Leveraging Digital Literacies to Support Refugee Youth and Families' Success in Online Learning: A Theoretical Perspective Using a Socioecological Approach

Mary F. Rice
Aijuan Cun
University of New Mexico, USA

Abstract

Previous research about refugee students' experiences with online learning has focused on the challenges faced by refugee youth, their families, and schools without addressing what strengths families might bring to this type of learning. Further, while previous research has touched upon refugee youth and their families' substantial digital literacies, these strengths have not been widely applied in support of online learning. In this paper, we advocate for a holistic, asset-based approach to support and develop refugee families' digital literacy practices for use in online learning experiences. In doing so, we hope to countermand the suggestion that online learning is something refugee families can never benefit from or will only benefit from under an extremely narrow set of conditions. We begin by reviewing previous research about refugee populations and their digital literacies. Then we share Bronfenbrenner's socio-ecological framework for thinking about shared responsibility in digital and online learning that does not rely on individual students, families, schools, or communities as independent actors. Next, we apply the socio-ecological thinking that we propose to online learning for refugee families across various systems and share theoretical, design, and pedagogical implications. We conclude by offering some implications for research and reiterating the importance of asset framing and shared work in serving refugee and other vulnerable populations well.

Keywords: Online learning for refugee families and youth; digital literacies of refugee families and youth; socio-ecological thinking in K-12 online learning; models for K-12 online learning

Distance learning, even with digital and online tools, was not a product of the COVID-19 pandemic. The first documented use of distance learning in K-12 education was in 1910 (Barbour, 2021). Subsequently, technological developments such as online technologies have enabled fully online K-12 schools as well as the use of online learning in various parts of the world during natural disasters, such as earthquakes, and health disasters, such as SARS in 2003 and H1N1 in 2008 (Barbour, 2021). However, the goal of these emergency-based uses was typically to preserve instructional continuity for learners rather than provide the entire range of services of critical importance for some populations. Although COVID-19 did not produce online learning, it did create large-scale closure of school buildings and therefore, the context for increased reliance on digital and online tools for learning. The widespread and extended nature of school building closures and the challenges produced by severe illness and death created a need for practitioners, researchers, and policy makers to pay greater attention to the important role of schools to provide community stability in addition to providing instruction. However, while such large-scale, long-term closures could have been reasonably foreseen, given global patterns and recent outbreaks of SARS and other diseases, educational institutions and governments largely failed to plan appropriately to provide all the services that schools can provide while using online and distance modalities (Barbour, 2021; Rice & Zancanella, 2021).

In the context of inadequate preparation, the COVID-19 pandemic meant that an estimated 1.5 billion children globally began receiving instruction using online devices, applications, tools, and/or programs with very little notice or advance preparation (*Education Week,* 2020; UNESCO, 2020). The intention of policy leaders was that, by using online and digital learning, youth would be able to continue learning without disruption. However, it became apparent that not all young people and their families were able to benefit from remote online learning. During school building closures, many learners who did not have access to internet connections or internet-ready devices, and populations who had been historically underserved in schools struggled the most to benefit from efforts to deliver instruction online (Maldonado & De Witte, 2020, United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2020). For example, in a brief paper submitted to the Australian Government Department of Education, Skills and Employment, Lamb et al., (2020) argued that while vulnerable children and families needed additional support to learn using digital and online tools, they were the least likely to receive these supports. It is also likely that these vulnerable families experienced additional negative effects from the pandemic such as increased illness and death, which would have made learning in any modality difficult.

In another policy brief, Kollender and Nimer (2020) argued that instruction relying on the availability of digital and online programs and tools during COVID-19 brought opportunities for institutional discrimination against a specific population—refugees—because these learners were unable to find, enroll in, and access basic resources to begin learning. The population of refugees and their families is important to consider because in 2020, an estimated 80 million people were forcibly displaced across the globe, with 40% of these being youth under the age of 18 (U.N. Refugee Agency, 2020). Also, the number of unaccompanied refugee youth making requests through the United Nations has been about 100,000 per year for several years (UNHCR, 2015). The refugees described in this article refer to the youth and their families who were originally from different countries in the world and resettled in a host country (e.g., the United States).

These refugees have been forced to flee their country due to war, violence, persecution, or climate change (UN Refugee Agency, 2020). These displaced individuals come from and migrate to many countries. For example, 43.7 million have immigrated to the United States for various reasons, and this number comprises 13.6% of the US population, although Canada is the country currently receiving the most refugees (Zong et al., 2019). While "refugee" is a broad term representing a broad population with considerable diversity in migration experiences, many of these youth and their families experience trauma during the migration resettlement process when they arrive in a new country, regardless of their reason for fleeing the countries where they were living (e.g., Perreira & Ornelas, 2013; Bloem & Loveridge, 2018).

Some previous research has explored refugee families' experiences during their resettlements in host countries. For example, refugee families experience language barriers because most families speak English as a new or additional language in their households (Renzaho et al., 2011; Walsh et al., 2011; Watkins et al., 2012). Not all members of refugee families had formal educational experiences prior to leaving their country and it is common for families to have experienced interrupted schooling in their countries of origin. The lack of access to education prior to migration exacerbates refugee families' struggles with learning in a host country (Brown et al., 2006; Dryden-Peterson, 2015; Dooley, 2008; Isik-Ercan, 2012; Mille et al., 2005). While acquiring a new language and facing a different culture, refugees also experience challenges in formal educational settings (Harris & Marlowe, 2011; Kanu, 2008; Miller et al., 2018). Recent research has examined refugee families' displacement and health issues during the COVID-19 pandemic (Banati et al., 2020). Most of the research related to refugee families' life experiences focused on the challenges faced by the families during resettlement in a host country. However, refugee families' cultural practices and literacies in their current domestic settings also need scholarly attention (Cun, 2020; Bolander, 2023). Specifically, families have developed digital literacies that honor their cultural practices and values. These practices and values are assets when valued as multiple ways of knowing and communal responsibility (Flint & Jaggars, 2021). Understanding these assets as part of their digital literacies should be included in developing plans for refugees and their families. To understand what we mean by *digital literacies,* we offer the following definition.

> We should view digital literacies in a larger frame that resists over-attending to operational techniques and skills and, instead, emphasizes mobilizing and building on what learners acquire and know from their wider cultural participation and affinities (Lankshear & Knobel, 2015, p.18).

Understanding families' digital literacies has become more crucial in the digital age and in the pandemic-stricken world because of the pervasiveness of the expectation to use online and digital means to connect, work, and learn.

Studies about working with refugee students' during the COVID-19 pandemic have been quicker to document deficits of refugee youth, their families, and schools and slower to mention strengths. For example, Mudwari et al., (2021) investigated online learning of Bhutanese adolescent refugees and identified factors that influenced their disengagement with learning, which included encountering perceptions about limited digital literacies of parents. Kasper (2021) examined teachers' perspectives about teaching refugee students and found that teachers experienced challenges when helping students they believed had "limited digital literacy" (p.56). While pointing out the challenges experienced by refugee newcomer students, Santiago et al.,

(2021) highlighted that "schools must attend to digital literacy" (p.355). However, existing literature also indicates the issues related to the internet, such as refugee students' lack of access to internet n Syria (Menashy & Zakharia, 2022, p.3) and internet connectivity problems (Nisanci et al., 2020) were also barriers that posed thorny problems for teachers and schools.

