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Research Article

Promoting Health Literacy Among Migrant Populations: Implications for Adult Literacy Education

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Abstract

In the 21st century, individuals – particularly migrant populations – require a range of skills to adapt to new circumstances, cope with change, and lead fulfilling lives. To effectively achieve this, good health literacy is beneficial and adult basic education is an ideal setting to promote health literacy among migrant populations. There is great diversity in the published literature around health literacy interventions for migrants globally, including specific regional contexts, target migrant populations, various health topics, and multiple intervention structures. These levels of diversity make it challenging to synthesize what is known about the health literacy needs of global migrant populations and the pedagogical effectiveness of the interventions that aim to promote health literacy. To understand this diversity we conducted a scoping review in the migrant health literacy intervention literature. We analyzed the articles according to the contexts and structures of the interventions, whether they employed formal, non-formal, or informal learning approaches, and whether they describe the linguistic and pedagogical features of the interventions. From this analysis, we derived recommendations for the planning and reporting of migrant health literacy interventions, and for increased exchanges between applied linguists, health care professionals, and adult educators to fill in the gaps.

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Keywords: health literacy, migration, scoping study, educational intervention

The intersection of migration and health literacy (HL) is a critical area of inquiry with profound implications for individuals, communities, and societies at large. Over the past several years, the confluence of the global pandemic, climate change, political violence, and humanitarian crises has resulted in mass displacement, driving millions of people to leave their homes and seek refuge and resettlement elsewhere (Hattem, 2024). Within this context, the need to promote the HL levels of migrants, defined by the International Organization for Migration (IOM, 2019) as "a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons" (n.p.), which can include refugees, asylum seekers, and both permanent and temporary migrants, has become increasingly urgent to facilitate integration and adaptation, and mitigate disparities in health care outcomes (Fox et al., 2022).

The number of HL interventions focused on migrant

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populations has increased in recent decades, in a variety of settings including clinics, resettlement agencies, adult education programs, and community centers (e.g., Harsch & Bittlingmayer, 2024). Despite this proliferation, we lack a clear understanding of the range of educational approaches used in these HL interventions, and the extent to which the educational approaches meet the particular needs of a migrant community.

As an interdisciplinary research team with backgrounds in linguistics, adult education, and public health, we recognize that adult educators are in a key position to facilitate HL education that supports migrant communities. This article is a scoping review of published migrant HL interventions globally and uses this data to develop and discuss recommendations for planning and implementing HL interventions for migrants. We underscore the importance of migrant health literacy and show why it is important to contextualize this work according to local needs. In other words, who we teach, what we teach, and where we teach matter. We describe the process and findings from the scoping review, focusing especially on how the fields of adult education and linguistics can add to the rigor of migrant HL intervention research. We focus on migrant HL not only because numerous studies have shown that migrants often have low levels of HL, but also because of the increase in migration worldwide. According to the IOM (2021), 281 million people migrated across international borders in 2020. That amounts to about 3.6% of the world's population and that percentage has been growing each year since the IOM started producing the world migration reports in 2000. Additionally, studies have shown that migrants experience disproportionately greater health disparities than other social groups. In response, public education and health systems must coordinate their efforts to address the HL needs of migrant communities and ensure high-quality interventions (Kickbusch et al., 2013; Rudd et al., 2015). Findings from previous literature reviews are constrained either by limiting the target language to English (Chen et al., 2015) or limiting to only randomized controlled trials (Fox et al., 2022). This scoping review casts a wider net to include any target language and any research method analyzing empirical data about a migrant HL intervention.

We follow the World Health Organization's (WHO, 2021) definition of HL as "the personal knowledge and competencies (...) that enable people to access, understand, appraise and use information and services in ways that promote and maintain good health and wellbeing for themselves and those around them" (p.6.). While adult education is a strategic context to advance the HL of migrants, many HL interventions for migrants occur outside of traditional adult education classes – in community centers, places of worship, clinics, and online. In this contextual diversity, we see the promise of Reder's (2015) "busy intersections" view of teaching adult literacy which emphasizes meeting learners where they are and giving them ample opportunities to link new skills/ knowledge and real-world practices.

Adult educators' pedagogical expertise and the contextualized instruction they provide may already be harnessed in the HL literature to some extent, but how is it described and where is the cross-disciplinary overlap? Applied linguistics and public health have a parallel history of evolution that has guided both towards whole-person and systemic orientations to the field. Studies of language acquisition have moved toward understanding emergent multilingualism through translanguaging (e.g., Canagarajah, 2013), with acknowledgement of the resources learners use in and outside of class as they navigate multiple languages. Similarly, health fields have been evolving to include more patient-centered objectives and a greater understanding of the social determinants of health (e.g., Schillinger, 2021). So, how are these trends and other theories of learning – such as adult learning theories described by Knowles or Freire (Freire, 1970/2005; Knowles et al., 2020) or language learning theories like interactionist or cognitive theories – integrated into HL interventions for migrants?

The disciplinary differences are one piece of the puzzle when trying to capture a global understanding of migrant HL interventions. Teachers of multilingual adults have been integrating health topics and teaching HL as a regular part of their job, and the field of education has many learning theories that undergird these practices (Sarkar et al., 2019; Schecter & Lynch 2011). We want to look at the ways that diversity is captured and how local interventions situate themselves in larger theoretical frameworks through their reports in academic publications. Although much is known about HL for migrants, generalizable findings remain elusive and complicated by a lack of clarity and consistency in reporting practices.

We set out to review the academic literature on studies of HL interventions for migrants which address HL and/or embed their work in HL debates explicitly. We systematically identified articles that promote migrant HL from academic databases. In analyzing these articles, we explore four research questions:

1. What are the general characteristics of interventions that promote migrant HL?
2. What are the most commonly used categories of learning approaches to promote migrant HL?
3. How do these articles describe the linguistic features of their target migrant populations and their sociolinguistic contexts?
4. How do these articles describe the pedagogical approaches and characteristics of the interventions?

Methodology

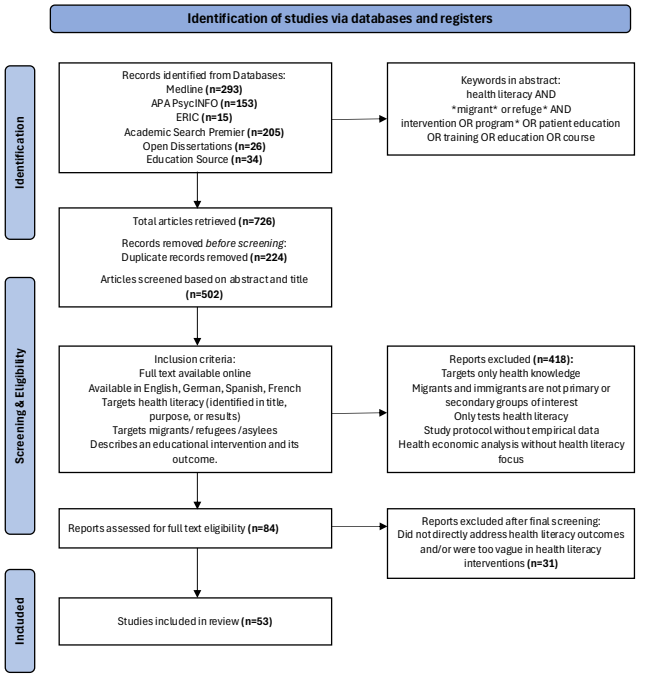
We followed Arksey and O'Malley's (2005) five steps for conducting a scoping study: (1) identifying the research question; (2) identifying the relevant studies; (3) selecting the studies; (4) charting data; and (5) collating, summarizing, and reporting results. Step 1 is outlined in the introduction. We describe steps 2 to 4 in the methods section, while step 5 is discussed in the findings and discussion sections.

Identifying and Selecting Relevant Studies

To identify relevant studies, we searched six academic databases: Medline, APA PsycINFO, ERIC, Academic Search Premier, Open Dissertations, and Education Source in October 2022. We followed the Joanna Briggs Institute's PCC (population, concept, and context) recommendations of search string generation (2015) using "migrants" and its synonyms (i.e. refugee, asylee, asylum seeker, immigrant) for population, "health literacy" for concept, and synonyms for "intervention" (i.e program, patient education, training, education, course) as context. Although we only used these search terms in English, we did not limit our search to articles written in English, but included articles written in any language that the research team was proficient in, including English, Spanish, French, and German. We did not limit our results to a specific time period. We acknowledge that the concept of health literacy is used in a variety of ways and signaled by terms such as health information, knowledge, skills, and use. Nevertheless, we opted not to explore alternative terms as synonyms, but rather to adhere to the original wording, thus focusing exclusively on research that aligns with the health literacy discourse. This approach obviates the necessity for interpretative determinations concerning the definition of health literacy.

This search yielded 726 articles. After removing duplicate articles and screening according to our criteria, 53 articles remained (Supplement A). The full process is summarized in Figure 1.

FIGURE 1: PRISMA Flow Chart



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: http://www.prisma-statement.org/

Charting the Data

We developed a coding scheme for extracting and analysing data, including article details, general information (e.g., country, target group), general features (e.g., HL definition, language(s), partnership), characteristics of the intervention (e.g., provider,

context, topic), and evaluation of the intervention (e.g., study design, research method, evaluation design and outcomes) (Alasbahi 2024; Alnimr & Feuerherm 2023; Sarr 2023). We categorized the health topics in the HL interventions according to categories used in the National Center for the Study of Adult Learning and Literacy (NCSALL) HL study circles: preventing disease and promoting health, navigating health systems, managing chronic diseases, and empowering for health (Rudd et al., 2005).

To describe the educational approaches in the studies, we categorized articles based on the following three approaches to learning (Johnson & Majewska, 2022).

- **Formal**: Learning occurs in a traditional classroom environment focused on organized learning (i.e. structured curriculum with linear objectives, assessments, and includes a mandated dimension or certificate).
- **Non-Formal**: Learning occurs outside of a school but is intentional. Non-formal learning is organized with consideration for the learner's needs and expectations and may include a curriculum and assessments.
- **Informal**: Learning occurs outside of a traditional learning environment and is not structured by a curriculum, nor is it mandated. The focus is not on learning intentionally, rather learning is incidental and arises from involvement in activities.

To explore how the sociolinguistic features are reported in the study sample, we adapted Surrain and Luk's (2019) coding scheme for examining how bilingualism is operationalized in studies comparing monolinguals to bilinguals. Thus, we coded for the presence/absence of reported features including home language use, language(s) of instruction, participants' history of language learning, and the community's sociolinguistic contexts (Table 1). We added new codes to inventory the tools used to assess language proficiency and HL levels.

Additionally, we coded for the presence/absence of six features of pedagogical rationale/design: adult learning theories, language learning theories, communicative competence, scaffolding, a feedback loop for assessment, and cultural adaptation (Table 2). Our goal was to understand whether these six features were being reported, not whether specific theories and pedagogies were most prevalent. We were interested in whether there was any reporting about the theoretical grounding in adult learning or language learning theories because of its value in describing and understanding practice. We looked for reports of developing skills in communicative competence, including the reporting on language forms, social interactions, language for different purposes, and strategies that are important for effective communication in a target language (for example, see the discussion of communicative interactions in Soto Mas et al., 2015). We explored whether articles incorporated practices such as scaffolding (Walqui & Van Lier, 2010), where the intervention intentionally built upon existing knowledge with supported practice. For assessments, Surrain and Luk's coding system marked the type of assessment (subjective or objective), but we added a code to identify whether a feedback loop was included for assessment because this is an important component for adult learners' knowledge, skills, and situated literacy (Purcell-Gates et al., 2012). Lastly, we investigated whether linguistic and/or cultural adaptations were reported. Cultural adaptations were for example how culturally sensitive issues were addressed through the interventions while linguistic adaptations could be using plain language and/or translations (for more, see Kreuter & McClure, 2004; Parrish, 2019).

Three research assistants individually coded each article, yielding a database of qualitative and quantitative data. Coding discrepancies were resolved through meetings with the entire research team.

Findings

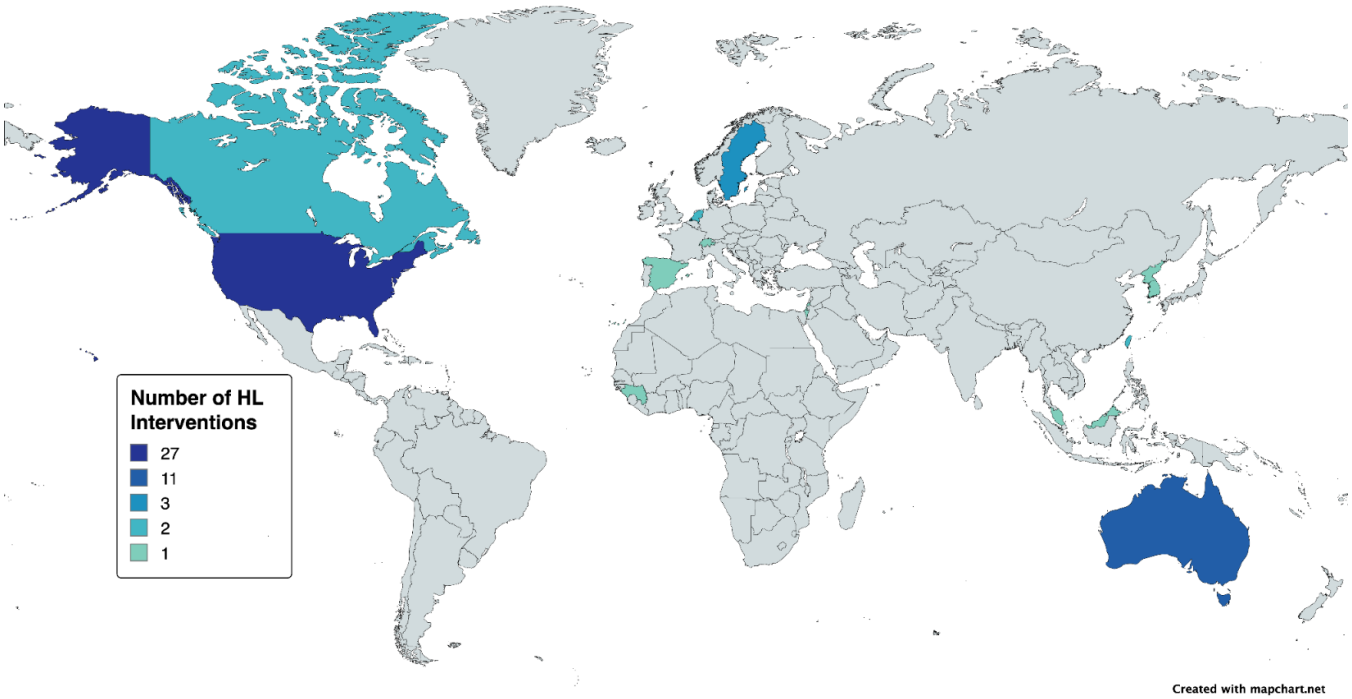
This section presents the main findings of the four research questions, including the general characteristics, learning approaches, and linguistic and pedagogical features.

General Characteristics

When and Where Were the Interventions Conducted?

The articles described interventions from several nations, mapped in Figure 2. Over half of the interventions were based in the United States and Australia.

