a US university. The study further integrates an interdisciplinary approach by including participants from different disciplines to generate an understanding of their collective experiences. The data analysis generated five themes related to the challenges encountered: (1) living away from family and friends, (2) difficulty in expressing, (3) multitasking, (4) difficulty in fitting in, and (5) lack of positive attitude. Findings have implications for US universities. Higher educational institutions can play an essential role in addressing the challenges to facilitate a positive academic experience for international students.

Keywords: Challenges, cultural adjustment, Indian international students, language barriers, phenomenology

INTRODUCTION

Over the past six years between 2014 and 2019, international student enrollment in the U.S. universities increased from 974, 926 to 1,095,299 (Open Doors, 2019). Of these, nearly 70.1% of the students were from Asian countries, with India ranking second (26.3%) after China (48.1%). International students significantly impact the economy of the host country

by contributing financially. For instance, in 2019, they contributed approximately 41 billion dollars to the U.S. economy (NAFSA, 2019). They also enrich the university culture by bringing in diversity (Burbules, 2002). However, international students encounter various challenges upon their transition to the host countries (Rabia & Hazza, 2017; Gautam et al., 2016; Young & Gutierrez, 2019). The challenges include written and oral communication, feelings of alienation, homesickness, and a need to adapt to the new culture. The language barrier is reported to be one of the major hurdles in impeding international student adjustment in the United States (e.g., Poulakis, Dike & Massa, 2017). Smith and Khawaja (2011) noted that lack of confidence in language competency causes anxiety and stress, thus hindering the psychological and sociocultural adjustment. Further, language deficiency hinders classroom participation, understanding assignment requirements, performance in written and oral assignments and academic achievement, leading to higher levels of stress (Ching et al., 2017; Mori, 2000). Concurring with this finding, Zhou et al. (2017) reported that students with lower language competency doubt their abilities to succeed academically and therefore experience academic stress. Using the comparative case studies method, Trice (2003) conducted a study to explore the perceptions of fifty-four faculty members on international graduate students. Most of the faculty noted that students with lower levels of English competency had significant difficulties with academics, which also impacted their overall academic success.

Language barrier was found to cause anxiety in social settings, leading to social alienation in the host country (Karuppan & Barari, 2011; Mori, 2000). For instance, Ching et al. (2017), in their review, found that English deficiency is a constant stress causing factor, preventing international students from engaging socially, thus alienating them from social gatherings. Zhou et al., (2017) presented students' views, who believed that social gatherings with the host nationals are crucial for successful student adjustment in the U.S. Supporting these findings, more recent literature reported a strong correlation between students' inability to communicate in English and higher levels of acculturative anxiety (Hansen et al., 2018; Mahmood & Burke, 2018). While English deficiency caused challenges for international students, Barratt and Huba (1994) found that English proficiency increased their confidence, helping them have successful relations with the host nationals. This finding was confirmed by previous studies (Sumer et al., 2008; Zhang & Goodson, 2011). Further, reporting a correlation between English proficiency and depression, Sumer et al. (2008) noted that higher levels of English efficiency caused lower levels of depression among international students.

Additionally, international students often face sociocultural challenges. Comparable studies indicated international students to experience

less social support, causing them to feel lonelier and more homesick (Heng, 2017; Rajapaksa & Dundes, 2002). Rudd (1990) noted that when individuals transit to a new environment, they seek social support by cultivating new friendships. The absence of social support increases feelings of hopelessness and stress (e.g., Leong, 2015). Acculturative literature reported that students' personality, such as extroversion, introversion, self-esteem, positive or negative thoughts, all impact their ability to establish new friendships and predict the sociocultural adjustment (Chennamsetti, 2020; Chennamsetti & Bista, 2019; Jackson et al., 2013). Also, students' ability to communicate effectively in the host language predicts their ability to make friends in the host country (e.g., Mahmood & Burke, 2018). For example, Zhou et al. (2017) examined acculturative stressors experienced by fifteen Chinese students using qualitative methods. They found that being ignorant of the American societal conventions hinders socializing. This was compounded by an absence of both, a general familiarity and avenues for social gatherings between American and Chinese students. Participants observed that a general ignorance of Chinese culture resulted in an unintentional barrier between Chinese and American students. Another qualitative study, Sumer et al. (2008) found that a low level of social support among four hundred and forty international students in the U.S. heightened their anxiety levels. In contrast, increased social support resulted in more interactions, reducing both depression and anxiety among students.

Transitional challenges are overarchingly significant among Indian international students who come from collectivistic and cooperative societies to individualistic societies. Individualistic societies emphasize self-reliance, individual goal settings and independence. Individualistic behavior focusses on personal goals. In contrast, collectivistic behavior emphasizes harmonious social groups where people think beyond personal lives and benefit the respective groups (Mori, 2000). Further, the consequences of these challenges are manifested in the form of anguish, self-doubt, and instability among Indian international students (Chennamsetti, 2010).

Prior research that exists on the challenges encountered by Asian Indian international students is not as exhaustive and comprehensive as the literature on the general Asian international student population. The absence of extensive research on the acculturation experiences of the Indian international student population is a notable limitation in literature, though they are the second largest student population after China in the U.S. (Open Doors, 2019). Hence, it is imperative to acquire more in-depth knowledge about the challenges that Indian international students encounter in the host country and the resulting negative consequences. Such information can aid the U.S. universities in assisting students in their adjustment, thus ensuring their positive academic experience and retention. The present study explores

the challenges encountered by six Indian international students enrolled in a public university in the southern United States.

RESEARCH METHOD

Participants

Six graduate student participants (three male and three female students) took part in the study. Of these, five were doctoral students, and one was a master's level student. All the participants were international students from India and are undergraduate degree holders in diverse disciplines before enrolling as graduate students in the U.S. At the time of the study, the participants had resided in the U.S. for 2-9 years. They all were enrolled in varied disciplines, including engineering, chemistry, economics, biophysics, physics, and business. The age of the participants ranged between 24-45 years.

Procedure

This study is part of a larger study (Chennamsetti, 2010) that was approved by the Institutional Review Board (IRB) at a public university located in the southern United States. Email invitations were sent to Indian international students enrolled in the same university requesting them to participate in the study. Of the eighteen students who responded to the email, six were selected using purposive sampling. Purposive sampling is a process where participants are chosen based on their capability to provide in-depth data regarding the phenomenon being researched (Patton, 1990). Participants who agreed to be interviewed were asked probes related to the challenges they encountered in the U.S. The interviews were conducted at the places convenient for the interviewees, such as their labs, cafeteria, and the university library. The interviews ranged for 1-2 hours. The consent was obtained from the participants to record the interviews, which were later transcribed in their entirety. The data thus obtained was analyzed using a phenomenological methodology (Moustakas, 1994).

Data Analysis

Phenomenological methodology (Moustakas, 1994) was utilized to analyze the data. Biases and preconceived notions were bracketed when analyzing the data. The statements that lacked clarity during the interview were removed to preserve the identified invariant constituents. The identified constituents were then classified into themes that evolved into individual textural and structural descriptions explaining the challenges encountered by the participants.

Trustworthiness

To ensure the trustworthiness of the data analysis, Epoche (Moustakas, 1994) was utilized to remove the researcher's preconceived notions. This was combined with member checks wherein the participants were approached the second time after the main interview. This second follow up was to go over the transcribed interviews and make the necessary changes to ensure the accuracy of all the responses. Participants were informed of the confidentiality procedures in advance. Their permission was obtained for both the recording and transcription processes along with the option to withdraw from the interview if desired.

RESULTS

The data analysis resulted in the following five themes that hindered the adjustment of Indian international students in the U.S.: (1) living away from family and friends, (2) difficulty in expressing, (3) multitasking, (4) difficulty in fitting in, and (5) lack of positive attitude. The findings of this study intend to make future international students aware of the potential hardships they might encounter upon their transition to the U.S. Such advanced awareness might aid them in devising coping strategies that can be applied to overcome the challenges, thus ensuring their effective adjustment to the host country.

Living Away from Family and Friends

Participant 1 stated that the time he was away from his home country made him feel sad, especially when performing household chores, such as preparing breakfast. Listening to Indian songs on the radio made him nostalgic and miss home. Feelings of loneliness were instilled in him after talking to his parents and relatives over the phone. For participant 2, it was a completely new experience to lead a life on her own in a new place that triggered feelings of anxiety and loneliness. The absence of her mother, with whom she shared a close relationship, made her feel homesick. Telephonic conversations with her parents disturbed her as they reminded her of their absence. The absence of the family members and their emotional support, especially during the examination times, further led to unwanted stress. Illustrating specific aspects, she stated:

> When I get frustrated with the lab work, when I don't get the results, yes, you want someone with you who can talk to you immediately. Since I am more close to my mother than my sister, you lack that person's presence in life. Sometimes you do not tell the bad things happening to you because they are so far off, and you don't want them to suffer; but if you are with them, they immediately know about what's happening in my life. Again, though my fiancé is here, he is a

Ph.D. student also, so you think twice before talking to him because he has his own stress level.

Feelings of homesickness and loneliness proved detrimental to participant 3's adjustment to the host country. Homesickness led her to feel sick and miss the comfort her family provided during stressful situations. Though she had no complaints about her stay in the U.S. and was thankful for the opportunity, she could never consider it her home. During the periods of loneliness, she strongly felt like going back home. Participant 4 missed his student life in his home country. He missed working with his friends in the lab as a team and also participating in leisurely activities such as visiting a 'chai dukan' (a tea snack shop) where they discussed their research problems over a cup of tea and 'samosas' (an Indian snack). He longed for the togetherness, familial atmosphere, ambiance, and the personal bonds he established with his friends. He did like many aspects of his academic life in the U.S., but still missed both the student and the personal life of his home country. Similarly, participant 5 missed his job and the comforts of his home country. Specifically, he missed the cordial relations that he shared with his colleagues at work, where he never had to worry about being misunderstood.

Difficulty in Expressing Oneself

One of the participants had difficulty expressing herself as she did not know whom to trust. Further, she also feared that her feelings might be misinterpreted and spread as rumors. The constant suppression of her emotions led her to feel isolated and 'miserable.' Elaborating on her challenges of not being able to express herself, she stated:

> One doesn't know whom to trust initially. Can I trust an American? Can I trust an Indian? Can I talk about this? It is still difficult; I don't trust anybody here the way I trust people back home. So, having to suppress my feelings and not being able to talk about certain things certainly makes me feel lonely.

Another participant had difficulty in expressing himself, mainly because of feelings of self-consciousness. He had specific doubts in his abilities to make himself understandable, communicate with clarity and following the rules of pronunciation and vocabulary. This self-conscious nature proved to be a challenge when communicating with his American peers. Explaining, he said:

> When I am speaking with someone who is non-Indian, I have questions like, 'Will they understand me'? 'Do they understand me'? 'Am I communicating properly'? or 'Am I pronouncing the words

properly'? So, this is always in the back of my mind. So, sometimes I try to overcorrect it, when they give a blank face; it happens. But it was not much of a problem.

Multitasking

One of the participants felt stressed by the academic load that he had to carry along with his job. He stated:

> Often, you have to rush from your job to classes and vice versa. Then many times you have to stay up the whole night to finish assignments or prepare for exams. There are deadlines to catch in a part-time job too. Multiple assignments being handed over or approaching exams would trigger stress.

For two of the participants, the need to do household chores along with studying was a challenge. Back home, they had helpers to do all the household chores because of which they had no practice in the household tasks. Consequently, the need to do the household chores along with studying tired them and became a challenge in adjusting in the US. Explaining, one participant said:

> In India, you are not working when you are studying. So, when you are studying, you are concentrating a lot on your studies, your parents are very supportive, and you have helpers to do the chores. So, it's just studying and you are not expected to do much else. I think it's very nice. Here I think it's very difficult, like when you are just 18, and you have to adjust to cooking, cleaning and living on your own, navigating through classes and deciding what you want to take. It's difficult.

Additionally, one of the participants who had time for extracurricular activities such as sports and dance in India found that graduate student life in the U.S. left no time for leisurely activities. She felt that having more time for leisure activities would have reduced her stress. On the contrary, she had to juggle work, academic activities, including exams, meetings with professors, seminars, research assignments, health and personal life, all of which increased her stress levels. Overall, the participant stated that her life became more stressful in the U.S. when compared to India.

Difficulty Fitting in

One of the participants struggled with a feeling of not being able to integrate into U.S. society despite having excellent communication skills in English and cultivating friends. She attributes this to her being different in many aspects such as ethnic background, food habits and the country of origin.

Related to the aspect of feeling different in the host country, another participant opined that the differences in language and culture contribute to the feeling of being an alien. Elaborating, he stated:

> Whenever I go and talk to Americans, I know I am an outsider. I never considered myself to be a part of this society, be in terms of language or culture or anything. Usually, I talk with a sense of gratitude. I ask myself this question - suppose the same situation was reversed; let's say, this is India, you are an Indian and they are Americans, it's like role reversal, will you be so acceptable? Will you be so welcoming to other cultures? Will you be so forthcoming to help others? If you see everything in that 117 light, then what you see is definitely a service to you. So, in that sense, I don't have any questions.

The same participant felt that loneliness was mainly due to not making any conscious efforts in socializing and cultivating friendships. This, in turn, developed a chain reaction of him feeling increasingly isolated. Another participant conveyed similar opinions. Though he found the U.S. to be a wonderful place, he could not easily fit in due to the unique differences in culture, language, communication, perceptions, and food habits.

Lack of Positive Attitude

One of the participants mentioned that she was less positive about her life as an international student in the U.S. A specific instance, such as the possibility of underperforming in academic tests and failing, triggered unwarranted fears of being sent back to her home country. She further feared that she might be perceived as a failed student. This resulted in reduced self-confidence that hindered her effective adjustment. The academic stress also hampered her interactions with the professors. Explaining, she stated:

> Initially, when I had to interact with an American professor, maybe I got a little stressed because I did not know what they would expect and what they want, what they would ask and whether my answers would be satisfactory.

Another participant expressed having constant fears of her academic work being dismissed by her professors, research committee or her co-researchers. Explaining, she stated:

> Sometimes I am unhappy here. I question why I should put myself through this? But yes, it's a great education, it brings you name, fame, sets your career in an amazing path, hopefully. I hope that this Ph.D. is worth all that I am missing out on.

Participant 4 mentioned about how he left a settled job in his home country to devote valuable years to earn his Ph.D. This move placed him in a constant worry about the worth of risking his career to complete his doctoral studies. He harbored worries about not passing his mandated qualifying exams and courses.

Another participant worried about the possibility of offending his American peers during his conversations with them. Therefore, he felt the need to constantly correct his language, which in turn increased his nervousness and self-consciousness. Consequently, his self-confidence reduced to a great extent. Further, his constant fear of rejection resulted in underperformance even at the job interviews, negatively impacting his psychological well-being. Detailing more specifically, he stated:

> As international students, we are very insecure about our assistantships, visa status. So, if you change your chair, and lots of time the person with whom you work is your chair also, so if you change him, he will probably take you off of your assistantship. So, you know those kinds of worries. So, insecurity in the education system is a huge thing in the United States.

DISCUSSION

The present qualitative study explored the challenges that hindered the adjustment of six Indian international students studying in the U.S. Five specific themes were identified: living away from family and friends, difficulty in expressing oneself, multitasking, difficulty in fitting in and lack of positive attitude. The participants reported that living away from family and friends made them constantly miss their families. Not understanding who to trust and self-doubts about English language proficiency made it difficult for the participants to express themselves, which in turn made them feel alienated. Maintaining a balance between academic work, household chores, and assistantships was a challenge for the participants. Fitting in a new culture and academic system different from what the participants are used to made their everyday living difficult. Finally, a lack of positive attitude led to constant worrying, a fear of rejection, and nervousness all of which hindered their adjustment in the host country.

Consistent with previous literature (Rabia & Hazza, 2017), this study found that living away from family and friends in a foreign country made the participants feel homesick and lonely. The absence of emotional support, togetherness, familial atmosphere, ambiance and the personal bonds that the participants established with their families and friends increased their feelings of anxiety and stress. Besides, the absence of trusted individuals to share their problems with increased their confusion and frustration. Further, not having

their loved ones to comfort them when sick made them feel low. This confirms previous findings from Lértora and Croffie (2020).

Like English language proficiency and self-doubt, identified in Perry et al. (2017) research, this study demonstrated that lack of English proficiency led to self-doubt and low self-confidence, that in turn led to difficulty in expressing oneself. Also, a unique finding of the present study was that of participants not being able to express their feelings with their peers, as they did not know whom to trust. This aspect of an unintentional suppression of emotions led to feelings of isolation and sadness. Currently, the literature does not show any comprehensive studies exploring the aspect of the absence of trustworthiness leading to feelings of isolation. Future studies may be needed to examine these aspects comprehensively.

Participants in this study experienced the need to multitask in the U.S., for which they were completely unprepared. Multitasking was in the form of juggling the academic workload with assistantships and doing multiple household chores on their own. The additional challenge was having no training in performing these chores, which included cooking, cleaning, and laundry. This confirms with previous findings of Kaur (2006) and Garimella (2008), who found that international students from India generally belonged to elite backgrounds and had assistants at home to do routine chores. The help they received provided them an exclusive time to focus on academic life. However, multitasking in the U.S. led to high levels of anxiety among them, as concurred by a previous study (Fritz et al., 2008).

As reported by Zhou et al. (2017), participants in the present study also expressed difficulty fitting in. They experienced the difficulty of not being able to mingle with their American peers to cultivate new friendships. This led to the development of a sense of non-belonging, where the students consider themselves misfits in a foreign country (Baker & Siryk 1999). Further, the sense of non-belonging was seen to negatively affect active class participation and a willingness to seek help when needed (Ostrove & Long, 2007). In contrast, related studies clearly showed that students who made sincere efforts in cultivating a sense of belonging had positive effects on their self-perception; they had higher self-confidence and distinctive scholarly achievements (Pittman & Richmond, 2008). Future research on developing ways to cultivate a sense of belonging would be beneficial.

Finally, some of the participants in this study lacked a positive attitude. They showed a tendency to harbor feelings of rejection when they underperformed in academics. This further led to a fear of not being able to complete their academic program, which further evolved into feelings of anxiety. In addition, they carried fears of being misinterpreted by their American peers and professors, which increased their nervousness and decreased their self-confidence. A lack of understanding related to the expectations of the program requirements resulted in fears of failing the

assignments. Concurring with these findings, an earlier study found that students with higher self-esteem and confidence in their inherent abilities reported effective adjustment and less stress in the host country (Hechanova-Alampay et al., 2002). Providing the reason for fears regarding underperformance, the researchers noted that the lack of knowledge regarding various aspects of the new academic environment sometimes makes the international students develop negative thoughts and fears. However, with time and experience, the students gain a better understanding of their surroundings and develop the skill sets to adapt well in their new environment.

CONCLUSION & IMPLICATIONS

The present phenomenological qualitative study integrated an interdisciplinary approach to explore the challenges encountered by six Indian international graduate students from diverse fields of study. The challenges identified were: 1) living away from family and friends, (2) difficulty in expressing, (3) multitasking, (4) difficulty in fitting in, and (5) lack of positive attitude. A direct consequence of these challenges was acculturative stress that is defined as "a marked deterioration of the general health status of an individual; it encompasses physiological, psychological, and social aspects that are explicitly linked to the acculturation process" (Poyrazli et al., 2004, p. 74). Manifestations of acculturative stress in this study were in the form of academic difficulties, limited social life, lack of clarity and feelings of sadness, alienation, and depression. This finding concurred with the earlier studies (Leong 2015; Myers-Walls et al., 2011). Further, the literature on acculturative stress indicated that student populations encountering psychological and sociological challenges tend to show negative academic results such as non-completion of academic programs and in general, are at a high risk of attrition (O'Keeffe, 2013). However, a more optimistic finding of a prior study (Alsahafi & Shin, 2017) indicated that initial cultural stress experienced by international students serves as a learning experience that enables them to devise ideal coping strategies to adapt to the new culture in a short period.

To aid successful adjustment of international students, university counseling services and international offices could promote awareness among incoming international students about the challenges identified in this study. Such understanding would help students understand that encountering such challenges is a common phenomenon and are experienced by most of the international students. Such understanding will further help them device coping strategies to overcome the challenges as opposed to developing feelings of depression (Walter & Cohen, 2011).

LIMITATIONS

The present study has a small sample size that might be considered to limit the significance of the data analysis. However, the sample size falls within the prescribed limits of 5-25 participants for phenomenological studies (Creswell, 1998). Additionally, the small sample size aided in conducting a thorough data analysis (Sandelowski, 1996). Also, prior research suggests that to achieve an in-depth understanding of the phenomenon under study, qualitative researchers are suggested to focus on the selection procedures of the sample size instead of on the sample size itself (Vasileiou et al., 2018). Accordingly, the sample was selected using purposive sampling to acquire rich data related to the challenges encountered in the U.S.

REFERENCES

Alsahafi, N., & Shin, S. C. (2016). Factors affecting the academic and cultural adjustment of Saudi international students in Australian universities. *Journal of International Students, 7*(1), 53-72.

Baker, R. W., & Siryk, B. (1999). *SACQ: Student adaptation to college questionnaire: Manual*. Western Psychological Services.

Barratt, M. F., & Huba, M. E. (1994). Factors related to international undergraduate student adjustment in an American community. *College Student Journal*.

Burbules, N. C. (2002). The global context of educational research. *Counterpoints*, *180*, 157-169.

Chennamsetti, P. (2010). *Students from India at a major research university in the United States: A phenomenological study of transition, adjustment, and transformation*. Texas A&M University.

Chennamsetti, P. (2020). Aiding International Students to Thrive in US Higher Education. In *Academic Language and Learning Support Services in Higher Education* (pp. 119-139). IGI Global.

Chennamsetti, P., & Bista, K. (2019). Understanding Indian International Student Experience in the United States. *Journal of Underrepresented & Minority Progress*, *3*(2), 29-50.

Ching, Y., Renes, S. L., McMurrow, S., Simpson, J., & Strange, A. T. (2017). Challenges facing Chinese international students studying in the United States. *Educational Research and Reviews*, *12*(8), 473-482.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Sage.

Fritz, M. V., Chin, D., & DeMarinis, V. (2008). Stressors, anxiety, acculturation and adjustment among international and North American students. *International Journal of Intercultural Relations* 32, 244–259.

Garimella, N.K. (2008). A qualitative study examining the acculturation process of Asian Indian in the United States (Doctoral dissertation, Texas Women's University. 2008). ProQuest LLC, (UMI No. 3311815).

Gautam, C., Lowery, C. L., Mays, C., & Durant, D. (2016). Challenges for global learners: A qualitative study of the concerns and difficulties of international students. *Journal of International Students*, *6*(2), 501-526.

Hansen, H. R., Shneyderman, Y., McNamara, G. S., & Grace, L. (2018). Acculturative stress and native and US culture immersion of international students at a community college. *Journal of International Students*, *8*(1), 215-232.

Hechanova-Alampay, R., Beehr, T. A., Christiansen, N. D., & Van Horn, R. K. (2002). Adjustment and strain among domestic and international student sojourners: A longitudinal study. *School Psychology International*, *23*(4), 458-474.

Heng, T. T. (2017). Voices of Chinese international students in USA colleges:'I want to tell them that…'. *Studies in Higher Education*, *42*(5), 833-850.

Jackson, M., Ray, S., & Bybell, D. (2019). International students in the US: Social and psychological adjustment. *Journal of International Students*, *3*(1), 17-28.

Karuppan, C. M., & Barari, M. (2010). Perceived discrimination and international students' learning: An empirical investigation. *Journal of Higher Education Policy and Management*, *33*(1), 67-83.

Kaur, D. (2006). International students and American higher education: A study of the academic adjustment experiences of six Asian Indian international students at a research level II University (Doctoral dissertation, The University of North Carolina at Charlotte, 2006). ProQuest LLC, (UMI No. 3239820).

Lértora, I. M., & Croffie, A. L. (2020). Using Relational-Cultural Theory to Conceptualize International Student Transitions. *Journal of Creativity in Mental Health*, *15*(1), 30-42.

Mahmood, H., & Burke, M. G. (2018). An Analysis of Acculturative Stress, Sociocultural Adaptation, and Satisfaction Among International Students. *Global Perspectives on International Student Experiences in Higher Education: Tensions and Issues*, 108.

Mori, S. (2000). Addressing the mental health concerns of international students. *Journal of Counseling and Development, 78*, 137-144.

Moustakas, C. (1994). *Phenomenological research methods*.: Sage.

Myers-Walls, J. A., Frias, L. V., Kwon, K. A., Ko, M. J. M., & Lu, T. (2011). Living life in two worlds: Acculturative stress among Asian international graduate student parents and spouses. *Journal of Comparative Family Studies*, *42*(4), 455-478.

NAFSA (2019). New NAFSA data: Despite Stagnant Enrollment, International Students   Contribute Nearly $41 Billion to the U.S. Economy. https://www.nafsa.org/about/about-nafsa/new-nafsa-data-despite-stagnant-enrollment.

O'Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal*, *47*(4), 605-613.

Open Doors (2019). Report on International Educational Exchange. https://www.iie.org/Research-and-Insights/Open-Doors/Open-Doors-2019-Media-Information

Ostrove, J. M., & Long, S. M. (2007). Social class and belonging: Implications for college adjustment. *The Review of Higher Education*, *30*(4), 363-389.

Patton, M. Q. (1990). Qualitative evaluation methods (2nd ed.). Sage

Perry, C. J., Lausch, D. W., Weatherford, J., Goeken, R., & Almendares, M. (2017). International students' perceptions of university life. *College Student Journal*, *51*(2), 279-290.