Although these studies have touched upon refugee students' digital literacy, they concentrate attention on what the families do not have or do not bring to the online learning experience. However, the fact that studies mention digital literacies at all suggests a gap in research on this topic. The purpose of this paper is to advocate for a holistic, asset-based approach to support and develop refugee families' digital literacy practices for online learning. In doing so, we hope to prevent the suggestion that online and digital learning is something refugee families can never benefit from or will only benefit from under an extremely narrow set of conditions. We begin by reviewing previous research about refugee populations and their digital literacies. Then we share Bronfenbrenner's (1977; 1979) socio-ecological framework to think about shared responsibility in digital and online learning that does not rely on individual students, families, schools, or communities alone. Next, we apply the socio-ecological thinking that we propose to online learning for refugee families across various systems and share theoretical, design, and pedagogical implications. We conclude by offering some implications for research and reiterating the importance of asset framing and shared work in serving refugee and other vulnerable populations well.

Review of Literature

In this review of literature, we report previous studies of refugee's digital literacies in both home and formal education settings prior to the COVID-19 pandemic. We then turn to studies of refugee children's learning with digital and online tools during the pandemic. In so doing, we set up a contrast between the assets that had been identified in previous research outside of the pandemic and the challenging experiences that young people had in trying to be successful in online learning during the pandemic. This comparison opens space for presenting the socio-ecological framework (Bronfenbrenner 1977; 1979) to support future planning for shared work to make learning with online tools and programs viable for refugee children and families in various contexts.

Refugees' Digital Literacies in Home Settings

Even where refugee families have not participated extensively in formal online learning, studies have explored refugee families' efforts to engage in various digital literacies in home settings prior to and during the pandemic (Duran, 2016; Gilhooly & Lee, 2014; Kaur, 2016; Kendrick et al., 2022; Traxler, 2018; Vollmer, 2017). In these settings, adults and children had used the internet to achieve a variety of personal and practical goals. Notably, Lloyd and Wilkinson (2019) examined how refugee youth navigated information in their everyday lives and found that the participants enacted digital literacies to search for information related to job opportunities and maintain relationships with family members overseas. These researchers suggested that the refugee youth's use of these types of practical digital literacies facilitated their informal learning.

Similarly, Gilhooly and Lee (2014) used data from three Karen brothers to highlight the youth's use of their existing digital literacies for different social practices, such as "maintaining and building coethnic friendships," or "connecting to the broader Karen diaspora community" (p.391). The authors described the Karen brothers as resettled refugees in the United States

(Gilhooly & Lee, 2014). The brothers' parents had to leave Burma due to ongoing wars and all three brothers were born in refugee camps in Thailand. In 2007, their family resettled in the United States. While living in the host country, digital tools allowed them to communicate with their friends and other Karen community members across geographic borders. The findings of these studies reveal that refugee families and children's digital literacies are not always new skills to acquire. Instead, many refugee individuals have utilized their digital literacies for various social practices in home settings. As Warriner and colleagues (2020) stated, "a more nuanced view of who refugee-background learners are, their existing linguistic resources, and their uniquely challenging life experiences will help teachers recognize possible ways to leverage resources such as multilingualism, familiarity with multimodal practices, digital literacies, or life experience" (p.38). Indeed, acknowledging and valuing the students' existing digital literacies within their microsystem environments can help contribute to practical implications.

Scholars have conducted research to offer space for refugee students to gain more experiences related to digital literacies in community settings (Emert, 2013, 2014; Johnson & Kendrick, 2017; Omerbašić, 2015; Vecchio et al., 2017). For example, Emert (2013) described a community-based summer literacy program for refugee students to employ digital tools, such as Windows MovieMaker®, to compose their digital stories. Students in this program gained digital literacy experiences while constructing multiple identities as collaborators, experts, and meaning makers. Similarly, Johnson and Kendrick (2017) involved refugee students in their digital storytelling project in a school district and found that the students represented themselves and enhanced their confidence while engaging in multimodal literacies.

In their research, Johnson and Kendrick (2017) argued that digital storytelling served as a literacy pedagogy offering more possibilities for refugee students to express their identities, strengths, and experiences. Also, Omerbašić (2015) explored Karen refugee girls' digital literacy practices, which facilitated their language maintenance and helped them engage in translocal practices. Participants in the study were originally from "the Thailand/Burma border" (p.475) and resettled in the United States. After describing the ways that participants engaged in literacy practices on social media (e.g., building social networks and posting comments on Facebook), Omerbašić (2015) offered several pedagogical recommendations, such as providing opportunities for refugee students to reflect on their digital literacy practices and encouraging them to collaborate on digital projects as being beneficial for students. All these studies acknowledged the refugee families' various digital literacies through asset-based lenses, revealing that refugee youth and families were skillful at engaging in various digital literacies, such as establishing social networks, communicating with friends and community members who shared similar cultural backgrounds, and mobilizing languages across geographic boundaries. These studies also have shown the educational value of efforts to support refugee students in making sense of self, telling their stories, and engaging multimodal literacies in various ways, such as through summer literacy programs, digital storytelling projects, and afterschool programs.

Digital Literacies in Formal School Settings

Limited research has examined refugee students' digital literacies in formal school settings (Kendrick et al., 2022). In one such study, Karam (2017) studied a case of a refugee student's digital literacies in a ninth-grade classroom and found that the adolescent used multimodal and multilingual resources to construct identities in digital spaces. The researcher recommended providing opportunities for refugee students to "exercise their agency in negotiating their engagement in classroom tasks" (p. 520). In another study, Bigelow et al.,

(2017) collaborated with teachers to design a curriculum unit which allowed refugee youth to use their home languages and employ various modes to make their remixed digital texts related to their culture. Even though the term "digital literacies" was not the focus of their study, their work depicted students who used languages, selected modes, and composed posts on Facebook® to learn and communicate. In a more recent study, Kendrick et al., (2022) investigated the digital literacies of refugee youth through digital storytelling and found that drawing upon the students' everyday digital literacies helped engage these students in English language learning and identity conduction.

Together, these studies have shown how refugee youth brought their linguistic and cultural practices to formal classrooms. Further, these studies illustrate the affordances that digital tools might provide for offering more possibilities to refugee students to draw upon various semiotic resources. These resources can be leveraged to connect to their everyday lives and experiences, as well as exercise their agencies, and simultaneously bring various digital literacies to classroom settings.

Also, these studies indicate a strong presence of refugee students' digital literacies practices in home, community, and school settings. However, little of this literature has examined digital literacies and practices wider than the individual classroom level. Valuing students' digital literacies and advocating for students to have access to online learning experiences requires efforts from families, communities, schools, and teachers, but these important actions also need policy makers' attention. What is needed is a conception of home, school, community, and policy that shows how digital literacies might be identified, built upon, and leveraged in online learning.

