A Critical Review of the Best Practices for Displaced Students in Orange County Public Schools

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A CRITICAL REVIEW OF THE BEST PRACTICES FOR DISPLACED STUDENTS IN ORANGE COUNTY PUBLIC SCHOOLS

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Chapter 1: Introduction

In response to Hurricane Maria, thousands of families were displaced to central Florida leading to an influx of nearly 12,000 students into Orange and Osceola county school districts. In order to propose best practices for displaced students, I interviewed key persons, incorporated news items, and performed a critical review of the existing literature. Utilizing the Education Resources Information Center (ERIC), EBSCO, and Google Scholar databases, among others, the selected literature was found through searches of key terms, including curriculum, trauma, English Language Learners, and technology. I review this literature below, and I advocate for curricular and administrative best practices that reflect the needs of students impacted by disaster and reflect community-level challenges. My primary aim is to increase awareness of the challenges faced by displaced students and propose future directions for how to improve both academic and social conditions for these students, especially as little literature currently exists regarding these students.

Hurricane Maria

On September 20, 2017, Hurricane Maria, a category 4 storm, hit Puerto Rico leaving behind $90 billion worth of damage and an estimated 4,645 deaths (Kishore, Marqués, Mahmud, Kiang, Rodriguez, Fuller, and Buckee, 2018; DiJulio, Muñana, and Brodie, 2018). Homes and businesses were destroyed, access to food and clean water was limited, and power outages were widespread throughout the island (DiJulio et al., 2018). Of the island’s population, 83% of people were impacted by the hurricane in some form, with 22% of households having at least one person in need of additional trauma support services (DiJulio et al., 2018).

The United States federal response to Hurricane Maria was severely lopsided in comparison to the response and efforts allocated to victims of Hurricane Irma and Hurricane
Harvey (Johnson, 2019; Willison et al., 2018). It is estimated that Maria caused $90 billion of damage compared to $125 billion caused by Harvey and $50 billion caused by Irma (Willison et al., 2018). However, the severity of the storm and resulting damage do not accurately reflect relief efforts and response. Hurricanes Harvey and Irma had greater federal relief efforts than Maria, yet Maria had the highest death toll at 3,040 deaths. In an effort to counteract the poor governmental response to Maria, Betsy DeVos, the U.S. Secretary of Education, and Stephanie Murphy, Florida’s congresswoman representing the 7th district, secured $2.7 billion of federal aid for schools to supplement their recovery efforts in response to a multitude of natural disasters; Florida specifically received funding for Hurricanes Maria and Irma (U.S. Department of Education, 2018).

Florida received more federal aid than Puerto Rico following the hurricane. This was especially detrimental as the island of Puerto Rico is made up of one large school district, which made it the largest public school system in the United States prior to Hurricane Maria. It was responsible for over 350,000 students (OCPS, 2017). This district had already been struggling financially and even before Hurricane Maria saw the closure of 179 schools (OCPS, 2017). Since Maria, many students and teachers still on the island have transferred to other schools due to the extensive damage resulting in 263 schools that are now permanently closed (Ujifusa, 2018). Ujifusa’s study (2018) also found that in September of 2018, one year after the hurricane, enrollment dropped from 350,000 students to 307,587 students enrolled. Students in Puerto Rico and students displaced to the U.S. mainland are struggling severely to find adequate access to quality education and resources.
**Displaced Students and Families**

As in the aftermath of Hurricane Katrina in 2005, Florida schools were quick to open their doors to student refugees of Hurricane Maria in 2017 (Hechinger, 2005; OCPS, 2017). Hurricane Maria brought in a new wave of displaced students suffering from trauma. Following Hurricane Maria, 11,554 displaced Puerto Rican students were enrolled in Florida public schools, predominantly in Orange County and Osceola County (Hinojosa, 2018; Sutter, 2018). Pam Stewart, the Florida Commissioner of Education, instituted emergency orders allowing students and teachers to enroll immediately (Emergency Order Relating to Students and Teachers Displaced by Hurricane Maria, 2017). Students were admitted without records, including those indicating proof of age and school-entry health examinations. Teachers from Puerto Rico were not required to pay application fees to obtain their teaching certification in Florida. Additionally, Puerto Rican teachers did not need to provide official transcripts documenting their teaching degrees/education.

For families arriving in Central Florida, the Orlando Multi-Agency Resource Center (MARC) was established in the baggage claims of the Orlando International Airport to offer services to those impacted by Maria (Orange County Government, 2017). Holyoke, Massachusetts and Hartford, Connecticut set the example for establishment of the MARC for their responses to receiving displaced families. In Holyoke, the government and schools worked together to provide therapy groups for families to establish a sense of security. Similar efforts were seen in Hartford as bilingual teachers came out of retirement to help displaced students. Additionally, Hartford schools bought coats, scarves, and gloves for students to prepare them for the snow-filled winter unfamiliar to these families (News 13 Florida, October 3, 2017).
In an interview with Javier Melendez, Director of Human Resources and Special Projects of Orange County Public Schools, he confirmed that the establishment of the MARC was ordered by governor Rick Scott and supported by the American Red Cross, the Federal Emergency Management Agency (FEMA), the Florida Department of Children and Families, and Orange County Public Schools (OCPS), among many other local organizations, to provide triage support, specifically for housing, medication, education, and language (Javier Melendez, phone interview, January 25, 2019). The MARC was established October 3, 2017 and remained active until March 30, 2018 serving approximately 900 people per day or an estimated total of 34,000+ individuals (Orange County Government, 2017). As a result of the MARC, OCPS enrolled 2,700+ students (Javier Melendez, phone interview, January 25, 2019). With this increase in enrollment came challenges for OCPS and other public school systems taking in displaced students.