Pittman, L. D., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *The Journal of Experimental Education*, *76*(4), 343-362.

Poulakis, M., Dike, C. A., & Massa, A. C. (2017). Acculturative stress and adjustment experiences of Greek international students. *Journal of International Students*, *7*(2), 204-228.

Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling, 7*, 73-82.

Rabia, A., & Hazza, M. (2017). Undergraduate Arab International Students' Adjustment to US Universities. *International Journal of Higher Education*, *6*(1), 131-139.

Rajapaksa, S., & Dundes, L. (2002). It's a long way home: International student adjustment to living in the United States. *College Student Retention, 4,* 15–28.

Rudd, M. D. (1990). An integrative model of suicidal ideation. *Suicide and Life Threatening Behavior*, *20*(1), 16-30.

Sandelowski, M. (1996). One is the liveliest number: The case orientation of qualitative research. *Research in nursing & health*, *19*(6), 525-529.

Smith, R. A., & Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of intercultural relations*, *35*(6), 699-713.

Sümer, S., Poyrazli, S., & Grahame, K. (2008). Predictors of depression and anxiety among international students. *Journal of Counseling & Development*, *86*(4), 429-437.

Trice, A. G. (2003). Faculty perceptions of graduate international students: The benefits and challenges. *Journal of studies in International Education*, *7*(4), 379-403.

Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterizing and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC medical research methodology*, *18*(1), 148.

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, *331*(6023), 1447-1451.

Yeh, C. J., & Inose, M. (2003). International students reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counseling Psychology Quarterly*, 16, 15–28.

Young, B. N., & Gutierrez, M. A. (2019). Challenges and Barriers to Success as Experienced by One International Graduate Student within the Biological, Psychosocial, and Academic Contexts during the Initial Acculturation Process. *Tennessee Educational Leadership*, 32.

Zhang, H., Zhou, Y., & Stodolska, M. (2018). Socio-cultural adaptation through leisure among Chinese international students: An experiential learning approach. *Leisure Sciences*, 1-20.

Zhang, J., & Goodson, P. (2011). Predictors of international students' psychosocial adjustment to life in the United States: A systematic review. *International journal of intercultural relations*, *35*(2), 139-162.

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How to Improve the Validity and Reliability of a Case Study Approach

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ABSTRACT

The case study is a widely used method in qualitative research. Although defining the case study can be simple, it is complex to develop its strategy. Furthermore, it is still often not considered to be a sufficiently robust research strategy in the education field because it does not offer well-defined and use well-structured protocols. One of the most frequent criticisms associated with the case study approach is its low validity and reliability. In this sense, this study aims to concisely explore the main difficulties inherent to the process of developing a case study, also attempting to suggest some practices that can increase its reliability, construct validity, internal and external validity.

Keywords: Case Study, Reliability, Research Methodology, Validity

INTRODUCTION

Qualitative research methodologies broadly describe a set of strategies and methods that have similar characteristics to each other. In a qualitative

methodology, we have an interactive model of data collection and analysis and the use of various sources through a combination of methods that seek to capture the subjective dimension of social phenomena. According to Queirós et al. (2017), the striking feature of this methodology is that the questions to be investigated are undefined from variables or hypotheses previously formulated. Therefore, the qualitative methodology aims at exploring, describing, and understanding the phenomena in all their complexity. Moreover, close and prolonged contact with those involved in their natural environment is privileged (Yin, 2017).

Qualitative research is essentially used to understand the underlying motives, opinions, and motivations (Hancock & Algozzine, 2016; Stake, 1995). Furthermore, it can also be used to discover trends in thinking and opinions (Merriam, 2009). In this type of research, information about a problem is provided, or it helps to define research hypotheses later. Qualitative research gathers data from a narrative form, interviews, or observations that can be coded using, for example, thematic analysis. In this method, the answers are usually not objective (i.e., the results obtained are not counted numerically). Another characteristic factor of qualitative research is it directs the investigation to cases or phenomena where contextual conditions are not known or not controlled. Additionally, typically the sample is small, and respondents are encouraged to feel comfortable giving their opinion on issues related to the subject of study.

The terms method and methodology are often used indiscriminately. Kothari (2013) states the method is linked to the ways of proceeding to achieve a certain goal, while methodology represents a science whose goal is linked to the study of the method. In this way, the methodology aims to apply the most appropriate methods to produce knowledge in a scientific area. Several methods can be employed in qualitative methodology, as indicated by Queirós et al. (2017): (i) observation; (ii) ethnography; (iii) field research; (iv) focus groups; or (v) case studies. The case study is a qualitative method that generally consists of a way to deepen an individual unit. It serves to answer questions that the researcher does not have much control over the phenomenon studied. It is a tool used to understand the form and the reasons that led to a certain decision. According to Yin (2017), the case study is a research strategy that comprises a method that encompasses specific approaches to data collection and analysis.

A frequent criticism associated with case studies is their validity and reliability (Riege, 2003; Street & Ward, 2012). The trustworthiness in a case study approach, which includes both the validity and reliability dimensions, is a fundamental element so that the findings obtained by the case study can

be credible, confirmable, transferable, and dependable (Mcgloin, 2008). The empiricism and subjectivism of the researcher, namely through his/her emotional involvement with the field of work, means that the process of data collection and interpretation may be potentially biased. Leung (2015) also stresses the presence of the observer in the data collection process can create a dynamic that can modify the subjects' usual reactions. In contrast, reactive reactions may arise among stakeholders that run counter to the expectations that the observer expects to meet. In this sense, and given the high use of qualitative methodologies in the education field, it becomes pertinent to explore ways in which the validity and reliability of a case study can be increased, seeking to identify and critically explore the position of several authors on this subject. Through this study, the aim is to provide concise and practical study material to help researchers apply case study techniques more robustly. It may assist researchers in interdisciplinary areas in conducting a case study approach, in which several branches of knowledge may be used together following a specific theme and a common goal.

CONCEPTUAL PERSPECTIVE

Case studies inherit the typical characteristics of qualitative research. In this sense, the case study also contains the fundamental steps concerning the processes of collection, analysis, and interpretation of information from qualitative methods, with the particularity that the fundamental objective of the research is the intensive study of one or a few cases. Nevertheless, in a case study, quantitative data can be used to quantify occurrences of a given phenomenon, but in which the context is not controlled by the researcher. Table 1 provides an overview of the phases of a case study. The last two phases occur in parallel and cannot be isolated.

The adoption of case studies offers numerous advantages, as highlighted by Yin (2017). The main advantage is its high applicability to human situations and contemporary contexts of real life. Furthermore, it offers a deep and at the same time broad and integrated vision of a social unit, complex, composed of multiple variables. Therefore, researchers from various fields use the case study method for various purposes. Case studies can be used to understand a phenomenon in depth by gathering the opinion of several people as well as discovering a new phenomenon from the interaction with the participants.

Case studies are widely used in interdisciplinary areas (Klaassen, 2018; Okamura, 2019). The objective is to use several complementary sources of evidence to obtain multiple perspectives on a phenomenon. With

this, the perception of the investigator becomes more comprehensive and trustworthy (Yin, 2017).

Table 1:

Case study phases (adapted from Yin, 2017)

Phase	Description
Research goal	Clear and precise definition of the subject to be explored. Furthermore, the factors that determine or contribute to the occurrence of the phenomena must be identified.
Research design	In the case study design, the process of selection of the case studies, protocols, and procedures should be defined. It emerges that case selection criteria are essential for the quality of results and should be carefully defined in advance.
Data preparation and collection	Establishing contact with the individuals or organizations targeted by the case study. Conducting the interviews and collecting the associated material.
Analysis of cases and between cases	The information from each case study should be identified and categorized. Unnecessary information should be discarded. There should be a process for triangulation and synthesis of data between study cases.
Elaboration of reports	Individual reports should be produced for each case study. The final report is developed at the end, and the review of this report concludes the process of developing this process.

According to Greef et al. (2017), interdisciplinarity can be understood as the mutual exchange and reciprocal integration of several sciences, in which the construction of knowledge results from the conjunction of several areas of knowledge. In this sense, interdisciplinarity in education involves the integration of disciplines, intending to promote the association of several areas around the same theme. There are several challenges faced by teachers and pedagogical coordinators to implement interdisciplinarity in higher education practice. The identified challenges covered multiple areas such as resources, materials, time, logistics infrastructure, and teacher training (Pountney & McPhail, 2017; Styron,

2013). The interdisciplinarity methodology requires that the teacher be a learner of diverse knowledge, who knows how to deal with students from different socio-cultural contexts, and with the other teachers in the educational institution. Carr et al. (2018) stressed that interdisciplinarity does not have a defined method that can serve as a guide for the teacher in its application, although it is possible to design frameworks to evaluate its application. In this sense, the adoption of a qualitative methodology supported in case studies will help teachers to understand the context in which each practice succeeds and identifies strategies and procedures that can be discussed and replicated with the necessary adaptations to each local context of their higher education institution.

Despite the large number of scientific studies published using case studies, several difficulties persist in their design and operationalization. Often the case studies are also perceived as offering low reliability and generalization difficulties. Despite the relevance of these elements in a case study, they end up being ignored by researchers. In a case study, and as highlighted by Yin (2017), the following situations must be ensured: (i) construct validated, so that the researcher can correctly evaluate the studied concepts; (ii) internal validity, to ensure that there is adequacy of the inferences to the obtained data; (iii) external validity, which derives from the capacity of the results to represent the studied phenomenon; and (iv) reliability, related to the possibility of replication of the study by another researcher. The replication issue becomes relevant in multiple case studies, where a literal replication logic can be used to predict similar results, or a theoretical replication logic where contrasting results are sought for predictable reasons (Ridder, 2017).

DISCUSSION

The case study can be used for two main purposes: exploratory and descriptive (Yin, 2017). The exploratory study contributes to clarify a situation where information is scarce. The level of investigation is less rigorous than in a descriptive case study and can be used in a preliminary phase of a longer project. The descriptive approach is intended to understand the events. The objectives are well defined, with formal procedures structured and directed towards problem-solving or evaluation of alternatives. This approach aims at a complete understanding of the phenomenon.

Each case study is set in a unique context. Therefore, the methodology may be restricted to the investigation of a single case. However, Mariotto et al. (2014) state that this option is only valid when the

case is extreme or critical, or when it reveals a phenomenon in which one intends to explore its behavior over time. However, multiple studies are considered more convincing and robust because they allow analysis between cases (Baxter & Jack, 2008). While individual analyses consolidate the information from each case, the analyses between the cases identify patterns, providing elements for the construction of hypotheses and the development of theories.

While defining the case study may be simple as a strategy, its implementation is complex. The first factor to consider is the validity of the construction. Accordingly, in a study case, multiple sources of evidence must be used and a process of triangulation of the data, review of the reports of the interviews conducted by the interviewees, and a logical chain of events must be defined. The first two factors are directly related to the quality of the data and its treatment, while the last factor provides information to readers about the development processes of the work, from its beginning to the conclusions. In the triangulation process, Fusch et al. (2018) refer to the importance of using different sources of data, namely by conducting interviews with multiple participants or multiple archive sources. As it is generally not possible to replicate a case study under the conditions in which it occurred, its reliability is fundamentally demonstrated by the triangulation of data. This process originates from the application of several data collection instruments, evidence chaining, and rigor in all procedures performed throughout the research. Shoaib & Mujtaba (2016) state that data triangulation is a fundamental point of evaluation of methodological rigor. Additionally, Yin (2017) suggests the existence of four types of triangulation: (i) data triangulation through the use of multiple data sources; (ii) researcher triangulation through the involvement of different evaluators; (iii) theory triangulation through the adoption of multiple perspectives on the same data set; and (iv) methodological triangulation through the adoption of different complementary methods.

Furthermore, it is also important to consider the validity of an investigation. This validity is normally divided into internal and external validity. The former is particularly important in explanatory case studies, in which the researcher is seeking to demonstrate relationships and cause and effect between the elements. It is internal validity that assures the researcher that the results can be accepted based on the research design. However, its relevance is not significant for descriptive and exploratory research. In internal validity, the key issue is to ensure the researcher can construct a plausible causal argument that is rigorous enough to support the research results.

The external validity is strongly dependent on the established cases and the protocol. Here it is fundamental to explain that the phenomena studied can be replicated in other environments. The objective is not a statistical generalization, something that is not possible in single or multiple cases, but to look at their analytical generalization. In analytical generalization, we seek to have a process of generalization of empirical observations into theory, rather than population (Levy, 2008). Good practices to ensure external validity include: (i) presentation of the reasons for the case study selection; (ii) presentation of the context of each case study; and (iii) identification of patterns that allow the subsequent generalization of the results obtained.

The reliability is related to the process of replication of studies. Studies involving multiple cases should follow a replication rather than a sampling logic. Multiple experiments with similar or contradictory results can be considered. For this purpose, a protocol and a case database are required. The protocol establishes the rules that are followed in the field, while the databases contain all the material collected by the researcher for each case. In the protocol, some techniques can be used to increase the reliability of the study case, such as recording the interviews, coding the responses, or employing analytical methods of data analysis. Moreover, the researcher should consider the format in which he will collect the data, the structure, and the technological means he/she intends to use. The case study may use a variety of ways to collect information, depending on the nature of the case and with the aim of making it possible to cross-study, or analysis angles. Marrelli (2007) states that among the instruments of information collection are the diary, questionnaire, individual and group interviews, and documentary sources.

Finally, following Meyer's (2001) approach, a hypothetical case was defined to explain the application of reliability and validity issues to a case study. In this sense, we considered an example to explore the impact of COVID-19 in higher education institutions. Table 2 presents a set of elements that should be considered.

The adoption of multiple case studies involving multiple participants is highlighted as being a more robust approach than using a single case study (Mills et al., 2010; Towgood et al., 2009). Qualitative investigations of multiple case study bias have distinct advantages and disadvantages compared with a single case study. The rationale for single case strategies, in general, cannot be satisfied with multiple cases. A single case strategy in the COVID-19 example could be useful to understand in depth the unique challenges posed to a higher education institution.

However, it is likely that the rare or unusual case, the critical or revealing case will not arise in the context of a single case. Accordingly, it is important to consider multiple sources of evidence. The adoption of multiple case studies should be carefully thought through to ensure that multiple analyses have a specific purpose within the global scope of the investigation. In this sense, the adoption of multiple cases in the COVID-19 example should include educational institutions of different typologies (i.e., public/private; university/polytechnic) and dimensions (i.e., number of students/teaching staff).

Table 2:
Example of a reliability and validity analysis

Issue	Description
Construction validity	Multiple cases should be used involving several participants. Students, teachers, and people in management positions at universities should be involved. This is intended to have multiple perspectives on the challenges posed by COVID-19 in universities.
Internal validity	A relationship is established between the emergence of COVID-19 and the measures of social isolation that have affected both students and students. As a result, higher education institutions had to close down their activities and offer distance learning using online collaboration tools.
External validity	Four case studies were selected considering the different typologies of a higher education institution: (i) public university; (ii) private university; (iii) public polytechnic institute; and (iv) private polytechnic institute. Each of these locations offers its own specificities considering its legal framework and type of courses offered. Each higher education institution is located in different districts of Portugal with different levels of economic and social development.
Reliability	Individual interviews with academics and group interviews with teachers and students were used for data collection. The thematic analysis carried out based on semi-structured interviews identified similar and contradictory themes between the case studies.

Thematic analysis is a commonly used method for analyzing semi-structured interviews. Other alternatives are feasible like grounded theory, interpretative phenomenological research, or representation through cognitive maps (Alase, 2017; Tie et al., 2019; Weisberg & Newcombe, 2018). In the example of Table 2, we propose the adoption of thematic analysis. This method has characteristics similar to procedures traditionally adopted in qualitative analysis. Thematic analysis can be used both through an inductive approach and based on the data collected in the interviews with students, teachers, and administrative staff, as well as using the deductive or theoretical approach, which can build a pre-established set of themes (e.g., teleworking, videoconferencing, remote teaching, distance assessment, etc.). The second approach is more appropriate in areas of research that are more consolidated in the scientific environment and in which the themes can be obtained from other previously published studies.

CONCLUSIONS

The adoption of case studies is one of the most used methods of investigation in education. Researchers cannot control events and who interact with them, but the research process allows us to have a scientific basis for dealing with these situations logically and appropriately. The case study is a complete method that covers the activities of planning, data collection, and analysis. It aims to understand the event under study and, at the same time, develop more generic theories regarding the observed phenomenon.

The case study is grounded on a logic based on the interpretation of a phenomenon of social reality concerning its data and evidence. However, several processes are essential for its results to have validity and reliability. In this sense, the design of an approach based on case studies requires skill and sensitivity of the researcher to meet these requirements, ensuring that the results of the work are accompanied by methodological rigor and accepted in the scientific community.

In the process of using a case study, the reliability and validity of the process and the results achieved must also be analyzed. For this purpose, several criteria should be considered, such as construction validity, internal and external validity, and reliability. By fulfilling these criteria, it can be guaranteed that the study methodology was planned in a logical way, where all components relate to each other in a structured way. Additionally, this approach allows the investigation to be effective and the desired results to be achieved.

This study is relevant by addressing concisely the feasibility and reliability process of a case study. It is intended to be a study that helps educational researchers to define more rigorous and robust methodological processes in educational studies that employ case studies. For this purpose, it is discussed how a case study should be designed to offer the validity of the construction, internal validity, external validity, and reliability.
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REFERENCES

Alase, A. (2017). The Interpretative Phenomenological Analysis (IPA): A Guide to a Good Qualitative Research Approach. *International Journal of Education & Literacy Studies*, *5*(2), 9-19. doi: 10.7575/aiac.ijels.v.5n.2p.9

Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, *13*(4), 544-556.

Carr, G., Loucks, D. P., & Blöschl, G. (2018). Gaining insight into interdisciplinary research and education programmes: A framework for evaluation. *Research Policy*, *47*(1), 35-48. doi: 10.1016/j.respol.2017.09.010

Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Open Medicine*, *7,* 1-8. doi: 10.1177/2050312118822927

de Greef, L., Post, G., Vink, C., & Wenting, L. (2017). *Designing Interdisciplinary Education: A Practical Handbook for University Teachers*. Amsterdam, Netherlands: Amsterdam University Press.

Fusch, P., Fusch, G. E., & Ness, L. R. (2018). Denzin's Paradigm Shift: Revisiting Triangulation in Qualitative Research. *Journal of Social Change*, *10*(1), 19-32. doi: 10.5590/JOSC.2018.10.1.02

Hancock, D. R., & Algozzine, B. (2016). *Doing Case Study Research: A Practical Guide for Beginning Researchers*. New York: Teachers College Press.

Klaassen, R. G. (2018). Interdisciplinary education: a case study. *European Journal of Engineering Education*, *43*(6), 842-859. doi: 10.1080/03043797.2018.1442417

Kothari, C. R. (2013). *Research Methodology: Methods and Techniques*. New Delhi, India: New Age International Pvt Ltd Publishers.

Leung, L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care*, *4*(3), 324-327. doi: 10.4103/2249-4863.161306

Levy, J. S. (2008). Case Studies: Types, Designs, and Logics of Inference. *Conflict Management and Peace Science*, *25*(1), 1-18. doi: 10.1080/07388940701860318

Mariotto, F. L., Zanni, P. P., & Moraes, G. H. (2014). What is the use of a single-case study in management research? *Revista de Administração de Empresas*, *54*(4), 358-369. doi: 10.1590/S0034-759020140402

Marrelli, A. F. (2007). Collecting data through case studies. *Performance Improvement*, *46*(7), 39-44. doi: 10.1002/pfi.148

Mcgloin, S. (2008). The trustworthiness of case study methodology. *Nurse Researcher*, *16*(1), 45-55. doi: 10.7748/nr2008.10.16.1.45.c6752

Merriam, S. B. (2009). *Qualitative Research: A Guide to Design and Implementation*. Hoboken, New Jersey: Jossey-Bass.

Meyer, C. B. (2001). A Case in Case Study Methodology. *Field Methods*, *13*(4), 329-352. doi: 10.1177/1525822X0101300402

Mills, A. J., Durepos, G., & Wiebe, E. (2010). *Encyclopedia of case study research (Vols. 1-0)*. Thousand Oaks, CA: SAGE Publications.

Okamura, K. (2019). Interdisciplinarity revisited: evidence for research impact and dynamism. *Palgrave Communications*, *5*(141), 1-9. doi: 10.1057/s41599-019-0352-4

Pountney, R., & McPhail, G. (2017). Researching the interdisciplinary curriculum: The need for 'translation devices'. *British Educational Research Journal*, *43*(6), 1068-1082. doi: 10.1002/berj.3299

Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and Limitation of Qualitative and Quantitative Research Methods. *European Journal of Education Studies*, *3*(9), 369-387. doi: 10.5281/zenodo.887089

Ridder, H. G. (2017). The theory contribution of case study research designs. *Business Research*, *10*, 281-305. doi: 10.1007/s40685-017-0045-z

Riege, A. (2003). Validity and reliability tests in case study research: a literature review with "hands-on" applications for each research phase. *Qualitative Market Research*, *6*(2), 75-86. doi: 10.1108/13522750310470055

Shoaib, S., & Mujtaba, B. G. (2016). Use It or Lose It: Prudently Using Case Study as a Research and Educational Strategy. *American Journal of Education and Learning*, *1*(2), 83-93. doi: 10.20448/804.1.2.83.93

Stake, R. E. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: Sage Publications.

Street, C. T., & Ward, K. W. (2012). Improving validity and reliability in longitudinal case study timelines. *European Journal of Information Systems*, *21*(2), 160-175. doi: 10.1057/ejis.2011.53

Styron, R. A. (2013). Interdisciplinary Education: A Reflection of the Real World. *Systemics, Cybernetics and Informatics*, *11*(9), 47-52.

Towgood, K. J., Meuwese, J. D., Gilbert, S. J., Turner, M. S., & Burgess, P. W. (2009). Advantages of the multiple case series approach to the study of cognitive deficits in autism spectrum disorder. *Neuropsychologia*, *47*(13), 2981–2988. doi: 10.1016/j.neuropsychologia.2009.06.028

Weisberg, S. M., & Newcombe, N. S. (2018). Cognitive Maps: Some People Make Them, Some People Struggle. *Current Directions in Psychological Science*, *27*(4), 220-226. doi: 10.1177/0963721417744521

Yin, R. K. (2017). *Case Study Research and Applications: Design and Methods*. Thousand Oaks, CA: SAGE Publications.

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Transcultural Practices of International Students as Identity Performances in Digital Settings

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ABSTRACT

Guided by an interdisciplinary approach, this study seeks to illustrate the digital practices of international speakers on social media. The practices of international users are especially valuable due to the presence of various audiences in their networks, some rarely researched. For this purpose, the study examines the social media practices of 16 international graduate students (IGSs), who experience a transnational mobility in the United States. The data is collected through semi-structured interviews with participants and their social media data. The analysis includes quantitative assessment of participants' social media activities and qualitative analyses of interviews and digital practices. The findings of the study illustrate how individuals with transborder experiences engage in identity work by sharing transcultural content with a multitude of audiences in their networks. The study concludes that digital practices involving the transcultural flow of content present opportunities for IGSs to work and realign various facets of their identities.

INTRODUCTION

Societal dynamics across the world have experienced dramatic changes in terms of cultural and linguistic diversity through the phenomenon of globalization. The changes are marked by global flows of people, materials, currencies, as well as discourses, images, symbols, and signs. According to Pennycook (2007), these 'circles of flow' (p. 122) involve complex networks of people, among which diverse forms are circulated, changed, exchanged, overlapped, blended, and/or re-used for various purposes. Because of the complexity of these globalized networks and circles of flow, the diversity of cultural and linguistic practices in these spaces is sometimes called 'super-diversity'; a concept introduced by Vertovec (2007), and defined as a 'dynamic interplay of variables among an increased number of new, small, scattered, multiple-origin, transnationally connected, socio-economically differentiated and legally stratified immigrants' (Vertovec, 2007: 1024). Unlike the categorization of migrants being limited to their languages, nationalities, and ethnicities, the concept of superdiversity approaches diversification 'in terms of motives, patterns and itineraries of migration' (Blommaert & Rampton, 2011: 1), and characterizes the dynamic nature of interaction in an increasingly globalized and mobilized world.

The increase in such flows and mobility has been further facilitated by the advent of digital technologies. New media has intensified the contact and exchange between people with a variety of linguistic, cultural, and social backgrounds. Such a complex, mobile, and often unpredictable diversification has had an impact on the social practices of communities within superdiverse networks and has transformed the practices at both individual and societal levels (Busch, 2012).

The new, digital ways that we use to communicate, interact, and manage our social relationships challenge researchers to think about the ways they approach texts, resources, and social interactions as well. Coupland (2003) and Blommaert (2003) called for a rethinking of the ways sociolinguistics attempt to address globalization. Blommaert laid the foundations of a response, which later emerged in The Sociolinguistics of Globalization in 2010. The call also precipitated a number of other theoretical and methodological reflections on the shifts occurring in between the local and the global (de Fina & Perrino, 2013), and on the study of language at the intersection of heterogeneity (Blommaert, 2010). As reported by Androutsopoulos and Juffermans (2014), these various theoretical and methodological suggestions have appeared in journal issues and edited volumes including the works of Coupland (2010), Pennycook

(2010), and Thurlow and Jaworski (2010). While the concept of superdiversity emerged as a theoretical construct, methodological approaches were often guided by metaphors such as flow, movement, and fluidity rather than notions of fixation and stability (Androutsopoulos & Juffermans, 2014). In connection with concepts of flow, researchers have started to employ notions such as re-entextualization and re-semiotization, which indicate an appropriation of a semiotic resource, and translocalization, which places emphasis on the transfer of a local content or value into another context.