FIGURE 2: Map of intervention distribution (own figure, created with mapchart.net)



Interventions occurred in several types of locations, including classrooms in formal education settings (*n*=11), clinics (e.g., hospitals or doctor's offices, *n*=5), community (e.g., in religious, non-profit, and cultural organizations, *n*=30), online or through other media (e.g., flyers, apps, *n*=5), and in professional development training (*n*=2).

All but three of the 53 studies were conducted after 2010, pointing to the increasing awareness of HL interventions for migrants in the literature over time but also to the increasing use of "health literacy" as an outcome for health education (Nutbeam, 2000). 2010 is also relevant because it is the year the United States instituted the National Action Plan to Improve HL, bringing HL "to a tipping point–that is, poised to make the transition from the margins to the mainstream" (Koh et al., 2012, p. 434).

Who is Involved in the Interventions?

The target populations of the interventions were migrants, health and education professionals in a position to improve migrants' HL, or a combination of both. Although in the minority, interventions targeting health/education professionals were an important contribution because these studies demonstrated the recognition of organizational HL. According to the U.S. Centers for Disease Control and Prevention, "organizational health literacy is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" (2023, n.p.). The move away from only recognizing personal health literacy is important because it distributes the communicative burden to both the health provider and the patient.

In some cases, migrants were differentiated by immigration status, such as for those interventions targeting refugees. In other cases, additional identifying factors such as gender, age, country of origin, language(s) spoken or role in the family were relevant and connected to the intervention's outcomes, community partners, or health topics. For example, Kagawa-Singer et al. (2009) focused on Hmong women, Valenzuela-Araujo et al. (2021) focused on Latino immigrant parents, and Kim et al. (2020) addressed Korean immigrants with Type 2 diabetes. In some cases, migrants were referred to as *limited English proficient* (*LEP*) instead of using asset-based identifiers (for more on this, see Feuerherm & McIntosh, 2023).

The intervention providers included adult educators (*n*=5), a partnership between an adult educator and a health partner (*n*=1), health professionals (*n*=12), multi-sectoral

(e.g., community partner with other stakeholders; *n*=15), university researchers (*n*=7), community based workers (e.g., "peer educators," "gatekeepers," "promotoras"; *n*=7), and unknown/not reported (*n*=6). Adult educators have been teaching HL before formal policies guiding HL interventions were established. However, the fact that our corpus of studies did not have adult educators as the top provider of HL interventions reflects the reality of the work of educators – they prioritize teaching and directly engaging with learners over publishing research, which likely contributes to their underrepresentation in academic literature on the subject. Additionally, adult educators are not experts in HL which points to the importance of multidisciplinary collaboration. Of the adult educator interventions, all but one took place in a formal, classroom setting (Supplement B).

What Topics are the Focus of the Interventions?

There were a broad range of health topics covered in the interventions. The NCSALL categories can help to focus the intervention protocol on the desired outcomes.

The topics included:

- Preventing disease and promoting health (*n*=35: including mental health *n*=12, cancer screenings *n*=4, reproductive and sexual health *n*=3, personal health and risk factors *n*=5, parental health *n*=2, oral health *n*=2, or general HL *n*=7)
- Navigating health systems (*n*=9)
- Managing chronic disease (such as hepatitis B and diabetes, *n*=6)
- Empowering for health (such as advocating for equitable health access, *n*=3)

A comparative analysis of the provider and the topic revealed notable discrepancies between adult educators and health professionals. Of the adult educator interventions, five targeted disease prevention/health promotion and one targeted health empowerment. All chronic disease management interventions were provided by health professionals or they were multisectoral (Supplement C).

Formal, Non-Formal, and Informal Learning Approaches

The categories of learning occurred in formal (*n*=11), non-formal (*n*=27), informal (*n*=9), or a biphasic non-formal/informal (*n*=6) learning approach. In the biphasic interventions participants were trained through a non-formal approach (phase 1) to offer HL training to their communities using informal learning approaches (phase 2). For example, Choi (2017) trained bilingual gatekeepers in mental health (non-formal) who then visited clients in their homes to provide mental health services (informal).

Formal learning always occurred in a classroom context, but providers included adult educators, adult educators and health professionals, university faculty, and unknown. All non-formal learning occurred in the community. Informal learning approaches were mostly multisectoral and included online/media contexts as well as community locations (Supplement B).

Adult educators and university-based providers also worked in non-formal settings, demonstrating the breadth of work and collaboration they are involved in. As will be discussed in the following sections, formal learning interventions set themselves apart in some ways when reporting on languages and pedagogy, but the interventions as a whole displayed great variability in how they reported on their linguistic and educational approaches.

Linguistic Features

This section describes learners' target language acquisition (history, assessment, and use), and the larger sociolinguistic context by using the coding system established by Surrain and Luk (2019). Table 1 summarizes our findings.

Only five interventions used an objective assessment of language proficiency, which are not the same as HL assessments. Of the interventions, 21 used an HL assessment (the most commonly used being TOFHLA, both short and long versions). More than half of the interventions reported a subjective assessment of the language proficiency of the learners. While interventions that were classified as formal learning did better at reporting language proficiency than either non-formal or informal learning, three of the 11 formal learning approaches lacked any language proficiency assessment.

The majority (60.4%) of the articles did not explicitly report on home language usage, and only one study discussed home language use proportionately to other

languages. This feature (like the feature for language history) seems of great importance to cognitive studies of bilingualism, perhaps more than for HL interventions. Nevertheless, how much and for what purpose learners use the target language is important when teaching (Menard-Warwick, 2009), especially because it connects to their real lives and improves literacy (Condelli & Spruck Wrigley, 2006).

The school language (language of intervention) was widely reported; only five interventions did not explicitly name the language of instruction. One of those that was coded as not naming the language of instruction was Martin et al. (2018), though because English is the majority language, the reader may assume that the language of instruction is English. It was less common to use just a single language in a HL intervention: only 14 of the interventions used a single language of instruction, while 37 used multiple languages or translations (Supplement D, Table 2).

Language history was not reported in the articles. This may be because of the different purposes this coding scheme was developed, compared to how we use it here. Surrain and Luk (2019) reviewed articles comparing monolingual and bilingual speakers, while our scoping study focuses on HL interventions for migrants. More specifically, Surrain and Luk's (2019) study was focused on bilingualism as a cognitive skill developed over time, whereas the focus of HL interventions is on health knowledge, behaviors, and empowerment.

Sociolinguistic context was reported if the articles included

TABLE 1: Characteristics of Linguistic Reporting in 53 HL Studies

LINGUISTIC FEATURES OF STUDY PARTICIPANTS			
Feature	**Data**	**#**	**%**
Characteristics of the Interventions			
PROFICIENCY: Do I know the language proficiency of the participants?	Not Reported = 0 Subjective Assessment = 1 Objective Assessment = 2 Both Subjective and Objective = 3	20 28 1 4	37.7% 52.8% 1.9% 7.5%
HOME LANGUAGE USAGE: Do I know which language(s) are spoken at home?	Not Reported = 0 Categorical (What languages are used) = 1 Gradient (Proportionality of language use) = 2	32 20 1	60.4% 37.7% 1.9%
SCHOOL LANGUAGE: Do I know what the language of instruction is?[1]	Not Reported = 0 Reported = 1	5 48	9.4% 90.6%
LANGUAGE HISTORY: Do I know the order and age in which bilinguals learned their languages?	Not Reported = 0 Reported = 1	53 0	100% 0%
SOCIOLINGUISTIC CONTEXT: Do I know about the general status and usage of languages in the study population?	Not Reported = 0 Reported = 1	24 29	45.3% 54.7%
OVERALL SCORING: Based on the combined scores of all features	0-2 3-5 6-8	25 26 2	47.2% 49.1% 3.8%

1 We expanded on the data for this feature by noting whether the language of instruction included one or multiple named languages, translations (generally), or translations into one or more named languages.

some indication about how languages were valued in the larger society (both the home and target languages). This could include statements about national language policies or practices as well as the size of diasporic populations, but any report had to be explicitly stated and not implied through general knowledge. Reports on the language context (the status and use of the language in the larger society) were lacking for almost half of the studies. Generally, there were more studies conducted in the United States and Australia and many of the unreported sociolinguistic contexts came from these two countries; although Canada, Spain, Sweden, and Taiwan also had studies that did not report on societal language use.

Besides looking at these factors independently, we also created an overall score for language reporting. The interventions that included the fewest language details were mostly professional development interventions that targeted health care professionals. Those who included the most language details include Soto Mas et al. (2018) and Lauzon and Farabakhsh (2017). These articles connected HL promotion to the use of language in different contexts and leaned into language as a vehicle for understanding.

Educational Approaches

The coded data for pedagogical approaches to HL interventions is outlined in Table 2.

Authors reported on the adult learning theories underpinning their HL interventions less than half of the time. This aligns with the findings from the systematic review of HL interventions by Walters et al. (2020), where 12 of the 22 studies included theoretical underpinnings. As they argue "in a field which is striving to develop an evidence basis, theory allows for the systematic development, comparison and refinement of interventions

TABLE 2: Characteristics of Pedagogical Reporting in 53 HL Studies

PEDAGOGICAL CHARACTERISTICS OF INTERVENTIONS			
Feature	**Data**	**#**	**%**
Characteristics of the Interventions			
ADULT LEARNING: Do I know what theories about adult learning inform the intervention design?	Not Reported = 0	27	50.9%
	Reported = 1	26	49.1%
LANGUAGE LEARNING THEORIES: Do I know what theories about language learning inform the intervention design?	Not Reported = 0	43	81.1%
	Reported = 1	10	18.9%
SCAFFOLDING: Do I know the extent of scaffolding principles included in the intervention design?	Not Reported = 0	8	15.1%
	Evidence of Principles = 1	28	52.8%
	Evidence Plus Rationale = 2	17	32.1%
COMMUNICATIVE COMPETENCE: Do I know if the intervention design reflects skills that promote communicative competence?	Not Reported = 0	17	32.1%
	Reported = 1	36	67.9%
ASSESSMENT: Do I know whether there was a feedback loop where assessment outcomes were shared with participants?	Not Reported = 0	29	54.7%
	Reported = 1	24	45.3%
CULTURAL SENSITIVITY: Do I know if the intervention was structured in a culturally sensitive way?	Not Reported = 0	1	1.9%
	Reported Cultural Adaptation = 1	4	7.5%
	Reported Linguistic Adaptation = 2	7	13.2%
	Reported Cultural and Linguistic Adaptation = 3	41	77.4%
OVERALL SCORING: Based on the combined scores of all features	0-3	6	11.3%
	4-6	27	50.9%
	7-9	20	37.7%

and is something that should be encouraged" (p. 14). They further argue that those interventions designed in line with theory have the potential to be more robust, effective, and applicable.

Fewer articles addressed language learning theories than addressed adult learning theories, possibly because of its more narrow application in the field of HL. Language learning theories are relevant to migrant HL interventions but not to HL interventions that focus on the majority-language-speaking public. Because only a portion of the HL literature focuses on language learning (i.e., those targeting migrant populations), it appears the relevant theories from applied linguistics have not been integrated into the discipline as broadly.

Overall, scaffolding was well reported with only eight articles not reporting any scaffolding. There were 17 articles that further provided a rationale for why scaffolding was used. We might assume that scaffolding would be discussed and rationalized in formal and non-formal learning, where learning was an explicit goal of the intervention and not incidental. However, reporting on the scaffolding of interventions was more often reported in informal learning; all informal interventions discussed scaffolding, compared to most formal learning (Supplement D, Table 2).

Similarly to how adult learning theories were more reported than language learning theories, scaffolding was more reported than communicative competence. Even the formal learning interventions only reported on communicative competence in eight out of 11 articles. All of the interventions that included adult educators had evidence of improving communicative competence and incorporating scaffolding.

Learner-centered assessment principles outline a feedback loop where assessment outcomes and results are shared, but less than half reported on this feature. Assessments used for student progress and program accountability often leave out the kinds of knowledge and skill acquisition that learners use outside of the classroom (Condelli & Spruck Wrigley, 2006; Reder, 2015). Including a feedback loop is important when using standardized assessments that may not be well aligned with what is taught or learned in the intervention.

All but one of the articles reported cultural sensitivity in the form of linguistic or cultural adaptation. Although Tay et al. (2019) did not mention cultural sensitivity directly, the teachers were of a refugee background, so through the design of the intervention culture was addressed. The regular reporting on cultural sensitivity may be a factor of the national policies which guide HL interventions because they explicitly state that cultural sensitivity and adaptations should be part of HL interventions (Brach, 2024; Council of Europe, 2023).

Cultural sensitivity is different from scaffolding and communicative competence. For example, Lauzon and Farbakhash (2017), a formal multisectoral intervention including ESL instructors, viewed language acquisition as best taught contextually, in this case through improving parental HL. While they provided translations as needed, they also aimed to teach participants communicative skills to independently promote their own health through a language learning lens. Compare this to Farokhi et al. (2018), who used presentations and materials that were translated to participants' native language, revealing a linguistic adaptation. However, the intervention providers narrowly focused on oral HL and did not build on participants' communicative competence beyond this.

Similar to the linguistic findings, we created an overall score for pedagogical reporting. Those who included the most pedagogical details included Sarkar et al. (2019) and Lauzon and Farabakhsh (2017). These are both formal interventions where the authors emphasize how HL interventions can be developed to target language learners and to advance adult education through traditional pedagogical methods and a HL context.

When we analyzed whether the formal, non-formal, and informal learning approaches differ in reporting based on the features, we noticed the following: All learning approaches were about equally split between reporting and not reporting on adult learning theories. However, authors of studies on formal learning approaches did slightly better at reporting on language learning theories (Supplement D, Table 2). Only one did not reference any theories, indicating the disciplinary knowledge of pedagogical theories adult educators bring to HL interventions.

Discussion

In this scoping review, we sought to understand how

migrant HL is promoted in educational interventions and what the linguistic and educational underpinnings are. We relied on academic papers and the descriptions of the interventions that were published in order to understand how researchers situated their work. While these descriptions may not be comprehensive, they were nevertheless illuminating and allowed us to derive numerous recommendations for educators and researchers.

We found that the most basic information about how researchers label the target group or identify the health topics that are most pressing to a community rely on numerous contextual factors (for more, see Harsch et al., in press). This diversity of target populations is similarly reflected in the health topics and learning approaches (formal, non-formal, informal). The multitude of health topics included in the study resonate with Rima Rudd's study circle (2005) and are also visible in other reviews on migrant's HL (Fox et al., 2022; Harsch, 2024; Harsch & Bittlingmayer, 2024)). The various labels that are used as identifiers makes it difficult to generalize the target populations and limits the transferability of the interventions. Researchers and educators should be aware of labeling that reduces the complexity of the target group to one or two adjectives and refrain from using deficit-oriented identifiers that ignore their assets. A translingual approach is useful here, where a unitary view of the full communicative system – including all the languages, gestures, and other meaning-making – informs the description of multilingual individuals (Canagarajah, 2013; Wei & Garcia, 2022).

The large number of non-formal and informal learning approaches demonstrates how important just-in-time learning is (Reder, 2015). Published studies on migrant HL interventions are happening in more than traditional classrooms – they happen in community spaces, clinics, and through online or other media. Similarly, interventions are led by more than just teachers: They include clinicians, community members, and university students. This heterogeneity is a strength for the local context, and for the learners who may lack the time and access to formal learning opportunities.