In the case of Hurricane Maria, displacement is defined as the act of being forced to move from Puerto Rico to the United States, leading to changes in living situations, family dynamics, and enrollment in new school systems. One or more “non-promotional” change of schools is the largest predictor of a student’s poor academic success (Pane et al., 2008). Displaced Puerto Rican students were forced to relocate following a severe natural disaster, making their change in schools unforeseen and, in many cases, unwanted. Forced mobility challenges students to develop new relationships and social circles, while adjusting to different teachers, an unfamiliar culture, and a new school (Pane et al., 2008). For high school students, adjustments pose more of a challenge than for younger school children (Harper and Jong, 2009). As exemplified by Pane et al. (2008), a single occurrence of mobility during high school enrollment doubles the likelihood of students dropping out before graduation.
**Educating Displaced Students**

The marginalization of displaced students in mainstream classrooms of Florida public schools further exacerbates the psychological difficulties displaced students face. As evidenced by Harper and Jong’s study (2009), most teachers have adopted generic teaching practices applied to a range of diverse learners rather than adopting targeted practices geared towards the success of displaced Puerto Rican students identifying as English Language Learners (ELLs). This one-size-fits-all approach to education is inadequate for this population, as it places students at a disadvantage in an already challenging environment, intensifying inequities. Unfortunately, many policy makers and administrators have adopted the mentality that it is the responsibility of these struggling, displaced ELLs to play catch up and contend with their non-displaced classmates (DeCapua, 2016).

Formal education in the United States is vastly different from the educational models adopted by other countries. Our education system is dependent upon the ability of learners to convey information through written language and literacy; to be self-sufficient as exemplified by independent success in the classroom; and to demonstrate knowledge through decontextualized tasks, starkly different from educational models such as that of Puerto Rico, focused more on vocational and day-to-day skills (DeCapua, 2016). Teachers are challenged to find best practices for displaced ELLs inexperienced with the education system of mainland United States (DeCapua, 2016). It is the role of educators to adopt a holistic approach that is suitable for their students, not just a generalized population. When deciding on the appropriate approach for a group of students, educational and psychological difficulties must be taken into account in conjunction with the available school resources. Above all, a commitment is required of educators to implement new knowledge and practices to best serve these students.
Orange County is one of the most racially and economically diverse counties in the state of Florida, already posing a challenge to its school professionals (Data USA: Orange County, FL). With the diverse array of students comes a diverse array of needs. Displaced students entering the districts as a result of Hurricane Maria presented a further challenge to the district. While Orange County Public Schools is likely to employ more strategies and have more resources than most school districts for displaced students, their actions are still insufficient in adequately meeting the needs of these students.
Chapter 2: The Impact of Disasters on Students

What follows is a review of the literature on the educational difficulties and psychological challenges that displaced students face on a daily basis when integrating into a new school and culture.

**Educational Difficulties**

Students’ academic success is a key determinant of future prospects and success. Students cannot succeed academically without teachers’ proper understanding of the challenges they face as displaced ELLs, including their language/cultural barrier and inappropriate class placement. Ward et al. (2008) found that displaced students have 2.5 times greater odds of dropping out of school in relation to non-displaced students. It is critical that school districts account for such risk factors as a means of ensuring maximum student success and retention in school.

Cultural and language barriers and learning experiences in other countries’ educational models create different cognitive pathways than those needed to be successful in U.S. models of formal education (Cole, 2005). Specifically, other cultures, such as Japan and Puerto Rico, value informal learning based on realistic day-to-day tasks facilitating interdependence and relational harmony, whereas the U.S. values a highly individualistic culture utilizing decontextualized textbook-style learning tasks (DeCapua, 2016; Kitayama et al., 2010).

Students displaced by natural disasters are affected adversely by inappropriate classroom placement. In the face of natural disaster, schools are often damaged leading to the loss of any school records (Ward et al., 2008). With that, displaced students or their parents often are asked to determine their own appropriate educational placement, a challenge cross-culturally with different educational models. When students are inappropriately placed, they may experience
decreased cognitive function and increased attention deficits (Ward et al., 2008). Poor academic success leads to low rates of retention, a particularly common issue among displaced students.

**Psychological Difficulties**

In assessing best practices for displaced students, it is critical that psychological challenges and trauma be considered, as students cannot effectively engage in educational practices if they are psychologically unwell. Furthermore, poor academic achievement can exacerbate psychological stress (Rothon, Head, Clark, Klineberg, Cattell, and Stansfeld, 2010).

Trauma is classified as either acute trauma, caused by the exposure to one devastating experience, or complex trauma, caused by repeated exposure to a series of traumatic situations (Bath, 2008). In the case of these displaced students, they suffer acute trauma resulting from natural disaster. Such trauma may lead to a series of mental health disorders, including post-traumatic stress disorder (PTSD), depression, anxiety, and suicidal ideation (Ward et al., 2008). Displaced students from Puerto Rico are less likely to be responsive to psychological treatment due to cultural stigmas concerning mental illness. In Puerto Rico, people struggling with emotional and/or psychological challenges are considered “loco,” or crazy (Ujifusa, 2018).