Guided by these concepts, the researchers began to address the travel of discourses and cultures across the globe as in both society and individual-level phenomena. Some of the scholarship in this area explores how globally circulating materials such as manga, references to global secret societies, or tattoos are localized through individual practices in social media spaces (e.g., Jonsson & Muhonen, 2014; Leppänen, Pitkänen-Huhta, Piirainen-Marsh, Nikula, & Peuronen, 2009; Stæhr, 2014). The availability of semiotic resources and their roles in the ways people perform their identities in superdiverse settings are also examined (Androutsopoulos & Juffermans, 2014). Despite a growing body of research in the scholarship, the research has yet to document the digital practices of individuals, who experience transnational mobility, in online participatory spaces.

In order to contribute to the scholarship in relation to the practices in digitally diverse spaces, the current study is informed and guided by theories from sociolinguistics, and seeks to illustrate the digital practices of international speakers in the contexts of superdiversity. The practices of international users are especially valuable due to the presence of a multitude of audiences in their networks, some rarely researched. For this purpose, social media practices of international graduate students (IGSs), who are experiencing transnational mobility in the United States, are investigated through a mixed-methods approach in the present study.

CONCEPTUAL FRAMEWORK

There is a wide recognition of the role of globalization on bringing social, cultural, and linguistic diversification across many societies in different parts of the world together. Emerging complex sociocultural practices beyond nation-state-only affiliations and identifications are facilitated by mobility in modern day. Characterized by such mobility, complexity, and unpredictability, this heterogeneity is conceptualized under the umbrella term of 'superdiversity' (Blommaert & Rampton, 2011). Through the contextual lens of superdiversity, we see clear-cut notions such

as 'migrant' and sociocultural essentialisms of those migrants becoming transcended (Blommaert & Rampton, 2011), and the formation of a wide range of increasingly complex networking practices marked by mobility and heterogeneity (Busch, 2012). It is often acknowledged that digital technologies, which "offer shortcuts to globalization" (Blommaert, 2010: 3), intensify the global flows of people, discourses, and semiotic resources (Androutsopoulos & Juffermans, 2014; Deumert, 2014). Such transcultural and transnational flow of people and discourses not only influence language practices, but also shift the image of language from being a static and immobile to a dynamic and mobile one (Blommaert, 2010).

An increasingly globalized circulation of discourses, materials, and people gave birth to the reconsideration of conventional concepts and methodologies that had been developed and employed earlier to conceptualize language use in spatiotemporally bounded contexts. We witness the development of concepts, which reinforces the diverse textual and multimodal forms being circulated, blended, re-purposed, or exchanged. In parallel with these, the concept of superdiversity started to be used as a conceptual construct, which offered an up-to-date perspective on language and social life by several scholars (e.g., Blommaert, 2010; Blommaert & Rampton, 2011; Creese & Blackledge, 2010). Offering a contemporary perspective on language and social life, superdiversity was interpreted as "a potentially fruitful way of conceptualizing the complexity of linguistic repertoires and language practices in globalization" (Mc Laughlin, 2014: 29), and a notion, which "encourages us to grapple with the inherent complexities of the social world and provides a theoretically comprehensive critique of many of the traditional tools and approaches of sociolinguistics" (Deumert, 2014: 116).

Offering an insightful lens for the interpretation of interactions and practices in superdiverse environments, Blommaert (2010) emphasized the unfinished, consistently moving nature of language in globalization, and developed some conceptual tools for a sociolinguistic approach to globalization. One of the essential concepts he suggested is translocalization. This term signifies the dynamic of localization, delocalization, and re-localization of localities / local resources (Blommaert, 2010). Even though localities are transported, they do not necessarily lose their local features because of translocalization patterns.

As Pennycook (2007) argues, a purely synchronic analysis is not enough for the investigation of semiotic and cultural resources, and dynamic uses and re-uses in multiple modes should be looked at as well. Superdiversity can be especially useful since it focuses on individuals and

the ways flow of resources are employed for the purpose of positioning and encourages a combination of methodologies such as microanalysis and ethnography (Deumert, 2014). Superdiversity and interdisciplinary approaches with contemporary analytical toolkit can help us examine the impact of globalization on individual practices and community membership.

LITERATURE REVIEW

The presence and use of a wide array of mobile modes and spaces of digital communication necessitate the analysis of digital practices in order to understand changing social and cultural contexts of language and interaction in these spaces. Examining digital practices and connections between offline and virtual contexts is important for a better understanding of superdiverse societies (Blommaert & Varis, 2011), evaluation of superdiversity as a conceptual notion (Mc Laughlin, 2014) and the ways superdiversity is indexed in the digital practices of users.

The scholarship on digital diversity includes research investigating the role of digital language practices in superdiverse contexts and exploring the relevance of superdiversity as a theoretical approach for analyzing digital language practices. The main findings across these studies focus on the presence and deployment of available semiotic resources in superdiverse settings and the ways people manage their transnational networks and perform local and transnational identities by means of them (Androutsopoulos & Juffermans, 2014). Some of the research shows how the local uses of globally circulating materials and discourses (e.g., manga, the Illuminati, tattoos) are localized through individual digital practices (Jonsson & Muhonen, 2014; Leppänen et al., 2009; Stæhr, 2014). Intensification of transcultural flows of resources through digital media and its role in local and global identity performances of individuals and communities have also been illustrated (Fabrício, 2014; Jonsson & Muhonen, 2014; Leppänen et al., 2009; Sharma, 2014). The emerging scholarship has approached digital practices through the lens of various transnational practices of individuals of different nationalities (Africa, East Asia, Europe and particularly Scandinavia) in multiple web environments (diasporic online websites, YouTube, Facebook, a combination of multiple platforms). A large diversity of tools was employed for methodological purposes in these studies. While online ethnographic data collection from the examined web spaces (e.g., online communities, blogs, and social media) was popular, researchers also collected data through classroom observations and interviews. Apart from these, Juffermans et al.'s (2014) data included homework and textbook materials of individuals, and Heyd

(2014) and Mc Laughlin (2014) followed a corpus-based approach. The analyses conducted across these studies were often qualitative in nature and informed by discourse analysis. While interviews were employed in some of the research, it seemed that digital practices of participants were prioritized over the voices and interpretations of participants.

A close look at the research reveals a need for further analysis of the digital practices of individuals. Despite a number of great contributions, we have yet to see the experiences of individuals from the Middle East or Spanish-speaking Central and South America documented in digital superdiverse contexts. Moving across different geographical areas and contacting individuals of other nationalities and speakers of various languages, the digital practices of international graduate students (IGSs) warrant close examination as the variety of content they share contributes to the superdiversity of online social networks. A fine-grained qualitative analysis of individuals' voices may offer a rich account of globalized practices by granting a combination of etic and emic perspectives. Making use of the resources afforded by online social networks, individuals can position different aspects of their identities by employing both multilingual resources, and the type of content they share by addressing certain audience groups in their networks. In order to document these practices and contribute to the scholarship at the intersection of superdiversity and digital spaces, the current study aims to respond what kinds of transcultural content are shared by IGSs for which audiences in their online social networks.

RESEARCH METHOD

The present study is part of a larger project, in which 90 international graduate students (IGSs) took part in an online survey developed by the author (Solmaz, 2015, 2017, 2018). For the current study, semi-structured interviews were conducted with 16 IGSs, who volunteered, and their social media data were collected in order to ensure the triangulation of the data. The participants (aged between 22 and 49 years) included both male and female students, who were enrolled in Masters or PhD programs and represented a diverse mixture regarding their country of origins, fields of study, and length of stay in the U.S. (see Table 1).

Table 1

Participant Information (*All the listed names are pseudonyms)

Name* (Gender)	Home Country	Field of Study	Pursued Degree	Length of Stay
Ahmed (M)	Egypt	Applied Linguistics	PhD	4 or more yrs
Carlos (M)	Costa Rica	Linguistics	PhD	4 or more yrs
Elif (F)	Turkey	Special Education	PhD	more than 4 yrs
Estella (F)	Spain	Hispanic Studies	Masters	more than 1 yr
Gabriel (M)	Colombia	Applied Linguistics	PhD	more than 2 yrs
Gloria (F)	Mexico	Arid Lands Resources Sciences	PhD	more than 3 yrs
Isabel (F)	Chile	Teaching and Teacher Education	PhD	more than 4 yrs
Jiao (M)	China	Computer Science	PhD	more than 3 yrs
Mariela (F)	Spain	Legal Studies	Masters	4 or more yrs
Mihret (F)	Ethiopia	Natural Resources Environment	Masters	more than 4 yrs
Nara (F)	Indonesia	English as a Second Language	Masters	less than 1 yr
Nissa (F)	Thailand	Applied Linguistics	PhD	more than 3 yrs
Thomas (M)	Germany	Economics	PhD	more than 3 yrs
Wang (F)	China	East Asian Studies	PhD	more than 2 yrs
Yeong (F)	S. Korea	Communication	Masters	more than 1 yr
Zahra (F)	Pakistan	Applied Linguistics	PhD	more than 3 yrs

Semi-structured interview was preferred over a structured version since participants of the study possessed diverse backgrounds and potentially various ways and habits of using social media. Each of the interviews lasted between 45 to 90 minutes and was audio-recorded. At this stage, the researcher asked the volunteers to add him to their social network online. Two types of social media data of the participants were collected: 1) SNS data that were automatically extracted from Facebook through an application for Social Network Analysis, 2) SNS data that was manually collected from participants' Facebook profiles. A total of 1,939 posts/status updates were collected and the average number of activities per participant was 74 (see Table 2). The collection period covered a minimum of one year. However, this duration was as long as two years for some participants, who were less active.

Table 2:
Multilingual Practices of Participants*

Name	L1 *(First language)*	L2 *(English)*	ML *(Multiple languages)*	Total
Ahmed	32	37	8	77
Carlos	10	4	16	30
Elif	163	50	15	228
Estella	53	27	15	95
Gabriel	18	10	11	39
Gloria	30	7	11	48
Isabel	165	60	30	255
Nara	131	290	72	493
Nissa	102	108	51	261
Thomas	1	29	3	33
Wang	70	101	40	211
Yeong	20	22	28	70
Zahra	4	83	12	99
Total Number	799	828	312	1,939
Percentage	41.21%	42.70%	16.09%	100%

* The quantitative data do not include the posts of three participants. Mihret and Mariela's total number of posts were less than 15 even though they were actively present on Facebook. Since many of Jiao's posts were automatically transferred to Facebook from third party applications, he was excluded as well.

The content analysis of the interviews and the qualitative analysis of the social media data were done through the methodological lens of Computer-Mediated Discourse Analysis (CMDA) (Herring, 2004). CMDA is particularly useful as it applies to four different domains of language, which are structure (e.g., word formations, the use of special typography), meaning (e.g., meaning of words, speech acts) interaction (e.g., turn-taking, topic development), and social behavior (e.g., linguistic expressions of power, group membership) (Herring, 2004). An organizational framework was formed through the themes and sub-categories emerging across the multiple types of data following the analyses. Both inductive and deductive analyses of data (Glesne, 2010) were performed in a cyclical nature (i.e., in a non-linear way). This allowed the researcher to rerun the analysis multiple times and find examples of data for each emerging category and its subcategories. As a result, fluidity across the different sources of data was made possible, interview data and SNS data analyses were blended, and findings were enhanced.

While the systematic analysis carried out was based on the various aspects of participants' interactions in their social networks, the present study mainly focuses on participants' interactions with their two major audiences: Home Country Audiences (HCA), the people currently residing in the country of the participants, and Non-Home Country Audiences (NHCA), non-home country citizens who either live in the U.S. or in a country other than participant's homeland. The intended audiences of participants' posts are based on researcher's observations, the interviews with the informants, and the researcher re-contacting participants for further explanations when needed. Such categorization can be beneficial especially for approaching cross-cultural flow of content with multiple audiences in an individual's network. While this research employs notions such as HCA, which may be considered essentializing categorization and seem in contradiction with the theoretical background of the study, the focus is on the transcultural flow of content across a multitude of audiences and how individuals draw from the entextualization and translocalization of their digital practices in identity work. Furthermore, coding categories such as HCA were preferred over labels such as the country of birth, origin, or residence and the same principles were applied to all participants in order to carry out a systematic analysis of their engagement in the flow of culture and language between multiple audience groups. As can be seen in the analysis below, in which an analytical toolkit involving enoughness, translocalization, and entextualization are used, the terms `local` and `global` are often intertwined in participants' posts despite being placed under certain categories.

FINDINGS AND DISCUSSION

The analysis of the data revealed that the variety of content shared with diverse audiences created a multidirectional, dynamic flow of transnational content traversing an individual's online social network. The participants' transcultural content exchanges were examined in two main categories: exchanges with HCA about Home (Country) and about the U.S. The findings regarding each of these groups are presented with the company of social networking data of participants and interviews with IGSs below.

Digital practices addressing home country audiences about home country

The analysis of the data showed that one of the major digital practices of IGSs included posts addressed to their home country audiences (HCA). Some of these practices were about the home country (HC) itself,

and included posts such as participating in anniversaries and celebrations at HC, sharing a collective grief, cultural products, posts that are related to politics, economics, and environment, and maintaining relationship with people.

Individuals of the study participated in the celebrations and anniversaries of national events in their home countries. For instance, Nara wished her Indonesian/Muslim audience a 'Happy Eid', one of the two Islamic festivals celebrated once a year. Elif stated 'Happy Republican Day to us' (see Figure 1) in Turkish by including herself and adding a smile emoticon, thus participating in the celebrations for the anniversary of Turkey's foundation despite her physical absence in the HC. Similarly, Carlos also wished 'Happy Birthday' for the occasion of Costa Rica's Independence Celebration Day. As observations of customs and momentous events are identity signifiers (Soon & Kluver, 2014), we can argue that by celebrating national and/or religious festivals in their home countries online, participants claim affiliation and index themselves as legitimate members of their national/ethnic communities.

Figure 1
Elif's status update regarding the Republic Day in Turkey

October 29, 2014 ·

Cumhuriyet bayramimiz kutlu olsun:)

Apart from the celebrations of anniversaries, participants were observed to cheer for their national teams competing in the FIFA World Cup. While Thomas shared photos from his house where he and his friends followed a game in a room ornamented with the flags of Germany, Carlos shared his joy of Costa Rica's historical success by posting a photo of himself and his Costa Rican friend with the national flag and jokingly framing the post in Spanish as: "Costa Rican colony celebrates in Tucson" (see Figure 2).

Carlos stated during the interview that he "certainly posted this photo to reconnect with Costa Ricans because it is only two of us and shows how lonely and miserable we are in Tucson" (Interview with Carlos). He also mentioned that the photo was almost exclusively liked and commented by Costa Ricans, thus suggesting that he successfully engaged in a

conversation with his HCA around a celebratory event. He exhibited his sense of belonging and attachment to Costa Rica by mainly using the flag and text, which functioned as identity signifiers. Blommaert and Varis (2011) note that "one has to 'have' enough of the emblematic features in order to be ratified as an authentic member of an identity category" (p. 4). When we apply the 'enoughness' benchmark as a critical tool for Carlos' identity work, we see that the flag and choice of Spanish as the language of framing activate his Costa Rican identity very clearly. Beyond this individual action, a globally available content is localized (i.e., World Cup event being re-contextualized).

Figure 2:
Carlos' photo of World Cup celebration for Costa Rica's success

As much as the happy moments were celebrated, the national tragedies and grieving were shared. For instance, Nara shared a post on the tenth anniversary of the Aceh Tsunami, while Isabel mentioned posting about the earthquake Chile had endured and the tragic mining accident in which 33 miners had been trapped underground. Similarly, Elif shared her grief over the tragic mining accident in Soma by using #soma in one of her posts. Finally, Yeong reported that she was involved in the discussions that

occurred during and after a ship with a lot of high school students sank. These events also functioned as opportunities for IGSs to produce signifiers of national identities as they employ emblematic features that can be recognized by their HCAs.

Local and cultural products of home countries were also found to be on display. Appearing in several multimodal formats, it was often observed that IGSs shared resources associated with their home countries. For example, Zahra repeatedly brought such localities into her own network by sharing a series of videos in which certain aspects of Pakistani culture were depicted in a funny way. She posted updates of a popular user (ZaidAliT) who posted self-made videos depicting certain aspects of Pakistani culture in a funny way. Referring to Pakistani and Indian people as 'Brown' and typically Caucasian Western people as 'White', the videos often consist of a short movie version of a daily life instance in which certain situations as experienced dramatically differently by 'Brown' and 'White' people are shown (see Figure 3). During the interview Zahra was asked whom she addressed by sharing these videos and she responded:

> My Pakistani friends, I would say, my 'Brown people' who are just like me doing these things but sometimes they don't know. But they would understand it. Because we, on an unconscious level, do the same thing. We have been victims of these things. So that's why it is just funny to think about them. (Interview with Zahra)

While specifically stating her target audience, she made certain lexical choices such as 'my Brown people' and collective subjects of 'we' thus indexing her membership among HCA. Despite the fact that Zahra mainly addressed her HCA, since the content of the video exhibits an intercultural comparison which requires an understanding of another culture, we can argue that Zahra's post has the potential to display her as someone who is familiar with two different educational traditions and mentalities. In addition to that, regardless of her target audience, her post can be seen by her NHCA as well; thus, the local culture and context is globalized by means of a multimodal discourse practice.

Figure 3
Zahra's video post on 'White' vs. 'Brown' teachers

Local cartoon characters, memes, TV shows and series were among the commonly shared localities. It was sometimes a well-known female cartoon character in Colombia (Aleida) or photos of a cute and sassy Thai comic character (Jay the Rabbit). In another case, Elif re-contextualized the Turkish artistic movement of #şiirsokakta (#poeminthestreet) in Arizona context by tagging one of her posts with #şiirarizonada (#poeminarizona). In these examples, participants globalized their home localities and reaffirmed their position as a legitimate member in their respective countries regardless of their actual purpose. Sometimes the features employed in identity work can be through a small number of recognizable resources such as a hashtag or a single semiotic element like a cartoon character. In Blommaert and Varis' (2011) terms, such semiotic 'dosing' is "enough for a certain identity discourse to be activated" (p. 7).

The analysis of the data also revealed that SNSs functioned as a valuable source to keep track of what was going on in HC and participants

often involved in the discussions through sharing news or making comments on various topics such as environment and politics. Among the environmental topics were a mine spill and a potential nuclear power plant construction project in home countries of participants. A series of updates about elections in Costa Rica, Pakistan, and Turkey along with critical and humorous updates regarding the situation of Chilean politics were shared. Of all participants, Ahmed experienced arguably the most powerful engagement while participating in political discussions around the Egyptian revolution. He expressed the reason behind his online participation:

> I thought that my Facebook was my way, my gate to contribute to what was going on. People were protesting. I couldn't go protest but I could raise awareness of why those people protest…. I took it as a mission. People do something there. I should do something if I cannot do something physically. I can, at least, raise awareness, question things, and discuss, debate. (Interview with Ahmed).

Ahmed continued to participate in the events that followed the revolution when he was in the United States. Interestingly, he noted during the interview that some of his HCA criticized him and questioned his credibility for sharing his opinions despite not being present in Egypt. Similarly, Estella expressed that she stopped sharing political posts because of a number of negative impressions she observed from some of her HCA. She stated that she wanted to know what was going on, but she did not know if she was capable of sharing this type of content now that she was not there. These are important examples showing how participants' physical absence in HC can affect their membership in the communities they belong at HC.

Overall, it was found that IGSs who were physically away from their home countries managed to reconnect with their home country audiences and exhibit their sense of belonging through posts, which assisted them to constantly display themselves as members of their respective communities. By translocalizing and repurposing some of the local resources into new contexts for their HCA, informants communicated with HCA within a frame of meaningful shared background repositioning their affective alignments.

Digital practices addressing home country audiences about host country

The re-contextualization of local U.S. culture and resources into new contexts for HCA was the second most common type of interaction with HCA and they appeared in various forms such as delocalization and re-localization of host country resources and products. Apart from posts

regarding their daily life instances in the United States, IGSs shared about events happening around them, cultural products of the U.S., their traveling experiences, feelings towards living in the U.S., and their observations about life and people in the U.S.

First and foremost, informants of the study shared their daily life experiences and observations regarding living far from home. One of the participants, Gabriel, often shared his experiences of living with his wife and two children in the U.S. In one of those cases, Gabriel shared a video post, in which his daughter was performing in a musical show with her classmates. He framed the post with English language integrated into Spanish text, stating "More of J…. [the name of his daughter] and her healthy me musical" (see Figure 4). While the posts regarding daily life experiences may seem mundane and not interesting, what makes them valuable is the transfer of ordinary U.S. localities to be re-contextualized. Because, Gabriel exhibits his daughter's successful socialization and artistic practice in her second language through a video in which her daughter and her friends performed in English on a stage, where U.S. localities such as flags of the state of Arizona and the U.S. are present. Nissa, who similarly shared photos from her road trip in California, often used Thai texts to provide explanation for her audience and she mentioned during the interview that those photos were mainly for people in Thailand. Stating his wish for his audience to see what his life was like, Carlos specified that he posted about things happening around him in the U.S. so that people back home could know about them.

While landscape or urban photos from participants' trips were often re-contextualized in a virtual social space without any text, entextualized posts included more purposeful choices regarding the type of the post and the audience addressed by providing more insights about the translocalized practices. In one of these cases, Mariela shared photo from her visit to New York City in which she was displayed sitting in front of a typical midtown Manhattan house while smiling happily before the camera (see Figure 5). Re-semiotizing the house, Mariela entextualized her photo with the text "Here lives my friend Sara Jessica Parker" in Spanish. Mariela, who stated during the interviews that her HCA often left comments such as 'oh, just like in the movies' on her photos depicting her life in the U.S., brought the house of the leading actress of the popular TV show, Sex and the City to the attention of her HCA. Since she did not provide any information about Sara Jessica Parker, it is clear that she was aware of the fact that her HCA would be familiar with this locality of the U.S., which had already traveled across different cultures through television channels.

Figure 4:
Gabriel's video post of his daughter's musical at school

Figure 5:
Mariela's photo sharing in New York City

In another case, Nara, the Indonesian Master's student, went on a trip during the winter break and shared a series of updates. In one of the photos, she posed in front of the Statue of the Liberty wearing a t-shirt on which I heart Lumajang was written (see Figure 6). By captioning the photo as 'a country girl' and specifically pointing out to her attachment to her

Indonesian hometown, she showed her strong sense of belonging to her roots from a location which is a remarkable structure often representing not only the metropolitan city of New York, but also the entire USA. As seen from this example, a U.S. locality, (The Statue of Liberty) which can also be considered a 'global locality' in Blommaert's terms, became a way for Nara to construct a social and cultural environment to express herself, while simultaneously and meaningfully aligning herself with the local and the global. Serving as an embodied action, the statue is re-semiotized; meaning that it went through a process of redefinition and repurposing in order to better serve the purpose of a speaker. Nara's t-shirt also functioned as a powerful medium for her to activate her local identity and allowed her to signal a strong semiotic 'dosing'.

Figure 6:
Nara's photo update in front of the Statue of Liberty, NY

"A country girl"
No matter where I go, no matter where I am, I'll always be that ((complicatedly) simple) country girl from Lumajang. I love my hometown, it's the place I was born and grew up 😊

The national holidays of the U.S. and the events occurring in town were among the commonly transported host country localities by IGSs.

While dressing up for Halloween and sharing photos of carving pumpkins, Halloween candies, and outfits of friends and family members were shared at the end of October, photos from Thanksgiving-oriented gatherings naturally peaked around late November, and Christmas decorations and trees appeared as early as the first week of December. For example, Nissa, who assumed that her HCA was familiar with pumpkin carving during Halloween, stated that the city she lived in did not really match the picture of the United States her friends had in their mind. So, sharing photos from her visit to a pumpkin field in the desert was one of the ways of showing the perceived 'American' experience as she stated: "Hey we do have pumpkin as well, but it is in the desert" (Interview with Nissa). It is interesting that Nissa switched to collective 'we' by representing the U.S. localities, thus performing a scale-jumping from personal to impersonal level. It can be speculated that re-contextualization of these resources creates opportunities for IGSs to display themselves as knowledgeable members of different communities.

Defining local and global is not always easy since resources in a particular space are dynamically experiencing shifting. In one of such cases, Estella took a picture of a page from a student-run daily newspaper in the U.S. and shared her excitement with her HCA by framing her post in Spanish as "What a beautiful way to start the day! Jarabe de Palo in Tucson!!!" (see Figure 7). She was very excited that Jarabe de Palo, her favorite Spain-based rock band, would be in her U.S. town. The cultural reference was apparent to her Spanish audiences as they positively reacted and engaged in a conversation with her. In this particular case, both the newspaper and its content as U.S. localities gained new meanings following Estella's re-contextualization. The interesting point is that Jarabe de Palo, a Spain locality, had already been re-localized within U.S. context thus becoming a U.S. locality before being re-localized back to Spanish context with a different purpose.

Overall, it is seen that localities are not stable and different localities do not necessarily become more 'global' because of translocalization patterns that are present across the SNS posts of IGSs. The important aspect of this process is how local U.S. resources are imported into local systems of meaningfulness after being changed, interpreted, and/or repurposed for home country audiences. IGSs exhibit their knowledge and experience of U.S. culture and life through such digital practices, which allow them to display transnational aspects of their identity.