Refugee Children and Families Remote Learning During the Emergency of the Pandemic

While some of the research about families' digital literacies has produced asset-based findings, previous research about refugee's experiences and learning outcomes in the remote learning done online during the pandemic emergency has focused on documenting the challenges that refugee children and their families faced during the period of the pandemic where most school buildings were closed. Scholars have noted how many of these challenges existed prior to the pandemic and made it more difficult for them to access educational opportunities at all, let alone online educational ones. For example, Banati et al., (2020) documented chronic poverty, protracted violence, conflict and displacement, weak health, and inadequate protection systems as barriers faced by refugees who were living in middle- and low-income countries during the early part of the pandemic. The authors argued for greater attention to identifying and providing access to support in addition to online learning support (e.g., devices, internet connection) for giving these children and their families a real opportunity for success. For many researchers, being poor accompanied an assumption that if children could not access devices, internet, and instructional materials on their own, they should not expect to be able to learn online. Although these published articles focused on the challenges experienced by the families during the Covid-19 pandemic, that focus not mean that the families did not have cultural assets in their households—it could also mean that researchers were not focused on looking for these strengths.

Mudwari et al., (2021) also documented adolescent refugees from Bhutan living in Australia and the disengagement and isolation they felt in trying to access and benefit from online instruction. These authors posited that without opportunities to use schooling to integrate into a community, refugee adolescents were left without a vision for their potential in a community. These findings were like what Tobin and Hieker (2021) found when they studied

fully and partially online learning in refugee camps and urban settings in Greece, Jordan, Kenya, and Rwanda. These researchers argued that online instruction cannot be the only educational services offered to students. In their view, blended (partly online) learning programs need to be context-specific, modular, optimized for mobile technologies, and delivered by prepared and supported teachers to be effective. However, that chain of needs requires shared responsibility and close coordination by teachers and school leaders.

In addition to what schools can do for refugee students, there has also been research about how families coped and managed the challenges they faced. Santiago et al., (2021) studied refugee families in the United States and found that they relied heavily on recreational activities, including video games, painting, cooking, their faith and religious routines, and family connections to move forward during the pandemic. These refugee families were able to engage in other activities, even those that required technological access and internet, while they struggled at school. Being successful in completing schoolwork and reaping the benefits of school required more than merely offering online instruction. Ensuring that online learning is viable for refugees demands comprehensive strategies to integrate and resettle these families. For example, Ngwacho (2020) described the need for the African country of Kenya to improve online educational opportunities for vulnerable populations, including those families displaced by war, by increasing internet connectivity and access to open-source educational resources as well as access to quality water, sanitation, and health resources (Ngwacho, 2020). In response to these understandings about the integrated nature of instructional and non-instructional supports for successful online learning, we suggest a multi-layered and community-responsive approach to supporting refugee families.

Understanding Socio-Ecological Theory

Previous research on digital literacies has revealed some assets that individual refugees and families bring to online learning. However, research about how these youth and their families experienced remote online learning during the pandemic has focused on depicting social challenges and barriers that must be overcome. To bridge the gap between what refugee families bring and what schools, communities, and governments can or should provide, we drew on socio-ecological theory as the theoretical framework to support our exploration. This theory was initiated by the psychologist Urie Bronfenbrenner, and it has been used to study human development, which is shaped by ecological environments (Bronfenbrenner, 1977, 1979). Bronfenbrenner (1977) defined the ecological environment as "a nested arrangement of structures" (p.514). His initial work includes four environmental systems: microsystem, mesosystem, exosystem, and macrosystem (Bronfenbrenner, 1977). At the microsystem level, an individual's development is usually influenced by their immediate surroundings, such as families. For example, exposure to various texts available in a child's home can help the child with literacy development. Next, the mesosystem is conceptualized as "the interrelations among major settings containing the developing person at a particular point in his or her life" (Bronfenbrenner, 1977, p.515). For example, students' digital literacy practices in home contexts may impact their academic literacy learning in school settings. The relationships among different settings in a person's development are emphasized in this system.

The third system, the exosystem, includes "one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by what happens in that setting" (Bronfenbrenner, 1979, p.237). An example of the system environment includes educational policy agencies. While children are not directly involved in

educational policy-making processes, the decisions made by policymakers can influence the children's learning, development, and achievement in school settings.

Fourth, the macrosystem is "the overarching institutional patterns of the culture or subculture" (Bronfenbrenner, 1977, p.515). An example of the system includes cultural practices that influence a growing child's sense-making of self, values, and beliefs. These cultural practices usually play crucial roles in a child's interactions and involvements in their social surroundings at the micro-, meso-, and exo-levels.

The fifth system, namely chronosystem, was added to examine "the influence on the person's developmental changes over time in the environments in which the person is living" (Bronfenbrenner, 1986, p.724). This additional system emphasizes how these changes within the above-described system environments can influence a child's development across their lifespan (Bronfenbrenner, 1995). Table 1 provides an elaboration of this theoretical framework to help examine refugee students' digital literacies, which are shaped by different system environments. Table 1 also offers additional details about the theoretical, design, and pedagogical implications for applying this thinking to work with refugee families in online learning settings.

Table 1

Summary of Systems, Understandings, and Implications

System	Theoretical Understandings about the Intersection of Online Learning and Digital Literacies	Practical Implications for Designing Digital Literacies Curriculum for Online Settings	Practical Implications for Teaching Digital Literacies in Online Settings
Individual	Refugee youth have different strengths, interests, and preferences in terms of digital literacies.	Refugee youth recognize space to share their histories and demonstrate understandings in online settings using digital tools.	Expressing individual interests related to digital and culturally relevant literacies and drawing teachers' attention to consider more effective ways for teaching all learners in the online space.
Interpersonal	Refugee families bring a desire to build social networks, draw on multimodalities to function, and multilingual skills to online settings as well as culturally relevant literacies.	Refugee families can help their children value their existing literacies and support them in represent these literacies digitally that are usually invisible in formal education, which emphasize standardized curriculum.	Families deserve communication with teachers about digital and culturally relevant literacies and help teachers reflect on their teaching practices and provide more ways for better supporting students in the online space.
Organizational	Schools have roles as decision makers in choosing materials for online learning and in promoting a range of digital literacies that account for the needs and strengths of refugee families.	Schools can acknowledge the students' and families' existing digital literacies and provide more possibilities for students to draw upon their existing digital literacy to build new knowledge.	Schools should support teacher professional learning about online learning for refugee families that accounts for the literacies and technological expertise that might bring to schooling or that they are interested in developing.

Community	Communities have obligations to acknowledge and support the digital literacies and access to online learning for all students.	Communities should reach out to more families and provide more online learning resources for the families to sustain their culturally relevant literacies and advocate for the families.	Communities should support schools in designing programs that support refugee families in gaining access to resources that support the use and development of their digital literacies and access to online learning.
Public Policy	Policy makers should support digital literacies through online learning by building infrastructure for online learning. They should also frame online learning policies to include all learners and be inclusive about standards for digital learning and literacies.	Policy makers should make policies that encourage the development of accessible, responsive digital instruction materials for online settings.	Policy makers should include digital literacies as part of efforts to support teacher professional learning about online teaching.