Post-traumatic stress disorder is of particular concern; as defined by the American Psychological Association, PTSD is an anxiety-based mental health disorder that develops in response to extremely traumatic events. It typically causes other mental health concerns and leads to difficulty sleeping, concentrating, and emotional detachment (Pane et al., 2008). Other bodily systems and response mechanisms are impaired in response to such trauma, including attachment systems responsible for regulation, dissociation, cognition, and behavioral control (Cook, Spinazzola, Ford, Lanktree, Blaustein, Cloitre, De Rosa, Hubbard, Kagan, Liataud, Mallah, Olafson, and van der Kolk, 2005). Common PTSD symptoms for those impacted by
Maria range from fear of rain at night to violent behavior and suicide (Ujifusa, 2018). Ujifusa (2018) reports that manifestation of these symptoms in Puerto Rico’s younger generation has led to increased prevalence of depression and trauma, increased suicidal tendencies and teenage pregnancies, and manifestations of addiction.

In addition to mental health disorders, stress too is a byproduct of severe trauma. A child’s level of stress is dependent upon their proximity to the trauma and the extremity of the trauma (Ward et al., 2008). Parental stress and trauma affects children, further intensifying their personal trauma (Pane et al., 2008; Ward et al., 2008). Specifically, changes in parents’ living situations may lead to constant changes in schools. Changing schools heightens stress levels, as students are forced into further stressful experiences amidst existing trauma. Pane et al. (2008) demonstrated that changing schools is as stressful for children as it would be having a parent in the hospital or in jail. Not surprisingly, students struggling with such psychological difficulties are more likely to present disruptive behaviors in academic settings. Displaced students have 1.5 times greater odds of being suspended or expelled from school (Pane et al., 2008). It is critical that teachers and administrators are aware of these challenges that displaced students face as they develop resources and practices to support them.
Chapter 3: Curriculum Best Practices for Displaced Students

In the face of influx of large populations of displaced students, schools are pressed for sufficient staff and finances to support incoming students. In Central Florida following Hurricane Maria, class sizes were increased, raising concerns with laws implemented by the state. Dr. Barbara Jenkins, the superintendent of OCPS, encouraged the school board to lift limits on class sizes despite penalties from the state (Javier Melendez, phone interview, January 25, 2019). Shortly after, Governor Rick Scott waived class size penalties in thirteen school districts in response to high student demands (Postal, 2017). However, displaced students need more than seats. Both academic and psychological needs must also be taken into account. There must be an increased delivery of mental health counseling and increased tutoring opportunities for displaced students which may require the necessity of hiring additional staff (Pane et al., 2008).

Schools must also be cognizant of staff well-being as they take on additional classroom duties. When working with displaced students or students suffering trauma, teachers may adopt the role of mental health counselor (Lander, 2018). In doing so, teachers must ensure that they too are implementing good personal mental health practices. It is not uncommon for staff to develop secondary traumatic stress (STS) or compassion fatigue (Lander, 2018). Secondary traumatic stress is similar to PTSD, as it affects teacher happiness, their health, and their ability to do their jobs. Schools must recognize the emotional stress of both staff and students in order to effectively ensure provision of quality education and maintenance of good health. For school districts such as OCPS who have hired additional staff from Puerto Rico, it is important that schools ensure that these staff members have the necessary resources to handle their own issues in addition to caring for students (Ujifusa, 2018).
OCPS specifically has not adopted any new bilingual practices for incoming displaced students. Rather they have placed emphasis on ELLs and providing accommodations in line with pre-established instructional approaches (Javier Melendez, phone interview, January 25, 2019). However, displaced students need practices beyond the scope of the ELL curriculum. In order to determine the most appropriate practices and educational models for a selected population of displaced ELLs, academic difficulties, psychological difficulties, and available school resources must all be considered. Each of the following models must be considered and assessed for implementation in schools serving displaced students.

**Models for Trauma-Related Care**

*Trauma-Informed Care*

In order to foster a supportive caring atmosphere while identifying students suffering from acute and complex trauma, a trauma-informed care approach to education is recommended (Lander, 2018; Dressler and Gereluk, 2017). Successful clinical attention cannot be provided until students are immersed in an environment in which they feel comfortable and safe. Bath (2008) demonstrated that most of healing following trauma can actually take place beyond the walls of clinical settings, indicating the necessity of implementing a trauma-informed care approach in the classroom.

In identifying students needing trauma-based care, healing must be approached through an understanding and conceptualization of one’s safety, connections/healing relationships, and coping skills (Bath, 2008). Trauma has a severe and long-term impact on the human brain, leaving the brain threat detection systems in a state of overactivity even many years later, as demonstrated by sufferers from September 11, 2001 (Ganzel, Casey, Glover, Voss, and Temple, 2007). Psychological impacts were still present in victims a full five years post-trauma,
inhibiting their sense of safety. Children have an especially high level of vulnerability in such traumatic instances, leaving them in a constant state of alarm even in situations when no external threats are present (Perry, 2006). In academic environments this can be particularly detrimental; often, affected students perceive adults as a source of harm rather than comfort, making it difficult for teachers to build rapport with their students (Seita and Bendtro, 2005). When interacting with suffering students it is imperative that students are given power and control over their circumstances when possible to avoid additional pain beyond the primary pain that they are already experiencing (Anglin, 2002; Perry, 2006).

Before safety can be reestablished, healing relationships must be formed. In the case of the displaced Puerto Ricans, their teachers are in a primary role for facilitating these connections. Specifically, teachers must restructure associations with children to overturn the negative emotions they have towards adults (Anglin, 2002). In doing so, students will regain the ability to make judgments and distinguish when there is an immediate threat of harm versus when there is not, particularly as it applies to their relationships (Bath, 2008).