Figure 7:
The photo Estella shared regarding her favorite band's concert in the U.S.

In sum, the examples drawn and presented from the data show that IGSs communicated with both their HCA and NHCA about their home countries by reworking and reconstructing on their identities in an online space.

CONCLUSIONS

The present study examined the social media practices of international graduate students, specifically the transcultural content they shared with a multitude of audiences in their networks. The findings show that IGSs actively contribute to the transfer of cultural flow across their HCA and NHCA about their home countries while engaging in identity work. Analysis of the findings illustrates the multidirectional nature of transcultural flow of content across IGSs' digital practices. Pennycook (2007) suggests that we need to focus on translocal and transcultural flows, while a number of researchers also approach such flows as opportunities for the construction of self and the mediation of identification categories (Higgins, 2011; Leppänen, 2012; Stæhr, 2014). The current study joins this strand of research and argues that digital practices involving the transcultural flow of content present opportunities for IGSs to work and realign various facets of their identities.

The study reveals that IGSs index their membership through producing recognizable resources (L1 and the familiar content) through

participation in home country-related events and performing local aspects of their identities and showing their expertise. The present study argues that such affiliation signals (i.e., emblematic features of local home culture) are particularly crucial for individuals experiencing transnational mobility, because they serve a function for negotiation of their legitimate membership status within their home country communities.

IGSs exhibit their affiliations with NHCA by entextualizing their HC-related posts in L2 and sharing expertise with novices (NHCA). They also project their local identities by sharing content or emblematic features that are recognizable enough by HCA. By sharing insider jokes, memes, local (U.S.) news and events, thus developing a critical perspective on certain issues, IGSs exhibit themselves as legitimate members within their host communities. They seem to establish their legitimacy by entextualizing the posts in L2 and sharing content recognizable to NHCA. IGSs are also likely to signal their legitimate membership status within NHCA to their HCA through these posts. In all of these digital practices of sharing transcultural content, we see how IGSs signal their belonging to different discourse communities through resources which are meaningful and recognizable by target groups thanks to 'shared interpretive systems' (Bruna, 2007).

An important finding of the study is the exhibition of globalization processes in a digital superdiverse space, where 'it is not only people that are on the move; rather, many different cultural features and phenomena, e.g. artifacts, trends and activities, are constantly on the move across different sceneries' (Jonsson & Muhonen, 2014: 89). This transcultural flow is often multidirectional (from center to periphery, and the other way around), often unpredictable, mobile, dynamic and shifting process. We see examples of both localization of globally available content (see Figure 6), and globalization/re-localization of localities (see Figure 7). As seen in Estella's case (see Figure 7), local and global often intertwine, regain meanings, and re-localize an already localized resource. Blommaert (2010) argues that when a locality is transported into another locality, 'the localities do not necessarily become more 'global' or 'deterritorialized' because of such patterns of trans-localization" (p. 79). The present study supports this claim through the examples such as Nara's Statue of the Liberty. What we observe is that meaning making processes help localities gain new meanings and IGSs make use of this potential by performing multiple identifications with the use of such localities in their digital practices.

Overall, the findings confirm that a myriad of forms are changed, overlapped, re-purposed, re-contextualized, re-semiotized, and circulated

across globalized networks, a process which is intensified by digital technologies. Such fluid movements are not easy to investigate as digital spaces are dynamic, unbounded, and superdiverse in nature. Gallucci (2014) argues that such changes, especially the evolution of identities, occur more rapidly in new social and cultural contexts including specific experiences of border crossing. However, it is not easy, as 'legitimacy' of one's affiliation with particular communities is challenged by the intersection of the local and the global, and the center and periphery (Warriner, 2007). Blommaert and Varis (2011) warn that "One is never a 'full' member of any cultural system, because the configurations of features are perpetually changing, and one's fluency of yesterday need not guarantee fluency tomorrow" (p. 12). This may be even more difficult for individuals with transborder experiences, for whom participatory web spaces, and specifically SNSs, become valuable mediums to maintain ties with affiliated communities without geographical limitation. The affordances of these spaces present opportunities for individuals to display their 'fluency' and exhibit their 'up-to-date' fluencies frequently and preserve their legitimacy as members of various communities and cultures with which they are affiliated.

Approaching identity as "the emergent product rather than pre-existing source of linguistic and other semiotic practices" (Bucholtz & Hall, 2005: 588), and aligning with post-structural perspective of identity as dynamic and shifting (see Duff, 2015), the findings of this study show that IGSs display multiple affiliations in order to maintain and renew their positionality as legitimate members in particular groups, thus presenting and managing cosmopolitan personae. (Re-)Entextualizing and re-semiotizing transcultural content by deploying semiotic resources and their multilingual repertoires, they perform and project a transnational identity while successfully participating in digital interactive superdiverse settings. Therefore, it is concluded that IGSs develop and maintain identities, which help them move back and forth between different linguistic and cultural forms, and that they successfully extend this facility into participatory web contexts where they manage their dynamic and complex identities while contributing to the superdiversity through transcultural flow of content in SNSs.

Since the present study is meant as a descriptive exploration of the diversity in IGSs' digital practices, the study does not include IGSs who do not use any type of SNS. Furthermore, the diverse background of the participants and the difference in their use and frequency of social media presented a limitation for the author as a researcher. However, the close contact with participants and the recursive nature of the data collection and

analysis facilitated the researcher's familiarization with the data. Besides, the researcher's positionality as an international graduate student proved to be helpful. These limitations aside, the interdisciplinary nature of this research allows the findings of the study to contribute to scholarly discussions in areas such as the research on international students, sociolinguistics of globalization, and digital superdiversity. While the study theoretically aims to make a value-added contribution to current thinking of online superdiversity, it becomes a part of up-to-date discussions centered around globalization in online spaces and may stimulate new conversations about the functions of social media practices, semiotic resources, and transcultural content in relation to identification performances. The methodological contribution of the present study is the embodiment of IGSs' voices through semi-structured interviews. Such a methodological approach may offer a richer account of globalized practices through a combination of both etic and emic perspectives.

REFERENCES

Androutsopoulos, J. & Juffermans, K. (2014). Digital practices in superdiversity: Introduction. *Discourse, Context and Media*, *4-5,* 1-6. http://doi.org/10.1016/j.dcm.2014.08.002

Belling, L., & de Bres, J. (2014). Digital diversity in Luxembourg: The role of Luxembourgish in a multilingual Facebook group. *Discourse, Context and Media, 4-5,* 74-86. http://doi.org/10.1016/j.dcm.2014.03.002

Blommaert, J. (2003). Commentary: A sociolinguistics of globalization. *Journal of Sociolinguistics,* *7*(4), 607-623. http://doi.org/10.1111/j.1467-9841.2003.00244.x

Blommaert, J. (2010). *The Sociolinguistics of Globalization*. Cambridge, UK: Cambridge University Press.

Blommaert, J., & Rampton, B., (2011). Language and superdiversity. *Diversities*, *13*(2), 1–22.

Blommaert, J., & Varis, P. (2011). Enough is enough: The heuristics of authenticity in superdiversity. *Tilburg Papers in Culture Studies,* paper 2. Retrieved from: https://www.tilburguniversity.edu/upload/684c1837-b1c4-413c-9b73-b5b2b1113c1a_tpcs%20paper2.pdf

Blommaert, J., & Varis, P. (2014). Conviviality and collectives on social media: Virality, memes and new social structures. *Tilburg Papers in Culture Studies,* paper 108. Retrieved from: https://www.tilburguniversity.edu/upload/83490ca9-659d-49a0-97db-ff1f8978062b_TPCS_108_Varis-Blommaert.pdf

Bruna, K. B. (2007). Traveling tags: The informal literacies of Mexican newcomers in and out of the classroom. *Linguistics and Education, 18,* 232-257. http://doi.org/10.1016/j.linged.2007.07.008

Bucholtz, M., & Hall, K. (2005). Identity and Interaction: a Sociocultural Linguistic approach, *Discourse Studies,* *7*(4–5), 585–614. http://doi.org/10.1177/1461445605054407

Busch, B. (2012). The Linguistic Repertoire Revisited. *Applied Linguistics, 33*(5), 503-523. http://doi.org/10.1093/applin/ams056

Coupland, N. (2003). Introduction: Sociolinguistics and globalization. *Journal of Sociolinguistics,* *7*(4), 465-472. http://doi.org/10.1111/j.1467-9841.2003.00237.x

Coupland, N. (2010). *The Handbook of Language and Globalization.* Malden, MA: Wiley-Blackwell.

Creese, A., & Blackledge, A. (2010). Translanguaging in the Bilingual classroom: A Pedagogy for Learning and Teaching? *The Modern Language Journal, 94*(1), 103-115. http://dx.doi.org/%2010.1111/j.1540-4781.2009.00986.x

Deumert, A. (2014). Digital Diversity: A Commentary. *Discourse, Context and Media, 4-5,* 116-120. http://doi.org/10.1016/j.dcm.2014.08.003

de Fina, A., & Perrino, S. (2013). Transnational identities. *Applied Linguistics, 34*(5), 509-515. http://doi.org/10.1093/applin/amt024

Duff, P. (2015). Transnationalism, Multilingualism, and Identity. *Annual Review of Applied Linguistics,* *35,* 57-80. https://doi.org/10.1017/S026719051400018X

Fabrício, B. F. (2014). The empire blogs back: Gendered and sexualized cultural sothers" in superdiversified digital trajectories. *Discourse, Context and Media, 4-5,* 7-18.

Gallucci, S. (2013). Negotiating second-language identities in and through border crossing. *Compare: A Journal of Comparative and International Education, 44*(6), 916-937. http://doi.org/10.1080/03057925.2013.835207

Glesne, C. (2010). *Becoming Qualitative Researchers* (4th ed.). Boston, MA: Pearson.

Herring, S. C. (2004). Computer-mediated discourse analysis: An approach to researching online communities. In S. A. Barab, R. Kling, & J. H. Gray (Eds.), *Designing for virtual communities in the service of learning* (pp. 338–376). Cambridge: Cambridge University Press.

Heyd, T. (2014). Doing race and ethnicity in a digital community: Lexical labels and belongings in a Nigerian web forum. *Discourse, Context and Media, 4-5,* 38-47. http://doi.org/10.1016/j.dcm.2013.11.002

Higgins, C. (2011). Hybridizing spaces and the production of new identities. In C. Higgins (Ed.), *Identity Formation in Globalizing Contexts: Language Learning in the New Millenium* (pp. 279-284). Berlin/Boston: Walter de Gruyter.

Jonsson, C., & Muhonen, A. (2014). Multilingual repertoires and the relocalization of manga in digital media. *Discourse, Context and Media, 4-5,* 87-100. http://doi.org/10.1016/j.dcm.2014.05.002

Juffermans, K., Blommaert, J., Kroon, S., & Li, J. (2014). Dutch-Chinese repertoires and language ausbau in superdiversity: A view from digital

media. *Discourse, Context and Media, 4-5,* 48-61. http://doi.org/10.1016/j.dcm.2014.08.001

Leppänen, S. (2012). Linguistic and discursive heteroglossia on the translocal internet: the case of web writing. In M. Sebba, S. Mahootian & C. Jonsson (Eds.), *Lannguage Mixing and Code-Switching in Writing: Approached to Mixed-Language Written Discourse* (pp. 233-254). New York: Routledge.

Leppänen, S., Pitkänen-Huhta, A., Piirainen-Marsh, A., Nikula, T., & Peuronen, S. (2009). Young people's translocal new media uses: A multiperspective analysis of language choice and heteroglossia. *Journal of Computer-Mediated Communication*, *14*(4), 1080–1107.

Leppänen, S., Kytölä, S., Jousmäki, H., Peuronen, S., & Westinen, E. (2013). Entextualization and resemiotization as resources for (dis)identification in social media. *Tilburg Papers in Culture Studies,* paper 57*.* Retrieved from: https://www.tilburguniversity.edu/upload/a3d5524e-4413-4772-9f96-9fe0ee714c6f_TPCS_57_Leppanen-etal.pdf

Mc Laughlin, F. (2014). Senegalese digital repertoires in superdiversity: A case study from Seneweb. *Discourse, Context and Media, 4-5,* 29-37. http://doi.org/10.1016/j.dcm.2014.03.004

Pennycook, A. (2007). *Global Englishes and Transcultural Flows*. London: Routledge.

Pennycook (2010). *Language as a Local Practice.* London: Routledge.

Sharma, B. K. (2014). On high horses: Transnational Nepalis and language ideologies on YouTube. *Discourse, Context and Media, 4-5,* 19-28. http://doi.org/10.1016/j.dcm.2014.04.001

Solmaz, O. (2015). *Multilingual students' management of transnational identities in online participatory spaces* (Unpublished doctoral dissertation). University of Arizona, Arizona.

Solmaz, O. (2017). Adapting new media literacies to participatory spaces: Social media literacy practices of multilingual students. *Journal of Media Literacy Education, 9*(1), 36-63.

Solmaz, O. (2018). Multilingual and multimodal repertoires as part of identity management on Facebook: A case of international students. *Journal of International Students, 8*(4), 1662-1680.

Soon, C., & Kluver, R. (2014). Uniting Political Bloggers in Diversity: Collective Identity and Web Activism. *Journal of Computer-Mediated Communication, 19,* 500-515. http://doi.org/10.1111/jcc4.12079

Stæhr, A. (2014). The appropriation of transcultural flows among Copenhagen youth – The case of Illuminati. *Discourse, Context and Media, 4-5,* 101-115. http://doi.org/10.1016/j.dcm.2014.03.001

Thurlow, C., & Jaworski, A. (2010). *Tourism Discourse: Language and Global Mobility*. Basingstoke, Hampshire: Palgrave Macmillan.

Vertovec, S. (2007). Super-diversity and its implications. *Ethnic and Racial Studies, 30*(6), 1024–1054.

Warriner, D. S. (2007). Transnational literacies: Immigration, language learning, and identity. *Linguistics and Education, 18,* 201-214.

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International Students' Experiences with Changing Policy: A Qualitative Study from Middle Tennessee

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ABSTRACT

This qualitative study utilizes seventeen F-1 international students' experiences in the U.S. Specifically, we examine the aspects of immigration regulations and policies regarding F-1 international students and the students' reactions to those policies—from becoming a legal alien, to maintaining lawful status, to job planning after graduation. This research suggests the current United States administration has created a moral panic over immigration, or the threat of immigration. As a result, this political rhetoric creates negative emotions for F-1 international students and impacts their decision-making after graduation.

INTRODUCTION

International students tend to be drawn to host countries that demonstrate a "welcoming nature." However, in recent years the immigration policy trends of host countries like Australia, Canada, New Zealand, and the United States have shifted significantly to slow down international student enrollment in the face of the economic challenges of an aging population, a decline in fertility, and the internal migration of the local population (Akbari & MacDonald, 2014). This agenda has led many host countries like Australia and New Zealand to toughen policies on obtaining permanent residence status. All of these policies contributed to a decline in international students from India and China in some host countries in 2004–07 (Akbari & MacDonald, 2014). Likewise, as the U.S. and U.K. move forward with protectionist political agendas, they may increase the constraints posed on current and prospective international students (Sá & Sabzalieva, 2018).

The current U.S. administration has implemented changes in their policy that create the impression of the U.S. as an unwelcoming place to study abroad (Rose-Redwood & Rose-Redwood, 2017), such as cuts to scholarship programs in some countries (i.e. Saudi Arabia and Brazil), increasing difficulties in obtaining a U.S. visa (Elturki et al., 2019), limiting work opportunities (Choudaha, 2018), and decreasing Optional Practical Training (OPT) opportunities (Institute of International Education, 2019). Moreover, the current political climate and changes in U.S. policies after the 2016 election have deterred international students from choosing to study in the U.S. As a result, the United States experienced the slowest growth rate of international student enrollment in school year (SY) 2016 - 17 since 2009 - 10 (Zong & Batalova, 2018).

In 2017, President Trump instituted a "Muslim Ban," which continues the trend of fear of "foreign others" in the current American context (Johnson, 2018). Research shows that the travel ban has affected international doctoral students from the banned countries who are residing in the U.S. in material, practical and emotional ways, and the "Muslim Ban" has also alarmed students from other countries. Many international students from countries that were not on the banned list changed their travel plans such as going to conferences or postponing their visits home. After the ban, international students feared that the immigration rules might suddenly change and affect their visa status (Tadoran & Peterson, 2019). Visa policy changes are significant for immigrants because it reflects changes in the processes governments use to select immigrants (Demirci, 2019) and filter skilled migrants (Grimm, 2019).

We examine how national discourse and the resultant moral panics affects F-1 students at the micro level in terms of every-day interactions and emotions that F-1 students experience, particularly during this significant moment and proposed political change. In this paper, we argue that the changes in U.S. regulations relating to immigration and student and/or work visas constrict international students' lives such as obtaining a student visa, maintaining legal status, and planning for their trajectories after graduation. These unpredictable and swift changes in policies—that are already strict and rigidly controlled—shape what current international students can or cannot do during their statuses, such as attending all their classes, getting a driver's license, and employment regulations, both during study and postgraduation. Thus, these changes in policy or regulation may cause international students to rethink their lives due to their precarious legal status, which often results in anxiety, fear, and turmoil over an uncertain life and future.

Statement of the Problem

This paper examines U.S. rhetoric about immigration using the concept of moral panics. We are interested in how rhetoric and moral panics influence F-1 international students' attitudes toward maintaining legal status, their everyday experiences, and their emotions toward proposed changing policy about immigration, in general, and F-1 international students, in particular. An F-1 student visa is a temporary/nonimmigrant visa available to people who enroll in a U.S. academic institution, including a language training program (U.S. Department of State, 2018). Our research demonstrates how power imbalances are experienced by F-1 students, and we pay particular attention to students' English proficiency and countries of origin. We also discuss how these students perceive they are categorized by their race/ethnicity, and what assumptions others make about their legal status. Ultimately, this research asserts that existing literature on international students does not provide an understanding of how international students are racialized during times of heightened political rhetoric, particularly rhetoric about "foreign" racial others.

We studied only international students who hold an "F-1" visas since J-1 and M-1 visas do not have the same pathway after graduation as F-1 visas (U.S. Department of State, 2018). We pay specific attention to the last stage of being an F-1 visa student, which is the transition to the job market after graduation (for those who desire to work or have an internship in the United States). For F-1 visa holders, applying for - and receiving - the Optional Practical Training (OPT) or H1-B visa allows them to be in the U.S. with documented status (U.S. Citizenship and Immigration Services, 2018d). This

status provides them the opportunity to legally participate in the U.S. labor market (Demirci, 2019) and transition to permanent resident status (Grimm, 2019).

The post-graduation stage is the focus of this research due to current political discussions on immigration. The current political climate seems to harmfully portray immigration as a whole, and Androff and Tavassoli (2012) suggest that the criminalization of undocumented people contributes to discrimination that affects all immigrant communities in the United States. In order to understand why U.S. society fears immigrants, not only undocumented but documented as well, it is important to consider common rhetoric about them. This rhetoric is often fueled by media that contributes to a "culture of fear" and demands action against these groups through policy (Altheide, 2009). The resulting policy engenders fear, anxiety, and concern for many immigrants and consequently, immigrants with legal status frequently feel unwelcomed.

For F-1 students, in particular, the following headlines from both governmental and public sources undoubtedly produce undesirable feelings for international students leading them to feel unwelcomed: "USCIS Strengthens Protections to Combat H-1B Abuses" (U.S. Citizenship and Immigration Services, 2018c), "Buy American, Hire American: Putting American workers first" (U.S. Citizenship and Immigration Services, 2018a), and "H-1B Visa: an uncertain path after college" (Lerner, 2018). In additions, these types of media headlines lead to stress over whether students will have an opportunity to stay in the United States through the OPT and H-1B visa status. The changing regulations, both proposed and enacted, and consequently students' feelings of precariousness lead us to our research questions:

1. How are international students' life experiences (receiving and maintaining status) and life adjustments impacted by policy/regulations and political changes?

2a. How do international students perceive the current political rhetoric?

2b. If their perceptions are negative, what contributes to these perceptions?

In the next section, we introduce the theoretical framework—moral panics. We explore the political rhetoric that frames immigrant groups as a whole, and how this powerful narrative affects the F-1 international student.

THEORETICAL FRAMEWORK

We begin this section with a discussion of fear and the concept of moral panics to understand the United States' trepidation about immigrants and/or racial others, including the subgroup of F-1 international students, who come from various ethnicities and countries of origin. Then we discuss how this rhetoric affects students' emotions.

Fear is an emotion that is a crucial aspect of social reality. In this context, the United States' fear of immigrants is disseminated by various media. For example, the media implies that immigrants disturb every aspect of social life such as safety, jobs, health care, values, and language. Fear is meaningful within socio-historical contexts and contributes to secondary emotions like anxiety, hope, shame, and regret (Eller & Doherty, forthcoming). Altheide (2009) suggests that the "fear of" something creates consequences and concerns for social relations, and it is used for managing social control. For example, fear of crime and victimization in both local and global contexts penetrate broader social anxieties that lead to a moral panic (Cohen, [1972] 2002; Garland, 2008; Goode & Ben Yehuda, 1994).

Altheide (2009) suggests that various media use fear to construct the narrative of what we should be fearful of, which sometimes generates political engagement and action, which can then be used by governing bodies to enact policies. When we look at immigration, some immigrants are painted as "folk devils" who are powerless to change the perception of themselves in the face of public outrage. Immigrants have difficulty challenging these dominant narratives in American society. They supposedly adversely threaten the morals and norms in American culture (such as language and religion) as well as taking what actually "belongs" to Americans, such as jobs and social services (i.e., health care and education). Moral panics occurred after 9/11 and resulted in the Homeland Security Act. To give another example, after Micah Johnson shot and killed police officers in Dallas in 2016 which was part of the reasoning for the "Blue Lives Matter" act.

Goode and Ben-Yehuda (1994) illustrate that there are varying levels of motivations and theories that can illuminate the creation of a moral panic. The idea that moral panics are created by elites when aligned with elite's material interests is similar to the approach that we take in this paper. This is a classic Marxist approach, that elites are moral entrepreneurs defined as "movement activists who push for a given cause" (p. 154). However, as Goode and Ben Yehuda conceptualize, we too argue that middlemen, such as police officers and media journalists, internalize these moral panics. Thus, while politicians and leaders certainly influence (and sometimes create) moral panics, what is sociologically interesting is how the public disseminates or

reinvents moral panics, and, how in turn, these moral panics affect a population that is not necessarily the original target, but by proxy (as the racialized "other").

Moral entrepreneurs, such as the media (including well-known journalists, talk-show hosts, etc.) are commonly crucial to the effectiveness of moral panics, and they "leave behind a diffuse feeling of anxiety about the situation" and "play on the normative concerns of the public and by thrusting certain moral directives into the universe of discourse, it [they] can create social problems suddenly and dramatically" (Cohen, [1972] 2002, p.10).

Indeed, online articles, newspapers, and television cable news, regularly frame immigrant groups as a threat to the United States by introducing and manipulating emotions such as fear, anxiety, and panic relating to particular groups (Altheide, 2009). Media trends of fear and immigrants are many: fear of terrorists (War on Terror), fear of criminals (War on Crime), and fear of a potential decline in the economic system (for instance the "Buy American Hire American" executive order). Research shows that the internet plays an important role in the creation and perpetuation of a cyber-moral panic against Latinx in the United States by using recycled information that is spread via anti-immigrant websites, blogs, forums, and other social media, which accelerates the moral panic process due to the ability to quickly spread information to those who have access to online technologies (Flores-Yeffal et al., 2011). Some U.S. media outlets target Latinx immigrants by arousing fear and anger, particularly in suggesting that they take jobs from working-class white Americans. Research shows that in turn, Latinx people experience racial profiling and harassment by law enforcement (Eversman & Bird, 2017).

The fear of immigrants, as we mentioned earlier, seems to tag nearly all immigrant groups as unworthy of membership (Longazel, 2012), even international students, though they hold legal status. These fears and concerns could influence citizens' support for tougher immigration reforms. Fear and anxiety about immigrant groups are sometimes materialized in policy and law to control the immigrant groups—through rules and regulations—as well as citizens' perceptions of immigrants. The resulting moral panics then negatively influence international students' emotions. For instance, Pottie-Sherman (2018) points out that the President's recent restrictive migration regime—symbolized by border walls, Travel Bans, and "Hire American" policies—creates new concerns for international students, the practitioners who advise them, and the institutions that rely on their tuition dollars. These concerns include, for example, unpredictability at border crossings, feeling

unwelcome in the U.S., concerns for physical safety on campus, and their ability to secure post-graduation work.

In sum, the U.S. government, and particular politicians, act as moral entrepreneurs who push narratives and laws that control immigrants, for example, the U.S. Immigration and Customs Enforcement (ICE). ICE was instituted in the U.S. in 2003 shortly after 9/11 (U.S. Immigration and Customs Enforcement, 2020a). It effectively and literally controls, and is responsible for, the deportation of immigrants (the folk devils) in vast numbers (e.g. 267,000 removals in 2019, see U.S. Immigration and Customs Enforcement, 2020b). These regulations and practices also do ideological work, drawing and redrawing society's moral boundaries (Garland, 2008).

Finally, since international students come from many countries, the United States (and elsewhere) defines them by races/ethnicities and countries of origin, visa entries, as well as their religious beliefs. Lee (2018) suggests that immigration policy and resulting issuance of entry visas and selection of certain people and not others acts to stratify people. Immigrants from different countries of origin have various postmigration experiences. For example, Latinx people often seem to have more adverse experiences because they are negatively targeted by the U.S. administration. Such examples show that moral panics can be the result of institutional discrimination, they are racialized moral panics.