Applying Socio-Ecological Thinking to Systems in Online Learning

Previously in this paper, we offered evidence that understanding refugee youth and families' digital literacies needs additional theoretical consideration. In this section, we focus on applying socio-ecological thinking to the systems that Bronfenbrenner (1977; 1979) outlined in the context of online learning for refugee youth and families. These systems are the individual, interpersonal, organizational, community, and public policy arenas. The perspectives on assets are also discussed in these arenas. Advocating for refugee students' digital literacies and online learning needs efforts from families, schools, communities, and other stakeholders as contextual influences in the areas all impact on individual student's learning. The discussion of asset-based perspectives is integrated into each area to show that every area needs to value refugee students' strengths and assets tied to their digital literacies and online learning. Figure 1 provides examples of key ideas for using socio-ecological theory to draw on families' digital literacies to support online learning.

Individual

Planning quality experiences with a range of online learning models that support refugee youth, and their families requires understanding these learners as a population and as individual learners. In line with previous research, these young people will have different strengths, interests, and preferences in terms of digital literacies (Emert, 2013; Karan, 2017; Kendrick et al., 2022; Omerbašić, 2015; Vecchio et al., 2017).

Archambault and colleagues (2022) have recommended personalization in digital learning as an important pillar of success in the range of online settings. While some definitions of personalization focus more on programs and tools that pinpoint cognitive deficit, an asset-based model for these refugee youth must draw on personalization frameworks that center on the child rather than what is to be learned. Such frameworks ask questions in the following order: (1) Who is the child? (2) What are their needs but also, what are their strengths? (3) What programs

and services exist to serve the child? (4) What is useful for the child to learn? and then; (5) How should the learning be achieved? (Cun, 2020; Smith et al., 2004; Teemant et al., 2005). Notice how this framework places the issues of pedagogy *after* the need to learn about the child.

Individual refugee youth may possess various strengths and needs associated with cognitive development, but important linguistic and social strengths and needs also exist because of their refugee status and their position as multilingual learners (Smith et al., 2004). For example, some of these children may not have been able to access formal schooling for some time, but they may have developed various strategies for supporting their own informal learning. In cases where youth have been traveling unaccompanied for some time, they may have strengths around making temporary social connections to achieve short-term goals, collaboration to meet group goals, and creative ways to solve problems (Dooley, 2008). Moreover, while some youth may be reluctant to discuss their journeys, many will be willing to tell their stories with digital tools and use their experiences as a basis for expanding their literacies (Emert, 2013; Cun, 2022). They may also respond to stories about other refugee youth presented with various types of on- and offline media (Cun, 2020; Perea, 2020). Such strategies draw from individual assets and position those to be of benefit to other systems (interpersonal, organizational, community, public policy). For refugees and other vulnerable populations, learning cannot be left to the individual system.

In line with attention to the individual level, youth should be encouraged to express individual interests related to digital learning and other types of literacies. When individual strengths are considered for digital learning, teachers have more opportunities to understand the need to engage with families; they also are positioned to learn strategies that help them serve all students more effectively (Smith et al., 2004; Teemant et al., 2005). For example, teachers who seek to understand why refugee children may display an unwillingness to work with certain groups might learn something about cultural customs for group organization or historic rivalries that support decision making for instruction. Such was the case in research from Roy and Roxas (2011) where teachers engaged with individual refugee children about their traditional dress and learned information that helped them plan more responsive instruction for all students.

Interpersonal

Families are children's immediate surroundings and potentially impact their learning and development (Bronfenbrenner, 1977). Children are exposed to various types of social interaction in home environments, such as child-parent interaction (Dexter & Stacks, 2014; Filipi, 2015; Pianta, 1997) and conversations among siblings (Gregory, 1998, 2001; Williams & Gregory, 2001). As digital devices have become an essential tool in people's daily lives, children have also been exposed to various digital texts and social practices at home (Rice & Cun, 2021; Marsh, 2011; Marsh et al., 2017). Previous research has shown that refugee families engage in digital literacies for various social and cultural practices (Duran, 2016; Gilhooly & Lee, 2014; Kaur, 2016; Kendrick et al., 2022; Traxler, 2018; Vollmer, 2017). To these families, digital devices are not merely used for entertainment, such as watching TV, but even more to mobilize languages and maintain family relationships across geographical boundaries (Cun, 2022; Gilhooly & Lee, 2014; Lam, 2009). In other words, refugee students and families have established various socially centered digital literacies, represented in multiple modes and languages in their households.

Even though refugee students use their digital literacies at home, these literacies are often marginalized in the formal educational discourse, which prioritizes standardized curriculum and testing (Cun, 2022; Henderson & Palmer, 2015; Leung & Lewkowicz, 2006). As described previously, refugee students have different strengths, interests, identities, and preferences in terms of digital literacies in their households. We recommend that families' strengths be considered alongside strategies to learn in online settings using digital tools. Valuing refugee families' digital literacies and designing instruction based on their individual strengths and identities can provide more meaningful and effective ways to support students. Additionally, representation of refugee families' digital literacies needs to be included in the online learning curriculum to empower refugee students and to help their peers and teachers have a better understanding of refugee families.

There are also practical implications for teaching digital literacies in online settings. We recommend expressing individual interests related to digital and culturally relevant literacies and drawing teachers' attention to consider more effective ways of teaching all learners in the online space. Omerbašić (2015) described pedagogical practices, such as offering space for refugee students to reflect on their digital literacies. Aligning with this recommendation, we also suggest that helping students express their daily experiences related to digital and culturally relevant literacies in classroom settings is important. Pahl and Rowsell (2019) explored children's artifact making and argued that children's artifacts made at home can invite their teachers and researchers to learn about the children's cultural practices and families' migration journeys. In online learning settings, as students can attend classes from home, teachers can use the affordance of digital tools to invite refugee students to present their cultural artifacts in the virtual space. Another strategy is to invite families to join classes in online settings rather than problematizing family participation. The aim is not to ask parents to watch their or other children learn in the classroom. Rather, the goal is to invite parents to view "themselves as valued partners with teachers" (Nistler & Maiers, 2000, p. 670) and share their culturally relevant literacy practices. This pedagogical suggestion can also promote home-school connections, which play essential and crucial roles in children's literacy development (Moll et al., 1992; Wilson, 1991; Walsh et al., 2018).

Organizational

Although schools have a responsibility to provide instruction, schools have stewardship roles that go beyond invoking a list of skills for mastery—even when learning is done online (McAlvage & Rice, 2018). These responsibilities are wide ranging and include services like vision screening, meal programs, library access, adult learning, playgrounds, and other unstructured places to congregate, and find information about community activities. While some learners may navigate school successfully without accessing other supports available through schools, refugee youth and other vulnerable populations can benefit from these services greatly, many of which were absent during the pandemic (Mudwari et al., 2021; Tobin & Hieker, 2021). Without access to the full range of services that schools provide, refugee youth are poorly positioned to benefit from online instruction.

As organizations, schools can also make efforts to acknowledge the youth and their families' existing digital literacies and provide more possibilities for students to draw upon their existing digital literacy to build new knowledge. These efforts might be combined in useful ways. For example, schools have roles as decision makers in choosing materials for online learning and in promoting a range of digital literacies (Rice & Ortiz, 2021). These materials can

be selected to account for the needs and strengths of refugee families (Cun, 2020). Refugee parents can be meaningfully involved in these processes when schools provide physical or digital access to meetings and translators to help families communicate.