This is why building standardization into HL interventions through the incorporation of theories and standards of practice with common phrasing is so important. Our data show that teaching and learning practices (scaffolding, communicative competence, cultural sensitivity) are more reported on than theories (adult learning and language learning theories). Also, general theories and practices (adult learning theories, scaffolding, cultural sensitivity) are more reported on than those focused on language (language learning theories and communicative competence). And yet, HL interventions for migrants necessarily incorporate adult learning and language learning, so the theoretical framework that underpins the interventions are critical for advancing the epistemological direction of the field. Language teachers and adult educators know these theories and their relation to practice, but they can be almost "taken for granted" when it comes to writing articles with so many other important features to describe.

There were three – in our view – crucial limitations and challenges we faced in this study: context, data, and heterogeneity. *Context* variation was a complicating factor because the articles we drew from were not defined by national borders. Policies that regulate migration, education, and access to health care vary depending on the destination and existing laws and regulations in the country of resettlement, and articles do not often outline these contextual factors. For example, countries who resettle refugees will have various regulations when it comes to evaluation of the claims for asylum including which countries they will accept refugees from,[1] support services upon arrival including refugee-specific services related to language education and other services such as national health care access, and HL policies that intersect education and health care. Thus, comparing the effectiveness of published HL interventions may hide important factors of the local systems that are in place and that strongly influence the success of the program as well.

Another challenge for any scoping review is that our data – the published accounts of migrant HL interventions – cannot fully represent the scope of the

2 This is important because it dictates who is allowed to be a legal immigrant in a country and what types of support (both educational and health) they will be offered. For those fleeing situations not recognized by a host country as valid for asylum or refugee status, they will be forced to the social periphery and lack the meager resources offered to migrants who have entered a country through established and recognized ways.

work, the background context, or the knowledge of the providers as related to theoretical or practical matters. The expectations of the field and journal, limitations on article length, and prioritizing other aspects of the findings all limit what can be included in a publication. For example, Martin et al.'s (2018) article is one of the shortest in our corpus and lacked some of the linguistic and pedagogical details of the migrant HL intervention likely because it was so short. In this case, any information that could be inferred (such as the language of instruction) was unreported. This is not an evaluation of the effectiveness of the interventions, but rather an analysis of how the interventions are reported on.

Lastly, distinguishing between the different categories (health topic, educational approach) was not often easy because of the incredible heterogeneity of the interventions. We made decisions based on language used by the authors and discussed many categories at length. For example, Han et al. (2008) described an intervention addressing breast cancer prevention but also included elements of health systems navigation, making it difficult to categorize in terms of health topic. Despite these limitations, we found many insights relevant to adult educators and researchers developing, implementing, and reporting on HL interventions for migrant communities.

Recommendations

We recommend the following improvements to the planning and reporting of HL interventions with migrants:

- Describe the sociolinguistic context of the intervention and relevant policies or practices that address HL.
- Identify the theories of learning (including language learning) that informed the intervention. Connect the theories to the practices and demonstrate how best practices (such as scaffolding and communicative competence) are integrated into the intervention.
- When describing who was the target of the intervention, include details about language background (languages spoken and proficiency, home language use, and where possible the ages of when the languages were learned). Avoid labels that perpetuate monolingually biased views of migrant populations.
- Tie learning outcomes to the target population in ways that affirm their assets and the situated HL practices they engage in daily. Use assessment tools that account for this practice effect (Reder, 2012).
- Support greater interchange between applied inguists, health care professionals, and educators to improve the impact of HL reporting.

Conclusion

It is important to try to build an understanding of the needs of migrant populations in different locations because the various forms of migration, along with their legal, economic and social statuses, constraints, and opportunities, affect migrants' health to varying degrees (IOM, 2015). Forced migration, caused by war, climate change, or persecution, has an impact on health at all stages of migration, as well as at individual, social, and political levels, the result of which may be a need for particular health interventions that are sensitive to the backgrounds of the migrant populations. Adult educators are well-positioned to provide HL interventions because their focus is not on simply providing translation or translators, but on teaching students the skills needed to overcome language barriers, a defining characteristic of poor HL.

A more in-depth understanding of interventions to promote migrant HL globally will enable practitioners and policymakers to make better decisions about which interventions to choose and support. It can also aid in the creation and revision of existing policies through inclusion of best practices beyond cultural sensitivity (theoretical grounding, scaffolding, communicative competence, assessments of HL and fluency, etc.). Finally, this detailed analysis of the practice of reporting on linguistic and pedagogical approaches will allow researchers to reflect on their practices and eventually set new standards for reporting on migrant studies that are relevant for practitioners, which allows for greater replication of the interventions as it provides relevant information to make informed decisions.

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Research Article

Empowering Refugees and Immigrants Through Transformational Home Language Health Education

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Abstract

This study focuses on the importance of providing health education materials that are understandable, actionable, and linguistically and culturally sustaining, and therefore transformational for refugees and immigrants. We explored refugee and immigrant patient experiences with language specific diabetes education videos by conducting four separate focus groups with speakers of Pashto, Dari, Burmese, and Spanish to understand if and how the videos align with the health literacy guidelines of understandability and actionability, and the tenets of culturally sustaining pedagogy with a focus on long-term change. In addition to cultural and linguistic findings, we note that participants felt more confident in approaching their health care provider with questions after viewing the videos, a transformational behavior to achieve greater health outcomes for themselves. This study has implications for expanding language access within and across health care systems and for the way health literacy can be integrated into adult education language learning classrooms.

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Keywords: health literacy, diabetes education, understandability, actionability, culturally sustaining pedagogy

This study is a formative evaluation of multilingual health literacy videos that were designed to educate about diabetes. The evaluation seeks to understand the functioning of the videos for the end users (James Bell Associates, 2018) who are multilingual refugee and immigrant patients living in Clarkston, Georgia. For this study, program functioning refers to whether "the resources needed to implement [the videos], including personnel, materials, space, time, and organizational supports" are in place (James Bell Associates, 2018, n.p.). Developed using a community-based participatory framework (CBPF) (Feinberg, O'Connor et al., 2023), these videos were designed in collaboration with multilingual physicians and community members in Clarkston, Georgia.

Conceptual Framework

It is well documented that an individual's literacy and numeracy skills correlate with their self-rated health outcomes (MacDonald et al., 2022; Prins & Monnat, 2019; Ronson & Rootman, 2012). For example, a report based on the recent Programme for the International Assessment of Adult Competencies (PIAAC) results reveals that "individuals with high numeracy skills are 11 percentage points more likely to report very good or excellent health compared to those with low numeracy skills" (Organization for Economic Cooperation and Development, 2024, n.p.). In fact, Prins and Monnat (2019) conclude based on previous PIAAC findings, that educational attainment is a social determinant of health:

> for U.S.-born adults and immigrants, literacy and numeracy are related to health both directly and through socioeconomic resources, particularly educational attainment, employment, parental education and, in the case of immigrants, speaking English well. As such, there may be potential health benefits to helping adult learners

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and immigrants who are most disadvantaged to develop their literacy and numeracy capabilities (p. 330).

In short, adult literacy and education are key components in building prosperous, healthy lives for individuals who are disadvantaged and minoritized (Prins & Monnat, 2019; Prins et al., 2015).

As a consideration for developing health education materials such as the videos our participants analyze in this study, the literature distinguishes between general literacy and health literacy (Ronson & Rootman, 2012). According to the National Assessment of Adult Literacy (2003), literacy is "the ability to use printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential" (n.p.). General literacy "shapes income, employment, and other social determinants of health" (Prins & Monnat, 2019, p. 319). Health literacy, on the other hand, is "the ability [...] to read, understand, and act upon health-related information" and "the capacity of professionals and institutions to communicate effectively so that community members can make informed decisions and take appropriate actions to protect and promote their [own] health" (Tassi & Ashraf, 2008, p. 3). Therefore, health literacy can be viewed as a situated social practice (Papen, 2008), not just an individual responsibility, in which the community–individuals, health care systems, and health care practitioners–are responsible for designing and disseminating clear and accessible health education (Mooney & Prins, 2013; Prins & Monnat, 2019).

When designing health education materials for multilingual communities, the literature emphasizes the importance of using evidence-based health literacy guidelines in combination with community members' insights in the development of materials, ensuring that materials are not only culturally and linguistically sustaining, but that they draw on community members' funds of knowledge (Moll et al., 2001). Once patient education materials are created using health literacy guidelines, the literature recommends vetting them with community-based language/cultural brokers and then using internet-based resources for dissemination into the community (Abdullahi et al., 2023; Feinberg et al., 2016; Rao et al., 2022).

Patients need health information that is accessible, understandable, easy to use, and presented from trustworthy sources in high quality modalities (Feinberg et al., 2023). During the COVID-19 pandemic, Feinberg et al. (2023) found that evidence-based health literacy guidelines—quality, understandability, and actionability—might support the usefulness of YouTube videos meant to disseminate health literacy information. Pertinent to the present study, Shoemaker et al. (2014) define understandability and actionability as follows:

> Understandability: Patient education materials are understandable when consumers of diverse backgrounds and varying levels of health literacy can process and explain key messages.
>
> Actionability: Patient education materials are actionable when consumers of diverse backgrounds and varying levels of health literacy can identify what they can do based on the information presented (p. 396).

Additionally, there is evidence that collaborating with community members to design and disseminate patient education materials (PEMs) is effective and transformative (Kendrick & Mutonyi, 2007; Robotin et al., 2017). The CBPF draws on community funds of knowledge (Kendrick & Mutonyi, 2007; Rumenapp et al., 2023) and has been used to develop PEMs for rare diseases (Falcão et al., 2023) and COVID-19 information (Feinberg, O'Connor et al., 2023) among other health topics. The CBPF model builds on the existing strengths and resources of the community, positioning patients and providers as co-learners in capacity building and information sharing. For example, when implementing Stop the Bleed trainings that promoted health education in basic trauma management techniques, Abdullahi et al. (2023) learned from community members that language concordant interpreters from the community and small group hands on sessions were beneficial in developing, sharing, and engaging with health information.

The literature suggests the importance of culturally and linguistically sustaining pedagogies when developing PEMs alongside multilingual communities (McKee & Paasche-Orlow, 2012). This offers a unique opportunity for health literacy experts and bi/multilingual education researchers to work together and alongside communities to design culturally sustaining PEMs (McKee & Paasche-Orlow, 2012). Culturally sustaining pedagogy (CSP) is grounded in the following concepts: implementing asset-based pedagogies, sustaining heritage and community practices, and critical reflexivity, or analyzing the intersectional

relationships between language, culture, race, and ethnicity (Ladson-Billings, 1995, 2014; Paris, 2012; Paris & Alim, 2014). Translanguaging pedagogy, the leveraging of an individual's entire linguistic repertoire to teach a concept, is an example of CSP (García & Wei, 2014). In accordance with the principles of translanguaging, the literature on health information dissemination advocates for multilingual literature that does not privilege English or written materials only but incorporates multimodal applications through interactive books and programs (Chu et al., 2022; Feinberg, O'Connor et al., 2023; Headley et al., 2022; Khoong et al., 2019; Kusters et al., 2023; Ma et al., 2020; Mavreles et al., 2021; Robotin et al., 2017).

Evaluation Questions

We developed formative evaluation questions specifically to understand how refugee and immigrant community members in Clarkston, Georgia, experience culturally and linguistically sustaining diabetes PEM videos. Our research questions were:

1. In what ways, if any, do the videos enhance patient education and awareness?
2. How do inputs (personnel, materials, services) contribute to video dissemination?
3. Do individuals feel more confident asking the doctor questions about diabetes after having watched the videos?

Positionality Statement

To be attentive to critical reflexivity, it is important to us that we continually examine our own identities and biases in relation to this work. Dr. Lindsay McHolme identifies as an English/Spanish bilingual White woman with an expertise in multilingual teacher education. Dr. Iris Feinberg identifies as an English monolingual White woman with an expertise in health literacy. As part of this transformational work, we have intentionally sought to center the voices and experiences of the communities that the diabetes videos serve. The community members are seen at a free diabetes clinic; we maintain a close relationship with the clinic stakeholders and follow their recommendations for upholding community integrity and expertise. Therefore, we used home language concordant interpreters to support communication during the focus groups. Our collaborative work is a response to a call for researchers with expertise in health literacy and bi/multilingual education to learn from one another in developing and disseminating PEMs for refugee and immigrant communities (McKee & Paasche-Orlow, 2012).

Methodology

This study is a formative evaluation of multilingual PEM videos that were designed to educate about diabetes. The evaluation seeks to understand the delivery and end user experience of the videos for multilingual refugee and immigrant patients living in Clarkston, Georgia. The videos under evaluation are available in Burmese, Dari, Pashto, and Spanish and address the following topics:

- What is diabetes?
- Checking and managing blood sugar
- Glipizide
- Metformin

The videos were developed by health literacy experts in collaboration with community clinicians and multilingual, transnational Clarkston community members to perform an iterative review, ensuring medical accuracy and cultural appropriateness. The study was implemented at the diabetes health clinic at the Clarkston Resource and Wellness Hub in Clarkston, Georgia. This free diabetes clinic serves multilingual and transnational refugee and immigrant patients from the Clarkston community. The clinicians that work at the clinic volunteer their time and expertise to serve the multilingual refugee and immigrant patients who visit the clinic.

Participants

Snowball sampling (Glesne, 2006) was used to recruit participants via interpreters, community leaders who spoke English and one of the following languages: Dari, Pashto, Burmese, and Spanish. The operations manager shared a flier with the interpreters, and the interpreters reached out to their language-specific networks for recruitment. Overall, 20 individuals participated in the evaluation study, five participants from each language group (Dari-Afghanistan, Pashto-Afghanistan, Burmese-Myanmar, and Spanish-Mexico). Most of the participants identified as women (80%) and ranged in age from 18 to

68 years old. Participants reported that they lived in the United States between a range of 1 month to 20 years, with 40% of the participants reporting 3 years (Table 1). Since our primary focus was to evaluate the PEMs and not our participants' health literacy levels, we chose not to collect data related to educational background, language proficiency, and level of experience with diabetes-related concepts.

TABLE 1: Participant Demographics

		Total	Female Gender		Age		Years in the US	
Language	**Country**	**N**	**N**	**%**	**Mean(*sd*)**	**Range**	**Mean(*sd*)**	**Range**
Burmese	Myanmar	5	5	100%	36.6(*5.77*)	29 – 42	3.7(*3.35*)	1 - 9
Dari	Afghanistan	5	4	80%	40.4(*11.78*)	24 - 51	3(*1.31*)	<1 - 3
Pashto	Afghanistan	5	3	60%	38.4(*18.39*)	18 - 68	3.8 (*1.79*)	3 - 7
Spanish	Mexico	5	4	80%	52(*13.95*)	39 - 68	8.83(*10.32*)	<1 - 20

Note. N = 20, with 5 participants in each group; *sd* = standard deviation.

Instruments

Two instruments were used for this formative evaluation: a questionnaire and a semi-structured interview protocol. The materials were written to give participants the opportunity to respond in multiple modes (oral, written, language of their choice) to accommodate their ability to give complete responses. Participants were not required to write in any language.