LITERATURE REVIEW

Nativist anxieties about immigration and immigrants have been studied widely, especially highlighting undocumented immigration. Some U.S. politicians and media outlets criminalize undocumented immigrants. A recent example is President Trump portraying Latinx immigrants as 'criminals' and 'rapists' during the 2016 presidential campaign (BBC News, 2016). This language is dangerous and influences micro-interactions, such as the embodiment of undesirable emotions (Flores-Yeffal et al., 2019). For instance, research shows that this political rhetoric led Latinx early adolescents to feel more unwelcomed and caused their daily stress to increase (Zeiders et al., 2020).

Interestingly, the impact of a moral panic on documented immigrants is understudied even though many international students also face racial prejudice and racially motivated violence (Pottie-Sherman, 2018). Similarly, Quinton (2019) finds that international students experience multiple components of prejudice: feeling as if they don't belong, negative intergroup interactions, being perceived as a threat, being the target of racialized

stereotypes, and subject to the whims of political ideology). We argue that these experiences undoubtedly result in feelings of precarity.

Research on international students in the U.S. has generally focused on topics such as: adjustment to language, cultural differences, and food (Alakaam et al., 2015; Mesidor & Sly, 2016; Wang et al., 2017). Other research examines debates about the advantages (or as we discuss, ostensible disadvantages) of hiring international students (Amuedo-Dorantes & Furtado, 2019; Barta et al., 2018; Demirci, 2019; Lobnibe, 2009; Zong & Batalova, 2018). Some previous research investigates life after graduation due to different policies. However, these studies lack consideration of how those adjustments might be impacted by a host country that has a sordid history of racializing immigrants, the stress of maintaining a documented status, and students' reactions due to sudden proposed change and/or changing immigration policies.

Regarding student adjustment, many researchers show that international students struggle in their new environment socially, culturally and psychologically (Mesidor & Sly, 2016). In this first stage, international students often have difficulty adjusting in language ability (anxiety about speaking with American students, see Wang et al., 2017), food familiarity and dietary practice (Alakaam et al., 2015),

How do international students impact the United States? Many researchers suggest that international students provide positive aspects to the U.S. such as cultural diversity (Barta et al., 2018; Lobnibe, 2009) and economic. For example, they pay higher tuition fees than (in-state) students and international students contributed roughly $39 billion to the U.S. economy in 2018 (Zong & Batalova, 2018). However, the United States' change of the H1-B cap made it significantly harder for immigrants to secure legal employment in the country (Amuedo-Dorantes & Furtado, 2019). For instance, Demirici (2019) shows these uncertainties about obtaining work visas hinder international STEM students' participation in the U.S. labor market and increases the likelihood of return migration.

Post-graduation is an important period for F-1 students to transition to the host country job market. These F-1 students not only need to know how they can seek jobs effectively, (developing their self-confidence, learning what a company requires, and establishing professional connections see Callanan & Benzing, 2004; Knouse et al., 1999; Perrone & Vickers, 2003), but they also need to effectively navigate immigration regulations and paperwork at the time of graduation because they must understand the complex and restrictive nature of U.S. immigration policies to make decisions about their future (Khanal & Gaulee, 2019). For example, the 9/11 attacks

resulted in significant delays or denials of Muslim male students' visa applications (Urias & Yeakey, 2005). Germane to our study, Amuedo-Dorantes, Furtado, and Xu (2019) studied the impacts of a 2008 policy extending the OPT period for STEM graduates. They found that the OPT extension influenced international students' life decisions such as changing their major to a STEM field, non-STEM students deciding to double major in a STEM field, and to consider staying permanently.

Regardless of the tendency to focus on cultural and social adjustment, some recent research indicates that President Trump may bear some responsibility for the overall drop in America's attractiveness to potential international students, though there is evidence that this decline started prior to his election. In 2016, only 34 percent of institutions who participated in the Institute of International Education's "Hot Topics" survey reported that visa delays and denials were a reason for declining international student enrollment. In 2018, this jumped to 83 percent of institutions who participated in the same survey (Usher, 2019).

Not only do the written visa rules or regulations about immigration and immigrants affect international students' concerns about their lives, but President Trump's words and actions have also affected students' worries, especially when he commented that he would restrict talented legal immigrants, such as H1-B, J-1, and F-1 visa holders. Though previous research on how racist rhetoric impacts highly documented migrants (such as international students) is scarce, our findings—discussed below—align with this small number of previous research (Johnson, 2018; Tadoran & Peterson, 2019). The sudden change of rules also creates traveling uncertainties. Tadoran & Peterson (2019) argue that international students are afraid that their countries of origin might be suddenly added to the "banned" list.

In sum, policy practices seem to affect students in every stage while they are holding an F-1. Indeed, our findings shows that immigration policies directly affect international students' emotions, their ability to do certain things, and making decisions about their life trajectories.

RESEARCH METHOD

In order to address the research questions, the first author interviewed seventeen international students from various fields of study and included both undergraduate and graduate students (see Table 1) Our sample includes diversity of various student experiences (such as country of origin and field of study). This variation influences their plans, desires, future job opportunities, and life course trajectories. due to students' political situation in their home countries and how that is perceived by the U.S. government.

The first author utilized face-to-face, qualitative, in-depth interviews. She first reached out to three participants through her connections. Then, she used snowball sampling from these participants which resulted in seven more students. She also attended the OPT workshop and asked the international student coordinator to send emails about her research to listservs of international students. The rest of the participants voluntarily replied via email. The interview data collection started in January and ended in April 2019.

The first author used a digital recorder during the interviews. The interviews were conducted in English, and all were conducted at the university library. After each interview, the first author wrote detailed fieldnotes that described how she felt during the interview, the context where the interview occurred, any body language that she observed, and other information that she deemed useful, for example, she paid close attention to students' negative feelings that arose during the interview. Every participant was given a pseudonym.

The first author transcribed data and then engaged in initial coding, endeavoring to take notice of any new themes or ideas that were emergent in the data. Then, she ascertained recurring themes and codes that were the most salient and engaged in a second round—focused coding. During the whole process, the first author also wrote analytic memos that helped her start to write the results of the analysis. The essence of students' experiences and the coping strategies that students use to regulate their plans after graduation was analyzed through statements, meanings, and themes (Creswell, 2013).

If students planned to find a job with OPT or H-1B, they provided an opportunity for the first author to be an insider as she shares a similar life path as a documented minority in the host country (Kusow, 2003). She examined participant's norms, practices, and thoughts because they were affected by the same policies/proposed policies as she is. Moreover, the first author's race, Asian, likely made her an insider with Asian international students, especially Thai students.

The first author and many of the participants had similar life experiences, that is, we are in the same boat. For instance, their education levels are similar and many times their social statuses are similar. Additionally, many participants experienced the same post-graduation fears as the first author due to the heightened rhetoric about immigration and international students These similar life circumstances likely built trust and created a context for participants to share their insights in a way that they might not have if the first author was an outsider. We argue that this builds trust and seemed to provide opportunities for candid discussions.

Table 1:
Demographic Information

Name	Nationality	Race/Ethnicity	Country of Origin	Pursuing Degrees	F-1 Visa Issued
Nakanya (F)	Thai	Asian	Thailand	B.S. Aerospace	2016
Patara (M)	Thai	Asian	Thailand	M.S. Engineering Management	2017
Xiao Qi (F)	Chinese	Asian	China	M.S. Computer Information Systems	2015
Rakhi (F)	British	Asian	India	B.S. Computer Science	2015
Sierra (F)	Kenyan	Black	Kenya	M.A. Sociology	2018
Dave (M)	Gabon	African/Black	Cameroon	B.S. Mechatronic Engineering	2016
Drew (M)	Bahamian	Black	The Bahamas	B.S. Aerospace	2016
Arya (M)	French	Middle Eastern	France	M.S. Aerospace	2016
Hoyan (F)	Malaysian	Asian/Chinese	Malaysia	B.S. Audio production	2016
Sahba (F)	Iranian	Persian	Iran	B.S. Industrial Organization	2018
Rocky (M)	Nepalese	Asian	Nepal	M.S. Chemistry	2017
Carolin (F)	German	White	Germany	B.A. Political Science	2017
Maria (F)	Columbian	Hispanic	Columbia	M.A. International Affairs	2016, 2018
Traveler (M)	Saudi Arabian	Middle Eastern	Saudi Arabia	M.S. Aerospace	2016
Titi (F)	Nigerian	African/Black	Nigeria	M.A. Finance	2018
Luis (M)	Venezuelan	Hispanic	Venezuela	M.S. Information Systems and Analytics	1998, 2002, 2018
Sara (F)	Venezuelan	Hispanic	Venezuela	B.S. Basic and Applied Sciences	2014, 2017

However, at the same time, she was also an outsider in other ways based on her race, gender, accent, and cultural differences. The degree of "outsiderness" or "insiderness" emerges through a process that links the researcher and the participants in a collaborative process of meaning-making in the particular moment in which the research takes place (Kusow, 2003). On the one hand, interviewing people with different characteristics such as language, culture, gender, and background could cause some difficulty during the interview (in terms of how to act in ways that are culturally appropriate and limit the ability to notice a significant body language while they were sharing their information). The first author had to consider these cultural differences, and she had to be reflexive about how she acted and spoke to participants because it could lead her to unintentionally misinterpreting or misunderstanding the results.

To end, this topic is worthy of study and appears to be especially important in the current context. It also sheds light on larger issues relating to the relationship between immigration policy and F-1 students as well as issues of immigration in the U.S. more broadly.

FINDINGS

We present the demographic information table (Table 1) in order for readers to identify the background of each participant. We provide four sections starting with students' life experiences of preparation to become an international student to plans after graduation. These sections allow us to explore ongoing experiences and emotions about their lives as F-1 students, as well as their reactions to political rhetoric. In other words, the following sections show how (changing) policy influences and impacts students' lives.

Becoming International Students

Before entering into the United States, a student usually has to be interviewed in English (though some do the interview in their own language), and they have to provide the visa application fee and required documents, such as the Online Nonimmigrant Visa Application (DS-160), an I-20 (Certificate of Eligibility for Nonimmigrant Students Status), and a bank statement for their F-1 visa.. The potential students also have to be prepared to answer questions about the school program, financial resources, and intentions to return to their home countries after finishing their degrees. The visa screening process is an important bureaucratic tool for filtering people and finding out if they have sufficient resources to study in the U.S. Most research participants seemed to express that the visa interview process was

"not too difficult." However, some students were not confident in their English abilities, and this caused them to experience stress that their visa might be rejected. As Xiao Qi, a female Chinese student, admits:

> [T]he most difficult part is like at that time … my English is not good. So, it's hard for me to figure out the [DS-160] form . . . they're all in English. So, that's kind of hard, and I was afraid I would be refused by the embassy...

While English ability is not related to Trump-era policies, it is important to consider because the participants who experienced difficulty in obtaining a visa regarded these overall experiences as related to current rhetoric about immigrants, as we show below.

However, the failure of getting a visa was a frequently discussed topic. Sometimes participants guessed that it was because of the recent immigration policy: the Muslim ban. Carolin, a female German student, mentioned that "I think for me, [getting a visa] is easier because I'm German, but I feel like if you [are] another nationality, it could be more difficult. Just like my friend is from Baghdad, like Iraq."

Additionally, political relationships and the perceptions the United States has toward Muslim countries seem to interrupt students' lives, not only for themselves but for their families. Sabha, a female Iranian student, thinks that the current administration has made it more difficult to travel and receive U.S. embassy service. She knows that U.S. policy targets her country and explains that the visa process for getting an F-2 visa and changing from the F-2 to an F-1 was long and complicated because she is from "one of those countries."

Sabha also mentions, "there is not any U.S. embassy in Iran. So, we had to go to Dubai. And yeah, we got our [F-1 and F-2] visas, the first visa in Dubai." Moreover, it seemed to Sabha that it was almost impossible for her parents to obtain a visitor visa (B-2) to visit her in the U.S. because it is likely harder for people to prove their travel intentions (especially countries that are a part of the Muslim ban).

A damaging perception of Muslims not only allows some Americans to discriminate against them, but some non-Muslim students also seem to believe the stereotypes and limit their interaction with Muslim students. Rakhi, a female student from the United Kingdom whose family is Indian, agrees with the strict regulation on Muslim people because "they create so much trouble. Middle East people will come here, how 9/11 happened, [was] from [those] students. So, they have valid reasons to be worried." Referring to rules and regulations that are based on protecting the U.S. from terrorism or preventing sham marriages (U.S. Citizenship and Immigration Services,

2018b). Rakhi also adds "because people have done that. The rule is based on it. So, it's because people try to cheat the system, which is why good people like us have to suffer. So, it's understandable..."

Other students, who were not from Muslim countries, also mentioned that their experiences were more difficult due to political tensions. Sara, a female Venezuelan student, suggested that getting a student visa in 2017 was more difficult than in 2014, "since [her] government has openly said that they don't support the U.S." Maria also felt that getting a visa in 2018 was harder than in 2016 even though she was already familiar with the system. The political attitudes about non-white immigrants likely caused this undesirable assessment. She asserts, "I've heard from other people, even if you're student like, if you're going by yourself, it's like, kind of hard."

One of the most important things, besides proof of financial assistance and intention to study at an academic institution, is that students must promise to return to their home countries after finishing the degree or course of study. That is, all international students have to sufficiently show that they plan to go back home.

The participants had varied visa interview experiences. We argue that this variation is connected to U.S. policy toward each country of origin, a student's country situation (i.e. Venezuela vs. Iran vs. German), and individual preparations (i.e. appropriate documents, their ease or difficulty in answering visa interview questions, and ability to give a good first impression). First of all, U.S. policy varies depending upon the country of origin and seems to define people from that country in generalized ways. By doing so, the U.S. policy overlooks the fact that students from a particular country are not a monolith. For example, Hoyan (a female Chinese Malaysian) student, is aware of the impact of the Muslim ban on her because her country is also considered a Muslim country, but she emphasizes that she is "not" Muslim. Carolin (a white female German student) recognizes the perceived superiority of her country of origin, which [she] contributes to the ease of getting her visa.

The second factor is a student's country's current and historical political situation and plays an important role in granting visas, such as being from a country like Venezuela which has also been sanctioned by the U.S. government in response to Venezuela's political and economic crisis under the leadership of Nicolás Maduro (Seelke, 2019). However, both Venezuelan participants, Luis and Sara were able to get their student visas in 2018 and 2017, respectively. Finally, a student's documents, preparedness for the interview, and their perception of whether or not they exuded a good first impression also seemed to play a critical role in obtaining a student visa.

Maintaining Status

To maintain status there are general rules students must follow such as full-time university enrollment and regulations about international student employment. Most students in this research diligently follow the rules, but they expressed difficulty with the work restrictions, in particular that international students are usually only allowed to work on-campus jobs, and they are not supposed to work more than twenty hours per week (U.S. Department of State, 2018). At the time of this research, there were no additional or changing rules on F-1 work restrictions. However, it is important to know how participants regularly dealt with their living situations as well as their perceptions of these general rules. The anticipation of new regulations increased their feelings of fear and uncertainty. We argue that their daily living situation was already extremely controlled and regulated; however, moral panic about immigrants that is extended to international students makes these rules and regulations even more visceral and contributes to overall stress about policy changes.

Almost all student participants have on-campus jobs. Some students talk about "fairness" and suggest that international students should be allowed to work off-campus because a) the students pay taxes and are documented, and b) they desire to work off-campus for additional income, c) off-campus jobs seem easier to obtain. Maria (a female Columbian student) suggests:

> …I don't think it's fair. I think you should be allowed [to work off campus]. As long as you can manage your hours, you know, your strengths and your weaknesses. You should be allowed to work. I mean, you're here legally, and you're incurring costs, so... and you're paying tax to the system. So, you should be allowed to make money too…but I don't wanna advise someone to work illegally, especially if you want to continue to stay here.

Moreover, there are three important documents that every international student has to obtain and must prove are valid. They are a passport, visa, and an I-20 (which includes student information, school instructions, and financial information). These three documents have different expiration dates. The passport works as an identification of a person and normally lasts for five years. Likewise, a student visa is often good for five years, but an I-20 depends on when the program of study ends.

Even though a student still might have some time left on their visa, it can be terminated if the I-20 expires, which means a student is no longer legally attending any school or continuing under any *other* documented statuses. In the other words, the different timeframes of these three documents

may cause an international student to be at risk for falling into an undocumented status, especially if they are from a country that is in conflict with the United States. For example, Luis, from Venezuela, admits that he is concerned. He applied for an extension of his passport in 2018 because it was going to expire in June 2019. He had not heard back from his country, and his visa lasts until 2023. Moreover, he is likewise worried about a valid document from his country due to the closing down of "all Venezuelan embassies in the US." He states:

> Yeah, so my worry more than the visa itself is more my country's document. And what will happen with my situation if my country's document does not get a [renewed one]. More than the visa itself right now…But then what? What if I want to continue OPT, or I want to get an internship or even a job and when they asked me for a valid document from my country that has not been given to me by my country, that's when I work.

We suggest this is perhaps why documented immigrants from Latin America are particularly worried about maintaining status, especially students from countries that are in conflict with the U.S. First, people may perceive them as being in the United States without proper documentation. Second, they worry about their future due to experiencing precarity that stems from their country of origin.

Experiences of Fear

In this section, we explore students' emotions that result from the moral panic over immigration. The most memorable discussions that the first author had with participants were about the Muslim ban, the restriction on undocumented immigrants, and the consequences of building the border wall between Mexico and the U.S. (we found the latter to be the case even with students who did not pay attention to the immigration topic).

A source of these undesirable feelings comes from social media, online news, and conversations with other people. We give the following experiences to be an example of concern and uncertainty that international students experience. Arya, a male student from France whose family is from the Middle East stated "Last news I've heard from my friend is that the students cannot get a green card here. I don't know if it's true though. If you're on an F-1 student, you cannot get a green card."

Even though F-1 students strictly maintain their documented status and respect the laws and regulations, a negative perception of undocumented immigrants seems to cause some people to perceive international students as "folk devils." This also results in international students differentiating

themselves from undocumented people. Moreover, they explicitly recommended that international students follow all the rules, as to *not* lose documented status. Rocky (a male Nepalese student) says "I just don't suggest com[ing] illegally, to come here as a student and do illegal things. I d[on't] … suggest people do that. Because it affects other, other legal people." Luis (a male Venezuelan student) also raises an important question, "why would somebody decide to come here illegally or to go anywhere illegally? Knowing that through legal means, anything is possible and better?" Similarly, Maria (a female Columbian student) is serious about keeping her documented status and would be devastated if she were to lose it. For example, there was a time when she was waiting for the OPT response and her current documents almost became invalid. She said, "'like you have been here illegally?' And that freaked me out so much! So, I was like, Oh, my God, I don't know what to do." She also seemed offended when "Somebody asked me if I was a Dreamer." She feels pity for them and says:

> What Trump did is that he wanted to repeal all this, and he wanted Congress to figure out the situation because their status was actually coming to an end during the Trump administration. And Trump said that he was going to kick out all the dreamers, which all these kids that don't know anything else. You're like, "Yeah, I was barely born. I don't know, [from] Mexico? but I've been here since I was one [years-old]."

Students mentioned undesirable emotions about the administration and the President several times in terms of making their lives harder and tougher. For example, the first author asked Sara (a female Venezuelan student) to compare the experiences of her 2014 and 2017 visa interviews. She asserts that "I think it's gotten harder." People often show their unfavorable opinions. Sierra (a female Kenyan student) experienced this and she gives an example that "they say you are a thief." Carolin (a female German student) is also scared of finding a job after she graduates because she thinks the President puts restrictions on everything. She indicates:

> [L]ike since Trump was [sic] in office... I just heard that it's super hard to get into that. And even working after, after you graduate is like, it's kind of like a lottery. Not a lot of people get it. And my friend, she graduated last year when she was from England, and she tried to stay here and find a job. But she has to go back to England now because she can't find a job... So, it's just super hard to get into that and then keep it and I don't know. That's what kind of scares me that I rather go back to Europe and go to university.

In sum, fear of the current American agenda seems to cause students to feel unwelcomed and like they do not belong because international students are separated as the "other" or even limited in terms of sharing opinions about a particular topic. The role of the media is also important to consider. The media constructs what and/or whom we should fear (Altheide, 2009). In this case, it contributes to students' concerns about their future in the United States. Students receive the information and are often concerned about their pathway to stay in the United States because of the rhetoric around immigration. Significantly, it does not matter if a restriction may or may not be true, it often impacts many international students' emotions regardless. Xiao Qi, a female Chinese student, also receives news from a Chinese channel and says:

> They said Trump is gonna have a new policy about people who have working visa. The H1-B right? If you wanna apply for green card and something about that. Before, if your working visa expires...Even [if] it expired, you can still stay here to wait for your green card. But, he (the president) is gonna cancel that policy, especially Chinese people and Indian cause they have a really long line.

Plans After Graduation

International students who desire to find an internship or a job after graduation seem to be significantly impacted by the political rhetoric concerning if they will have a pathway to stay in the U.S. This policy, Buy American, Hire American, could serve as a guideline and agenda for U.S. companies to hire Americans over international students. Seeking a job in the U.S. seems to be a huge challenge for international students, and the participants experience that obtaining a job in the U.S. after graduation is more difficult. This is because getting a job in the U.S. includes many hardships and limitations including language proficiency, paperwork, and sponsorship. Titi (a female Nigerian student) had been looking for a job since September 2018 and the situation as she states "is still the same. I feel like it's getting worse every time because I guess it's closer to graduation. I need a job, real quick." Many students have tried and could not find a job. For example, Nakanya (a female Thai aviation student) asked the airlines, and none of them hire non-U.S. residents. She mentions "I talk [to] a lot of airlines, but then they don't really know what OPT is. They don't know how it works. They don't think that their company will accept the OPT student to work with them."

We argue that the nativist tone of immigration policy and regulations relating to the F-1 visa creates a power imbalance. Many international

students have few resources to negotiate their life situations. Students (from both countries that are banned and those that are not) feared that this political climate regarding H-1B proposed change might affect their chances of getting hired after graduation. They worried that employers might be reluctant to sponsor their H1-B visas due to the "Buy American Hire American" executive order (Tadoran & Peterson, 2019).

DISCUSSION AND CONCLUSIONS

When F-1 international students leave their homes and come to the U.S., they are expected to live under a different set of rules. The U.S. prevents F-1 students from participating in American society and the economy at the same level as its citizens, such as not being allowed to work off-campus and granting a work permit through the OPT program or H1-B visa.

At the macro level, immigration policy seems to portray immigrants overall including international students as a "threat" to American society. At the same time, at the micro level, it creates and draws the line between citizens who the U.S. protects and non-citizens who are likely to be eliminated through limiting pathways to stay which leads to deportation.

We suggest that immigration policy is an important aspect for students to consider during the adjustment period, in addition to language, food, and culture (Alakaam et al., 2015; Mesidor & Sly, 2016; Wang et al., 2017). Moreover, immigration policy has an impact on students' ability to find an internship and/or job. Finding a job effectively not only depends on students' characteristics, connections, and qualifications (Callanan & Benzing, 2004; Knouse et al., 1999; Perrone & Vickers, 2003), but is also based on the limits of a student's legal status. For example, Nakanya (a female Thai aviation student) mentioned that the airlines do not know about the OPT and are less likely to hire non-U.S. citizens. Rakhi (a female Indian student) has spent countless hours researching her options. Therefore, in order to succeed in their pathway to stay after graduation, international students need to research their choices and job opportunities intensely, which may or may not lead to a pathway to stay.

Students experience the immigration rhetoric in several ways, such as interactions with U.S. bureaucracies, friends, and the media: both the news and social media. U.S. policy and politician's rhetoric about immigration in general (and also specifically relating to this group) leads to negative feelings among students (Johnson, 2018). The effect of the undesirable perceptions about immigration is obvious when the President, as a moral entrepreneur, openly states that particular people are not welcome and are talked about as racial others or folk devils. He speaks for the American agenda at the national

level in order to raise public attention about immigration. His policies, both proposed and enacted, could allow Americans to think it is acceptable to discriminate against immigrants, as well as let immigrants as a whole know that they are a part of the problem and not welcome. For example, even though Sierra (a female Kenyan student) does not think of herself as part of a target group she does feel that the political rhetoric affects her. She says, "I mean, it affects everyone [even] if you are not part of it. But you feel it because you are an immigrant."

Scholars credit mass media with promoting moral panics and contributing to exaggerated public fears that support social control efforts and public policy changes (Altheide, 2009). We give two examples of significant policies: the "Buy American Hire American Executive Order" and the "Muslim ban." The first, an executive order, appeals to nativist anxieties about skilled migrants as job stealers who threaten the "economic interests" of American workers (Pottie-Sherman, 2018). Many international students face the prejudice and violence accompanying media rhetoric about immigration as well as some H1-B applicants who had been told by employers that "it may not be a right time for employer to hire an immigrant or an international student" (Pottie-Sherman, 2018).

Interestingly, adverse emotions resulting from the decrease in job opportunities for international students after they graduate and feeling that they are unwelcome was the impetus for some of the participants to recommend studying abroad elsewhere. For example, Drew (a male Bahamian student) says, "...I advise people 'don't just look at the United States.'" Similarly, Arya (a male French Middle Eastern student) states "it's not about 'I recommend yes or no,' I would just say that 'it depends.' And but I would say that [I] do not have a high expectation from [the] U.S. anymore. Because this US is very different [compared] to U.S. 10 years ago, or 20 years ago…Yeah, I would rather go to Canada."