As organizations, schools can also support professional development about online learning for refugee families that considers the literacies and technological expertise that refugee youth might bring to schooling or that they are interested in developing. Based on previous literature, topics for such professional learning might include (1) storytelling with digital tools, (2) practical problem solving with a variety of online tools and strategies, (3) maintaining friendships and relationships across time and distance using online tools and platforms, (4) accessing culturally important or linguistically-supported digital texts, and (5) drawing on appropriate social-emotional resources (with the understanding that some students may gravitate toward ideas that are spiritual or formally religious in nature).

Community

In addition to home contexts, communities are also considered students' immediate surroundings, which can impact individual development at the microsystem level (Bronfenbrenner, 1977). The resources available in communities can facilitate children's literacies (Epstein & Salinas, 2004; Oriyama, 2012; Reese & Goldenberg, 2008; Singh, Sylvia, & Ridzi, 2015). Even though some community settings, such as religious places, might offer literacy resources in more than one language, most literacy resources are provided in English in most communities in the United States (Reese & Goldenberg, 2008). Consideration of diversity in terms of language and culture needs attention in communities.

Bronfenbrenner (1977) defined the mesosystem as "the interrelations among major settings containing the developing person at a particular point in his or her life" (p.515). Researchers have established university-community partnerships and offered various programs to help children and youth with literacy learning. A group of previous studies has explored refugee students' literacy learning and identity construction through summer literacy programs and digital storytelling projects (Emert, 2013, 2014; Johnson & Kendrick, 2017; Vecchio et al., 2017). Collaborations between universities and communities bring more possibilities to support refugee students.

There are implications for designing high quality online learning within the community system. Families should be able to access learning and other literacy resources in communities beyond the school building. Further, it is important to offer these resources in languages that families speak and not just a colonial or dominant language.

An additional recommendation is to include the representation of refugee families' social reputation with other refugee families and outside of the refugee group. While it is important to offer services and support, true use of this system should position families with resources to offer through their social networks and share with friends in local neighborhoods and beyond (Cun, 2020; 2022). Valuing the families' Funds of Knowledge (Moll et al., 19992) related to resource sharing in communities can help advocate for the families and help others see that refugee families are not expecting merely to access digital learning, but they can also give support.

As a practical concern, we suggest that communities consider physical spaces where families can access resources. Refugee families did not just lose access to school buildings as potential resources. They also lost access to community centers, libraries, museums, religious places, and other community settings in the wake of the pandemic. Many physical locations limited their hours, and some remained closed during the pandemic. Some families might be

scared to go back even if these resources are open again. Families cannot receive the support they need for community building under these circumstances. Therefore, we see a need for multiple collaborations among communities, K-12 schools, and universities to help refugee youth and families understand the resources available for digital literacies development, learning in general, and perhaps other support, such as health information.

Previous studies have shown that community-based literacy programs, digital storytelling projects, and afterschool clubs through university-community and university-school partnerships have positive impacts on refugee students' digital and multimodal literacy development (Emert, 2013, 2014; Johnson & Kendrick, 2017; Omerbašić, 2015; Vecchio et al., 2017). We suggest that these programs described can be offered in online spaces to help refugee students continue digital literacies and online learning in home and community settings, but the socio-ecological model suggests that various systems will have to connect, collaborate, and communicate with families for this to be successful. Merely posting a video conference link will not be enough to draw participation and provide adequate services.

Public Policy

States and nations can support digital literacies through online learning by building infrastructure for online learning. It cannot be left to individuals or individual families to obtain internet access on their own. Such a system ensures that vulnerable populations will not be able to access online learning, regardless of any other planning done on their behalf (Ferri et al., 2020; Mac Domhnaill, 2021). Where internet access and access to devices are unavailable, it is public policy to plan for distance education that does not rely on online and digital means until such access can be made available (Barbour, 2021).

Moreover, public policy makers must frame online learning policies to include all learners. They must be inclusive about how they set standards for demonstrating success online. While refugee learners may not be able to demonstrate competencies for some school tasks immediately, it is important for policy makers to remember that this population of learners stands to benefit the most from services and instruction provided. For example, Gambi & De Witte (2021) found that students from vulnerable populations, including refugees, demonstrated considerable resiliency in recovering test scores when they received support services. In fact, these vulnerable students receiving support recovered more of their scores than higher achieving students who were not receiving services.
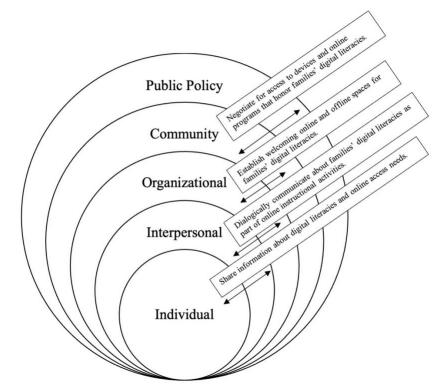
Refugee youth are positioned to benefit from policies that leverage digital literacies to privilege persistence and growth over mastery, consider learner preferences and input into what digital literacies might support their learning, focus on concern for social and emotional health, and are open about how the assessments with and of their digital literacies will affect the opportunities of individuals, families, organizations, and communities (Cardeli et al., 2020; Smith et al., 2004).

Finally, public policy makers should include digital literacies as part of their efforts to support teacher professional learning about online teaching (Rice & Zancanella, 2021). This is important because of the need to find out what digital literacies refugee youth already have so these can be extended and expanded. For some applications like TikTok® or WhatsApp®, refugee youth might already have some sense of how to compose communications and consume videos, or they may even know technical aspects of how to make and broadcast content. But they may not know how to use a short video to engage with instructional content and frame a video as a response to an academic task. Policy making activities must include these distinctions and

name the acts of meaning making with digital and online tools as *digital literacies* instead of general technology skills. This specific naming is important for accessing practical and scholarly resources, design, and funding of appropriate research projects, and calling upon professional organizations to support teachers in their initial learning and subsequent development.

Figure 1
Illustration of Using Socio-ecological Theory to Draw on Families' Digital Literacies to Support Online Learning

Additional Considerations and Potential Limitations

While we have provided evidence of the need for this model and for how it might operate in decision making within and across systems, we acknowledge that model is imperfect. There might be challenges for designing research that has the primary goal of generalization or upscaling. Also, we acknowledge that while this model accommodates individual considerations like cognition, it is not a cognitive model, so it is unlike many other models of online learning such as the Community of Inquiry (Cleveland Innes et al., 2018) or Academic Communities of Engagement (Borup et al., 2020). Additionally, the social-ecological model (Bronfenbrenner 1977; 1979) accommodates various family types including intergenerational families, but previous writings about the model have not always made that clear.

Finally, if readers see how the model might be beneficial for thinking about other vulnerable populations, we see that as a strength rather than a weakness, although we emphasize that we saw a particular need to understand how the socio-ecological approach is badly needed with reference to refugee populations because of their multiple cultural, linguistic, religious, racial, and other identities that intersect in ways that can lead to their being devalued and dismissed as viable online learners.