While safety and healing relationships are critical in trauma-informed care, emotional regulation is the most fundamentally important aspect, as the ability to manage emotions is imperative for healthy development (Alvord and Grados, 2005). The orbitofrontal cortex of the brain is highly involved in emotional regulation and management (Schore, 2003). This region of the brain has high plasticity, providing humans with the capacity to learn new emotion management skills, well beyond childhood (Bath, 2008). In helping students develop emotional regulation, it is important to co-regulate with students by consciously labeling and identifying troublesome emotions together (Lieberman, Eisenberger, Crockett, Tom, Pfeifer, and Way, 2007). Emotional co-regulation instills a calming effect centered around a group rather than
individual effort, greatly beneficial to the student. Though teachers have an advantage in their role as primary caregivers in the classroom, they are only one part of the solution.

Trauma Informed Positive Education Model

Similar to Trauma-Informed Care practices, the Trauma Informed Positive Education Model encompasses the need for safety, healing relationships, and emotional regulation (Brunzell, Stokes, and Waters, 2016). Each of these aspects will be described and an example will be provided of how it can be practiced in a high-school classroom setting.

Trauma-suffering students have inhibited regulatory abilities, specifically emotional regulation. Sensory integration encourages students to repair these pathways by relearning how to process sensory information with an organized and coherent methodology (Brown and Dunn, 2002; Biel and Peske, 2005; Heibert, Platt, Schpok, Whitesel, and Perry, 2013). Sensory accommodations can include separate seating and workspace, fidget toys, and some form of music therapy during classroom downtime or a fine arts class. Similarly, rhythm and repetition in classrooms allows students to maintain regulatory functions of the brainstem, specifically heart rate, body temperature, and respiration (Perry, 2006; Ratey, 2008). Teachers should make sure students have consistent daily schedules with lesson timetables in each class. Additionally, regular short breaks should be scheduled throughout the school day for students to reset.

To encourage development of healthy relationships and repairment of disrupted attachment, collaboration among students or with the teacher should be highly encouraged. Strong relationships are the foundation of healing, personal development, and learning, as relationships provide a means for neurophysiological co-regulation (Schore, 2012; Roffey, 2013). With this model, placing an emphasis on small group work creates a classroom environment centered on the promotion of safety and modeling of positive relationships.
Similarly, trauma impacted students must re-establish emotional intelligence to regain the ability to self-regulate by distinguishing between thoughts, feelings, and actions, especially as it pertains to understanding social cues (Schultz et al., 2004; Rivers et al., 2012; Lomas and Stough, 2012). To further facilitate strong relationships teachers can encourage small group sharing activities for students to report emotions and for teachers to then assess their emotional states.

The most resource intensive dimension of the Trauma Informed Positive Education Model is the provision of increased psychological care. It is recognized that not all school districts have the financial capabilities to hire additional school counselors, so teachers must step in and act as a middle ground by offering opportunities for positive engagement. Positive engagement centers around a concept called ‘flow,’ which is defined as optimal engagement with a concentration on student interest and enjoyment (Csiksentmihalyi 1990; 1997). By integrating flow in classroom-based learning, a model of progressive development from highly intensive hands-on learning to individual academic perseverance is created. Such development is best measured by regular assessments and continual student feedback.

**Models for Socio-Cultural Integration**

*Culturally Relevant Pedagogy*

Culturally relevant pedagogy, or culturally responsive teaching, is beneficial for students unfamiliar with U.S. formal education models and for those with a language barrier that further exacerbates their challenges to culturally integrate. This teaching method takes cultural differences into account and bridges the gap between the two cultures to ease transition into U.S. educational models (Dressler, 2017). Above all, culturally relevant pedagogy extends beyond the “heroes, holidays, and food” approach to cultural exploration (DeCapua and Wintergerst, 2016; Ngo, 2010).
Uniquely, culturally relevant pedagogy bridges the gap by focusing on both instructional strategies and classroom discourse, specifically student-student and teacher-student interactions (McIntyre, Hulan, and Layne, 2011). This model can be adapted into standard classrooms settings, in-class workshop time, and even student homework. Per McIntyre, Hulan, and Layne’s instructional text for diverse classrooms, five major themes are proposed constituting the culturally relevant pedagogy model for teaching:

1. Connect curriculum tied to the students’ background and interests.
2. Use curriculum to build on students’ home language and/or dialect.
3. Plan for dialogue specific instruction time, including with other students or the teacher themselves.
4. Maintain an intensive and rigorous curriculum unaffected by challenges of cultural barriers.
5. Consistently attend to and monitor classroom discourse, such as wait time and types of questions asked by students.

These themes can be applied to a number of instructional contexts, including core-reading instruction (Figure 1). Most importantly, McIntyre’s instructional guide encourages that all instruction is explicit in that students know exactly what to do and exactly what is expected of them. Implementation of culturally relevant pedagogy is important for facilitating the transition of ELL students into mainstream classrooms in the United States.

**Mutually Adaptive Learning Paradigm (MALP)**

The Mutually Adaptive Learning Paradigm (MALP) has been found to be most successful for struggling ELLs transitioning to U.S. formal education (DeCapua and Marshall, 2011; Marshall and DeCapua, 2013). OCPS has adopted this practice and integrates students by
preparing holiday celebrations during November/December, knowing that many students are not able to spend the holiday season with their families (Javier Melendez, phone interview, January 25, 2019).

The Mutually Adaptive Learning Paradigm created by DeCapua and Marshall has had success with struggling ELLs with little formal education, poor literacy skills, and a lack of grade-level knowledge (DeCapua, 2016). ELLs are able to participate in formal education; however, learning is geared towards their success by first developing their current body of knowledge and by utilizing experiences that they may already have. In doing so, this is a mutually adaptive approach, meaning that both students and teachers must make adjustments to meet in the middle (DeCapua, 2016). Most importantly, it provides the groundwork for teachers to figure out what is effective, ineffective, and what needs to be improved upon in the classroom (DeCapua, 2016).