In terms of the Muslim bans, even non-Muslim students in this research feel their Muslim friends face more challenges in getting visas and are less welcome than non-Muslims. Research conducted at two Texas institutions finds that from Fall 2016 to Fall 2018, international graduate applicants from non-Muslim-majority countries declined 18.36%. Over this same time period, applicants from Muslim-majority countries declined 33.37%. Most notably, applicants from the seven countries targeted in the travel ban declined 53.93% (Van De Walker & Slate, 2019).

This example could help in understanding the declines of new student enrollment as the previous literature suggested (Choudaha, 2018; Johnson, 2018). Some students prefer choosing Canada over the U.S. due to the

promise of more stable post-study work opportunities and clearer pipelines to immigration (Tadoran & Peterson, 2019).

The President's use of immigration rhetoric has raised and continues to raise (at least at the writing of this research), public attention. However, the administration and public overlook other causes of social problems in American society. As Garland (2008) suggested, moral panics should be studied with the assumption of being symptomatic of something else. We argue that the fear of immigrants and the panic over these groups are not because they are actually taking Americans' jobs or are likely to take Americans' jobs, but because they are symptoms of an American society that was built on racialized fears of other people. Moreover, there are already numerous complicated problems that the country has not been able to solve such as crime, drug use, lack of access to healthcare, and unemployment. Thus, panic over international students and immigration is likely symptomatic of institutionalized racism and other social problems.

It is not easy to conclude whether or not F-1 students are likely to stay in the U.S. after graduation. Research shows career decisions after graduation come from many factors such as career advancement opportunities in the home and host countries in the chosen field, personality, interest, aptitude and attitude, social influences (i.e. families, labor markets, societal values, and spiritual forces (Lee et al., 2018), students' beliefs relating to treatment by colleges in home country, quality of professional network, and potential personal prestige and resentment (Han et al., 2015). Finally, the uncertainty of pathways to stay after graduation with the OPT and H1-B visa influence their future plans. We suggest some remain in the country for job opportunities, but many international students decide to go back to their home countries. Nghia (2019) also indicated that not all of the students were immigration hunters. Many were willing to return their home for socioeconomic, cultural, and political reasons. Therefore, we suggest the fear of international students arriving in the United States to seek immigration opportunities is biased, especially when the host country (e.g. the United States) has the power to adjust its policies regarding international students.

We made the claim that types of students are racialized during heightened times of political rhetoric and it seems fairly straightforward to us that our non-white students, or students who speak English with a foreign accent, are racialized both at the level of interpersonal interaction and by policies and proposed policies. To give a current example that is undoubtedly affecting international students, recent reports show how students (and other types of immigrants) are the targets of racism if they look Asian, due to fears of the coronavirus ("The pathogen of prejudice," 2020). Moreover, concerns

about Muslims and the resulting Muslim ban, and the longstanding use of Latinx immigrants as folk devils and "taking away American jobs" or as "criminals" seems to show examples of how these students can be racialized. Moreover, though Lee (2018) offers the concept of a "racialized moral panic" in regard to Latinx folks, it appears that this concept works well for us to make sense of our findings. Indeed, the moral panic we discuss is racialized because it is panic over particular types of racial and ethnic others.

CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS

To answer our first research question, we suggest that our participants were shaped and influenced by immigration policies and political rhetoric, such as the traveling of Sahba and her family, Luis' getting documents from the Venezuela embassy, Sierra's feelings of being unwelcomed, and post-graduation decision making of Nakanya, Titi, Drew, Arya, and Carolin.

We suggest the current administration portrays immigrants as a whole as folk devils, extending to F-1 students who are competing for a job opportunity with U.S. citizens. The current U.S. administration's racialized rhetoric impacts F-1 students' emotions at Midwestern universities and colleges (Tadoran & Peterson, 2019) in North Dakota (Johnson, 2018), and in our research which was conducted in Tennessee. However, the "threats" of international students seem to be exaggerated. Most participants were very specific about following rules, not engaging in crimes, and following the regulations for maintaining documented status. Though there have been recent policy reforms, the threats from the administration may not necessarily enforce these proposed policies like students think they will. In the case of the current administration, many of President Trump's proposed policies seem to bellicose rhetoric that likely will not come to fruition.

This research expands the study of immigration moral panics by examining their impact on documented immigrants, especially F-1 students. Fear of immigrants likely impacts almost all immigrants, regardless of their legal status. This research is very specific to this particular moment in time and the current administration. Our research contributes to understanding the experiences and emotions that international students have in this unique and challenging time. F-1 students, whether they come from countries that are vilified or not, internalize the unwelcoming feeling along with their ethnic categorization and racialization in the United States. Race operates not necessarily in regard to legal status, but instead depending on the geopolitical context, history of immigration policies directed at particular groups, and how they fit into the U.S. racialized hierarchy. For example, Latinx students and Muslim students in this research experience different aspects of racialization.

Many Latinx students, were worried about being miscategorized as undocumented, that relations with their home countries would impact their ability to travel, or to come back to the U.S. Muslim students did not express concerns about being perceived as undocumented, however, they did worry over the larger geopolitical relationship of their home region and the U.S. and what that meant for their study as an international student. Moreover, most recently, Asian students have been the targets of hate crimes during the pandemic.

Epistemological quandaries about what qualitative research can and cannot tell us are beyond the scope of our discussion. However, it is important to mention one limitation and detail that we argue future researchers should explore. The participants were from a variety of countries of origin, which we argue is a strength. That is, even though our sample was relatively small, there were still patterns and findings across many students' varying racial and ethnic categorizations and countries of origin. However, their particular experiences are not generalizable to the overall experiences of other F-1 students from the same country because there are several factors to be considered such as socio-economic, self-presentation, and support system from family, university, and home and/or host countries. While generalizability is not the goal of qualitative research, we mention this because future research should examine these topics using various methodologies.

The research site is also unique, in the U.S. South, it is possible that the political features of the Deep South of the U.S. influence attitudes about immigration, and students' internalization of those local and regional attitudes and political features. Thus, future research should examine other geographical contexts with varying demographics. To give an example, it would be interesting to explore if our findings are similar in other locations, such as the U.S. mid-south (Texas), Southwest (Arizona), the U.S. West (California), and other populous cities such as New York, Chicago, Atlanta, and other metropolitan areas that have experienced population booms due to immigrants and refugees.

REFERENCES

Akbari, A. H., & MacDonald, M. (2014). Immigration policy in Australia, Canada, New Zealand, and the United States: An overview of recent trends. *International Migration Review*, *48*(3), 801–822.

Alakaam, A. A., Castellanos, D. C., Bodzio, J., & Harrison, L. (2015). The factors that influence dietary habits among international students in the United States. *Journal of International Students*, *5*(2), 104–120.

Altheide, D. L. (2009). Moral panic: From sociological concept to public discourse. *Crime Media Culture*, *5*(1), 79–99.

Androff, D. K., & Tavassoli, K. Y. (2012). Deaths in the desert: The human rights crisis on the U.S. – Mexico border. *Social Work*, *57*(2), 165–173.

Amuedo-Dorantes, C. & Furtado, D. (2019). Settling for academia? H-1B visas and the career choices of international students in the United States. *Journal of Human Resources*, *54*(2), 401–429.

Amuedo-Dorantes, C., Furtado, D., & Xu, H. (2019). OPT policy changes and foreign born STEM talent in the U.S. *Labour Economics*, *61*, Article 101752

Barta, P., Chen, T., Jou, D., McEnaney, C., & Fuller, A. (2018, October 10). How international students are changing U.S. colleges. *The Wall Street Journal*. http://graphics.wsj.com/international-students/

BBC News. (2020, August 24). 'Drug dealers, criminals, rapists': What Trump thinks of Mexicans. *BBC News*. https://www.bbc.com/news/av/world-us-canada-37230916

Callanan, G., & Benzing, C. (2004). Assessing the role of internships in the career-oriented employment of graduating college students. *Education + Training*, *46*(2), 82–89.

Choudaha, R. (2018). A third wave of international student mobility: Global competitiveness and American higher education. *Center for Studies in Higher Education Research and Occasional Papers Series*. https://cshe.berkeley.edu/publications/third-wave-international-student-mobility-global-competitiveness-and-american-higher

Cohen, S. ([1972] 2002). *Folk devils and moral panics*. Routledge.

Demirci, M. (2019). Transition of international science, technology, engineering, and mathematics students to the U.S. labor market: the role of visa policy. *Economic Inquiry*, *57*(3), 1367–1391.

Eller, J. & Doherty, P. (forthcoming). Fear. *Blackwell Encyclopedia of Sociology*, 2nd Edition. Wiley publications.

Elturki, E., Liu, Y., Hjeltness, J., & Hellmann, K. (2019). Needs, expectations, and experiences of international students in pathway program in the United States. *Journal of International Students*, *9*(1), 192–210.

Eversman, M. H. & Jason D. P. Bird, J. D. P. (2017). Moral panic and social justice: A guide for analyzing social problems. *Social Work*, *62*(1), 29-36.

Flores-Yeffal, N. Y., Vidales, G., & Plemons, A. (2011) The Latino cyber-moral panic process in the United States. *Information, Communication & Society*, *14*(4), 568-589. https://doi.org/10.1080/1369118X.2011.562222

Garland, D. (2008). On the concept of moral panic. *Crime Media Culture*, *4*(1),9–30.

Grimm, A. (2019). Studying to stay: Understanding graduate visa policy content and context in the United States and Australia. *International Migration*, *57*(5), 235–251.

Goode, E., & Ben-Yehuda, N. (1994). Moral panics: Culture, politics, and social construction. *Annual Review of Sociology*, *1994*(20), 49–171.

Han, X., Stocking, G., Gebbie, M., & Appelbaum, R. P. (2015). Will they stay or will they go? International graduate students and their decisions to stay or leave

the U.S. upon graduation. *PLoS ONE*, *10*(3). https://doi.org/10.1371/journal.pone.0118183

Institute of International Education. (2019, November 19). *Number of international students in the United States hits all-time High*. https://www.iie.org/WhyIIE/Announcements/2019/11/Number-of-International-Students-in-the-United-States-Hits-All-Time-High

Johnson, K. (2018). Opportunities & Anxieties: A Study of International Students in the Trump Era. *Lewis & Clark Law Review*, *22*(2), 413–440.

Khanal, J., & Gaulee, U. (2019). Challenges of international students from pre-departure to post-study. *Journal of International Students*, *9*(2), 560–581.

Knouse, S. B., Tanner, J. R., & Harris, E. W. (1999). The relation of college internships, college performance, and subsequent job opportunity. *Journal of Employment Counseling*, *36*(1), 35-43.

Kusow, A. M. (2003). Beyond Indigenous authenticity: Reflections on the insider/outsider debate in immigration research. *Symbolic Interaction*, *26*(4), 591–599.

Lerner, S. (2018, January 8). H-1B visa: An uncertain path after college. *The Lantern*. https://www.thelantern.com/2018/02/h-1b-visa-an-uncertain-path-after-college/

Lee, R. (2018). Immigrant entry visa categories and their effects on the children of immigrants' education. *Journal of Ethnic and Migration Studies*, *44*(9), 1560–1583.

Lee, M. C., McMahon, M., & Watson, M. (2018). Career decisions of international Chinese doctoral students: The influence of the self in the environment. *Australian Journal of Career Development*, *27*(1), 29–39.

Lobnibe, J. (2009). International students and the politics of difference in US higher education. *Journal for Critical Education Policy Studies*, *7*(20), 346–368.

Lomer, S. (2018). UK policy discourses and international student mobility: The deterrence and subjectification of international students. *Globalisation, Societies and Education*, *16*(3), 308-324.

Longazel, J. G. (2012). Moral panic as racial degradation ceremony: Racial stratification and the local-level backlash against Latino/a immigrants. *Punishment and Society*, *15*(1), 96–119.

Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of International Students*, *6*(1), 262–282.

Nghia, T. L. H. (2019). Motivations for studying abroad and immigration intentions. *Journal of International Students*, *9*(3), 758–776.

Perrone, L., & Vickers, M. H. (2003). Life after graduation as a 'very uncomfortable world': An Australian case study. *Education + Training*, *45*(2), 69–78.

Pottie-Sherman, Y. (2018). Retaining international students in northeast Ohio: Opportunities and challenges in the 'age of Trump.' *Geoforum*, *2018*(96), 32-40.

Quinton, W. J. (2019). Unwelcome on campus? Predictors of prejudice against international students. *Journal of Diversity in Higher Education*, *12*(2), 156–169.

Rose-Redwood, C., & Rose-Redwood, R. (2017). Rethinking the politics of the international student experience in the age of Trump. *Journal of International Students*, *7*(3), I–IX.

Sá, C. M., & Sabzalieva, E. (2018). The politics of the great brain race: Public policy and international student recruitment in Australia, Canada, England and the USA. *Higher Education*, *2018*(75), 231–253.

Seelke, C. R. (2019, March 17). Venezuela: Overview of U.S. sanctions. *Federation of American Scientists*. https://fas.org/sgp/crs/row/IF10715.pdf

Tadoran, C., & Peterson, C. (2019). Should they stay or should they go? How the 2017 U.S. Travel ban affects international doctoral students. *Journal of Studies in International Education*, *24*(2): 440-455.

Urbino, L. (2020, February 17). The pathogen of prejudice: The coronavirus spreads racism against—and among—ethnic Chinese. *The Economist*. https://www.economist.com/china/2020/02/17/the-coronavirus-spreads-racism-against-and-among-ethnic-chinese

Urias, D. A. & Yeakey, C. C. (2005). International Students and U.S. Border Security. Thought & Action, 187–198.

Usher, A. (2019). Has president Trump scared away all the foreign students? Education Next, 19(4), 40-46

U.S. Citizenship and Immigration Services, (2018a, October 20). Buy American, Hire American: Putting American workers first. *U.S. Citizenship and Immigration Services.* https://www.uscis.gov/legal-resources/buy-american-hire-american-putting-american-workers-first

U.S. Citizenship and Immigration Services. (2018b, October 25). Immigration marriage fraud amendments of 1986. *U.S. Citizenship and Immigration Services*. https://www.uscis.gov/tools/glossary/immigration-marriage-fraud-amendments-1986

U.S. Citizenship and Immigration Services. (2018c, October 20). USCIS strengthens protections to combat H-1B abuses. *U.S. Citizenship and Immigration Services*. https://www.uscis.\gov/news/news-releases/uscis-strengthens-protections-combat-h-1b-abuses

U.S. Citizenship and Immigration Services. (2018d, June 6). Optional Practical Training (OPT) for F-1 students. *U.S. Citizenship and Immigration Services*. https://www.uscis.gov/opt

U.S. Department of State. (2018, June 6). Student Visa. U.S. *Department of State*. https://travel.state.gov/content/travel/en/us-visas/study/student-visa.html

U.S. Immigration and Customs Enforcement. (2020a, May 18). Who we are. *U.S. Immigration and Customs Enforcement.* https://www.ice.gov/about

U.S. Immigration and Customs Enforcement. (2020b, May 18). ICE Statistics. *U.S. Immigration and Customs Enforcement.* https://www.ice.gov/statistics

Van De Walker, D., & Slate, J. R. (2019). The 2017 Trump administration travel ban and international graduate applications at two Texas public universities. *Higher Education Politics & Economics*, *5*(1), 1-14. https://doi.org/10.32674/hepe.v5i1.1173

Wang, I., Ahn, J. N., Kim, H. J., & Lin-Siegler, X. (2017). Why do international students avoid communicating with Americans? *Journal of International Students*, 7(3), 555–580.

Zeiders, K. H., Nair, R. L., Hoyt, L. T., Pace, T. W. W., & Cruze, A. (2020). Latino early adolescents' psychological and physiological responses during the 2016 U.S. presidential election. *Cultural Diversity and Ethnic Minority Psychology*, *26*(2), 169-175. https://doi.org/10.1037/cdp0000301

Zong, J., & Batalova, J. (2018, July 27). International students in the United States. *Migration Policy Institute*. https://www.migrationpolicy.org/article/international-students-united-states

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Collaborative Team-Teaching to Promote Interdisciplinary Learning in the Undergraduate Classroom: A Qualitative Study of Student Experiences

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ABSTRACT

In this article we examine students' learning experiences within a new team-taught general education course designed to explore the big idea of "What does it mean to be human?" from multiple disciplinary perspectives. Semi-structured interviews with students provide insight on how learners are experiencing this new instructional model and its implications for interdisciplinary learning. Our conversations with students reveal that students affirm the value of interdisciplinary education and perceive this collaborative and co-instructed model as beneficial to their learning. This new curricular approach, while not without its challenges, was found to have positive implications for bolstering learner interest, fostering perspective-taking behaviors, and creating a classroom environment in which students perceive their intellectual contributions as valued.

Keywords: collaborative teaching, honors programming, interdisciplinary, student experience, team teaching

INTRODUCTION

Interdisciplinary instruction at the undergraduate level is increasing rapidly (Katz, 2015). As captured in a recent widescale survey conducted by the Association of American Colleges and Universities (AAC&U), nearly 55% of its member institutions currently offer interdisciplinary courses in their general education program (Hart Research Associates, 2016). Moreover, over half of surveyed institutions were in the process of rethinking their general education programs to prioritize more integrative curricular structures. The University of Arizona is no exception, with explicit language in the institutional strategic plan calling for an envisioning of a new general education program consisting of "interdisciplinary grand challenge courses" (University of Arizona, 2018). Driven by the demand for more integrative general education experiences that span disciplinary boundaries, the University of Arizona joins other institutions of higher education in the process of rethinking existing structures and questioning what a new model might entail.

Yet despite this demonstrated interest and prioritization of interdisciplinary teaching and learning across institutions of higher education, research on the implementation of interdisciplinary curricular programs and courses has not kept pace (National Academies of Science, Engineering, & Medicine, 2018b). While important work has been done to document and analyze the nature and experience of teaching undergraduate interdisciplinary courses in order to provide valuable insight on interdisciplinary instruction (Juris et al., 2014; Luckie et al., 2012; Noy et al., 2017; Nungsari et al., 2017), there is still much to be learned in this domain. What works for student interdisciplinary learning, and how it works, remains largely unexplored resulting in a limited understanding of how interdisciplinary pedagogic strategies and course structures influence the student learning experience and promote opportunities for the development of interdisciplinary thinking (De Greef et al., 2017; Juris et al., 2014; Newell & Luckie, 2013; Rhoten et al., 2006). This work contributes by examining the perspectives and contributions of students on the forefront of such curricular interventions. In this article we examine the student learning experience within a new team-taught Honors course designed to approach a big idea from multiple disciplinary perspectives in order to provide insight on how students are experiencing this instructional approach and its implications for interdisciplinary learning. This study is part of a multi-year institutionally grant-funded project to advance instructional practice through scholarship of teaching and learning. The course under investigation is the first of three eventual pilot courses which will be informed by what we learned this first year.

We take the position that students' learning experiences and priorities must be a central point of the conversation. Prioritizing the student voice allows practitioners to consider more fully how curricular reform processes are experienced by our students, and how students perceive their learning within interdisciplinary classrooms. Yet, empirical research that centers the student in the evaluation of teaching and learning in interdisciplinary higher education remains limited (Gombrich & Hogan, 2017). Drawing on data gathered though semi-structured interviews with 15 undergraduate students enrolled in the pilot course, we add an account of the learning experience through the eyes of students. These narratives provide valuable insight on how learners perceive their experiences within this innovative curricular model and elucidate key strengths and drawbacks to utilizing a team-teaching and co-convening organizational course structure to promote interdisciplinary reasoning in the classroom. Our findings contribute to the growing scholarship on undergraduate interdisciplinary teaching and learning as we continue to push for impactful and meaningful interdisciplinary learning experiences for our students.

COURSE DESIGN: USING A TEAM-TAUGHT CO-CONVENING STRUCTURE

In their recent work, Looft and Myers (2019) highlighted the synergy between Honors programming and interdisciplinary pedagogies, and reminded readers that in the United States "[a] highly interdisciplinary approach to learning has long been a pillar of the honors mission and vision" (p. 142). They cited various characteristics that can make University Honors programming a rich setting to explore interdisciplinary learning and curricular structures including characteristically smaller class sizes with lower student to faculty ratios, multidisciplinary faculty collaborations, and an emphasis on discussion-based seminars that allow for deeper engagement with complex topics. Accordingly, scholars have proclaimed the unique position of Honors programs and courses to explore multifaceted contemporary and global issues such as human rights and social justice (Szasz, 2017). In synergy with this work, this paper responds to the call for intentional research on Honors curricular experiences necessary to answer crucial questions related to the value and effectiveness of honors programming and coursework, particularly within the domain of interdisciplinary classroom learning.

This study was conducted during a semester-long general education course at the University of Arizona's Honors College. Three faculty from the Honors College- representing diverse disciplinary backgrounds in the humanities, social sciences, and natural sciences- worked together to co-

design the new integrative course in fall 2019 and ran the course in spring 2019. The thematic focus of the course, "What does it mean to be human in the 21st century?" was selected by the faculty team with the intention that each of them would be able to guide students in approaching the question from the tools and scholarly insights of their disciplinary expertise. While the collective course was broken into three separate course sections, with each section led by the faculty member trained in that discipline, a central design feature was that all students were brought together regularly in co-convening sessions to engage in collaborative peer learning activities designed to promote interdisciplinary thinking. Specifically, for every fourth or fifth class meeting, students from across the three sections worked together in mixed disciplinary groups demanding at least one student from each of the three sections.

This structured approach is representative of the "jigsaw technique", a research-based cooperative learning technique in which students first become knowledgeable on a particular segment of the material, and then come together to share this knowledge and accomplish collaborative activities with other students (Aronson, 1978). The use of the jigsaw technique as a way to facilitate collaborative learning in the context of interdisciplinary instruction has been recommended by others in the scholarship of teaching and learning for its alignment with interdisciplinary instructional aims (De Greef et al., 2017; Dezure, 2017). As applied in the course model under investigation, students first worked in their individual course sections to contemplate the question from the specific disciplinary lens of their professor, while the other two courses did the same. In their individual disciplinary-grounded sections, students were provided multiple opportunities to explore the idea using selected disciplinary methods and frameworks informed by the faculty member's academic and research expertise. For example, students enrolled in the course section led by a professor from the social science discipline examined the proposed question predominately through social science modes of inquiry, notably through the framework of ethnomusicology and sound. Students enrolled in the course section led by a professor from the humanities examined the question predominately through the lens of photography (e.g., extrinsic and intrinsic analysis, close reading). Finally, students enrolled in the course section led by a professor from the natural sciences emphasized experimentation, scientific design, and systems-thinking as ways of examining the proposed question. Then, during the collaborative co-convened sessions, students from the three classes came together to form new cross-disciplinary groups consisting of at least one member from each course. In these newly formed groups students took turns teaching each other the

material on which they had become experts. In the context of the course, this involved students from each group sharing their insight on how the given topic could be approached from their disciplinary lens.

Figure 1: Illustration of Jigsaw Technique Employed in the Course
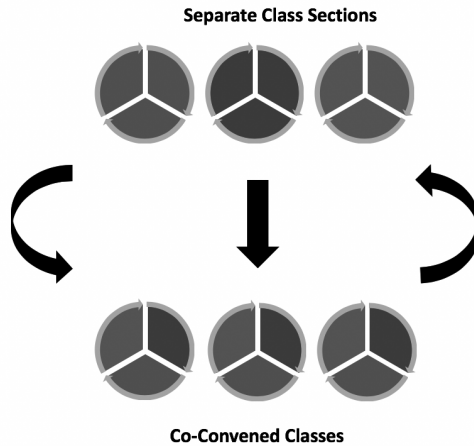
Beyond promoting interdisciplinary instructional aims, the jigsaw technique is a tool to engage students in teaching their peers and is recognized as an evidence-based strategy to support deeper learning. The process of explaining to others is active and generative, and requires elaborative processing as leaners must generate, organize, and integrate knowledge. Doing so therefore moves students beyond being passive recipients of knowledge, and encourages them to focus on deeper questions and levels of comprehension (National Academies of Science, Engineering, & Medicine, 2018a). This thinking was captured by one of the course participants in her description of why she would choose to enroll in another course using this structure in the future:

I thought that this was one of the most impactful courses I've ever been in. Reflecting back, I feel like I've really grown as a student and I've learned a lot from my peers. Which I think being able to teach, being able to learn and teach someone else what you've learned, is really a great way to implement the information in you. And it is a great learning method or learning technique. And so, I would 100% enroll in another class like this. (Vanessa)

METHODS

We conducted a qualitative study to gain a better understanding of how students are experiencing this instructional approach. Participants were recruited from the 42 undergraduate students enrolled in the pilot course trio. All students enrolled in the courses were invited to participate in a semi-structured interview with a member of the research team, separate from the faculty team, during the final two weeks of the course. 15 students (35%) agreed to be interviewed. As depicted in Table 1, as a 100-level general education course the majority of students were in their early undergraduate career. However, because students across all levels and departments could enroll in the course, there was a full range in academic level, and three of the interviewed participants were graduating seniors. Also notable is that the majority of participants were majoring in a STEM field, which is likely to have shaped students' familiarity and affinity with the scientific perspectives presented in the course. While interview participants represented all three sections of the course, the greatest level of representation was from the natural science course (7 students), and the lowest representation from the humanities course (2 students). While this discrepancy does mirror the uneven number of students enrolled in each section, it also provides a less comprehensive view of individual experiences in the Humanities section of the course. Pseudonyms are used throughout the paper to protect students' privacy.