Recommendations for Research

Taking an asset-based approach to refugee families and their literacies in the context of online and other forms of digital learning could lead to strong research opportunities that move beyond identifying challenges these families face and then either explicitly or implicitly suggesting that refugees are not capable of or could not benefit from learning online. These research opportunities include extended commitments to refugee families in studying their educational experiences, using more relationally engaged methodologies and strategies, and applying a more contextually dense framing around working with and within the various systems.

Extending Commitments to Refugee Families

Conducting research studies with refugee communities is not merely to collect data and leave the sites. Instead, the socio-ecological model suggests a research ethic that makes participants the primary beneficiaries. Many previous research studies have examined the challenges and needs of refugee families and communities (Banati, Jones, & Youssef, 2020; Brown, Miller, & Mitchell, 2006; Isik-Ercan, 2012; Walsh et al., 2011;). Indeed, these needs are parts of refugee families' stories that cannot be ignored. However, refugee families' stories are more than just their needs. More research attention is needed to explore refugee families' digital literacies and online learning through asset-based approaches where they are regarded to have something to contribute, both at the time of the research and in the future. This will mean spending more time with families and being more reflective about how refugee families can share what they know, and all the systems can benefit from their participation.

Relationally Engaging Methods and Strategies

Positioning vulnerable populations such as refugee families requires new conceptual frameworks to consider findings, but also requires new orientations for research. These techniques might include types of ethnographic and phenomenological work, but also methodologies that support community engaged research practices such as action research, narrative inquiry, and self-study of practice (e.g., Rice, 2023). These methodological strategies allow for deeper views into how refugee youth and families engage in clever problem solving and reveal their goals for themselves and others. These strategies also provide additional space for sharing responsibilities and benefits in research.

Contextually Dense Framing

Our final suggestion for research centers on the need for more conceptually dense framing of refugees and their families. This includes a need to describe the populations more fully in terms of why and how they have migrated as well as their previous educational experiences, their expectations for learning and living where they are residing, and also critical examinations of how framing discourse is used, either to identify refugees as deficient or undeserving or to expand interest in what refugees and the other systems have that they can bring to bear for the success of all. In short, researchers should commit to frameworks that are considerate of the complexities in educating children, especially vulnerable children, and that advance the potential children and families as well as individuals in other systems (e.g., teachers within the school organization).

Conclusion

The purpose of this paper was to draw attention to the need for asset-based thinking about refugee populations and their potential to be successful across the range of online learning by drawing their digital literacies and related strengths. Critically, we emphasized the need for online education to be about more than instruction for these youth, while also acknowledging the need for a strong curriculum that favors *the who* over *the what* during instruction. To achieve these goals, we drew on Bronfenbrenner's (1977; 1979) socio-ecological model based on systems—individual, interpersonal, organizational, community, and public policy—that overlap to produce learning contexts for students. We intend our work to be used by policy makers and educators to build strong systems that refugee youth need to use and expand their digital literacies and be successful online learners.

Declarations

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

The authors assert that ethics board approval was not required for this work.

References

Archambault, L., Leary, H., & Rice, K. (2022). Pillars of online pedagogy: A framework for teaching in online learning environments. *Educational Psychologist*, 1-14. https://doi.org/10.1080/00461520.2022.2051513

Barbour, M. K. (2021). The shift to distance learning: Tracing the roots of 100+ years of practice and opportunity. *TechTrends*, *65*(6), 919-922. https://doi.org/10.1007/s11528-021-00670-0

Banati, P., Jones, N., & Youssef, S. (2020). Intersecting vulnerabilities: The impacts of COVID-19 on the psycho-emotional lives of young people in low-and middle-income countries. *The European Journal of Development Research*, *32*(5), 1613-1638. https://doi.org/10.1057/s41287-020-00325-5

Bigelow, M., Vanek, J., King, K., & Abdi, N. (2017). Literacy as social (media) practice: Refugee youth and native language literacy at school. *International Journal of Intercultural Relations*, *60*, 183-197. https://doi.org/10.1016/j.ijintrel.2017.04.002

Bloem, J., & Loveridge, S. (2018). The costs of secondary migration: Perspectives from local voluntary agencies in the USA. *Journal of International Migration and Integration*, *19*(2), 233-251. https://doi.org/10.1007/s12134-018-0538-4

Bolander, E. C. (2023). Online learning: Engaging families using culturally relevant pedagogy. *Intervention in School and Clinic*, 10534512231156889.

Borup, J., Graham, C. R., West, R. E., Archambault, L., & Spring, K. J. (2020). Academic communities of engagement: An expansive lens for examining support structures in blended and online learning. *Educational Technology Research and Development*, *68*(2), 807-832. https://doi.org/10.1007/s11423-020-09744-x

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, *32*(7), 513-531. https://doi.org/10.1037/0003-066X.32.7.513

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723–742.

Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. E., Moen., G. H., Elder Jr., & K. E. Lüscher. (Eds.). *Examining lives in context: Perspectives on the ecology of human development*. (pp. 619–647). American Psychological Association.

Brown, J., Miller, J., & Mitchell, J. (2006). Interrupted schooling and the acquisition of literacy: Experiences of Sudanese refugees in Victorian secondary schools. *Australian Journal of Language and Literacy, 29*(2), 150-162. https://search.informit.org/doi/10.3316/ielapa.157075354919791

Cardeli, E., Phan, J., Mulder, L., Benson, M., Adhikari, R., & Ellis, B. H. (2020). Bhutanese refugee youth: The importance of assessing and addressing psychosocial needs in a school setting. *Journal of School Health*, *90*(9), 731-742. https://doi.org/10.1111/josh.12935

Cleveland-Innes, M., Garrison, D. R., & Vaughan, N. (2018). The community of inquiry theoretical framework: Implications for distance education and beyond. In M.G. Moore & W. C. Diehl (Eds.) *Handbook of distance education* (pp. 67-78). Routledge.

Cun, A. (2022). Learning about the literacy practices of mothers with refugee backgrounds. *Urban Education*, https://00420859221104759

Cun, A. (2020). Concerns and expectations: Burmese refugee parents' perspectives on their children's learning in American schools. *Early Childhood Education Journal, 48*(3), 263-272.

Dexter, C. A., & Stacks, A. M. (2014). A preliminary investigation of the relationship between parenting, parent-child shared reading practices, and child development in low-income families. *Journal of Research in Childhood Education*, *28*(3), 394-410. https://doi.org/10.1080/02568543.2014.913278

Dooley, K. (2008). Re-thinking pedagogy for middle school students with little, no or severely interrupted schooling. *English Teaching 8*(1), 5–22.

Duran, C. S. (2016). *Language and literacy in refugee families*. Springer.

Education Week (2020). *Map: Coronavirus and school closures.* https://www.edweek.org/leadership/map-coronavirus-and-school-closures-in-2019-2020/2020/03

Emert, T. (2013). 'The transpoemations project': Digital storytelling, contemporary poetry, and refugee boys. *Intercultural Education*, *24*(4), 355-365. https://doi.org/10.1080/14675986.2013.809245

Emert, T. (2014). Interactive digital storytelling with refugee children. *Language Arts*, *91*(6), 401-415.

Epstein, J. L., & Salinas, K. C. (2004). Partnering with families and communities. *Educational Leadership*, *61*(8), 12-19.

Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, *10*(4), 86-104. https://doi.org/10.3390/soc10040086

Filipi, A. (2015). The development of recipient design in bilingual child-parent interaction. *Research on Language and Social Interaction*, *48*(1), 100-119. https://doi.org/10.1080/08351813.2015.993858

Flint, A. S., & Jaggers, W. (2021). You matter here: The impact of asset-based pedagogies on learning. *Theory Into Practice*, *60*(3), 254-264.

Gambi, L., & De Witte, K. (2021). *The resiliency of school outcomes after the COVID-19 pandemic. Standardised test scores and inequality one year after long term school closures.* FEB Research Report Department of Economics. https://ideas.repec.org/p/ete/leerwp/682557.html

Gilhooly, D., & Lee, E. (2014). The role of digital literacy practices on refugee resettlement: The case of three Karen brothers. *Journal of Adolescent & Adult Literacy*, *57*(5), 387-396. https://doi.org/10.1002/jaal.254

Gregory, E. (1998). Siblings as mediators of literacy in linguistic minority communities. *Language and Education*, *12*(1), 33-54. https://doi.org/10.1080/09500789808666738

Gregory, E. (2001). Sisters and brothers as language and literacy teachers: Synergy between siblings playing and working together. *Journal of Early Childhood Literacy*, *1*(3), 301-322. https://doi.org/10.1177/14687984010013004

Harris, V., & Marlowe, J. (2011). Hard yards and high hopes: The educational challenges of African refugee university students in Australia. *International Journal of Teaching and Learning in Higher Education*, *23*(2), 186-196.

Henderson, K. I., & Palmer, D. K. (2015). Teacher and student language practices and ideologies in a third-grade two-way dual language program implementation. *International Multilingual Research Journal*, *9*(2), 75-92. https://doi.org/10.1080/19313152.2015.1016827

Johnson, L., & Kendrick, M. (2017). "Impossible is nothing": Expressing difficult knowledge through digital storytelling. *Journal of Adolescent & Adult Literacy*, *60*(6), 667-675. https://doi.org/10.1002/jaal.624

Kanu, Y. (2008). Educational needs and barriers for African refugee students in Manitoba. *Canadian Journal of Education*, *31*(4), 915-940.

Karam, F. J. (2018). Language and identity construction: The case of a refugee digital bricoleur. *Journal of Adolescent & Adult Literacy*, *61*(5), 511-521. https://doi.org/10.1002/jaal.719

Kaur, T. (2016). Everyday literacy practices of a former Syrian refugee: Strengths and struggles. *Waikato Journal of Education*, *21*(1), 29-39.

Kasper, J. A. (2021). Education in crisis: Looking to the margins to find our center as educators working with refugee and migrant students and families. *NYS TESOL Journal*, *8*(1), 53-61.

Kendrick, M., Early, M., Michalovich, A., & Mangat, M. (2022). Digital storytelling with youth from refugee backgrounds: Possibilities for language and digital literacy learning. *TESOL Quarterly*. https://doi.org/10.1002/tesq.3146

Kollender, E., & Nimer, M. (2020). Long-term exclusionary effects of COVID-19 for refugee children in the German and Turkish education systems: A comparative perspective. *IPC-Mercator Policy Brief*, 20200717-00071708.

Lamb, S., Huo, S., Walstab, A., Wade, A., Maire, Q., Doecke, E., Jackson, J., & Endekov, Z. (2020). *Educational opportunity in Australia 2020: Who succeeds and who misses out.* https://vuir.vu.edu.au/42362/1/educational-opportunity-in-australia-2020.pdf

Lam, W. S. E. (2009). Multiliteracies on instant messaging in negotiating local, translocal, and transnational affiliations: A case of an adolescent immigrant. *Reading Research Quarterly, 44*(4), 377–397. https://doi.org/10.1598/RRQ.44.4.5

Lankshear, C., & Knobel, M. (2015). Digital literacy and digital literacies: Policy, pedagogy and research considerations for education. *Nordic Journal of Digital Literacy, 10*, 8–20.

Leung, C., & Lewkowicz, J. (2006). Expanding horizons and unresolved conundrums: Language testing and assessment. *TESOL Quarterly*, *40*(1), 211-234. https://doi.org/10.2307/40264517

Lloyd, A., & Wilkinson, J. (2019). Tapping into the information landscape: Refugee youth enactment of information literacy in everyday spaces. *Journal of Librarianship and Information Science*, *51*(1), 252-259. https://doi.org/10.1177/0961000617709058

Mac Domhnaill, C., Mohan, G., & McCoy, S. (2021). Home broadband and student engagement during COVID-19 emergency remote teaching. *Distance Education*, *42*(4), 465-493. https://doi.org/10.1080/01587919.2021.1986372

Maldonado, J., & De Witte, K. (2020). The effect of school closures on standardised student test. *British Educational Research Journal, 48*(1), 49-94. https://doi.org/10.1002/berj.3754

Marsh, J. (2011). Young children's literacy practices in a virtual world: Establishing an online interaction order. *Reading Research Quarterly, 42*(6), 101–111. https://doi.org/10.1598/RRQ.46.2.1

Marsh, J., Hannon, P., Lewis, M., & Ritchie, L. (2017). Young children's initiation into family literacy practices in the digital age. *Journal of Early Childhood Research, 15*(1), 47–60. https://doi.org/10.1177/1476718X15582095

McAlvage, K. & Rice, M. (2018). Access and accessibility digital and online learning: Issues in higher education and K-12 contexts. https://onlinelearningconsortium.org/read/access-and-accessibility-in-online-learning

Menashy, F., & Zakharia, Z. (2022). Crisis upon crisis: Refugee education responses amid COVID-19. *Peabody Journal of Education*, 1-17. https://doi.org/10.1080/0161956X.2022.2079895

Miller, J., Mitchell, J., & Brown, J. (2005). African refugees with interrupted schooling in the high school mainstream: Dilemmas for teachers. *Prospect, 20*(2), 19-33.

Miller, E., Ziaian, T., & Esterman, A. (2018). Australian school practices and the education experiences of students with a refugee background: A review of the literature. *International Journal of Inclusive Education*, *22*(4), 339-359. https://doi.org/10.1080/13603116.2017.1365955

Moll, L., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice, 31*(2), 132–141. https://doi.org/10.1080/00405849209543534

Mudwari, N., Beasy, K., Murphy, C., & Cuskelly, M. (2021). Views of adolescent Bhutanese refugees on home learning during school shutdown across the period of COVID-19. *Journal of Ethnic and Cultural Studies*, *8*(4), 286-306. 10.29333/ejecs/828

Ngwacho, A. G. (2020). COVID-19 pandemic impact on Kenyan education sector: Learner challenges and mitigations. *Journal of Research Innovation and Implications in Education*, *4*(2), 128-139.