Questionnaire

The purpose of the questionnaire was two-fold: to describe the participants in the study accurately and from their perspectives and to measure attitudes and opinions about the videos in a written and/or multimodal format (Nardi, 2018). There are 11 open-ended demographic questions to allow participants to describe their own identities from their perspectives, considering name, chosen pseudonym, age, gender, race/ethnicity, home country, home language, years lived in the US, and mode of seeking health resources. Then, the questionnaire includes four multimodal Likert-scale questions that are designed to understand participants' attitudes and opinions about the videos after watching them. The Likert scale choices are represented in writing and with emojis to allow for multilingual/multimodal meaning making and representation (García & Wei, 2014). To accommodate participants' varying oral and written literacy and language levels, the focus group facilitator and interpreters walked the participants through how to fill out the document and encouraged, but did not require, participants to give a written response in any language they preferred.

Semi-Structured Interview Protocol

The semi-structured interview protocol that was used during the focus group meetings was organized by the health literacy information guidelines (understandability and actionability), culturally sustaining pedagogy (asset-based language, sustaining heritage and community practices, and appropriate intersectional relationships between language, culture, race, and ethnicity), and the formative evaluation toolkit (dissemination: personnel, materials, services) (James Bell Associates, 2018). The questions under each category were guided by what we have learned from the literature about PEM design and dissemination:

1. Dissemination: Which community members are most appropriate for disseminating these videos?; Would you be willing to share these videos with family and friends? If so, with whom? If not, why?; Where should the videos be available (e.g., QR codes, URLs, brochures, etc.) for patients?; When should the videos be provided to patients (after a visit, for example)?
2. Understandability: Are there any concepts in the videos that require further education (i.e. content, word choice and style, organization, layout and design, visual aids)?

3. Actionability: What new information, if any, did you learn from the individual videos? What information is missing?
4. Cultural/Linguistic Responsiveness: In what ways, if at all, are the videos culturally and linguistically appropriate (do they include asset-based pedagogy, sustaining heritage and community practices, and consider the intersectional relationships between language, culture, race, and ethnicity)?

For the conversation to remain free flowing and as participant-directed as possible, there were four main questions and flexible sub questions and prompts that the interviewer may or may not have referenced during the interviews (Glesne, 2006).

Focus Groups

At the beginning of each focus group, the interviewers and the interpreters discussed the plain language consent form. The participants completed the informed consent and the questionnaire verbally. Then, the group watched the videos in the common home language of the participant group, pausing to give participants time to respond with their thoughts about each video on the questionnaire. After watching and responding to the videos, the interviewer facilitated the semi-structured interview with assistance from the interpreter who often took the lead, encouraging participants to freely discuss the health literacy guidelines, culturally sustaining pedagogy framework and formative evaluation toolkit framework for dissemination. In total, the focus group meetings lasted no longer than two hours. At the end of each focus group, participants received financial compensation for participating in the study. The focus group meetings were audio recorded and translated/transcribed in English.

Data Analysis

For triangulation, we gathered data from the questionnaires, focus group interviews, and participant observations for analysis (Glesne, 2006). The PEMAT-AV and the CSP framework were used to analyze the end user experience of the videos. The PEMAT-AV helped us to identify themes of understandability and actionability (Shoemaker et al., 2014) and the CSP framework helped us to identify themes of asset-based pedagogy, sustaining heritage and community practices, and consider intersectional relationships (Paris & Alim, 2014). The formative evaluation toolkit framework was used to analyze the dissemination processes for the videos. During the first cycle of coding, vivo codes were used to note specific qualitative evaluative comments made by participants verbatim, as it aligns with grounded theory and honors participant voice (Saldaña, 2009). Then, descriptive coding was used to identify relevant topics (understandability, actionability, cultural and linguistic references) (Saldaña, 2009). Finally, coding tags were used to indicate specific actions for follow-up. The second cycle coding was developed based on evaluation coding, "the application of non-quantitative codes onto qualitative data that assign judgments about the merit and worth of programs or policy" (Rallis & Rossman, 2003, p. 492). The categories of description (participant observations that assess quality), comparison (measure against a standard or ideal), and prediction (recommendations for change) were used for evaluation coding (Rossman & Rallis, 2003).

Findings

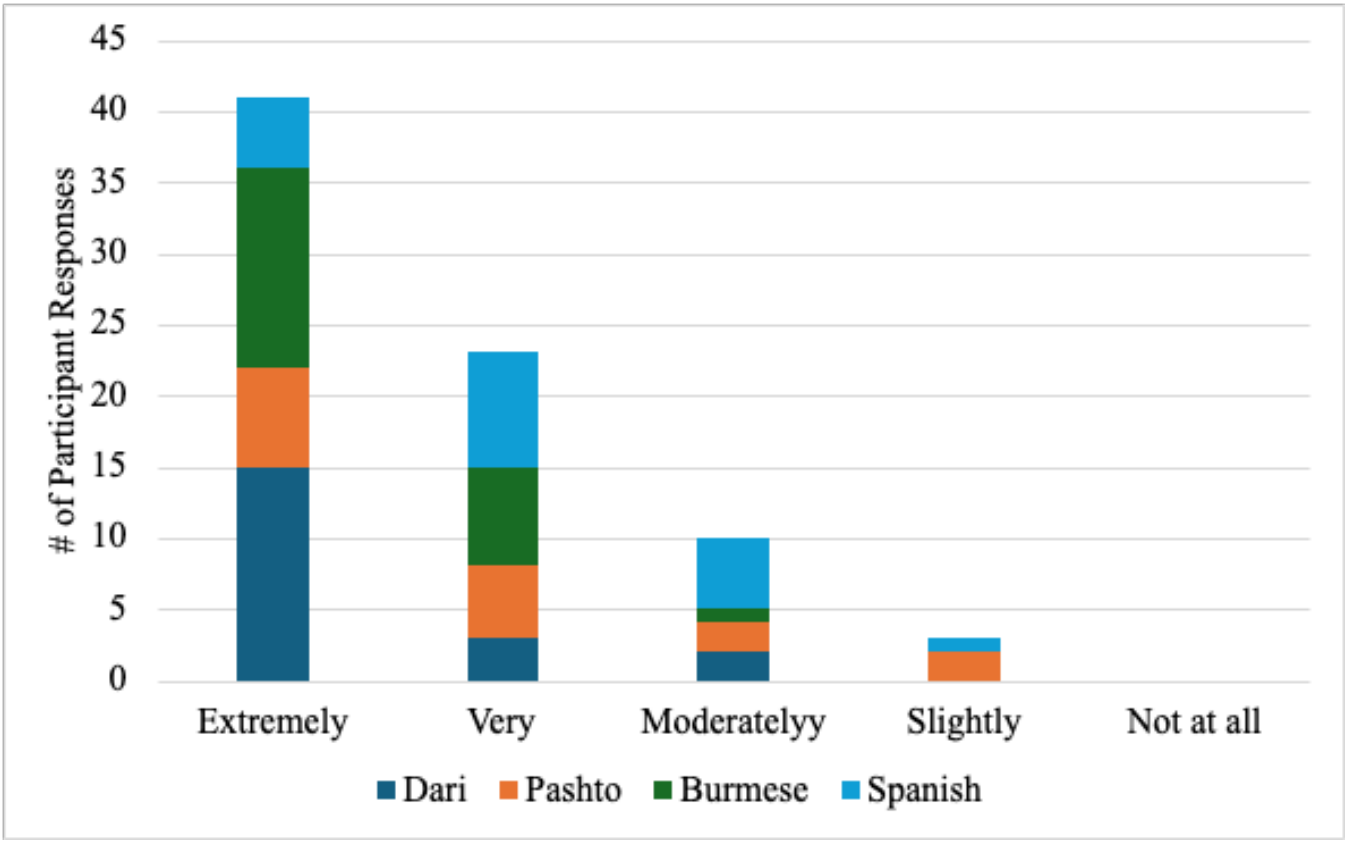
Our findings reveal that participants learned new information about diabetes management from these videos, felt that they will have more confidence talking to their doctor about diabetes after watching the videos, appreciated the cultural and linguistic responsiveness of the home language content, and were excited about the idea of sharing them with their communities.

End User Experience

Understandability

Participants reported that the videos were understandable and that they would be able to use the information they learned to manage diabetes and ask informed questions at the doctor's office. Regarding overall understanding of the four videos combined, participants overwhelmingly felt that they understood the videos extremely well or very well (Table 2).

TABLE 2: How well did you understand the videos overall?



Note: Missing data from 2 participants in the Pashto group (Metformin and Glipizide videos)

To improve understandability of the videos, some participants recommended using a documentary-style video (instead of animation) that demonstrates how real people use the glucometer. An example of one of the comments that supported this is: "they're making a video like cartoon. A documentary [is] more specific and more ideas so that people take more serious." In any case, the participants overall wanted the videos to contain more detailed information in whatever format it was presented.

Actionability

A follow-up survey revealed that 100% of participants who responded (*n*=10) felt more confident speaking to their doctors about diabetes and diabetes management after watching the PEMs during the focus group. In fact, participants shared that they learned new information about diabetes that would support their ability to speak with and learn more from their health care providers about different diabetes-related topics. Typical responses included:

> *Hla Hla, Basics of Diabetes (Burmese):* "When a person has diabetes, it can be a consequence. We have to eat healthy diet and then more exercise. And then talk to the doctors regularly."
>
> *Bahar, Diabetes Symptoms (Pashto):* "It affects our eyes, our hearts, our kidney."
>
> *Tatiana, Management and Prevention (Spanish):* "Is important for my culture before to go to the doctor, you look everywhere and drink everything to save your life before go to the doctor. I learn before you start to do something, you going and check with a doctor."
>
> *Kamila, Medication Side Effects (Dari):* "Somewhat normal and not normal side effect you can visit the doctor. Anytime they say you need to take the medicine, you always take your three meals and not skip. This is really important."
>
> *Nagia, Healthy Life Style (Pashto):* "I learned to do exercise."

Having learned new information about diabetes from the videos, participants asked informed and detailed questions about diabetes that could be included in future PEMs or that they could discuss with their doctors. Common questions included:

> *A Min, Family and Self-Management (Burmese):* "The video said diabetes can make your heart weak as well. My mother is diabetic and she has a heart problem as well. When we talk [to her], maybe we should be careful to give them bad news [in a gentle way]?"
>
> *Farhat, Family and Self-Management (Dari):* "We have to take healthy food. What is healthy food? How to take it?"
>
> *Gaby, Access to Management Tools (Spanish):* "It's very important to see how is the cost of the medicine [and glucometer]. Always ask to the insurance if they cover."
>
> *Bahar, Side Effects and Symptoms (Pashto):* "What is the difference between side effects and symptoms?"
>
> *Kamila, Mental Health (Dari):* "If a person hear about that I have diabetes, is that suddenly they will know. It make them really isolated from the community. [What to do?]"

Among the many follow-up questions, participants across the focus groups were especially interested in learning more about healthy food in the United States. It is outside the scope of this project to address these questions; however, it should be noted that the community of researchers and doctors that work within this community have developed culturally and linguistically sustaining PEMs that address the topic of healthy food.

Cultural and Linguistic Sustainability

The diabetes PEMs are not just relevant to community members because they are in their home languages, but their purpose is transformative, that is, to educate and empower individuals to be in control of their own health (Alim & Paris, 2017; Kusters et al., 2023). We discuss the findings in this section through the lens of culturally sustaining pedagogy (Ladson-Billings, 1995; 2014; Paris, 2012; Paris & Alim, 2017) with a specific focus on asset-based pedagogy, sustaining heritage and community practices, intersectional relationships, and linguistic representation. Asset-based pedagogy is the use of "the linguistic, literate, and other cultural practices of our communities meaningfully as assets in educational spaces" (Alim & Paris, 2017, p. 5). According to Paris and Alim (2014), sustaining heritage and community practices is not enough if we truly seek to enact asset-based pedagogy. They argue that "it is crucial that we understand the ways [...] people are enacting race, ethnicity, language, literacy, and cultural practices in both traditional and evolving ways" (Paris & Alim, 2014, p. 90). Individuals enact their own identities in multiple and fluid ways within their own communities, which emphasizes the importance of representing intersectional identities and relationships in PEMs specifically designed for refugee and immigrant communities (Ladson-Billings, 1995, 2014; Paris, 2012; Paris & Alim, 2014).

Culturally Sustaining Pedagogy.

Overall, participants were very pleased with the asset-based cultural and linguistic responsiveness of the videos. For example, one participant's positive response was typical across focus groups:

> *Said, Respectful Language and Content (Pashto):* "it's very respectable, our language and the information is also good."

Not only did participants overwhelmingly appreciate the cultural and linguistic responsiveness of the videos, but they recommended ways to use these videos to further transform health education within their communities.

Addressing Religious Observances.

Participants who practice religious traditions that involve celebratory eating and/or fasting expressed that it was important to include how to manage diabetes during religious observances into the videos (or to create specific videos addressing them). Typical responses include:

> *Hla Hla, Ramadan (Burmese)*: "When I was in Indonesia during the Ramadan, we get up at three in the morning. That's when we eat. And then afternoon pills after fasting, after dinner. That's what they [the doctor in Indonesia] told me. But from the doctor in the US, they didn't say, even during the Ramadan."
>
> *Mahib, Ramadan (Pashto):* "It is really good idea to have a video about this [Ramadan]. We like difficult to control, even the not water [fasting from water and food]."
>
> *Gaby, Christmas and Semana Santa (Spanish):* "I think so for me it's important for celebration. We are Hispanic and we make a lot of food, and mostly all the food is like sugar or extra protein. We show the kids how we eat on the days, like we make postres [desserts] and dessert. It's a day of celebration, but is the day of take care of you and your family too, verdad [right]?"

Religious observances are an integral component of community cultural practices and as the participants in this study expressed, can be included in PEMs to support self-management of health conditions. This finding also has implications for doctors' cultural responsiveness, highlighting the importance of addressing how diabetes can be managed during varying religious observances.

Incorporating Layered Intersectional Representation.

Participants recognized the racial and ethnic representation in the videos as asset-based; however, they were concerned about the lack of intersectional representation in the videos. Intersectionality is, "a way of understanding and analyzing the complexity in the world, in people, and in human experiences" with the understanding that "people's lives and the organization of power in a given society are better understood as being shaped not by a single axis of social division, be it race or gender or class, but by many axes that work together and influence each other" (Collins & Bilge, 2016, p. 2). Participants recommended to include characters of all ages, body types, and abilities in the videos. For example, Carolina, a Spanish speaker, explained the importance of representing age diversity in the videos.

> *Carolina, Age (Spanish):* "They're [the videos] focused only on the older people. Everybody can have diabetes."

For the most part, the videos represent older adults, and across the focus groups, participants agreed with Carolina, wanting to be able to understand how diabetes could be prevented and managed for their children. Tatiana, also a Spanish speaker, stated that it would be helpful to see different body sizes in the videos.

> *Tatiana, Body Sizes (Spanish):* "[more diversity in] the characters in the body."

Participants noticed that the characters in the videos were all one size, and they wanted to see their own body sizes represented in the videos, to demonstrate to viewers that diabetes affects people of all sizes. Finally, participants recommended including accommodations for viewers of different abilities, such as including captions and bullet points in home languages on every slide to support understanding.