Interviews lasted between 22-45 minutes and were conducted at on-campus locations selected by the interviewees, predominately in cafes or student community spaces. The decision to meet students in these spaces, and to have the research team conduct interviews rather than the faculty team, was intended to facilitate more open student reflection and feedback on their experience. An interview guide was used to develop a list of general areas to be covered with the student and to remind the interviewer to ask about certain things, but it was a flexible and dynamic process as new questions emerged from the discussion in-line with the qualitative interviewing process (Taylor et al., 2015). All interviews were recorded and later transcribed verbatim. Informed by the scholarship of interdisciplinary teaching and learning, educational psychology, and the learning sciences we noted emerging themes during the transcription process and first round of coding. NVivo analytic software was used to support the development of coding categories around concepts such as *multi-perspective taking*, *role of instructor*, and *student choice* relevant to shedding light on how students perceived their interdisciplinary learning experience. This process was accompanied by ongoing analytic memo writing to help identify patterns and make

connections between what was emerging in our conversations with students and key theoretical concepts from the literature. Through the coding process, we classified and categorized patterns across our conversations with students to elucidate relationships and trends among course participants. Our findings and conclusions were shared with all student interviewees to allow for respondent validation or member checking (Maxwell, 2013). This process provided an opportunity for participants to affirm the accuracy and completeness of our interpretations and offer feedback, as is reflective of our intention to more authentically represent student voices regarding the ongoing curricular reform process.

Table 1: Background of student participants interviewed for the study using pseudonyms

Student	Year	Major	Course
Lucas	1	Biochemistry	Social Science
Kevin	1	Physiology & Spanish	Social Science
Mark	1	Computer Engineer	Social Science
Natalie	3	Computer Science & Business	Social Science
Kaitlin	1	Physiology	Social Science
Vanessa	4	Psychology	Social Science
Marissa	1	Geoscience	Humanities
Sienna	1	Biochemistry	Humanities
Tanya	4	Ecology	Natural Science
Mason	2	Philosophy, Politics, Ed. & Law	Natural Science
Lexi	1	Geography & Music	Natural Science
Simone	1	Environmental Studies	Natural Science
Denise	2	Nursing	Natural Science
Olivia	4	Education	Natural Science
Joan	3	Computer Science	Natural Science

As with all research, our study had limitations. Both researchers conducted the interviews, each with our own styles and rapport with participants, and followed up with different questions as conversations evolved. While we regularly consulted and discussed emergent themes, the NVivo and memo writing analytic process was primarily undertaken by a single member of the team. A more collaborative team approach to analysis would have encouraged consensus building and may have revealed new lines of inquiry. Finally, while all students were invited to interview through both email and an in-person class visit, it is reasonable to assume that students who

may have had a negative experience in the course would be less enthusiastic to take the additional time to interview with a member of the research team. In this case, more critical student perspectives may be underrepresented resulting in a skewed representation of learner interest and appreciation for interdisciplinary educational approaches.

FINDINGS

Our conversations with students revealed that while this course model was not without its challenges, students largely affirmed the value of interdisciplinary education and approaches and saw the collaborative and student-centered nature as valuable to their learning. Furthermore, students noted how structured and intentional role-playing activities embedded in the co-convening organizational structure encouraged perspective-taking behaviors and appreciation for multiple ways of knowing. In analyzing the data, connections are made with existing literature on traits, dispositions, and processes relevant to interdisciplinary and learner-centered instruction. The following analysis intersperses the voices of student with relevant literature to capture and communicate key themes which emerged from our conversations with students.

Appreciation for Interdisciplinary Approaches in the Classroom

A dominant rationale for interdisciplinary education is the need to answer a question, solve a problem, or address a topic that is too broad or complex to be dealt with adequately by a single discipline or profession. This narrative is present in large research organizations such as the National Science Foundation (NSF) and the National Academies of Science, Engineering, and Medicine (NASEM), as well as in the existing scholarship of interdisciplinary teaching and learning. This call for interdisciplinary undergraduate education generally argues that the historically siloed knowledge structure of academia does not accurately reflect the complex and integrated nature of the world it functions in. In other words, the problems of the world are complex, and complexity demands interdisciplinarity (De Greef, 2017; Holley, 2009; NASEM, 2018b; Noy et al., 2017). The synergy between the complexity of the world, and engagement with interdisciplinary approaches is captured by Dezure (2017) in her proclamation that "the more the pedagogy engages students in experiences based in the complexities of the real world, the more there is a need to employ interdisciplinary approaches to problem solving" (p. 562). Through our conversations with students, we found that they largely substantiated this rationale. Specifically, as captured in our conversations with Kevin and Tanya, students recognized and

appreciated the importance of interdisciplinary approaches to address difficult problems, and perceived the interdisciplinary and collaborative nature of the course as valuable to their learning.

Well, I guess when you look at a question about what it means to be human, I mean that's a big question that I don't know if anyone has a very concise nice answer to. And so I think you have to look at it from a lot of different angles. And the way to do that is to take an interdisciplinary approach. When you have a big problem, you have to consult others, a lot of different methodologies, and a lot of different perspectives in order to arrive at some kind of answer to it. So, you have to combine those. You can't just say 'this is what it means to be human' because it really varies and it's circumstantial and it changes. And so, I guess one theme is like you really have to, and it sounds kind of corny, but it's like you have to work together and you have to combine those perspectives in order to scratch at the surface of those bigger ideas. (Kevin)

I think this idea of having to collaborate with different disciplines, that is the key (...) Different departments all have something to say, and maybe one has the highest relevance to you. But if you're actually going to do something that's worth it you have to consider almost all the parts. Even if it seems hard, or even impossible and you can't do that, you can. It just takes effective communication and long planning. (Tanya)

Perspective-Talking Through Guided Role-Playing

"There is no one answer, or one way, or one thing. It just depends on how you're looking at it, and how you're communicating it" (Olivia)

Not only did students articulate the importance of interdisciplinary approaches for more adequately addressing complex topics, but as elucidated in the above exchanges we also found numerous instances in which students stressed the importance of broadening their perspectives. Broadly speaking, perspective taking involves "viewing a particular issue, problem, object, behavior, or phenomenon from a particular standpoint other than your own" (Repko et al., 2017, p. 165). These are the cognitive and social skills individuals require to understand how other people think and feel, and are essential in appreciating and taking on conflicting points of view. For example, Tanya's comment explicitly links the importance of collaboration between different academic departments to the opportunity to broaden one's

perspective. Similarly, Kevin noted that an individual's understanding of an issue is "circumstantial and it changes."

Perspective-taking is acknowledged as central to engaging in interdisciplinary work and is also linked with values or attitudes synergistic to interdisciplinary work such as open-mindedness, tolerance, humility, empathy, appreciation for diversity (Repko et al., 2017), rejection of dualistic solutions, ability to seek common ground (Newell, 2010), and an expanded recognition of their own worldviews (Augsburg et al., 2013). When applied to interdisciplinary collaboration and research, perspective-taking typically involves analyzing a problem from the perspective of each involved discipline and being able to identify the similarities and differences between them. It enables individuals to recognize, understand, and ultimately integrate multiple ways of knowing or investigating. Through perspective-taking practice, individuals can increase their ability to understand the differences between disciplines, become more aware of academic and personal biases, and engage in the type of role-playing that allows us to appreciate and recognize the contributions of alternate perspectives (Repko et al., 2017), all of which are essential to interdisciplinary work.

Creating opportunities in the classroom for students to engage in perspective-taking processes was a central instructional goal of the design process. The co-convening organizational structure of the course was intentionally selected to allow for students and faculty from the three disciplinary-specific sections to be brought together on a regular basis to engage in guided cross-disciplinary discussions and projects. Specific pedagogical approaches such as the jigsaw technique and engagement with collaborative group projects were further used to promote the exchange of ideas and push students' thinking further on an issue through the integration of multiple perspectives. For example, in the co-convened sessions, students engaged in disciplinary role-taking as they were asked to assume a specific disciplinary position in their approach to a particular text or question. To illustrate this, in Week 7 of the course, the instructor team assigned all students a common text, Rachel Carson's book *Silent Spring (1962)*. Students in each course were led through a process of examining this text from the lens of their assumed disciplinary background (i.e., the tools, concepts, and methods of the discipline represented by their course).

Following these three to four discipline-specific class meetings, students then worked in cross-disciplinary groups to share this thinking with their peers. Specifically, students instructed their peers on how the insights and tools of their discipline informed their interpretation of the text, and worked collectively to integrated these ideas to contribute to a deeper overall

understanding. A few students, including Kaitlin, specifically described how the course structure demanded disciplinary role-playing and pushed them to engage with multiple perspectives:

I think it was just coming together and looking at those different sources and seeing how all these different approaches can make up one thing. And I get sort of a bunch of epiphanies throughout the entire co-convened session just because like the Natural Sciences would approach it from the way that I didn't think was even possible, or like the humanities. And yeah, I just think it's cool to see how we all just approach it differently and then come together. (Kaitlin)

A similar role-taking process was undertaken in the final project as students worked in cross-disciplinary teams to approach a contemporary question of their choice from multiple disciplinary insights. This pushed students to consider the multiple and varied ways in which scholars might approach a complex real-world question. By creating opportunities for students to engage with and apply different perspectives to the same concept, text, or big idea, instructors demanded that students consider how others might look at the same thing in a different way. Our conversations with students suggested that these role-taking and collaborative pedagogies additionally promoted self-reflection on bias and an increased appreciation for multiple ways of knowing.

Appreciation for Multiple Ways of Knowing

One of the desired course learning outcomes outlined in the syllabus is that students would reflect on and recognize their own biases and develop an increased appreciation for cross-disciplinary collaboration and multiple ways of knowing. Our initial conversations with students suggested that this occurred in various ways. For example, Vanessa described how looking at a topic from multiple perspectives, including the perspectives of her peers, developed a deeper understanding her own field of study, and the ways in which her approach to a topic might differ from her peers as a result:

Getting the perspectives of others has been really helpful in me understanding my own scholarly area as well. Like allowing me to compare what my answers are to theirs, and what my theories are to theirs. (Vanessa)

Meanwhile, another student specifically articulated how the course challenged her to rethink her preconceived bias towards STEM, and more fully appreciate the insights of other fields of study:

I would say that it [the course] has had an impact on how I think. The co-convened really showed me that we're not all these separate entities all the time. If we work together as a group we can achieve a lot more, and I think that's something that I'm going to be more open to. I don't know how to put this in a nice way, but I never really understood social sciences and humanities. I don't think I fully understood that they had a greater role. I've come from a science-oriented family and a business-oriented family, so those are just like 'okay we look at the facts. This is how it's going to be done, right?' And humanities and social sciences, I didn't think had those aspects to them. And I think this class really showed me that there are other aspects of those majors and areas that I didn't appreciate before. (Joan)

Perhaps most illustrative of this is Denise's reflection on how the role-playing exercises underpinning the course shifted her thinking when approached with an end-of-course activity. At the start and conclusion of the course the same case study was presented to students. In this activity, students were informed of a major change being undertaken at the university and provided with a series of professional insights and concerns from diverse stakeholders on campus. Students were then asked to consider the merits of these insights and describe how they would move forward with addressing the proposal. I asked Denise about her experience with this activity and she described how her approach to the task changed as a direct result of having engaged in the role-playing exercises throughout the course. She described how she found herself "more open-minded" to reading and considering the various disciplinary contributions at the conclusion of the course, compared to the initial activity. When I followed up to ask why she felt this way, she explained that she noticed herself paying more critical attention to each of the included insights to try to understand each member's approach or contribution by intentionally considering how each person might view the issues. When I asked why she felt her approach had changed she replied:

I think because I had spent an entire semester listening to each of those perspectives. I think that really changed it. Actually [the instructor] said it. He said, 'It's like really empathy that you're going at with each of the disciplines, like imagining okay, if I was in the shoes of this, or if I was in the shoes of this, like how would this affect it?' So, I think that that is what had the most influence on how I changed my perspective. (Denise)

While existing tools are limited in their ability to measure growth in perspective-taking abilities, these accounts provide encouraging evidence that structured and intentional role-playing strengthened through the jigsaw technique can support perspective-taking behaviors and appreciation for multiple ways of knowing. While further research is needed to examine the role of interdisciplinary pedagogies in promoting perspective-taking processes and appreciation for multiple ways of knowing, these findings have promising implications for future iterations of this co-convening and co-taught course design.

Value for Learner-Centered Instruction

Our conversations with students revealed preconceived understandings about general education courses which contrasted with their experience in the pilot course. The students we spoke with overwhelmingly indicated a sense of obligation and low expectation for learning when enrolling in general education courses. Participants contrasted the collaborative nature of the pilot course with the lecture-based style of instruction they experienced in the general education program. Several students, including Natalie and Kevin, conveyed appreciation for the type of thinking afforded within this course model:

I like when I have to think in my Gen Eds. I know a lot of people who take their Gen Eds because they want them to be really easy. But in the case of this one, I like how I left every day thinking about what we had talked about rather than leaving and moving on to the next thing. I felt more stimulated I think trying to sort of like fit the puzzle pieces together. (Natalie)

I was really happy to see the way it did work out, because when I went into it I just thought it was another honors, you know 'Gen Ed', and that you would just be taking the class and you would have a project or papers and stuff. But I didn't suspect that we would be working with two other classes, and then also working with the students in those classes to create a final project, a proposal, a presentation and everything. So, it was it was more than I expected. And it was it was more work, but it was good work. (Kevin)

Kevin's comment further highlights a mismatch between the type and amount of work he expected from the course based on prior general education coursework and the actual expectations of the course. It seems that for several students, the type of work expected in the course was more demanding than

prior general education experiences, and did not match their expectations when enrolling in the course. As described by Sienna:

Last semester. I had a Gen Ed that literally I would sit down, listen to the guy and then I'd take a test at the end of the semester and get like an A on it (...) this one I had to work a lot more for it, and there weren't even any tests. (Sienna)

This presents an obvious challenge when considering the preparedness and expectation of effort students are bringing to these new collaborative course structures. If students believe that the general education program is fundamentally easy and requires minimal effort, then the high level of critical thinking and collaboration required to be successful in this new course model is likely to cause frustration and possibly deter students from participating, or enrolling in another course using this model. This reaction was illuminated in my continued exchange with Sienna:

Interviewer: Do you feel that you would enroll in another course using this model in the future?

Sienna: Maybe. As harsh as it sounds, I was expecting this Gen Ed to be like an 'easy A'. That's why I took it in the beginning, because I need Gen Eds like a cushion. After the first month, I realized it's a lot more work than I was willing to put in. That's why it impacted me in a negative way. So, I did like the co-convened stuff, but it was so much work for a gen Ed. The incentive was that it was an Honors course, so you know what you're getting yourself into, but at the same time like it's a Gen Ed!

Moving forward, it is important that faculty consider student expectations regarding the level of effort and type of thinking in general education courses. New courses designed using collaborative learning strategies should acknowledge and address early on some of these biases that students carry.

While the level of engagement required in the course may have been greater than other general education experiences, or at least greater than some students anticipated, this does not seem to have influenced students' overall satisfaction or interest in the course. In contrast, we found that student interest in the course was notably high. A word frequency query run against student interview transcripts illuminated the following words at the forefront: *Interesting (154); Fun (42); Enjoy (32)*. Existing research shows that learner

interest plays a key role in increasing student persistence and cultivating motivating learning spaces (NASEM, 2018a) and we find the use of the word 'interesting' to describe their learning experience 154 times across 15 interviews to be promising insight, especially when contrasted to low expectations of general education courses. Students' general satisfaction with the course was corroborated by the fact that 12 of the 15 interviewed students said they would like to take another class using this model in the future. Overall students overwhelmingly appreciated the student-driven nature of the course, and the multiple opportunities afforded to them to provide their input in both the small course sections and the co-convened sessions. Students perceived their active participation in the learning and knowledge production process as a valuable aspect of the course, and this was often portrayed as a contrast to other classroom experiences. The sharp contrasts drawn by students suggest that this curricular model helps to center the student in a way that is distinct and rewarding for them:

The biggest difference between the other gen ed I was taking and this one was that in the other one it was the teacher talking at the students and telling them whatever. But with this one it was… I want to call it Socratic. The teacher was more of a steward of what topics we'd be discussing. (Mark)

I mean, I'm used to taking Gen Ed's that are in lecture halls, where like discussion is a very small part of the actual curriculum. So actually, getting to know the people in my group, being able to talk as a class to hear everybody's opinions rather than just the narrative of the lecturer, I think that's really beneficial. (Denise)

Existing research shows that learner-centered teaching is linked to various positive student outcomes including improved critical thinking skills, increased motivation to learn, deeper learning and transferability, greater leaning satisfaction, and increased retention and persistence (Blumberg, 2019). Yet despite the strong narrative and push for learner- or student-centered teaching in higher education (Blumberg, 2019; Pascarella & Terenzine, 2005; Weimer, 2013), our conversations with students show that in many courses, especially within the current general education program, students continue to perceive that their input and engagement remains limited. This was succinctly articulated by Lexi:

I feel like it's a much different way of teaching than we're used to and format, and it becomes much more student and conversation driven which I think can be really enlightening and full of growth in its own way. (Lexi)

Later in the conversation with Lexi she described her experience in the classroom as "a very safe space for us to be able to talk and share our opinions and constructively criticize other opinions and other perspectives" and noted that while normally she would be "terrified" about raising her hand in the middle of such a big class she felt comfortable engaging in the large co-convened sessions. When I asked her to expand on the conditions that made the class feel like a safe space for her she quickly emphasized the role of the instructor:

[The instructor] makes it clear that your opinion is valid no matter what it is. And he is interested in hearing everybody's opinion. And is kind about it. And I have definitely had professors who are not like that. And I think it's really important for professors to make it clear that students' voices are valid. I think that's a really powerful thing that professors can do. (Lexi)

As exemplified in this exchange and others, the instructor team played a critical role in facilitating classroom conversations and activities. When we asked students how they perceived the role of the instructor in the pilot course nearly all referred to the instructor as a "guide" or "facilitator." For example, Denise described the instructor as a facilitator who "gives us the information, asks a couple of discussion questions just to spark it [the conversation], and then we go from there". This characterization closely mirrors the existing scholarship on collaborative classroom pedagogies, which shift the role of instructor away from lecturer – or transmitter of knowledge – to facilitator or learning guide. Evidence shows that doing so allows learning to take new directions based on what learners bring to the table, while simultaneously helping to steer the conversation to promote deeper learning (Blumberg, 2019; NASEM, 2018b). While the role of instructors remains of high importance in learner-centered teaching, the emphasis is on guiding students to create "safe, respectful, and inclusive environments that facilitate student learning" while allowing students to create meaning of the content (Bloomberg, 2019, p. 4). While creating safe learning environments should be standard instructional practice, this is especially important when promoting interdisciplinary approaches as students are asked to seek out and embrace new perspectives that they may find uncomfortable while also reflecting on the weaknesses of the perspectives

they favor. Such learning "calls for students to be open to the possibility of discovering they are not as competent, smart, or capable as they had hoped" (De Greef et al., 2017, p. 138). Echoing Lexi's earlier testament of the importance of instructors creating space for students to actively contribute in class, several other students including Kevin, commented directly on the important role of the instructors in guiding the conversation and ensuring a positive classroom environment:

The professors did a good job at directing us, at guiding us through the co-convenes, but they didn't run it, per say. Like they didn't mandate or micromanage anything. They were there to start us off, but once the students got going it really felt like we were the ones running the section (...) It didn't feel like some kind of high school-esque, you know, stereotypical teacher-student kind of thing. It felt more like a productive section where the instructor was the guide and we would just explore these ideas in a really safe place. (Kevin)

Disengagement and Loss of Direction

While instructors played a key role in guiding class discussions by providing students with shared texts, implementing collaborative structures to ensure everyone had something to contribute (i.e., jigsaw technique), and establishing a receptive and kind classroom environment, the collaborative pedagogical approach remained a source of contention for some students. Specifically, some students expressed frustration or confusion regarding the heavy use of student-directed conversations. This was most vividly captured by Mason who felt class discussions were so heavily directed by students that at times they no longer reflected the content or theme of the course. He provided the following example, among others, of a class conversation gone astray to illustrate his point:

The class just evolved into the efficacy of testing on animals, which is not what the discussion was meant to be about. You know? Again, it's fine to have these discussions, but that's not what the class was about. And I think that sort of disconnect was just frustrating (...) it really just made the class feel like it had lost itself. It didn't know where it was. The class had lost its direction. (Mason)

This frustration captures the challenge, and possible shortcoming, of asking students to direct a conversation in which they may have only a surface-level understanding of the material. While the jigsaw technique is designed to encourage students to contribute their 'expertise' in a specific area

of the learning content, this highlights a key challenge of designing interdisciplinary educational initiatives that occur prior to students developing depth of knowledge in a specific area. This is also reflected in the varied schools of thought regarding the appropriate time to introduce interdisciplinary instruction, including debates on the value of breadth versus depth of disciplinary integration (Repko et al., 2017). This highlights a fundamental challenge of this course model, as it asks learners to take on a new role (in this case a specific disciplinary lens) that they are unfamiliar with or likely understand only at a surface level. In some cases this role-playing strategy resulted in students feeling they were unable to contribute valuable disciplinary insights, or uncertainty about whether their contributions were accurate. This was captured by Marissa who commented on how her own lack of knowledge regarding photography, the specific disciplinary area she was asked to represent, posed a challenge when engaging in the jigsaw structured peer exercises:

We are all just learning new things in this class. I feel like no one was really completely comfortable in what they were talking about. Because as much as like a few hours a week in class teaches me about photography, I'm ultimately like not a photographer. I'm not fluent in that language. I'm not fluent in that subset of Fine Arts. (Marissa)

Or perhaps as more succinctly expressed by Sienna:

We talked a lot, and sometimes I didn't know what I was talking about. I was BS-ing it. (Sienna)

A few students specifically suggested that future iterations of the course provide more structure to class discussions in order to maintain focus on the intended topic and provide clarity for students regarding what is expected from them:

I felt that class time where there wasn't things assigned, it didn't feel as effective. It didn't feel like the direction of conversation was really based on anything. It's was just kind of general. (….) There was a week where I was like I don't know what we're doing. Well, you know, I'm not sure what we're talking about. (Tanya)

I'd say maybe slightly more explicit direction on what the topics are about. More specifically, what the topics we are supposed to present to our classmates are about. I know that there seemed to be a lot of confusion (Lexi)

Some students also made reference to feeling that certain students drove the conversation at the exclusion of themselves or others, suggesting that instructors may need to consider new strategies for engaging students who do not actively engage in this discussion-style format:

I don't know if you noticed but in our class it's only like three people that ever speak up. I want to speak up, but I also don't want to be that kid. (Sienna)

It definitely felt like there were the same three people talking in the class, and I felt like our professor genuinely loved listening to what they had to say (…) I just felt that sometimes it was like there was no conversation really, it was just a one-sided conversation like the one I was talking about earlier. So that was like one of the big challenges. (Simone)

These narratives highlight some of the distinct challenges that stem from the collaborative and student-centered nature of the newly proposed model that will require creative instructional strategies to mitigate. While earlier we underscored the high frequency of the words *interesting*, *enjoy*, and *fun* used by students to describe the course, it is also important to note the frequency of the following words: *Difficult* (22); *Challenging* (40); *Confusing* (24). While overall impressions of the course were positive and students expressed interest in pursuing similar interdisciplinary learning experiences and course structures, the course was not easy or without challenges for students. In addition to the challenges previously noted, students expressed confusion about expectations during classroom discussions and assignments, a lack of cohesion between the three separate sections that strained group work, and weak connections to the big idea, which undermined their ability to integrate content across course sections.

CONCLUSIONS AND IMPLICATIONS

As institutions of higher learning shift towards more integrative curricular structures it is vital that student learning remains central to this conversation and that students are actively involved in the evaluation of these teaching and learning processes. While important work has been done to incorporate the student perspective in the evaluation of interdisciplinary team teaching models (Juris et al., 2014; Looft & Myers, 2019; Nungsari et al., 2017; Self

& Baek, 2017; Yanamandram & Noble, 2006), student feedback predominately occurs through post-course evaluations/surveys containing questions about students' perspectives on interdisciplinarity and their experiences with specific course features. Consideration for how students are experiencing interdisciplinary team teaching learning environments is not a common focus of analysis. This study contributes new knowledge by centering on the experiences and perceptions of students.

Drawing on qualitative interviews with 15 Honors students enrolled in a team-taught interdisciplinary general education course, we examined how this particular course model influenced the student learning experience and promoted opportunities for the development of interdisciplinary approaches, as seen through the eyes of learners involved in the course. Similar to Noy et al. (2017) we find that students largely affirm the values of interdisciplinary education and collaboration, and see the positive impact of exposure to new perspectives. In particular, they emphasize the importance of utilizing interdisciplinary approaches when addressing contemporary big questions and/or challenges, and they independently draw parallels between what this process would entail and what was asked of them in the course (e.g. consulting others, acknowledging bias, considering multiple perspectives, collaborating with peers).