As mentioned previously, U.S. formal education is modeled quite differently than that of other countries. Formal education takes an approach of independent, future oriented tasks challenging individual accountability and the ability of students to convey information through the written word. In stark contrast, ELLs who struggle most typically come from an education geared towards interconnectedness and a community-based approach to solving tasks of immediate relevance. Responsibility is shared between student and teacher with all information and knowledge being transmitted orally (DeCapua and Marshall, 2011; Marshall and DeCapua, 2013). The MALP bridges the gap between these two models of education, challenging teachers to consider learning conditions and to design tasks that are accessible to all students.

Under the conditions of MALP, lesson plans should be immediately relevant to students and students should be developing interconnectedness as a result. However, challenges arise as
both of these teaching elements are not present in classrooms beyond the early years of schooling (Paris, 2012). Particularly in high-school, formal learning takes a future-based approach to problem solving, challenging ELLs to find meaning in completing these tasks (Robinson, 2011; DeCapua, 2016). Similarly under MALP, teachers are challenged to design lesson plans that incorporate both individual accountability and shared responsibilities in completing tasks. Teachers should be aware that in our education system it is difficult to encourage group learning, because regardless, individuality remains the norm (Weimar, 2013). Formal education curricula also place heavy focus on literacy and the ability to convey information through the written word, not just spoken language. It is important that the written word is facilitated through oral interaction, especially with accessible language and content.

**ELL Specific Approaches**

For displaced ELL populations, language is the greatest obstacle that students have to surmount in achieving quality education. However, this burden cannot be placed solely on students. Teachers and administrators must be responsive and accommodating to their needs. To do so, teachers and administrators must have a comprehensive understanding of students’ different English proficiency skills, instruction must be made comprehensive through a diverse range of learning strategies, an understanding of students’ cultural backgrounds should be ascertained, and all efforts towards ensuring a welcoming and safe classroom environment should be made (Harper and Jong, 2009). In this section, English Language Learner specific approaches appropriate for displaced students are proposed, specifically advocating for the use of real-world learning and for the utilization of comprehensible input.
**Real-World Learning**

Learning that relates to the real-world allows students to engage with and explore concepts relevant and important to students (Li, 2013). Instructional content becomes more engaging for all students when it relevant to their own lives (Lombardi, 2007); additionally, real-world application is particularly useful for ELLs in learning English communication skills applicable to situations beyond classroom curriculum. ELLs are typically able to produce accurate communication in the classroom, but cannot effectively perform outside of the classroom due to the limitations in vocabulary and language learned.

Implementing real-world learning can occur in any subject or lesson plan (Li, 2013). For example, in a mathematics or accounting class, students can learn how to set a budget or buy a house; in a social studies class, students can learn how to manage a city or study current news events; or in a science class, students can solve a crime through a series of experiments. To engage with these real-world examples, students can role-play, utilize case studies, or work on problem-based activities. Through such interactions and breadth of techniques, ELL students have the opportunity to engage with other students obtaining collaborative skills, an interdisciplinary perspective, and improved language skills (Lombardi, 2007). Authentic learning practices not only benefit ELLs, but all students in integrated classrooms, making this particularly beneficial for instructors to implement.

**Comprehensible Input**

To effectively learn and retain content, ELLs need to be able to understand what is being presented to them; they do not need to understand every word, rather the overarching message (Li, 2013). Comprehensible input is the language input understood or the comprehended message by a listener.
Specifically, comprehensible input for ELLs goes far beyond using oversimplified words. It has been found that second language acquisition is improved when the input is slightly more difficult than what the listener can understand (Li, 2013). ELLs do not need to understand every word to effectively learn. Further, survey students’ prior knowledge to establish the groundwork for presenting new instructional material (Dong, 2013). Always provide students with background knowledge and relevant context information to supplement learning. In presenting new material, utilize visual aids and physical objects including photos, diagrams, and body gestures (Li, 2013; Dong, 2013). Such visuals are beneficial for when text cannot convey concepts. For example, in science, concept mapping diagrams are particularly useful for synthesizing prior and new knowledge together. In utilizing these techniques to help ELLs understand instructional content, students better retain new vocabulary and material. The presented techniques can be utilized in both ELL specific classrooms and integrated native and non-native speaker classrooms.

**Technology-Based Approaches for ELLs**

*Flip Teaching for e-Learning*

Flip teaching, also known as “inverted learning” or “flipped classroom,” is the practice of reversing the traditional order of classroom practices, specifically by assigning homework or outside classwork prior to lecture (Hung, 2015). Homework and/or outside classwork is often supplemented with instructional videos to emphasize student preparation before class. Inverted learning is particularly beneficial as it frees up in-class time for different learning activities including group discussions, case studies, and/or collaborative learning (Moffett, 2015). This method of teaching is particularly beneficial for English Language Learners as it allows these
students to preview and learn content at their own pace and based on their own respective needs (Hung, 2015).

In the case of displaced students from Puerto Rico, more emphasis on outside of class preparation allows students to spend time translating material so they may utilize in-class time for individualized attention from instructors to ask questions and clarify academic material. However, with a reliance on flipped teaching comes greater responsibility for both the students and teachers. To adequately prepare for successive class periods, students be responsible and have some level of intrinsic motivation to complete the out-of-class preparation work (Moffett, 2015). Similarly, teachers must dedicate time to converting their lectures into accessible formats, such as narrated PowerPoints, instructional videos using lecture capture tools, and/or utilizing ready made videos from Khan Academy and/or TED. Currently in OCPS, students in every high school and middle school are equipped with their own electronic device, facilitating the ease and necessity for e-Learning.