> *Gaby, Ability (Spanish):* "I like the video and I like to know about the letters too because like my friend, he can't listen. He can see the caption, mi amigo [my friend] Carlos. He can't hear, but he can read Spanish."

Contending with the Transnational Experience.

Transnational settings "involve people, resources, and interactions that transcend nation-state borders and space/time boundaries" (Canagarajah, 2020, p. 559). Many of the refugee and immigrant participants in this study participate in transnational settings where they contend with their layered identities within and across borders and space/time boundaries, meaning they maintain a relationship with their home countries, cultures, and languages while also engaging in the receiving countries' cultural and linguistic practices. Gaby's story, a common sentiment shared across the focus groups, illuminates the importance of explicitly teaching about making healthy choices in American grocery stores and restaurants, as the choices might be very different from home country options:

> *Gaby, American Food (Spanish):* "When I come to this country, I can see how the bread is very sugar. I'm working on Dunkin Donuts and I was very surprising how the sugar is covered of the glaze because we have Mexican pan dulce [sweet bread], verdad [right]? It's sweet, but not like glazed, so when you come [to the United States], you feel excited because you have all these many, many options. You need to take care of how the way you eat because this is the way when we come here. We are starting to begin doing fat and sugar and diabetes. Sometimes we don't know about how would this much sugar and some small portion.

Another example of transnational experience comes from Tatiana, also a Spanish speaker who explained that in Mexico, commercials for drugs (like Metformin and Glipizide) do not list side effects,

> *Tatiana, Side Effects (Spanish):* "We drink medicine with this going for prescription for the doctors. The difference on Mexico, they no let you know all these things, the side effects. Mexico no let you know but I know that this another just give you the medicine and you want to drink. Whatever happened to you, it your problem."

Linguistically Sustaining Pedagogy.

Participants agree that these home language videos are necessary and useful for diabetes education within their communities. For the most part, participants said that the language used in the videos was appropriate and respectful. Participants appreciated the everyday language used in the videos.

> *Farhat, Understandable Language (Dari):* "the language itself, like the way they explain, like perfect."
>
> *Mahib, Understandable Language (Pashto):* "understandable, especially for common people, not like a high level of language."

Language for Communicating with Doctors.

Participants recommended including key vocabulary such as 'diabetes', 'blood sugar', and 'glucometer' in English as well as the home language to help individuals feel more comfortable speaking about diabetes with their doctors.

Across all of the focus groups, participants preferred that key words should be communicated orally, verbally, and printed in the home language and in English. Chu et al. (2022) concur, advocating for language preferences and health literacy to ensure accessibility.

> *Farhat, English Language Support (Dari):* "It could mention English words too because people are living in this country, and this native language is English. Make people exposed to the language. They will hear about 'diabetes' and they need to know what's that."

Considerations for Multimodal Components.

In bi/multilingual education, we know that "successful multilingual interactions have always been aided by multimodalities – gestures, objects, visual cues, touch, tone, sounds and other modes of communication besides words" (García & Wei, 2014, p. 28). Participants in this study explained how the multimodal illustrations in the videos supported their understanding. The following is a typical response:

> *Said, Illustrations Can Support Learning (Pashto):* "I learned [about healthy food] from the picture."

However, the participants' worries about the severity of side effects were primarily brought on by the multimodal components of the video, which speaks to the power of images to communicate a message. Participants explained that if these images are used, the video should be shown to patients at a clinic and discussed with the doctor to clarify any questions about the safety of the medication. Typical responses include:

> *Gaby, Illustrations Can Instill Fear (Spanish):* "It's good to talking about worries when you drink [Metformin], but they [need to] show something good for your body, so if you show different face."
>
> *Carolina, Illustrations Can Instill Fear (Spanish):* "If you feel like that, maybe you say, 'Oh no, better I don't drink the medicine. I feel it's not safe for me.'"

In the PEMs, the characters look like they are in a lot of pain as they experience the side effects of Metformin and Glipizide and many participants said these images would deter them from taking these medicines to manage their diabetes. Being aware of the transnational experience and consistently creating opportunities for transnational individuals to ask questions and express concerns can help identify ways to create more patient-centered and asset-based PEMs.

Dissemination

Before viewing the series of videos, participants responded to a multiple-choice question on the participant survey that asked the following question: *Where do you go to find information about your health* (*check all that apply*)*?* The results of the survey revealed that participants would overwhelmingly prefer to receive health information from their doctors, then family members and community leaders.

Many of the focus group discussions centered around the importance of community and collective education. There was an interest in holding community forums led by doctors–similar to the focus groups conducted for the study–to watch the videos and ask questions. The following is a typical response:

> *Said, Community (Pashto):* "If we have gathering of communities, like watch videos, same program like this focus group. That today we are five and it's like next day we are ten, more people will get knowledge and then they will share with their friends."

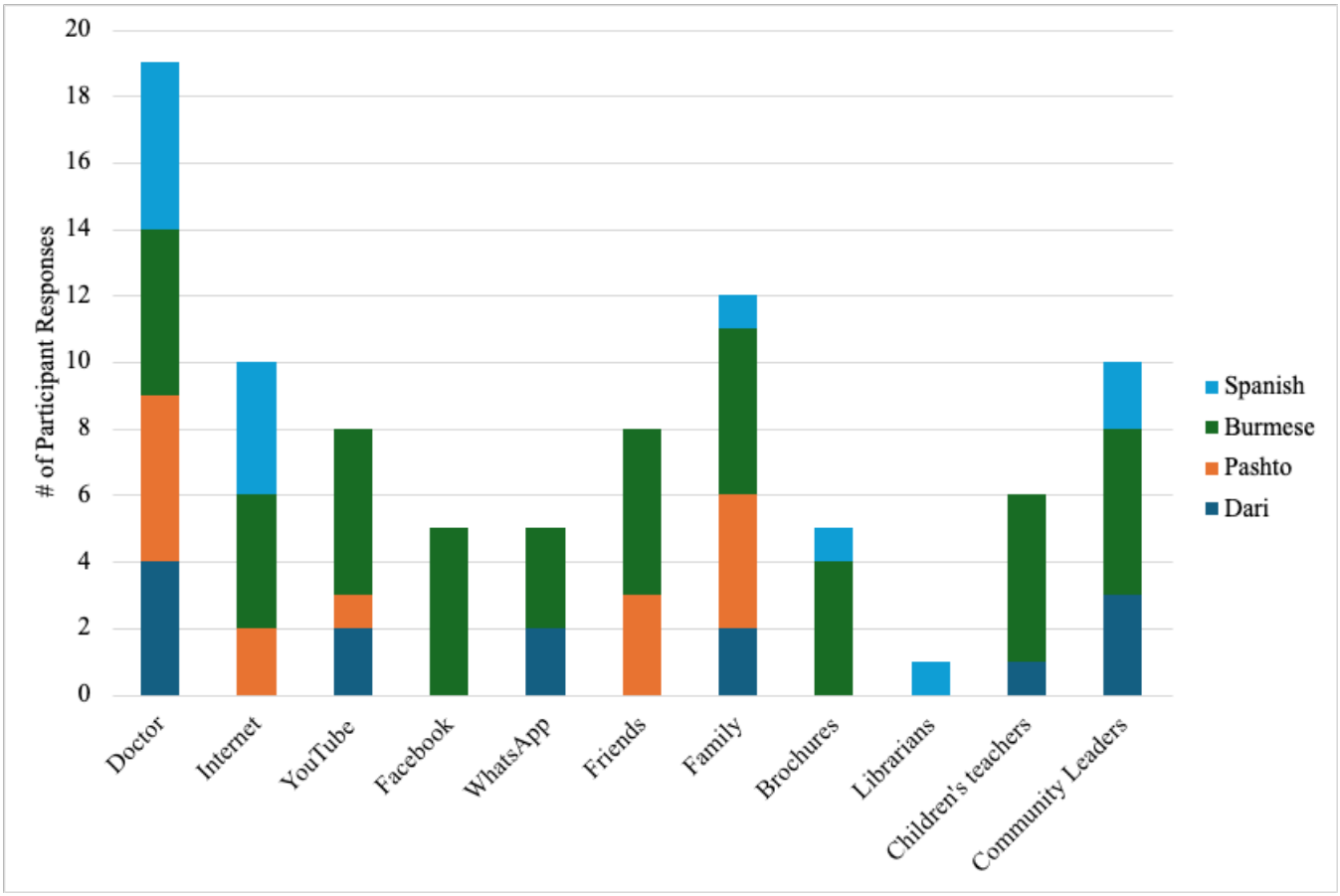
Participants recommended sharing the videos online, specifically on YouTube, Facebook, and in WhatsApp threads led by community leaders. They also recommended tagging the videos with searchable keywords in English and in home languages to make them easier to find. Other ideas included: playing the videos in clinic waiting rooms, places of worship, public transportation, community centers, and community forums. It was suggested that home language brochures with QR codes could be distributed in these places as well.

Participants felt that the videos could be disseminated anytime, but that during or after a visit to the clinic would be the most effective. Since the Metformin and Glipizide videos are more specific to individual patients, participants recommended that they be distributed only after a diagnosis with support from the doctor.

Discussion

This study investigated the understandability, actionability, and culturally and linguistically sustaining components of home language specific PEMs for diabetes education. While earlier studies have explored the impact of PEMs, they have not explicitly addressed how health educators and bi/multilingual teacher educators can work together to develop patient-centered materials.

TABLE 3: Preferred Video Dissemination Sources



We found that the home language diabetes PEMs under evaluation were understandable and actionable, in that participants said they learned new information about diabetes and would be able to use that information to advocate for and manage their own health better than before they watched the videos. Our findings also revealed that participants felt respected and valued by the videos, particularly because the videos centered and represented their home languages and cultures. In the following section, we echo a call for researchers in the fields of health literacy and adult multilingual education to collaborate in the development and dissemination of health literacy materials for refugee and immigrant communities (McKee & Paasche-Orlow, 2012).

Expanding Language Access Across Health Care Systems

This study has implications for expanding language access for refugees and immigrants within and across health care systems. For health information to be understandable and actionable, PEMs must be developed alongside multilingual communities, drawing from their cultural and linguistic funds of knowledge (Feinberg, O'Connor et al., 2023). Working with, not just for multilingual communities requires deep community collaborations toward developing intercultural competence and health literacy within and across the health care system (Mavreles et al., 2021). Therefore, effective PEMs designed for transformational health education should be developed from the ground up, centering health concerns from the community (Freire, 2018; Rumenapp et al., 2023). The PEMs in this study were developed by and for the community, which was apparent in the positive ways participants reacted to the linguistic and cultural responsiveness of the videos. Participants were eager to invite family and community members to learn from the videos, suggesting appropriate ways to disseminate the videos in community forums.

For health information to be transformational, it must lead people to achieve better health outcomes for themselves and their families. Critical health literacy creates opportunities for people to apply information they have learned into action in any health context (Abel & Benkert, 2022). Providing home language health education videos using health literacy and cultural/linguistic guidelines may be a conduit for people to reflect and act in their lives. Our study found that all participants felt more empowered to ask their health care providers questions after viewing the videos, thereby improving their actions toward improving their own health outcomes and removing health disparities and inequities.

This study confirmed that to promote equity in the health care system, PEMs should be accessible in the community's home languages, and should not privilege English (Chu et al., 2022; Kusters et al., 2023; Ma et al., 2020; Robotin et al., 2017). That said, participants suggested that it might be helpful for the PEMs to highlight key words in English that may be useful in speaking with doctors and advocating for their own health. As we conducted this study, we learned the importance of building relationships with language concordant interpreters from the community who can bridge any linguistic and cultural barriers (Abdullahi et al., 2023). Not only did the interpreters who supported this study recruit participants, but they helped us improve the linguistic and cultural representations in the videos. Finally, we learned that inclusive, culturally responsive multimedia and images should be used to support communication about health literacy (Robotin et al., 2017; Headley et al., 2022). Our findings revealed that the multimodal semiotics in the videos were helpful for building understanding but could be improved upon by incorporating diverse intersectional representation– age, body size, and ability in addition to race and ethnicity. As we continue to take direction from the communities with whom we work, we hope to expand health literacy awareness in refugee and immigrant communities.

Health Literacy and the Adult Education Classroom

The findings of this study have the potential to inform the way health literacy is integrated into adult education classrooms designed for multilingual language learners (MLLs). Adult education curriculum for MLLs in the United States is often focused on learning English skills that are deemed necessary for navigating everyday life. A typical "health" unit may focus on the basic skills and English vocabulary needed for everyday health care. For example, vocabulary and learning objectives might include "parts of the body" and "read medicine labels" (Jenkins & Johnson, 2017, p. viii). As adult education instructors get to know their adult MLL students' journeys, language practices, and traditions of literacy (España & Herrera, 2020), an opportunity is created for health education curriculum content that is customized to the learners' needs and interests. For example, an instructor may learn that their adult MLL students are interested in learning how to navigate speaking to their doctors after a diabetes diagnosis. Providing home language content developed by health literacy experts to both teach new information and activate funds of knowledge can act as a jumping off point for teaching the English language skills necessary for requesting a language concordant interpreter or speaking directly to the doctor.

The home language PEMs analyzed in this study offer multiple opportunities for adult education teachers to use translanguaging pedagogy (García & Wei, 2014) to promote health education with MLL students. Translanguaging pedagogy draws on learners' cultural and linguistic funds of knowledge, including multimodal representations, gestures, etc., with the goal of communicating fluidly across various circumstances. The fact that the PEMs deliver content in multiple languages makes it possible for teachers to use translanguaging pedagogy to deepen content and linguistic knowledge. For example, when students learn about diabetes in their home language first, students build their background knowledge related to the content and then teachers can more easily "differentiate among students' levels and adapt" language instruction to students' needs (García & Wei, 2014, p. 121). This type of collaboration with health literacy experts and PEMs would ensure that every student is receiving and accessing the same depth of content instruction, in this case related to diabetes, to better advocate for themselves and their own health.

Limitations

If this study were to be duplicated, we recommend gathering more information related to participants' demographic profiles, particularly highest level of education and in what language/country. Given the data

collected about the participants, we were limited in what we could explain scientifically. As we conducted the focus group interviews, we noticed that some individuals had a strong understanding of diabetes while others were learning about the disease for the first time. It may be of use to study whether and how an individual's level of education in any language could be a contributing factor to their ability to learn from PEMs such as the one used for this study. In future iterations of this study, we would recommend collecting information about participants' educational background, literacy levels in all languages spoken, and level of experience with health concepts.

Directions for Future Research

The findings of this study make it clear that home language PEMs are beneficial for refugee and immigrant communities. Future research should examine the components of effective home language PEMs that explain strategies for how an individual can advocate for their own and their family's health at the doctor. Participants in this study learned about diabetes from these home language videos and developed questions to ask at the doctor; however, going to the doctor in the US may (or may not) be a completely different experience from what individuals have experienced in their home countries. Developing PEMs that explain the importance of asking the doctor questions, such as how to manage diabetes during religious observances, could be a next step in supporting patient autonomy and empowerment.