We also found evidence that this course model is well-aligned with the instructional goal of promoting perspective-taking skills and behaviors among students. Specifically, the co-convening organizational structure and collaborative pedagogical approaches underpinning the course, such as the jigsaw technique, provide various opportunities for students to engage in structured role-taking, as they assume specific disciplinary positions to approach to a common text or question. Existing scholarship notes the jigsaw technique as a tool to facilitate interdisciplinary learning for its alignment with interdisciplinary instructional aims (De Greef et al., 2017; Rives-East & Lima, 2013) and its ability to break down complex problems into more manageable pieces that students new to interdisciplinary problem solving can more readily handle (Dezure, 2017). Our conversations with students provide encouraging evidence that the use of structured and intentional role-playing afforded by the jigsaw structure promotes perspective-taking behaviors including appreciation for multiple ways of knowing. Perspective-taking is widely acknowledged as a foundational competency for engaging in interdisciplinary work (De Greef et al., 2017; Newell, 2010; Repko et al., 2017), and these findings have promising implications for future interdisciplinary curricular initiatives aiming to develop learners'

perspective-taking competencies using similar collaborative classroom pedagogies.

The collaborative and student-centered nature of the course design is overwhelmingly perceived by students in the current study as interesting and valuable to their learning. Several students specifically note how instructors value their input in class conversations. This contrasts with students' prior classroom experiences, particularly within the general education program, in which they perceived dominate instructor knowledge and limited contributions from students. These findings resonate with existing research theorizing that learners who have control over their learning environment are "more likely to take on challenges and persist with difficult tasks, compared with those who perceive that they have little control" (NASEM, 2018a, p. 117).

However, making learner-centered teaching work in an effective manner is not simple, and some students in the study suggest that the lack of guidance provided by instructors hindered their learning process and led to feelings of confusion, loss of direction, and frustration with peers. These findings suggest that while instructors play a crucial role in enabling constructive and meaningful classroom discussions, they are also tasked with the complicated role of balancing the openness of learner-centered collaboration with the necessary level of guidance, structure, and scaffolding needed to foster deep learning. Prior research has revealed that students often self-report struggling with learner-centered approaches early on, but are more likely to perceive them as beneficial with continued exposure and experience (Weimer, 2013). While this study elucidates the wide range of experiences reported by students in the course, it is also important to consider how students' prior learning experiences may have prepared them for this type of collaborative and learner-centered instruction. As we continue to push for more effective and meaningful interdisciplinary learning experiences for our students the goal is not to create innovative stand-alone classes, but rather to create an integrated set of learning experiences which collectively develop students' capacity to thrive in collaborative, interdisciplinary, learner-centered environments.

REFERENCES

Aronson, E. (1978). *The jigsaw classroom*. Sage.

Augsburg, T., Chitewere, T., & Gagnon, P. (2013). Starting with worldviews: A five-step preparatory approach to integrative interdisciplinary learning. *Issues in Interdisciplinary Studies*.

Blumberg, P. (2019). *Making learning-centered teaching work: Practical strategies for implementation*. Stylus Publishing, LLC.

Carson, R. (1962). *Silent spring.* Houghton Mifflin Harcourt.

De Greef, L., Post, G., Vink, C., & Wenting, L. (2017). *Designing international education: a practical handbook for university teachers.* Amsterdam University Press.

Dezure, D. (2017). Interdisciplinary pedagogies in higher education. In R. Frodeman, J. T. Klein, & R. C. Pacheco (Eds.), *The Oxford handbook of interdisciplinarity* (2nd ed., pp. 558–572). Oxford University Press.

Gombrich, C., & Hogan, M. (2017). Interdisciplinarity and the student voice. In R. Frodeman, R., J. T. Klein, & R. C. Pacheco (Eds.), *The Oxford handbook of interdisciplinarity* (2nd ed., pp. 544–557). Oxford University Press.

Hart Research Associates. (2016*). Recent trends in general education design, learning outcomes, and teaching approaches: Key findings from a survey among administrators at AAC&U Member Institutions.* Association of American Colleges and Universities.

Holley, K. A. (2009). Understanding interdisciplinary challenges and opportunities in higher education. *ASHE Higher Education Report*, *35*(2), 1–131.

Juris, S. J., Mueller, A., Willermet, C., Drake, E., Upadhaya, S., & Chhetri, P. (2014). Assessing interdisciplinary learning and student activism in a water issues course. *Journal of the Scholarship of Teaching and Learning*, 111–132.

Katz, P. M. (2015). *Interdisciplinary undergraduate education: CIC project on the future of independent higher education. Innovations in teaching and l earning. Research brief 2*. Council of Independent Colleges.

Luckie, D. B., Bellon, R., & Sweeder, R. D. (2012). The BRAID: Experiments in stitching together disciplines at a Big Ten University. *Journal of STEM Education: Innovations & Research*, *13*(2), 6–14.

Looft, R., & Myers, M. J. (2019). Exploring faculty and student reflections on collaborative teaching in the honors seminar classroom. *Journal of Interdisciplinary Studies in Education*, *8*(1), 140–157.

Maxwell, J. A. (2012). *Qualitative research design: An interactive approach*. Sage.

National Academies of Sciences, Engineering, and Medicine [NASEM]. (2018a). *How people learn II: Learners, contexts, and cultures*. National Academies Press.

National Academies of Sciences, Engineering, and Medicine [NASEM]. (2018b). *The integration of the Humanities and Arts with Sciences, Engineering, and Medicine in higher education: Branches from the same tree*. The National Academies Press.

Newell, W. H. (2010). Educating for a complex world: Integrative learning and interdisciplinary studies. *Liberal Education*, *96*(4), 6–11.

Newell, W. H., & Luckie, D. B. (2013). Pedagogy for interdisciplinary habits of the mind. *Insights on Interdisciplinary Teaching and Learning.* White Paper. Michigan State University East Lansing, 7–14.

Noy, S., Patrick, R., Capetola, T., & McBurnie, J. (2017). Inspiration from the

classroom: A mixed method case study of interdisciplinary sustainability learning in higher education. *Australian Journal of Environmental Education*, *33*(2), 97–118.

Nungsari, M., Dedrick, M., & Patel, S. (2017). Team teaching an interdisciplinary first-year seminar on magic, religion, and the origins of science: A 'pieces-to-picture' approach. *The Journal of Scholarship of Teaching and Learning, 17*(1), 24–36.

Pascarella, E. T., & Terenzini, P. T. (2005). *How College Affects Students: A Third Decade of Research*. Jossey-Bass.

Repko, A. F., Szostak, R., & Buchberger, M. P. (2017). *Introduction to interdisciplinary studies*. Sage Publications.

Rhoten, D., Boix Mansilla, V., Chun, M., & Klein, J. T. (2006). *Interdisciplinary education at liberal arts institutions.* White Paper. Teagle Foundation.

Rives-East, D., & Lima, O. K. (2013). Designing interdisciplinary science/humanities courses: Challenges and solutions. *College Teaching*, *61*(3), 100–106.

Self, J. A., & Baek, J. S. (2017). Interdisciplinarity in design education: Understanding the undergraduate student experience. *International Journal of Technology and Design Education*, *27*(3), 459–480.

Szasz, M. (2017). Interdisciplinary teaching of theatre and human rights in honors. *Honors in Practice*, *13*, 55–69.

Taylor, S. J., Bogdan, R., & DeVault, M. (2015). *Introduction to qualitative research methods: A guidebook and resource* (4th ed.). Wiley.

University of Arizona. (2018, November 16). *Strategic plan overview*. https://strategicplan.arizona.edu

Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice* (2nd ed.). John Wiley & Sons.

Yanamandram, V., & Noble, G. (2006). Student experiences and perceptions of team-teaching in a large undergraduate class. *Journal of University Teaching & Learning Practice*, *3*(1), 49–66.

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In Pursuit of American Higher Education: Agency and Struggle

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ABSTRACT

Over the recent decade, the United States has witnessed a growing influx of self-funded Chinese international undergraduate students into its university campuses. Mainstream U.S. media accounts have tended to hold unexamined stereotypes about these international students. The essay not only highlights the importance of exploring students' agency and struggle in their pursuit of international education. It also points out that to better understand Chinese international undergraduate students' ambition and anxiety, we must link their emotional and psychological burdens, their academic and social struggles, as well as their agency, to the changing national and international contexts where these students' transnational mobility is situated. This essay also calls for the need for further research into the politics of international student mobilities.

Over the recent decade, the United States has witnessed a growing influx of Chinese international undergraduate students into its university campuses. As the top destination country for internationally mobile tertiary students, the U.S. hosts larger numbers of international students than other English-speaking countries such as the United Kingdom, Australia, and Canada (OECD, 2019). Students from China have accounted for the largest group of international students studying in the United States. Among Chinese international students in the U.S., undergraduates have outnumbered graduate students and have only recently

become a majority of this population (Institute of International Education, 2019). Different from international Chinese graduate students who often rely on full scholarships provided by American higher education institutions, the new wave of Chinese international undergraduate students is almost all self-funded. It is the self-funded Chinese international undergraduates who are the focus of Ma's (2020) recently published book *Ambitious and Anxious: How Chinese College Students Succeed and Struggle in American Higher Education*.

Although mainstream U.S. media has covered the large-scale enrollment of Chinese undergraduate students in American colleges and universities, their accounts portray these students as a socioeconomically homogeneous, privileged population. U.S. media coverage has tended to hold a negative bias towards Chinese international students by reporting fraud issues in their applications to U.S. colleges and academic integrity violations on U.S. university campuses. Ma's study challenges unexamined stereotypes about Chinese international undergraduate students in the mainstream American media through looking at students' own voices and experiences. Different from the traditional approach to the study of international students, which often explores how students adjust themselves to the host society and assimilate themselves to another culture, Ma adopts Marginson's (2014) idea of "understanding international education as *self-information*" (7). This idea highlights the importance of exploring students' agency in their pursuit of international education. As Ma (2020) elaborates, this paradigm shift "has potential to truly understand the experiences of international students and what international education brings to them" (p. 10). The focus on the agency of Chinese international undergraduates effectively moves beyond the dominant deficit discourse that attributes their struggles in American higher education to a lack of linguistic, academic, social, and cultural competence. *Ambitious and Anxious* is a fascinating, well-written, and informative book on how Chinese international undergraduate students pursue imagined American higher education and how they experience college life and struggle academically and socially on U.S. college campuses. Instead of reviewing the book chapter by chapter, I will discuss a few key themes that the book develops and some notable contributions of Ma's work. I will also highlight the areas where I felt that the book might have critically examined or where future research is needed.

To explore international students' agency, *Ambitious and Anxious* presents diverse and multifaceted experiences of Chinese international undergraduate students in American higher education. These experiences range from their preparation for the U.S. college application process in China, to their choice of college major and social challenges in the U.S., and to their post-graduation plans. Using a mixed-method research approach, the author well integrated online surveys of Chinese students in the United States with in-depth interviews with research participants to collect both quantitative and qualitative data. Survey data provide broad patterns about students' demographic backgrounds, their motivations to study in U.S. colleges, their English proficiency, college major and

social integration, as well as their intentions to stay in the U.S. or return to China. In-depth interviews with Chinese international students reveal insights into a more complex and nuanced understanding of these students' college application process, their experiences and reflections about academic learning and social integration in both home and host countries, and their decision-making process of staying or returning. As Ma nicely puts it, "survey data and interview data speak to each other in both complementary and contradictory ways, and together they provide a fuller, richer, and more nuanced picture" of Chinese international undergraduate students in the United States (p. 248).

One of the important contributions of *Ambitious and Anxious* is that the book outlines the heterogeneity and commonality among Chinese international undergraduates studying in American higher education. In general, these students are from well-off families in terms of the Chinese family's capacity to afford tuition costs and living expenses at U.S. universities. Compared to domestic undergraduate students in China, these Chinese international undergraduates studying in the U.S. are a socioeconomically privileged group. However, they are privileged but diverse. They are diverse socioeconomically and academically. As the study points out, some of the students are the children of college-educated entrepreneurs, professors, doctors, or engineers. Some are first-generation college students with working-class backgrounds and their parents are taxi drivers, factory worker, or supermarket cashiers. It is misguided to simply assume that Chinese international students are uniformly rich and privileged. It is also wrong to presume that the students choose to study in U.S. colleges only because they fail in or want to escape from highly competitive Chinese education system and avoid high-stakes college entrance examination in China (commonly called the *Gaokao*). As *Ambitious and Anxious* documents, some Chinese international undergraduates are high academic achievers. They did take the *Gaokao* and scored high enough to be admitted into a top-tier Chinese university while they prepared for their applications to U.S. colleges and decided to attend a prestigious American university. Some students attended second- or third-tier college in China and then transferred to higher-ranked U.S. universities. Chinese international undergraduate students also take diverse pathways from high schools to American colleges and universities—through regular or international classes in Chinese public high schools; through private schools in China; through American high schools. Some of the pathways such as international classes created by elite Chinese public high schools has been critically examined by other scholars (e.g. Liu, 2018; Liu, 2020).

Recognizing the heterogeneous character of Chinese international undergraduate students, *Ambitious and Anxious* also identifies the duality of ambition and anxiety that these students share in common in their experiences resulted from their straddling the Chinese and American educational systems and social, cultural, and political norms in two distinct societies. As demonstrated in the book, Chinese students aspired to study at top-ranked American colleges and universities. In their pursuit of desirable universities, they encountered the

challenges of navigating the complex U.S. college admission and selection processes. They were anxious about not being able to achieve high test scores in TOEFL (Test of English as a Foreign Language) and SAT (Scholastic Assessment Test), to write strong personal statements, and to attend their preferred colleges. When studying in the United States, Chinese international students were ambitious about developing global perspectives and yearned to make American friends, but they felt marginalized and excluded socially and culturally at American universities. They were also frustrated by the gap between the imagined America and the real one. They felt comfortable and secure to stick to their circles of Chinese friends on the one hand; they were anxious about their inability to break out of their Chinese peer networks, on the other hand. Such duality of ambition and anxiety were also embodied in their choice of college major, the reflections on their reticence in American classrooms, and their post-graduation plans.

To better understand Chinese international undergraduate students' ambition and anxiety, we must link their emotional and psychological burdens, their academic and social struggles, as well as their agency, to the changing national and international contexts where these students' transnational mobility is situated. Some social, cultural, economic, and political changes in both China and the U.S. that Ma highlights in the book merit special attention. For instance, China's fast-growing economy in the past four decades has contributed to the burgeoning middle class in urban China. The emerging Chinese middle class' high expectations of their only child and their capacity to consume education abroad for their children encounter the fast internationalization of American universities affected by the 2008 Financial Crisis. U.S. visa policy changes also affect self-funded Chinese international undergraduate students' studying in American higher education. The unwelcoming political environment impacted by the Trump administration to foreigners and immigrants has increased these students' uncertainties about their futures. Such political contexts complicate the experience of Chinese international undergraduates in the U.S. This makes the book *Ambitious and Anxious* particularly valuable for American higher education institutions in providing resources and support for these students rather than retreating them as cash cows financially supporting U.S. universities (Abelmann & Kang, 2014). This policy implication, in fact, challenges American colleges and universities' ethics and commitment to such international students.

International student mobility is one of the major educational issues in an increasingly globalized world. *Ambitious and Anxious* draws from interdisciplinary scholarship, such as relevant literature from sociology, anthropology, immigration, migration studies, and communication studies on Chinese international students. As many readers of this journal know, this interdisciplinary approach to studying education issues entails challenges for researchers. Like all books, there were some places where I wish the author had gone further. Ma illustrates the complexities and contradictions inherent in the experience of Chinese international undergraduate students studying in American

challenges of navigating the complex U.S. college admission and selection processes. They were anxious about not being able to achieve high test scores in TOEFL (Test of English as a Foreign Language) and SAT (Scholastic Assessment Test), to write strong personal statements, and to attend their preferred colleges. When studying in the United States, Chinese international students were ambitious about developing global perspectives and yearned to make American friends, but they felt marginalized and excluded socially and culturally at American universities. They were also frustrated by the gap between the imagined America and the real one. They felt comfortable and secure to stick to their circles of Chinese friends on the one hand; they were anxious about their inability to break out of their Chinese peer networks, on the other hand. Such duality of ambition and anxiety were also embodied in their choice of college major, the reflections on their reticence in American classrooms, and their post-graduation plans.

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colleges and universities. She argues that "the duality of ambition and anxiety is rooted in the desires of emerging middle- and upper-middle class families in China to preserve their social statuses and transmit them to the next generation" (p. 6). She mentions Pierre Bourdieu's notion of cultural capital. However, she doesn't go further and make a critical analysis of how the privileged Chinese family's strategy of accumulating global cultural capital through international education has the potential to exacerbate social inequality. The absence of such a critical analysis points to the need for further research into the politics of international student mobilities, which Waters (2018) calls for.

REFERENCES

Abelmann, N., & Kang, J. (2014). A fraught exchange? US media on Chinese international undergraduates and the American university. *Journal of Studies in International Education*, *18*(4), 382-397.

Institute of International Education (2019). *Leading places of origin fact sheets*. https://www.iie.org/Research-and-Insights/Open-Doors/Fact-Sheets-and-Infographics/Leading-Places-of-Origin-Fact-Sheets

Liu, S. (2018). Neoliberal global assemblages: The emergence of "public" international high school curriculum programs in China. *Curriculum Inquiry, 48*(2), 203-219.

Liu, S. (2020). *Neoliberalism, globalization, and "elite" education in China: Becoming international*. New York, NY: Routledge.

Ma, Y. (2020). Ambitious and Anxious: How Chinese College Students Succeed and Struggle in American Higher Education. New York, NY: Columbia University Press.

Marginson, S. (2014). Student self-formation in international education. *Journal of Studies in International Education*, *18*(1), 6-22.

OECD (2019). *Education at a Glance 2019: OECD Indicators*. Paris: OECD Publishing. https://doi.org/10.1787/f8d7880d-en.

Waters, J. L. (2018). International education is political! Exploring the politics of international student mobilities. *Journal of International Students*, *8*(3), 1459-1478.

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Forging the Ideal Educated Girl: The Production of Desirable Subjects in Muslim South Asia

Khoja-Moolji, S. (2018). University of California Press. ISBN: 978-0520970533
Reviewed by: Taiwo Adenuga, *Morgan State University, USA*.
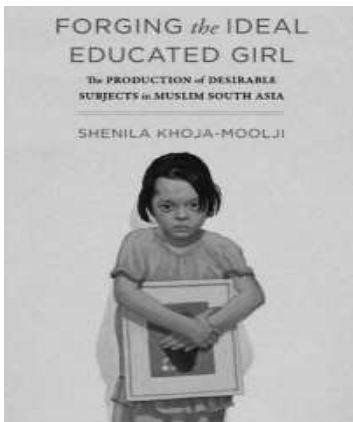
Shenila Khoja-Moolji's (2018) *Forging the Ideal Educated Girl* explores the history of Muslim girls/women in South Asia and their difficulties in acquiring an education. This book piqued my interest because girls' education is a highly debated topic globally when it comes to the Islamic religion. Women's education happens to be a significant concern for both religious leaders and educational activists in both the colonial and post-colonial eras for Indians and Pakistanis. In attempting to depict the figure of an ideal educated girl, Khoja-Moolji (2018) explored several texts, advertisements, television shows, political speeches, and first-person narratives. Perhaps most importantly, the author also delved into archival methods of women's writing in Urdu, which demonstrated action toward changing a narrative that had long rendered women without a voice in the campaign for educational reform.

This book is a worthwhile read for scholars seeking to learn about the history of Muslim women's education in South Asia, as well as for those who wish to understand the events through which South Asian Muslim women

acquired education from the late 1800s through today. Khoja-Moolji's (2018) work also explored class-based differences in access to education and the corresponding roles of politics, religion, and patriarchy. The author explores the efforts of political reformers, social activists, and religious figures to want to protect their women and family structure from modernity, so they created the concept of ideal Muslim girls/women through educational reforms.

Throughout the six chapters, the author provides different perspectives of the ideal educated Muslim girl/woman. The author started the book by examining what it meant to be an ideal educated girl through the religious lens, which forbids any form of women/girls' getting an education. Citing a case of Malala Yousafzi, who was attacked in Pakistan in retaliation for her activism for the education of women and children, as well as the Nigerian Chibok girls kidnapped by the Islamic terrorist group, Boko Haram, Khoja-Moolji (2018) explained that ingrained in the identity of the educated Muslim girl is an instinct to fight for herself by challenging her societal repressive and primitive culture of preventing girls getting an education.

What these girls have in common was their desire to seek a formal education, which these conservative groups strongly consider haram (forbidden). Khoja-Moolji (2018) presents an impressive review of archival information. The book details how societies dictated that Muslim women and girls were forced to act against the norms of their local culture and traditions to earn an education.

The book illustrates how despite modernization and international movement toward the empowerment of women and girls' education, the primary role of women is still being perceived as "house management" made to take care of the family. An advert by the Pakistan International Airlines (PIA) in 1992 depicts an image of a pilot and air hostess with the caption "on the world's most interesting airline; our pilots have been trained for years… our hostesses for centuries" (p.61). This advertisement only affirms the societal perception and believe that an ideal woman's responsibilities lie in the traditional caregiving role.

The author asserts that Muslim girls across the world should continuously seek empowerment to gain access to formal education to reform their own oppressive cultures. The book examines the limitations of educated Muslim girls and women's education in different historical eras. Most importantly, the book illustrates how society might observe, through the rise of the educated girl, the potential for eradicating poverty, violence, and terrorism in today's world.

To conclude, it has been over 200years, and it is glaring that very little has changed from the narrative of how the colonial officers,

missionaries, and social reformers conceptualize women's education. It is apparent that the majority group of the society was and is still conservative with the desire to maintain patriarchal structure at all costs. The society dreads the thought of having an equal, liberated, and independent women, with the impression that these unconventional women is dangerous and can disrupt the stability of the home and society, hence the need to curb it under the philosophy of "an ideal Sharif woman." This book provided a tremendous insight into the varying perspectives that surrounds an ideal girl's education even though over the years, the definition of an ideal woman changed to meet both the economic and societal demand; it is still deeply rooted around the traditional belief of the role of women in society.

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Going to University: The Influence of Higher Education on the Lives of Young South Africans

Case, J. M., McKenna, S., Marshall, D., & Mogashana, D. (2018). African Minds. ISBN-978-1-928331-69-8 (paper)

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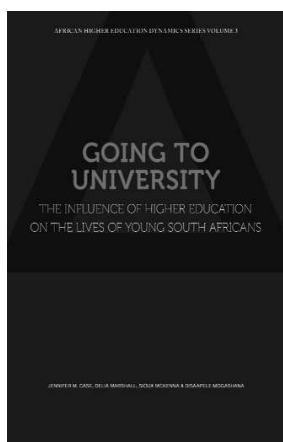
Going to University: The Influence of Higher Education on the Lives of Young South Africans is a great book written very well by the authors. The use of the narratives gives the book an engaging and readable quality. The authors interviewed and narrated the stories of 73 young people six years after they enrolled at one of the urban schools in South Africa. As the book progresses, the authors further introduced us to 20 young people whose stories were narrated in detail.

The beginning of the book included different stories of two people who give another perspective on how success and failure are viewed when it comes to college students. The first person got his degree and eventually got funding to pursue his Ph.D. while the second person had to go back home because he could not complete his degree. The first person is society's definition of success, while the second person who could not complete his degree represents society's view of failure.

Each chapter in the book introduces the reader to different narrative used to demonstrate and expatiate on an evolving argument about how young

people of South Africa, despite the personal, environmental, and socio conditions, navigate their way through university to make the best out of their lives and give themselves the best type of life they want to live. Chapter by chapter, the authors explained how institutions of higher learning set up its structure, especially in the area of undergraduate curriculum and student fees, which are factors that goes beyond the control of the students.

These factors have the power to limit or enable college student's ability to persist. The chapters look at how these structures can prove a hindrance to the choices made by college students and the decisions which these young people must make on their college choice and the program of study. The chapters further considered the broader college student experience at higher education institutions, the negative effects of not completing one's degree of first choice just as the story of the young person that was narrated at the beginning. The authors also looked at the overall goal and mission of higher education in young people's lives.

Among the young people that were interviewed who, despite the financial limitations imposed on them, still found a way to succeed in their academics, realized that financial aid was not as easy as it seemed. There was pressure to complete the degree on time still so students could get into the workforce to provide financial support for themselves and their families. No doubt that financial stress for young people and their families can be a waking nightmare, and it can be a considerable factor in talented students not completing their degrees. On the other hand, students that got funding enjoyed a greater sense of freedom to appreciate university without any financial stress.

Another factor linked to the first is the importance of young people's access to networks and powerful connections. These connections can be people from family or the student's connection who can link them up with obtaining funds and other career opportunities. Family members with in-depth knowledge of higher education would tend to give young people advice that will help them succeed college and help them make a great decision on their college choices. The lack of this kind of advice makes it hard for students to navigate through college successfully.

A key insight that emerged from the book is that there are far deeper challenges, such as the absence of required resources necessary for success that can include the lack of adequate funding to study the desired program choice, maladjustment, social circumstances, lack of family support, guidance and counseling, and lack of access to important networks that connect young people to jobs. These key issues can limit young people's drive

and motivation to push through university and into the workplace. The most goal-driven students can be hindered by these conditions.

This eloquent book appeals to higher education scholars who are in the field and also higher education leaders and administrators such as faculty and staff, administrators, and higher education policymakers. Although the authors of the book only highlighted the higher education issues in South Africa, the message is not limited to South Africa. Its reach will most definitely go beyond the local boundaries of the country. The stories in the book speak to much broader issues centered around class, gender, race, and how college student manages to thrive despite all the challenges. The stories are relatable as they highlight prominent issues facing higher education all over the world.

Finally, the authors of this book did an excellent job of providing a great reminder that higher education institution leaders have a purpose in the lives of young people. One of the most important roles higher education has to accomplish is to ensure that university leaders create an enabling environment that young people get the best opportunity to build lives in which they can grow and, to a large extent, contribute to the development of the society in which they live

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