Nisanci, A., Kahraman, R., Alcelik, Y., & Kiris, U. (2020). Working with refugees during COVID-19: Social worker voices from Turkey. *International Social Work*, *63*(5), 685-690. https://doi.org/10.1177/0020872820940032

Nistler, R. J., & Maiers, A. (2000). Stopping the silence: Hearing parents' voices in an urban first-grade family literacy program. *The Reading Teacher, 53*(8), 670-680. http://www.jstor.org/stable/20204864

Omerbašić, D. (2015). Literacy as a translocal practice: Digital multimodal literacy practices among girls resettled as refugees. *Journal of Adolescent & Adult Literacy*, *58*(6), 472-481. https://doi.org/10.1002/jaal.389

Oriyama, K. (2012). What role can community contact play in heritage language literacy development? Japanese-English bilingual children in Sydney. *Journal of Multilingual and Multicultural Development*, *33*(2), 167-186. https://doi.org/10.1080/01434632.2011.617822

Pahl, K., & Rowsell, J. (2019). *Artifactual literacies: Every object tells a story*. Teachers College Press.

Perea, I. (2021). Dialog journals in the secondary classroom: Promoting growth, resilience, and storytelling. In M. Rice & A. Dallacqua (Eds.) *Luminous Literacies* (pp. 29-36). Emerald Publishing Limited.

Perreira, K. M., & Ornelas, I. (2013). Painful passages: traumatic experiences and post-traumatic stress among US immigrant Latino adolescents and their primary caregivers. *International Migration Review*, *47*(4), 976-1005. ttps://doi.org/10.1111/imre.12050

Pianta, R. C. (1997). Adult–child relationship processes and early schooling. *Early Education and Development*, *8*(1), 11-26. https://doi.org/10.1207/s15566935eed0801_2

Reese, L., & Goldenberg, C. (2008). Community literacy resources and home literacy practices among immigrant Latino families. *Marriage & Family Review*, *43*(1-2), 109-139. https://doi.org/10.1080/01494920802010272

Renzaho, A. M., McCabe, M., & Sainsbury, W. J. (2011). Parenting, role reversals and the preservation of cultural values among Arabic speaking migrant families in Melbourne, Australia. *International Journal of Intercultural Relations*, *35*(4), 416-424. https://doi.org/10.1016/j.ijintrel.2010.09.001

Rice, M. (2023). Using narrative inquiry research methodology in online and distance education environments. *Educational Technology Research & Development*. https://10.1007/s11423-023-10260-x

Rice, M. F., & Cun, A. (2021). Personalising digital learning for young children: Leveraging psychosocial identities and Techne for literacy development. *British Journal of Educational Technology, 52*(5), 1823-1838.

Rice, M., & Ortiz, K. (2021). Evaluating digital instructional materials for K-12 online and blended learning. *Tech Trends, 65*(6), 977-992. https://doi.org/10.1007/s11528-021-00671-z

Rice, M. & Zancanella, D. (2021). Framing policies and procedures to include digital literacies for online learning during and beyond crises. *Journal of Adolescent and Adult Literacy*, *65*(2), 183-188. https://doi.org/10.1002/JAAL.1194

Roy, L., & Roxas, K. (2011). Whose deficit is this anyhow? Exploring counter-stories of Somali Bantu refugees' experiences in "doing school." *Harvard Educational Review*, *81*(3), 521-542. https://doi.org/10.17763/haer.81.3.w441553876k24413

Santiago, C. D., Bustos, Y., Jolie, S. A., Flores Toussaint, R., Sosa, S. S., Raviv, T., & Cicchetti, C. (2021). The impact of COVID-19 on immigrant and refugee families: Qualitative perspectives from newcomer students and parents. *School Psychology, 36*(5), 348–357. https://doi.org/10.1037/spq0000448

Singh, S., Sylvia, M. R., & Ridzi, F. (2015). Exploring the literacy practices of refugee families enrolled in a book distribution program and an intergenerational family literacy program. *Early Childhood Education Journal, 43*(1), 37–45. https://doi.org/10.1007/s10643-013-0627-0

Smith, M. E., Teemant, A., & Pinnegar, S. (2004). Principles and practices of sociocultural assessment: Foundations for effective strategies for linguistically diverse classrooms. *Multicultural Perspectives*, *6*(2), 38-46. https://doi.org/10.1207/s15327892mcp0602_8

Teemant, A., Smith, M. E., Pinnegar, S., & Egan, M. W. (2005). Modeling sociocultural pedagogy in distance education. *Teachers College Record*, *107*(8), 1675-1698.

Tobin, S. A. & Hieker, C. (2021). What EdTech experience in refugee camps can teach us in times of school closure. Blended learning, modular, and mobile programs are key to keeping disadvantaged learners in education. *Challenges, 12*(19). https://doi.org/10.3390/challe12020019

Traxler. J. (2018). Digital literacy: A Palestinian refugee perspective. *Research in Learning Technology 26*, 1–26. 10.25304/rlt.v26.1983

UNESCO. (2020). *Global education monitoring report. Inclusion and education: All means all*. Paris: UNESCO.

UNESCO (2020). Press Release No. 2020-73, August 4. https://en.unesco.org/news/secretary-general-warns-education-catastrophe-pointing-unesco-estimate-24-million-learners-risk

United Nations High Commission for Refugees. (2015). *Fact sheet: Forced global displacement.* https://www.unhcr.org/579b31e54.pdf

UN Refugee Agency. (2020). IOM, UNHCR announce temporary suspension of resettlement travel for refugees. 17 March 2020. https://www.unhcr.org/news/press/2020/3/5e7103034/iom-unhcr-announce-temporary-suspension-resettlement-travel-refugees.html

Vecchio, L., Dhillon, K. K., & Ulmer, J. B. (2017). Visual methodologies for research with refugee youth. *Intercultural Education*, *28*(2), 131-142. https://doi.org/10.1080/14675986.2017.1294852

Vollmer, S. (2017). Syrian newcomers and their digital literacy practices. *Language Issues: The ESOL Journal*, *28*(2), 66-72.

Walsh, B. A., Romo, G., & Jeon, H. J. (2018). Parental perspectives on transition to kindergarten videos to promote family involvement. *Early Childhood Education Journal, 46*(6), 655–663. https://doi.org/10.1007/s10643-018-0890-1

Walsh, C. A., Este, D., Krieg, B., & Giurgiu, B. (2011). Needs of refugee children in Canada: What can Roma refugee families tell us? *Journal of Comparative Family Studies*, *42*(4), 599-613. https://doi.org/10.3138/jcfs.42.4.599

Warriner, D. S., Fredricks, D. E., & Duran, C. S. (2020). Valuing the resources and experiences of refugee-background learners: A principled approach to teaching and learning academic language. *Theory into Practice*, *59*(1), 32-41. https://doi.org/10.1080/00405841.2019.1665412

Watkins, P. G., Razee, H., & Richters, J. (2012). "I'm telling you… the language barrier is the most, the biggest challenge": Barriers to education among Karen refugee women in Australia. *Australian Journal of Education*, *56*(2), 126-141. https://doi.org/10.1177/000494411205600203

Williams, A., & Gregory, E. (2001). Siblings bridging literacies in multilingual contexts. *Journal of Research in Reading*, *24*(3), 248-265.

Wilson, M. (1991). Forging partnerships with preschool parents: The road to school success begins in the home. *Principal, 70*(5), 25–26.

Zong, J., Batalova, J., & Burrows, M. (2019). *Frequently requested statistics on immigrants and immigration in the United States.* March 14, 2019. Updated July 10, 2019. https://www.migrationpolicy.org/article/frequently-requested-statistics-immigrants-and-immigration-united-states#Now