**Assessment Strategies**

Regardless of district requirements, assessments for ELLs should only be administered if they meet the standards of being valid, reliable, and considerate of home language (Erben, Ban, and Castañeda, 2008). To be valid, an assessment must accurately reflect skill level; to be reliable, an assessment must produce the same result when administered repeatedly to a student. A strong correlation exists between ELL language ability in non-native language and their performance in content areas (Abedi, Leon, and Mirocha, 2005). Translating assessments alone is not sufficient, as students are taught concepts in the context of English; therefore, instruction and assessments should be administered in the same language (Erben et al., 2008). Rather, it is proposed that language on exams be modified to reduce complexity, along with visuals to be
utilized to further narrow the performance discrepancies among native and non-native speakers. Other accommodations can include extra test-taking time, use of a glossary/dictionary, and/or the ability to take breaks during assessment times (Abedi, Lord, Hofstetter, and Baker, 2005).

Assessments do not always have to take the form of a standard written exam. Teachers can also utilize technological practices, including e-portfolios, e-surveys, e-quizzes, and e-rubrics (Erben et al., 2008). E-portfolios allow ELL students to engage with instructional context and interact with subject-specific/jargon words that they may not yet know. Additionally, students are able to synthesize a variety of materials and sources, including texts, podcasts, videos, etc. Particularly beneficial for ELLs is peer education and reflection time to work with native speakers on group assignments to be posted on the e-portfolio. Opportunity to work with other students allows for establishment of positive personal connections with classmates, as well as improvements in language capabilities and academic performance (Sáenz, Fuchs, and Fuchs, 2005). For examples of how to create e-portfolios, Dr. Helen Barrett’s online how-to course is a great resource for demonstration (www.electronicportfolios.com/). For implementation into classroom practices, Google and Protopage are easy-to-use free options.

In conjunction with e-portfolios, e-rubrics should be utilized to assess the e-portfolios and provide explicit instruction for the learning objectives the teacher aims to accomplish (Erben et al., 2008). Specifically, it is recommended that ELLs be evaluated utilizing a more holistically-based rubric rather than analytical to effectively encompass the ongoing learning performance of ELLs in relation to their native peers (Erben et al., 2008). Examples of holistic focuses include ELL language use in groups and group work skills, whereas analytical focuses include technology skills, oral discussion skills, and other strongly performance-based skills.
For smaller assessment measures, e-quizzes and e-surveys are recommended. E-quiz platforms, such as Quizstar 4 Teachers (http://quizstar.4teachers.org/), allow teachers to individualize quizzes for different learner groups in a given class. For example, tiered quizzes can be used to factor in additional accommodations ELLs may need, including translated instructions to home language or more visuals (Erben et al., 2008). Additionally, such e-quiz platforms allow teachers to analyze results of both a group of learners and individual learners. For immediate feedback on instruction, e-surveys are beneficial for teachers to check-in with students at the end of a lesson. Teachers can sample the entire class to evaluate what was learned during the class period. Free e-survey websites include Survey Monkey (https:// surveymonkey.com) and Google Forms.
Chapter 4: Administrative Best Practices for Displaced Students

It is the school district’s responsibility to fulfill staffing needs, encourage large scale academic accommodations, facilitate communication with parents, and organize funding. In this section, I highlight the need for administrative action, as students need additional support beyond the walls of the classroom.

Redefining the Requirements

The mission of Orange County Public Schools, similar to that of many other school districts, is to ensure that a large percentage of its students graduate. However, the graduation requirements are not always feasible for displaced students. In the state of Florida, all students graduating from high school are required to pass the Florida Standards Assessment or receive a comparable score on the ACT/SAT (Swaak, 2018). OCPS acknowledged that this would be a challenge for displaced students; however, the district took the first initiative by providing ACT/SAT test waivers for displaced students to cover the ACT/SAT exam fee. Additionally, if seniors fell short of state requirements for graduation, they were granted reprieve and allowed to pursue a diploma from Puerto Rico based on their reduced standards (Swaak, 2018). While most students obtained a standard diploma from OCPS, almost half of all graduating seniors received either a Puerto Rico diploma or did not graduate (Figure 2). Displaced students need more than simply reprieve from graduation requirements. Rather, they need long-term support to ensure their success.

Homelessness & Long-Term Housing

Following Hurricane Maria, housing has posed the greatest challenge for displaced families. Students are being forced to move from school to school as their family’s housing
situation changes (Superville, 2018). It is not uncommon for families to move five to six times in order to avoid sleeping on the street (Sutter, 2018).

In Florida, FEMA initially placed families in temporary housing utilizing one of their two housing programs: the Transitional Shelter Assistance Program or the Direct Lease Program (Sutter, 2018). In total, 7,000 applicants received FEMA motel vouchers costing $64.4 million. The Transitional Shelter Assistance Program provides motel vouchers for families who lost homes due to severe damage in Puerto Rico, even if they leave the island. The vouchers only extend to families if their home in Puerto Rico is found to be unlivable after inspection and/or if they do not have any other housing options, such as friends or family to stay with (Sutter, 2018). FEMA originally only planned to cover housing in motels until May, 2018. However, so many families had yet to find other housing accommodations that the Transitional Shelter Assistance Program was extended to August 31, 2018 (Romo, 2018). The remaining displaced people still in hotels are the ones lacking options for where to go next due to sickness, disability, age, or government-aid dependence (Romo, 2018). Extended housing in motels exposes children and families to additional stress. Such stress can translate to long-term problems in school for students and mental health obstacles (Sutter, 2018).