Conclusion

Freire (2018) suggests that the only way to achieve liberation for all is to continually work toward true solidarity with the oppressed, asserting that "the pursuit of full humanity, [...], cannot be carried out in isolation or individualism, but only in fellowship and solidarity" (p. 85). Thus, this study was made possible by years of building trust within the refugee and immigrant communities in Clarkston, Georgia, across Atlanta-area universities, and within the free diabetes clinic where this study took place. The deep community trust that had already been built before conducting this project was palpable, as the site coordinator was able to identify willing and passionate language concordant interpreters from the community (Abdullahi et al., 2023). Because of the community-based interpreters and the videos that were developed alongside the community (Kendrick & Mutonyi, 2007; Rumenapp et al., 2023), participants saw themselves, their languages, their cultures, and their communities in the videos. Building relationships with community-wide partners, like the ones that are connected to this clinic, is necessary for enacting transformational health education.

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Report from the Field

ELAA Med+: Using a Mock Patient Portal to Address Digital and Health Literacy in a Community-Based Adult ESOL Program

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Abstract

In response to high demand from program participants for both health literacy and digital skills support, the Literacy Connects English Language Acquisition for Adults program in Tucson, Arizona, created a mock patient portal (ELAA Med+) for use in their free, community-based, volunteer-taught English language and computer basics classes. Built with readily available web tools, ELAA Med+ is a rich health and digital literacy tool that includes opportunities for adult learners to practice contacting their health care providers, requesting prescription refills, and scheduling appointments in a mock patient portal designed to imitate patient portals used by local Tucson health care providers. This article grounds the mock patient portal project in current health and digital health literacy research, describes best practices for creating and implementing a mock patient portal in a volunteer-taught adult English language and literacy program, and shares lessons learned.

Keywords: health literacy, digital health literacy, patient portal, English language learners

Health literacy and digital health literacy have been shown to profoundly impact health outcomes. The U. S. Department of Health and Human Services' Healthy People 2030 initiative is a set of "data-driven national objectives to improve health and well-being over the next decade" (Office of Disease Prevention and Health Promotion [ODPHP], n.d., n.p.). It defines personal health literacy as "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" (ODPHP, n.d., n.p.). Individuals with low health literacy are likely to have difficulty accessing, comprehending, and implementing health information, resulting in worse health outcomes when compared with individuals with higher levels of health literacy (Coughlin et al., 2020).

Higher levels of health literacy are associated with higher levels of digital health literacy and access to technology and internet connection. Seidel et al. (2023) define digital health literacy as "the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem" (para. 2). Individuals with higher levels of digital health literacy demonstrate greater confidence and efficacy in managing chronic health conditions and are more likely to access digital health records via patient portals (Seidel et al., 2023). Patient portal use is associated with "better patient-reported outcomes, including increased knowledge and reduced disease-related stress" (Johnson et al., 2023, para. 5). However, patients with lower digital health literacy are less likely to be aware of or use patient portals (Deshpande et al., 2023), which "further exacerbates health care disparities" (Johnson et al., 2023, para. 5).

English language learners (Soto Mas et al., 2013) and people with emerging digital skills (Arias Lopez, et al., 2023) are both likely to have lower levels of health and digital health literacy than the general population. The shift to electronic medical records, online patient portals, and telehealth, accelerated by the COVID-19 pandemic (Shaver, 2022), has largely left English language learners

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and people with emerging digital skills behind, resulting in increasing health care inequity (Chang et al., 2021).

Responding to Student Requests

The COVID-19 pandemic laid bare the many challenges facing Literacy Connects' (LC) adult learners navigating both the U.S. medical system and the digital landscape. As LC pivoted to providing online classes in the early days of the pandemic, it became clear that many students would be left behind if no support was provided for those with emerging digital literacy skills. Simultaneously, students reached out to us – an institution they trusted – with questions about health resources that staff and volunteers felt ill-prepared to answer. One way LC responded was to identify existing resources that could leverage class time to address some of these needs without creating new programming.

Health has always been the most student-requested unit in the English Language Acquisition for Adults (ELAA) curriculum, as the ability to speak to doctors, pharmacists, and first responders in English is a priority for the majority of our adult students. Our program uses the English Unlocked curriculum from Literacy Minnesota. While English Unlocked includes high-quality health literacy units, it does not include support for the digital health literacy skills that surged in importance during the pandemic. In 2021, Literacy Connects received funding from a federal grant in partnership with the Pima County Health Department to improve health literacy in the local Hispanic community. One way this funding was utilized was to send members of the LC staff to the Wisconsin Health Literacy Summit in April of 2022 where we attended a panel titled *Patient Portal Practice: Develop Digital Fluency, Build Health Literacy, and Enhance English Language Acquisition* (Butteris & Finesilver, 2022). Finesilver shared examples of a model patient portal they had developed for use in their adult English language classes, and LC staff left the panel inspired to do the same.

In alignment with adult learning theory's emphasis on contextualized learning, this new project sought to connect the health literacy skills from English Unlocked to a digital mock patient portal that would provide relevant, timely, and practical opportunities for students to engage with real-world materials. The resulting mock patient portal, ELAA Med+, is designed to be as realistic as possible and to provide a platform for our adult learners to practice navigating a clinic's patient portal website. The ELAA Med+ project sought to help Literacy Connects learners acquire the English language, health literacy, and digital health literacy skills necessary to engage with patient portal platforms, in alignment with three specific Healthy People 2030 objectives:

- Increase the proportion of adults who use IT to track health care data or communicate with providers
- Decrease the proportion of adults who report poor communication with their health care provider
- Increase the proportion of people who say their online medical record is easy to understand (ODPHP, n.d.).

ELAA Med+ was created to teach Adult English language learners how to navigate the actual patient portals used by health care providers. Portal creation took approximately 30 hours and was led by a University of Arizona student intern with no prior experience in web design. He created ELAA Med+ in Google Sites, using real patient portals as models (Figure 1). ELAA Med+ contains many elements that render it so realistic that we received recommendations from pilot users to add multiple disclaimers that the clinic does not actually exist. One key element of that realism is that the English used on ELAA Med+ is not simplified for English learners. The portal also includes all expected features of common portal platforms such as a Meet Our Staff page and a COVID-19 FAQ page (Figure 2). Teachers and students can practice tasks such as scheduling appointments online, requesting a prescription refill, and checking for past-due bills (Figure 3). Ultimately, the mock patient portal centers relevance and respect for our adult learners by recognizing that while students may not understand every word, they have the English language and motivation to make meaning of the portal and take more agency over their health care, even at beginning English proficiency levels.

ELAA Med+ supplements the health units in the English Unlocked curriculum by providing authentic digital health literacy practice. The mock patient portal is intended to expand on the English vocabulary, grammar, and functions that students are introduced to through those lessons. Teachers are provided with a guide of recommended activities (Figures 4-5) that incorporate the mock portal into the English Unlocked health literacy lessons.

Different class levels engage with different portal content. In beginning-level ELAA classes, students look for key vocabulary together, emphasizing the digital literacy skill of scanning for information (Figure 4). Students then use this vocabulary to fill out interactive Google Forms such as the Make an Appointment form, which provides contextualized practice with stating basic personal information. Intermediate and advanced-level classes engage with a wider range of portal content. Intermediate teachers have shared that navigating the mock portal together as a class sparks conversations that did not emerge when teaching the same health unit previously. The portal's Our Services tab prompts exploration of differences between preventative, urgent, and emergency care. The Meet Our Staff page leads to a discussion of the U.S. cultural practice of requesting specific doctors (Figure 5).

Use of ELAA Med+ has now expanded beyond the ELAA program into other Literacy Connects programming, including our Computer Basics classes. In the fall of 2022, these classes were contextualized in the area of digital health literacy and used the ELAA Med+ portal to model and practice accessing health care information and services. Students learned about their patient rights, how to choose a doctor, and how to communicate with their doctors via a patient portal. ELAA Med+ was key to one student's success in finding a new health care provider. The class practiced searching for clinics near their homes and used ELAA Med+ to learn how to use an online account. The student went home that day and found a clinic closer to her home. She was able to access her new account, make appointments online, and message her doctor. Practicing with ELAA Med+ in computer class helped her apply her new digital health literacy skills in real life.

Lessons Learned

Literacy Connects volunteer teachers continue to use the ELAA Med+ mock patient portal in their ELAA and Computer Basics classes. Piloting the portal with select classes before rolling out the resource for general use provided important feedback that allowed us to make the portal as realistic as possible. The feedback from pilot users led us to create a teacher's guide, which includes recommended activities differentiated by English proficiency level (Figures 4-5). Because ELAA Med+ is intended to be integrated into the existing English Unlocked health units, we did not create portal-specific lesson plans. A favorite component of the portal has been the embedded interactive forms that allow students to practice messaging a doctor, requesting a refill, or scheduling an appointment. Student responses to the forms go to ELAA program staff who then share them with the teacher. These form responses function as formative assessments, which teachers have greatly appreciated.

Teacher feedback has also highlighted areas for improvement of the portal. In designing the portal, we were unable to replicate the experience of creating an account and logging in. Instead, the website is viewed as if the user is already logged in as "Alex R. Gomez," a fictional account. Teachers have identified the account creation process as one students would like to practice. Similarly, students have requested help with navigating telehealth options. As ELAA Med+ evolves, we hope to integrate account creation and telehealth practice into the portal.

Adult learning theory espouses contextualized learning: the idea that learning is more effective when it is relevant, timely, and practical (Perin, 2011). Authentic tools like ELAA Med+ are needed to provide adult learners opportunities to practice real-world situations that incorporate all of their digital, language, and literacy skills. We encourage institutions serving adult English language and digital skills learners to incorporate patient portals into their curricula. Through the opportunity for realistic, interactive, and contextualized practice, adult students will be more prepared to seek the health care they and their families need with confidence and agency.

Finally, The ELAA Med+ project elucidates the importance of cross-pollination between community-based non-profit organizations in adult education. Wisconsin Health Literacy organized the 2022 Health Literacy Summit where LC staff were introduced to the vital importance of digital health literacy for our adult English Language Learners and the idea of creating a mock portal for student use. Literacy Minnesota's English Unlocked health literacy units provided the instructional context for integrating digital health literacy. Literacy Connects volunteer teachers and students provided feedback that has led to ELAA Med+'s evolution as a teaching tool. As peer organizations build upon each other's work, we become more effective in serving our learners.

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FIGURE 1: ELAA Med+ Home Page Screenshot