Per the 2016 McKinney-Vento Homeless Assistance Act, each state educational agency must adhere to a specific set of guidelines for assistance pertaining to the education of homeless children and youth. As defined by this act, homeless children and youth are “individuals who lack a fixed, regular, and adequate nighttime residence” (McKinney-Vento Homeless Assistance Act, Sec. 725, Part 2A). Examples of homelessness reflecting the situation of displaced students include sharing housing with others due to loss of housing and/or economic hardship; living in a motel, hotel, trailer park, or camping ground; and living in an emergency or transitional shelter.
Students who qualify as being homeless under this act have certain rights. Most directly, all students qualify for immediate enrollment in school regardless of health records, residency requirements, and other documentation; and students are provided transportation to and from school (McKinney-Vento Homeless Assistance Act, Sec. 722, Part 3C of State Plan).

As the housing situation of displaced families changes, many students and families are unaware of the other rights that they have under the McKinney-Vento Homeless Assistance Act to avoid the burden of changing schools. Under this act, students are allowed to continue their education in their school of origin for the entire duration of homelessness and/or for the remainder of the academic year (McKinney-Vento Homeless Assistance Act, Sec. 722, Part 3A of State Plan). Additionally, schools are prohibited from referring homeless children and/or requiring them to enroll in and attend a separate school.

Families of displaced students need to be better educated on this information. School administration should adopt the role of helping students and families understand their rights to avoid further academic and socio-emotional obstacles in an already challenging time. Such education should have be included in the monthly orientation sessions provided by OCPS to inform displaced parents and guardians of their rights and resources available (Vamos4PR – Release 7, 2018). Despite the extensive outreach for these orientations, this particular information has not been conveyed sufficiently.
Chapter 5: Community-Level Challenges for Displaced Students and Families

Community-level challenges extend beyond exclusively the education of students. They encompass the needs of families through employment, housing, and mental health. Outside of the efforts of OCPS, higher education institutions, particularly those in the Orlando area, are essential in facilitating long-term student success and future job-related successes for displaced students graduating in the near-future from OCPS. In this section, I highlight the obstacles facing these students and families including lack of work and long-term housing, the diminishing relief efforts, and the response of higher-education institutions.

Employment Opportunities

The unemployment rate in the United States is 4.1%, a seventeen year low, compared to 10.8% in Puerto Rico (Campo-Flores, 2018). With this, many local businesses on the island are closed due to lack of electricity and a depleted workforce and demand since many have migrated to the mainland United States. For many businesses, Puerto Ricans are an appealing labor source because they do not need to be sponsored by work visas due to their citizenship (Campo-Flores, 2018). However, Puerto Ricans in Central Florida displaced by Maria are struggling disproportionately in comparison with those who migrated to South Florida (Javier Perez, 2019). These difficulties have been exacerbated by FEMA. FEMA housed families in hotels in Kissimmee, Florida where there are few jobs and limited local transportation (Javier Perez, 2019). Additionally, Spanish is not as central a language in Orlando as in Miami, where there is a greater Hispanic population - a challenge for the 55% of Puerto Ricans in Central Florida who do not speak English at all or have limited proficiency (Javier Perez, 2019).
Rebuilding Puerto Rico in the Face of Disaster Fatigue

The mental effects of trauma tend to manifest immediately after a traumatic event; however, disaster fatigue sets in months after a traumatic event (Sutter, 2018). Disaster fatigue is caused by continual exposure to a bad situation or bad news. In the case of many displaced students and families, disaster fatigue manifests months after the hurricane, especially if families are still homeless or have no stable routine through school or work. Lack of stable housing affects the ability of students to establish and maintain new friendships and to develop a strong sense of self esteem. However, disaster fatigue also affects volunteers or donors who lose motivation due to prolonged exposure to the coverage of the disaster itself. This is particularly challenging, as those who were inclined to donate to Puerto Rico immediately after the hurricane may not know or care that it still remain an issue (Sutter, 2018). With increased disaster fatigue come less relief efforts and resources, making this of particular importance to increase advocacy awareness in the community.

The Clinton Global Initiative, however, has taken matters into their own hands with their latest project, Americares: Healing in Puerto Rico (Suarez, 2019). Through Americares, access to mental health and psychosocial services is widely available, particularly to the health workers and first responders at the scene of Hurricane Maria’s wake. Specifically, the project targets those struggling with job burnout, compassion fatigue, and secondary traumatic stress as a means of helping communities destigmatize mental illnesses and to provide psychological support (Suarez, 2019). While it is exciting that organizations like the Clinton Global Initiative have provided ongoing support, their efforts alone are not sufficient to evoke change at the national-level. It is important that more organizations become involved in facilitating efforts towards both relief and increasing the standard of living for those families that remain in the United States.
Higher Education Institutions

A college education is instrumental in the United States in defining one’s future. For this reason, it is critical that the gateway to higher education is well established for displaced students. With this in mind, Congress allocated $100 million for emergency assistance for higher education institutions and their students directly affected by Hurricane Maria (U.S. Department of Education, 2018).

In Central Florida, in particular, Valencia College, the University of Central Florida, Seminole State College, and Rollins College offered resources to take in displaced students. At the University of Central Florida (UCF), the board of trustees is providing tuition reduction to displaced students until 2023 (Orange County Government, 2017). Seminole State provided displaced students with an out-of-state tuition waiver, allowing displaced students to pay in-state tuition instead. The waiver is in effect for twelve months from the date they apply (Orange County Government, 2017). Rollins College offered a discounted transient student program for students already enrolled in Puerto Rican or Caribbean colleges to continue their studies at the institution temporarily. Displaced students paid a fee of only $8,500, which included tuition, room, and board (Lester Aleman, Rollins College Office of Admissions, personal interview, February 27, 2019). Beyond Central Florida, other states with large populations of displaced students are adopting similar practices, including Connecticut. Central Connecticut State University developed a summer college readiness program geared towards preparing displaced students for higher education as they adapt to U.S. educational practices.
Chapter 6: Conclusion

In studying the effect of disaster and displacement on displaced Puerto Rican students following Hurricane Maria, curricular and administrative best practices were proposed, along with addressing community-level challenges. Emphasis was placed on students’ education; however, there are many external confounding factors affecting students’ ability to receive quality education that were recognized. In proposing best practices designed to improve the situation of displaced Puerto Rican students, there is a level of accountability required of teachers and school administrators. To create effective change, a commitment must be made on their behalf to implement the knowledge and techniques at their disposal, particularly as a result of this critical review. Most importantly, it is important to increase awareness of this issue of academic and social integration of displaced students at a community-level, especially as this population has not received the necessary attention now that Hurricane Maria has passed.

In this critical review utilizing information from primary and secondary literature, personal interviews, and news sources, a myriad of topics and themes were synthesized ranging from trauma, technology, ELLs, and displacement to create a set of best practices for teachers, school administration, and the community. The efforts taken by Orange County Public Schools are recognized and applauded; however, displaced students need individualized accommodations rather than just seats in classrooms. It is likely that poor federal government response to the disaster further manifested in the response of many schools, as students received little additional assistance throughout their adaptation process. Further exacerbating the issue of poor response is the lack of publicized research on how students in OCPS are actually performing in relation to their native peers. This critical review demonstrated the necessity of a two part approach to displacement of non-native students, in which both psychological/social and academic adaptation
are addressed. In particular, psychosocial adaptation must be attended to first to prevent adverse outcomes.

Non-native displaced students should not simply be placed in ELL classes. Displaced Puerto Rican students arrived with varying needs that do not meet that of a typical English language learner. Additionally, no language placement exam was even administered to students prior to classroom placement. OCPS and the community have fallen into the trap of believing that disaster relief is over simply because the hurricane has passed and the island is stages of rebuilding. Nevertheless, response to Hurricane Maria is an ongoing and long-term effort that must be undertaken by OCPS and other school districts affected by displacement.

Attention must be directed towards psychological trauma first, as psychological wellbeing affects academic performance. There is a dramatic need for more school counselors and care teams, especially as PTSD manifests long term. Many students continue to carry the burden of their families with them, as families continue to seek employment and long-term stable housing. Once psychosocial challenges are provided the necessary attention, academic outcomes can be improved through socio-cultural and ELL teaching approaches. Such ELL practices are very dependent on the language abilities of displaced students, yet these practices can be implemented and are beneficial to all students, native or non-native. Technology-based ELL practices are of particular significance in school districts equipped with devices for all students, including OCPS. Many technology tools and practices can be utilized for students to supplement their learning and provide accommodations for ELLs.

Importantly, the academic and psychosocial adaptation of displaced Puerto Rican students has not received the attention needed. Facilitating this adaptation is the responsibility of not only individual teachers and school administrators, but a community effort as well.
Increasing community awareness is the first step towards improving the future outlooks of these displaced students.

Currently, in working with displaced students, many teachers do not know that their classroom practices may not be beneficial to these students. Little research exists to offer guidance in working with students who are both displaced and ELLs. This critical review seeks to bridge this gap by taking proposing a three tiered response – curricular, administrative, and community-level – to effectively facilitate the adaptation of displaced Puerto Rican students, many of whom are ELLs. However, the scope of this study is limited, as the perspective of displaced students is not directly accounted for. In general, assumptions have been and will continue to be made regarding the needs of these students. With that, not all the approaches proposed in this review are appropriate for all displaced Puerto Rican students. Age, language abilities, and psychological state must be considered when deciding on the best approach for a given student or class. Additionally, the scope of the best practices proposed by this review are more specific to the needs and resources of Orange County Public Schools. Not all schools and school districts have access to the same knowledge and/or resources.

This critical review should be shared with all teachers and school administrators directly interacting with displaced Puerto Rican students within OCPS. However, future research should be based on data gathered from interviews and discussion with students, teachers, and school administrators in OCPS. Additionally, there is a need to assess the accommodations implemented for displaced Puerto Rican students by other school districts and institutions beyond OCPS including Osceola County school district and Orange Technical College. Similar best practices can be implemented in these districts and institutions. With this new knowledge and the
accessible resources, OCPS has the tools to provide displaced Puerto Rican students with quality education and to facilitate their integration into the mainstream.
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Figure 1. Culturally relevant pedagogy for core-reading instruction for ELLs. Figure demonstrates the primary aspects of this model with instructional context objectives across the top. The four quadrants demonstrate each component of the culturally relevant pedagogy model: content, research-based reading instruction, pedagogy, and culturally responsive instruction. Figure is adapted from McIntyre, Hulan, and Layne, 2011.
Figure 2. Diploma breakdown for graduating seniors in Orange County Public Schools following 2017-2018 school year. X-axis represents four different school districts (Orange County, Miami-Dade, Hartford, and Holyoke) with high numbers of displaced Puerto Rican students. Y-axis denotes number of graduating displaced Puerto Rican students earning diplomas. In Orange County, half of all graduating seniors received a standard diploma from OCPS; however, the other half received either a Puerto Rico diploma or did not graduate. Figure is adapted from Swaak, 2018.