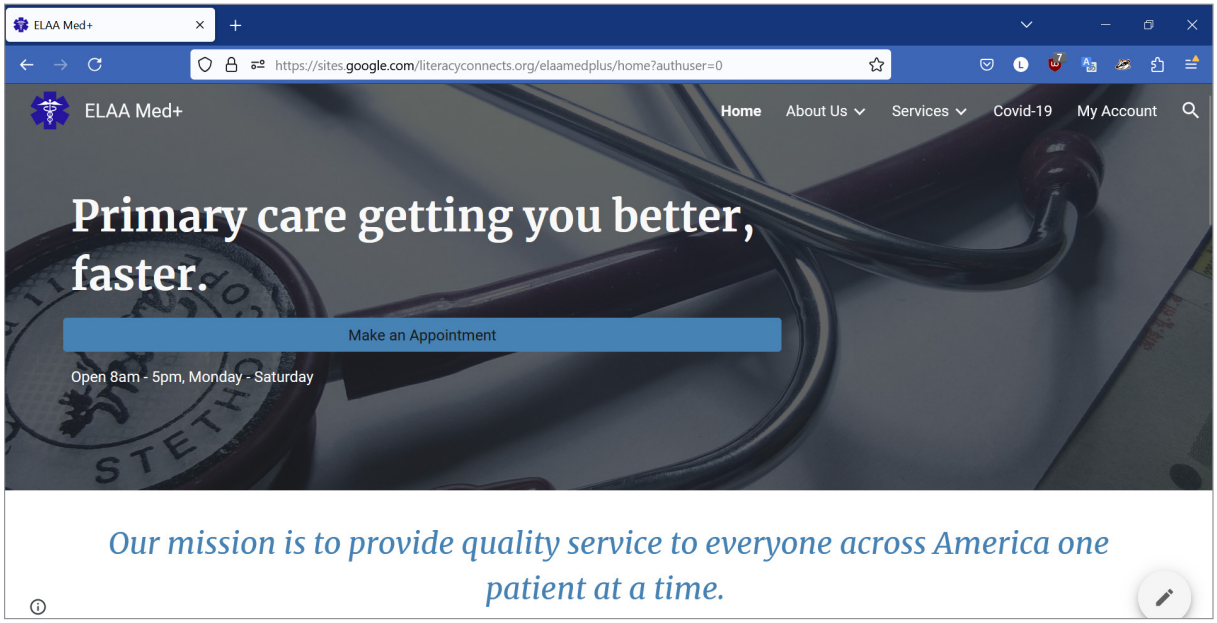

FIGURE 2: ELAA Med+ Meet Our Doctors

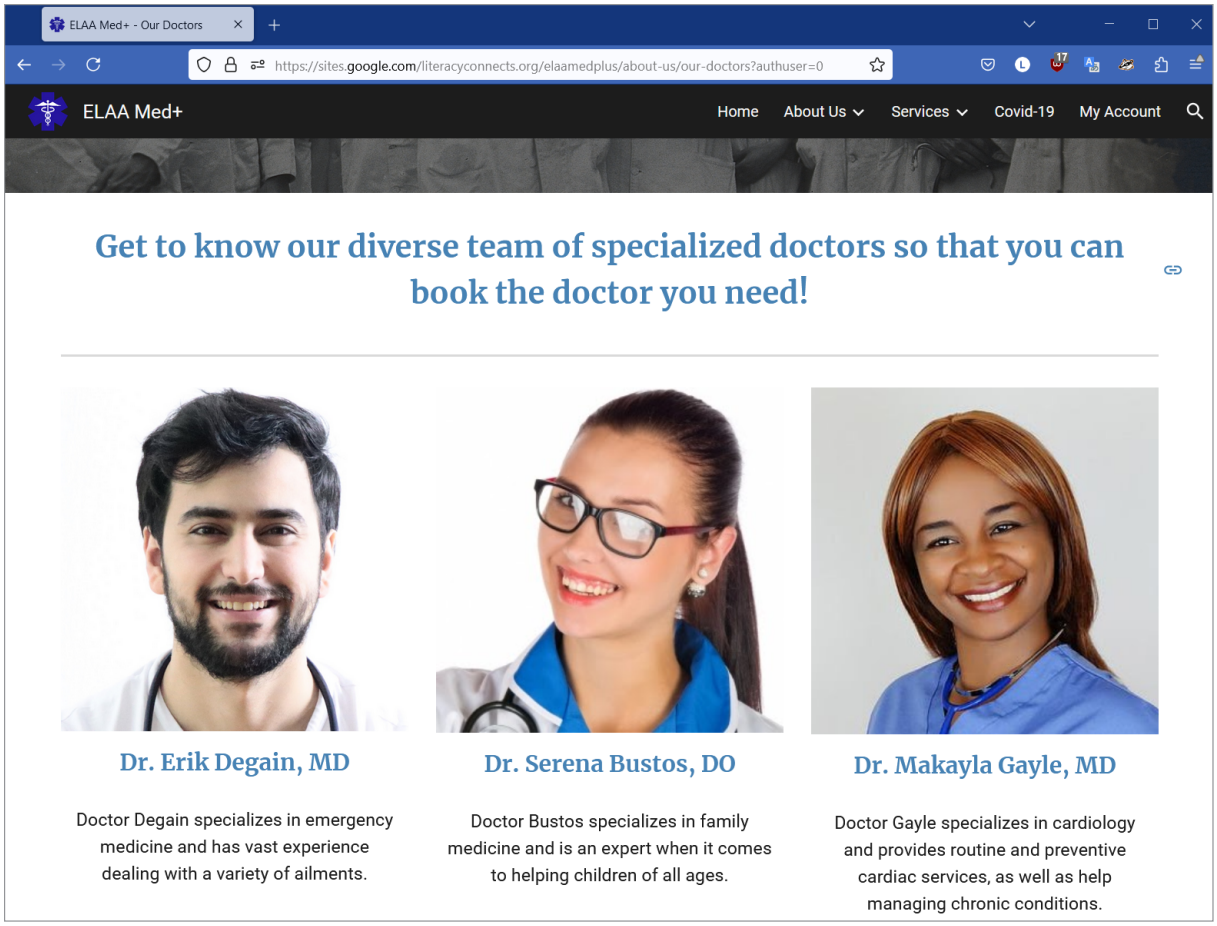

FIGURE 3: ELAA Med+ Book Your Appointment

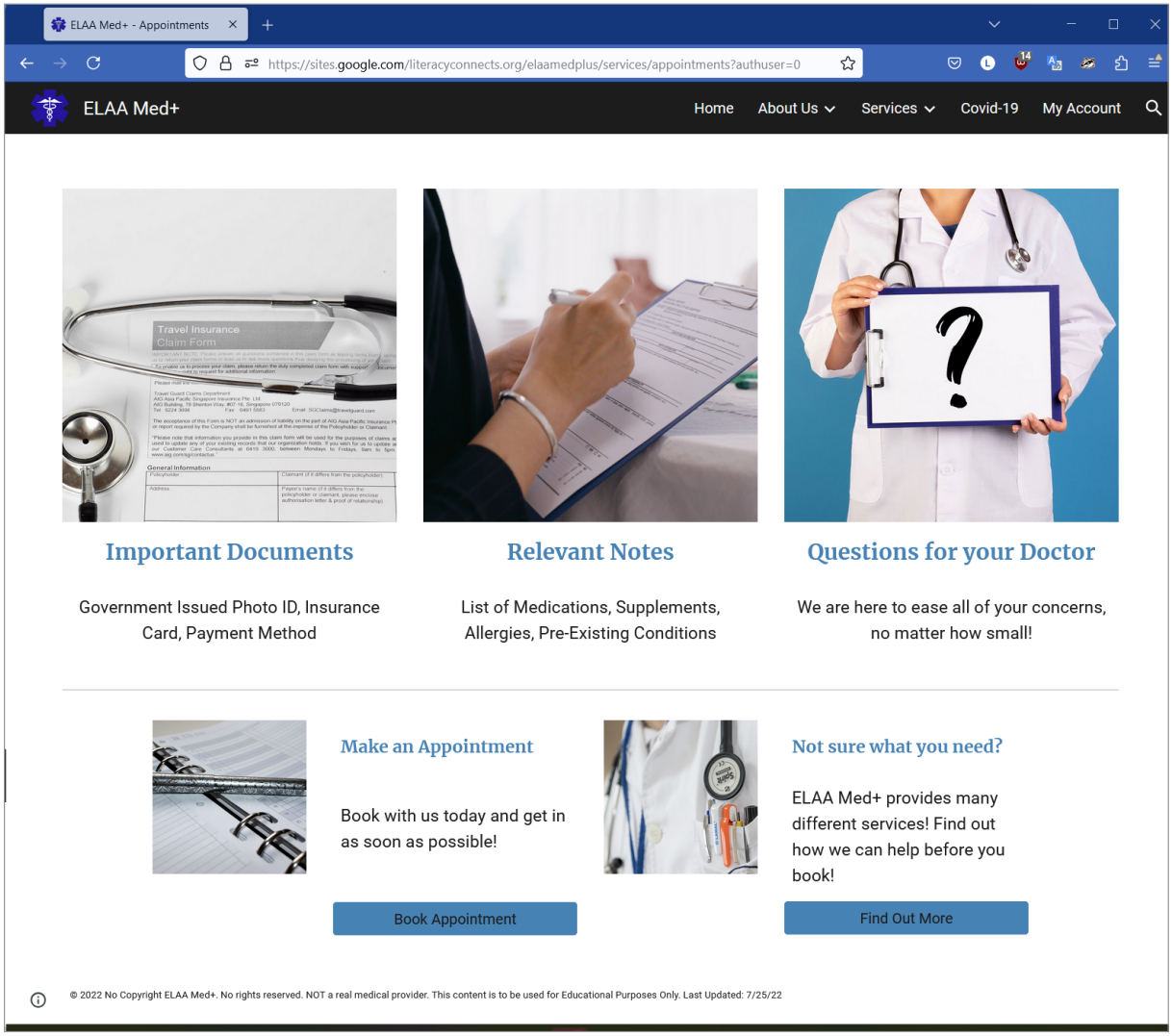

FIGURE 4: Scanning for Key Vocabulary

Topic (+ Notes)	**Activities**
Patient Portal Vocabulary: ● Patient Portal ● Urgent Care ● Wellness ● Make an appointment ● Fill a prescription ● Pay a bill Digital Literacy Vocab that *might* come up while looking at the website together: ● Menu ● Click ● Search ● Form (and "submit" a form) ● Account ● Home	Introducing new vocabulary ● On slides (separate from the website), show each vocabulary word and talk about what it means with students. ● Ask for examples (ie: When do you need urgent care? - I'm sick. I have symptoms. I have a fever and a cough. Etc.) Practice using the vocabulary, talk about using the Patient Portal ● Q&A: What do you need on the Patient Portal? - I need to make an appointment. or I need to pay a bill. Practice using the website ● Screenshare the website. With students, look for the vocabulary words. (Some things, like urgent care, can only be found if you look in the menus at the top.) ● Demonstrate moving your mouse around to show the menus. ● Ask questions like "I need to pay a bill. What do I click on?" ● We can help lower student stress by reminding them that **they don't need to understand every word or all of the grammar on the website**! They just need to look for the key word for what they want. Scanning for information like this is an important digital literacy skill (and literacy in general). We very rarely read every word on a website. Potential homework*: Have students practice navigating an

FIGURE 5: Choose a Doctor

Choose A Doctor Sometimes students (especially those new to formal healthcare systems) don't realize they can ask for a specific doctor in advance. It might be as simple as a female patient preferring to see a female doctor, or a patient might want to see someone with a specific specialty (like an Ear, Nose and Throat doctor).	This is mainly a discussion activity, and is best suited to intermediate or advanced classes. Which doctor can help me?: ● Take a look at the "Our Doctors" page together. There are descriptions for each doctor's specialty. ○ Remind students that they don't need to understand every word. Look for words they know and decide what words are important. ● Digital Literacy Skill: Model using a search engine like Google or Bing to look up one of the acronyms in the doctor's titles. ○ You can then challenge students to look up the rest of them with a group in Breakout Rooms, or for homework. Additional practice: ● Describe a situation. For example: "Imagine you need to make an appointment. You are having really bad allergies this year. Which doctor should you see?" Help students look at the descriptions and choose. ○ Repeat with other symptoms and/or health problems. ● You could also put students in groups and have each group talk together to choose a doctor and also decide the reason why they want to see that doctor. When they return to the main room, each group needs to share what the health problem is and which doctor they want to see.

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Forum: English Language Learners and Health Literacy

(Part 1 of 3)

Reflections on "Good" Language Learners, "Good" Patients, and Language

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If we ask adult English language learners what their goals are for learning English, they are not very likely to say, "I want to be a good English learner," but rather they will tell you what they want to *do* with English, such as to get a better job, to be able to speak for themselves at the doctor's office, to be able to take care of their family's health needs. Similarly, if we ask patients from linguistically minoritized backgrounds what their health goals are, they are not likely to say "I want to be a good patient who speaks good English" but rather they will focus on how they want to feel and what they'll be able to *do* as a patient.

With this Forum essay, I invite much needed dialogue - with adult English language educators, adult learners, and health practitioners – about the way we think about "good language learners," "good patients," and language. I highlight key points of overlap and divergence in debates about "good language learners" and "good patients." I also highlight some examples in health care where untested assumptions about the "good" linguistically minoritized patient can contribute to linguistic inequities and unjust health outcomes. The adult literacy classroom remains one of the most important platforms where we can deepen our understanding of the links between language, power, and health, and ultimately, can disrupt harmful representations of "good patients" in linguistically minoritized communities.

Revisiting the Concept of "Good Language Learner"

In language learning and teaching, we have a decades-long preoccupation with this question: what makes a good language learner (GLL)? Research on GLLs (Naiman et al., 1978; Oxford, 1990) emphasized that successful language learners exhibit key traits like high motivation, active engagement, and strategic use of learning habits and routines, including self-monitoring and problem-solving gambits, as typified in the list below.

Characteristics of the GLL:

1. they are good guessers
2. they pay analytical attention to form but also to meaning
3. they try out their new knowledge
4. they monitor their production and that of others
5. they constantly practice
6. they cope well with feelings of vulnerability for the sake of putting themselves in situations where they communicate and learn (Rubin, 1975, as cited in Ortega, 2009).

Critics argue that the GLL framework narrowly focuses on individual traits, often assuming that learners who struggle with English are not using the right strategies or not trying hard enough (e.g., Ricento, 2005; van Lier, 2010). More broadly, they contend that the framework ignores power imbalances between learners and speakers, often leaving learners to shoulder the bulk of the communicative labor (Briggs, 2017; Norton & Toohey, 2011). Traits #4 and #6 seem to even valorize the burden that language learners must accept to manage communication breakdowns and remain resilient in their interactions with target language speakers.

Identity theorists offer a compelling counterweight to the GLL framework, directing our focus to the social, cultural, and power dynamics that shape language

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learning outcomes (Duff, 2002; Motha & Lin, 2014; Norton, 2013). Norton's concept of "investment" provides an alternative to the prevailing focus on individual qualities in this way:

> The construct of investment…signals the socially and historically constructed relationship of learners to the target language and their often ambivalent desire to learn and practice it. If learners 'invest' in the target language, they do so with the understanding that they will acquire a wider range of symbolic and material resources, which will in turn increase the value of their cultural capital. Unlike notions of instrumental motivation, which often conceive of the language learner as having a unitary, fixed, and ahistorical 'personality,' the construct of investment conceives of the language learner as having a complex identity, changing across time and space, and reproduced in social interaction. (Norton, 2010, p. 353-354)

In other words, learners are not "good" or "bad" based on their skills, personality, motivation levels, or strategy use, but rather as a result of the social conditions that shape their agency, desires, and access to networks of other language users.

Exploring Perceptions of the "Good Patient"

Now let us turn to perceptions of "good patients" in health care. As an applied linguist, I am attuned to look for ways that language shapes the way we view 'good' patients in a myriad of ways: how patients express trust and engage with their health care providers, how they describe their health care concerns and medical history, how bilingual patients express pain or worry in specific languages, how they demonstrate respect and compliance to the practitioner's recommendations, and more. Just as language learners are often judged based on social expectations and power imbalances, patients also come to be categorized as "good" or "bad" based on their interactions with health care professionals. Kelly and May (1982) have argued that the good/bad labels do not describe patients but rather reflect providers' views about patients.

For example, Sointu (2017) carried out a 2-year interview study with U.S. medical students and grouped the doctor's descriptions of "good patients" under three major themes:

1. "Active participants in their healthcare", "trusts and respects the doctor"
2. "Compliant and knowledgeable" - "grateful of the care they're receiving"; "Knowing one's medical history"..."honest and upfront"
3. "Engenders positive feeling" - "you really feel like this is a team effort...The doctor and the patient are working together towards this goal." (pp. 68-69)

Fulfilling these expectations goes beyond just choosing the right words or sharing accurate information; rather it requires that patients use language to navigate social and power dynamics within the health care encounter.
As noted earlier, the "good language learner" framework includes the management of emotional labor as a valued trait. The linguistic demands of this emotional labor are evident in Khalil's (2009) survey of 270 nurses working in Cape Town, South Africa. Similar to Sointu (2017) in focus, Khalil (2009) identified five most frequent descriptors, which highlight efforts "good patients" must take to reduce the emotional charge of health care encounters:

1. "Friendly and calm most of the time"
2. "Accepts help without complaining"
3. "Very polite"
4. "Always does what he or she is told"
5. "Does not make too much fuss" (p. 438)

These descriptors reflect how patients are often expected to manage their behavior to align with health care norms. Similarly, Campbell (2015) found that, in community clinic settings where medical resources (staffing, medicine, medical supplies) may be limited, patients feel compelled to "'signal' their goodness and deservingness of treatment or their respect for the medical establishment" (p. 9) when talking to nursing staff. In other words, by getting on the nurses' "good side," the patients felt more assured of their chances of getting better care.

Socioeconomic inequities can shape whether a patient is viewed as "good" or "bad", which providers recognize as a problem but often don't know how to address. For example, in Sointu's (2017) study, a provider commented, "If you can't get yourself the care that the doctor wants you to do, if you don't have money to do that, that unintentionally puts you in the bad patient category" (p. 70). Sointu (2017) also observed that medical students' training often perpetuated harmful stereotypes of "good" and "bad" patients, with few to no opportunities to talk

about moral dilemmas and conflicted emotions (e.g., seeing their attending physician roll their eyes upon hearing a "difficult" patient's name).

Studies on "good language learners" and "good patient persona" both tend to focus on perceptions of learners/patients during spoken interactions, but we have much to learn about how patients navigate social dynamics across modalities, spoken and written, and increasingly, in digital environments via patient portals and telehealth appointments. Martinez (2008) offers a compelling example of Spanish-English bilingual patients who recounted experiences where medical providers offered oral Spanish translations of written English medical directives when no printed materials in Spanish were available. The patients felt that the brief oral translations were merely a "surrogate" for the more detailed written information in English. Martinez argues that the treatment of Spanish as the "non-literate language," i.e., the "deliteracization of Spanish", has both ideological and practical consequences that reflect the "ubiquitous privileging of English literacy" (p. 356) and contribute to "fractured and non-reinforced transmission of health information" (p. 357). What is particularly concerning here is the potential for bilingual individuals to view their 'good patient persona' through the "dominant gaze" (p. 87) of English-based health literacy. What might seem like an effort to provide linguistic access actually reinforces English as the preferred language for health care communication - and thus the only language to enact one's "good patient persona."

To close this exploration of the 'good patient' literature, I'll point out that my efforts to find studies on "good *bilingual* patients" often led to dead ends. The lack of literature in this regard suggests a lack of appreciation for the communicative and emotional labor of bilingual patients (see Briggs, 2017). We need a deeper interrogation of any existing literature and replication studies about the representation of "good" or "difficult" bilingual patients.

What Do Adult English Learners Say About the "Good" Patient?

Thus far, we have looked at how scholars have studied "good" learners and "good" patients from the practitioner perspective. In fact, my personal take-away from two decades of health literacy work in classrooms is that we need to center the voices of learners themselves, as they have much to teach us about the social conditions, specifically the power dynamics in their everyday health care encounters. I'll share an example from a beginning-level ESL class when our learners read and discussed one of Kate Singleton's (n.d.) ESL Picture Story entitled "A Doctor's Appointment": a man goes to the doctor about stomach pain. After an examination, the doctor offers an explanation with a lot of jargon, and then asks if the man has any questions. The man does not understand but back-channels to the doctor "ok" and "yes". The man does not ask any questions about the diagnosis or the prescriptions he is given. The man goes home, and when his partner asks him, "What did the doctor say?", the man replies, looking exasperated, "I don't know!"

We asked our learners, "why does the man say 'yes' and 'ok' to the doctor?," and their answers reveal an understanding of 'ambivalent desires' to use English (see Norton, 2013) in health care settings. Here's a sampler of what learners shared:

- The man says 'yes' because he respects the doctor.
- The man says 'ok' because he's embarrassed. He doesn't take care of his health.
- If you ask a question then they give you more information in English that you don't understand, so it's better to say ok.
- He's embarrassed to use English to ask more questions.
- He doesn't have time to think about his questions.
- He has a lot of pain so it's hard to think in English. He needs medicine.
- He's worried about the cause for his pain.

Our learners did not characterize the man as unmotivated to speak English. Instead, their answers reveal a discerning view of the man's "ambivalent desires" to speak up (e.g., needing medical care but afraid of being judged). The learners also sympathized with the man's preference for silence over embarrassment. In the learners' answers we also see symbolic resources the man draws upon (e.g., cultural norms about respect before medical authorities) to better position himself to get good care. The learners considered the possibility that the man was so worried

about a bad diagnosis that he could not focus on the doctor's explanation, and the doctor's voice just faded to *blah blah blah*. It is easy to understand why the man would *not* be invested in meaning negotiation given that the doctor's jargon-filled lecture makes the information materially useless.

The "Doctor's Appointment" Picture Story invites learners to name unrealistic expectations of "good" patients and interrogate the stigma associated with linguistic minoritization in health care. As evident in the ESL Picture Story example, classrooms are places where learners can practice enacting their linguistic rights as patients and affirm their desire to speak up. In short, our mandate in health literacy pedagogy is not only about closing a gap in English proficiency but also to strengthen their capacity to be heard in health care contexts (Auerbach, 1992; Handley et al., 2022; Santos et al., 2011).

...But, Wait, How Do You Enact Your Linguistic Rights in 18 Minutes or Less?

I would like to briefly address the time constraints that limit effective communication for both patients and providers. When discussing the ESL Picture Story in our classrooms, we did not hear our learners disparaging the doctor; learners recognized that doctors are often stressed and under pressure to see many patients. Indeed, the average length of a doctor's visit is only about 18 minutes (Nephrash, etal., 2023). Visits with an interpreter can last 40-90 minutes (Torresday et al., 2024), although the provision of such linguistic support is not a given.

A physician feeling pressured by time to "get by" without an interpreter using just a few words in the patient's language is less likely to be invested in negotiating meaning, which diminishes the efficacy of the learner's efforts to negotiate as well (see Diamond et al., 2008). On the other hand, if patients feel included in the negotiation of meaning, their sense of legitimacy as a patient is strengthened. We must better understand our learners' efforts to use their English language and health literacy skills within the context of the social conditions (the time pressures, the norms, policies, the relationships) that enable or constrain those efforts.

Through interdisciplinary dialogue, adult educators, applied linguists, and heatlh practitioners should critically examine the term "poor historian," a label commonly used in medical charts to describe patients who struggle to provide clear and accurate health information—often due to limited language proficiency or low health literacy (Green & Nze, 2017). The perspectives of adult learners and educators are crucial for challenging this stigmatizing language and confronting the social and structural barriers that prevent patients from being heard and understood in clinical settings (see Goddu et al., 2019; Healy et al., 2022).

Pushing Past Labels and Perceptions

An equity-driven response to harmful representations of "good" patients requires a serious respect for language, as explained by my colleague Glenn Martinez: "There is also a need to feel accepted, welcomed, and justly heard in the healthcare encounter. Lack of acceptance leads to mistrust between patients and providers and has the potential to override any gains realized through access.... Perhaps a patient's lack of compliance....is nothing more than a symptom of a lack of trust" (Santos et al., 2023, p. 4).

Access to information and care is a necessary material resource, but language acceptance holds symbolic power, bringing legitimacy to a patient's ability to be heard. Indeed, we have a moral imperative to interrogate our assumptions about "good" language learners and "good" linguistically minoritized patients; that critical inquiry will reveal our commitment to language access and language acceptance. We have yet to fully examine what "good" or even "good enough" communication practices support meaningful access and language acceptance (see Ortega & Prada, 2020). Nor have we sufficiently tapped into the expertise that adult educators and learners can bring to critical reflection on access versus acceptance (Harsch & Santos, 2024).

If we take the constructs of *investment*, *language acceptance*, and *symbolic power* as essential starting points and outcomes in health literacy pedagogy, we are better poised to understand learners' real-world desires and ambivalences. Norton's call for new lines of inquiry suggest we should be pursuing answers to critical questions about learners' investment in English learning and gaining new

health literacy practices: To what extent are health care needs shaping our learners' investment in learning English? How invested is a learner in learning and practicing English in their everyday health care decision-making, and what opportunities do they have to act on this desire? In their health care interactions, when do learners experience an "ambivalent desire" to use English, and what does this look and feel like? What symbolic resources (e.g., increased agency as a patient) and material resources (e.g., a job that comes with health benefits) do our learners value? What kinds of ESL classroom practices do learners invest in because they see the value of these practices to their ability to live well and stay well? We need a coordinated research agenda – which includes sustained investment of time and resources into adult education partnerships – that addresses these questions if we are to better understand the relationship between language learning, health literacy, and patient agency.

Conclusion

In this essay, I have explored perspectives on "good language learners" and "good patients" to draw attention to the ways our expectations of "good" are shaped by social conditions as well as assumptions about language and language users. Left unchecked, these biases about 'goodness' can contribute to linguistic inequities and unfair health outcomes. Like many *ALE* readers, I still believe the classroom offers a place for us to act on our commitment to learner empowerment as a meaningful learning outcome. The voices and stories of linguistically minority learners/patients can educate us about the material access to resources and symbolic recognition our learners value. Indeed, we have a moral imperative to interrogate our assumptions about "good" language learners and "good" linguistically minoritized patients; that critical inquiry will reveal our commitment to language access and language acceptance.

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Forum: English Language Learners and Health Literacy

(*Part 2 of 3*)

Response to Santos' "Reflections on 'Good' Language Learners, 'Good' Patients, and Language"

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In her reflection piece, Santos invites a "much-needed dialogue about the way we think about 'good' language learners, 'good' patients, and language." Dialogue about what makes for "good" language learners can be found in the literature dating back more than 50 years. But combining dialogue on this topic with a discussion of what makes for "good" patients among health care providers is more recent. In responding to her invitation, I have had a chance to reflect on my own experiences relevant to this dialogue which should also give the reader some context for my comments.

I spent more than four decades in the language teaching profession, starting as a Peace Corps volunteer in 1970 and retiring from university teaching in 2011 where I focused my efforts on ESL teacher education and adult education. A good number of my students were adult ESL teachers, so my interest was in identifying those characteristics of adult learners which made for more effective instruction. But early in this period of my professional life, while working on my doctoral degree in adult education, I directed a health education project for a community-based organization which trained health educators to work with low-income populations in northeast Georgia. Quite coincidentally, my lead health educator was also a former Peace Corps Volunteer/ESL teacher. So, we often shared stories of common interest and related our Peace Corps volunteer experiences to the work of health education in low-income communities in rural Georgia. It was at this same time that northeast Georgia began to welcome refugees from southeast Asia, particularly Vietnam, following the end of the Vietnam War in 1975. I became involved with their resettlement by offering English language classes coordinated by a state-funded education service region with offices on the University of Georgia campus.

My training to teach English in the Peace Corps was rooted in audio-lingual methodology which was popular in the 60s, but my sudden exposure to working with refugees came at a time when competency-based instruction was becoming popular in adult literacy education, and workplace, or content-based instruction was becoming more relevant in English language education. In other words, during this early part of my career, adult ESL moved from an emphasis on language learning as an end, to language learning as a means for life skills development. So, the issue that Santos addresses, what makes for good language learners as explored by Rubin (1975), was a fairly novel idea in those early years, but became a core concept since then. The characteristics of good language learners that Rubin identified were very similar to those characteristics of good reading identified concurrently by psycholinguists in the field of reading (Smith, 1971). And even from the beginning of this period, how language is used in various contexts became a topic of great debate among English language educators who were working with immigrant populations. It certainly forced me to make significant changes in my approach to language teacher preparation as I studied more about what makes for good language learners. The key to this change was how we look at language, not as an end in itself, but as a means to more effective communication within various contexts of life skills development, whether that be in the workplace, in the community in general, or at the doctor's office in particular. The fact that Santos is inviting a dialogue on this topic in 2025 would indicate that we are still having this debate. Perhaps that focus needs to shift to how we prepare those professionals providing health care to immigrant populations.

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Part of the impetus over these last 50 years for the significant shifts in how we view language and language learning has been the significant changes in the demography of this country, especially among adult English language learners. And health care is a great example of how these changes in demography have impacted the discussion of English language teaching in North America. Thus, Santos' invitation to dialogue on these various topics has never been more relevant.

Santos' discussion of characteristics of the "good language learner: reminded me of those emerging conversations as the field of teaching English to speakers of other languages was developing an identity of its own. A quick glance at the dates of those early publications would confirm that these conversations were happening in those rich years of the 1970s when so much research activity was focused on second language learning, and not so much on language itself. Early research by Rubin (1975) and Krashen (1981) helped language teacher educators shift our focus to context-based language learning. Creative approaches to language teaching included Total Physical Response and competency-based approaches which shifted the focus of instruction from grammar, the hallmark of audio-lingual methodology popular in the 50s and 60s, to actual use of language in the 70s and beyond. In short, the teaching of language was shifting to meaning-based approaches, and away from the rote memorization and pattern practice popular in audio-lingual methods.

Santos goes on to draw from the work of Bonny Norton, a Canadian researcher who has written extensively on the subject of language and identity, including a focus on the concept of "investment" by the language learner and the fact that motivation does not predict successful language learning. Anyone who has worked with adult ESL learners, especially those who are recent immigrants to the United States, realize that though motivation to learn English may be high, the fact is that the adult learner has multiple roles which inhibit effective language learning. Relevant to Santos' discussion, recent immigrants cannot necessarily wait until they have mastered the language before they need medical care. Health care providers have increasingly recognized this dilemma by providing language interpretation services upon request. But individual practitioners, such as primary care physicians, may not have access to these services, thus leading to the asymmetrical power relationships that occur in everyday encounters between patient and provider. These examples of asymmetrical power relationships are not limited to bilingual populations. As Santos points out, doctors, especially primary care providers, have become increasingly stressed by patient loads and restrictions of insurance to limit interactions to 18 minutes. And without proper training, those health care providers will not recognize the limitations of their interactions by patients who aren't confident to advocate for themselves.

This discussion of motivation to learn to use language in a health care setting has been made more concrete for me by the personal example of a young Honduran woman, a single mother of a severely handicapped child, who made the arduous trip overland from Honduras to our Southern border carrying her then 2-year-old child in hopes of finding the medical care that would help to improve her child's life circumstances. I have been part of a local community which has reached out to help her find the resources she needs, including health, legal, and educational. In spite of living in the States for 3 years now, and navigating the health care and legal systems with the help of these local volunteers, her growth in English language ability has been minimal. Although her motivation to learn English may be high, her primary focus is on her daughter and the overwhelming challenges she faces. In this regard she has proven herself to be an effective advocate for her daughter's care.

How will health care providers respond to increasing language diversity within our immigrant population? Medical schools cannot be expected to train the next generation of doctors to be bilingual. But they could recruit more bilingual applicants to their programs. This could also include more internships in community health clinics that serve immigrant populations. And medical training programs (for doctors and nurses) could include more cultural sensitivity training. I know this is happening to some degree. I provided workshops to a large nursing training program in the Chicago area on cross-cultural sensitivity, so I know there is an awareness of these issues. Given the technical language in the health professions, and the challenges of language learning in the immigrant communities, I agree with Santos' characterization of adult literacy classrooms as places of transformation. But to make the adult literacy classroom a place of transformation is to understand the nature of communication. It means that adult ESL instructors need to be more aware of

the language structures and vocabulary that would be relevant to help learners interface with health providers. It also means that health care providers need to be more aware of the two-way nature of this communication. A key component of understanding the nature of communication, as Santos rightfully points out, is to also examine those notions of what makes for a "good" language learner and a "good" patient.

Santos concludes her remarks by referencing several participatory/problem-posing curricular resources that were published more than 20 years ago. The question remains how have teacher education programs incorporated these materials in preparing teachers who work with adult English learner populations, and to what degree can such instructional approaches be part of the critical health literacy research agendas that partner teacher education with health care provider preparation, important questions for sure. Overcoming the challenges of depending on a largely part-time volunteer population to staff adult ESL programs will be critical in moving us forward to a better understanding of what it means to be a good language learner, and a good patient.

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Forum: English Language Learners and Health Literacy

(Part 3 of 3)

Health Literacy Access: A Shared Responsibility

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Access to health literacy does not just mean obtaining and retrieving information but the ability to acquire that information in ways that make sense to the patient, in this case the adult English language learner (ELL). Santos does an excellent job of presenting the issue of the good patient and the good language learner, my effort here will be to amplify and expand on some of her points.

Health literacy access also involves understanding health literacy resources and how to use them (Shashikiran et al., 2023). Specific skills are required to obtain, understand, and use health information through verbal communication, not just through written materials (Muscat et al., 2017). In other words, ELL patients should possess functional health literacy skills (e.g., basic oral skills), communicative health literacy skills (e.g., advanced skills to extract information about options, benefits, and harm), and critical health literacy skills (e.g., critical skills to reflect on information such as being able to integrate knowledge with personal preferences to make informed decisions) to be able to have full access to health literacy (Muscat et al., 2017). Considering this broader view of what health literacy access entails will add to the discussion regarding the interconnected nature between the good learner, the good patient, and language as presented by Santos (2025). Specifically, the present article focuses on discussing shared responsibility to acknowledge the distinct and complementary roles that adult education programs, adult educators, ELL patients, health organizations, and health professionals have in making health literacy access successful.

As stated by the Centers for Disease Control and Prevention (CDC), the 2020 definition of health literacy encompasses personal and organizational levels of involvement. *Personal health literacy* is defined as the "degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" (CDC, 2024, n.p.). In contrast, *organizational health literacy* is the "degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" (CDC, 2024, n.p.). This updated definition acknowledges the need for shared responsibility from part of the ELL patient and the health care system (health organizations and professionals). Furthermore, this definition of health literacy emphasizes "the individual's ability to use health information rather than just understand it, while acknowledging that organizations also have a responsibility to actively address health literacy" (English, 2022, p. 101). Health organizations have a responsibility to address health literacy and health equity, "the attainment of the highest level of health for all people, so that everyone has the opportunity to be as healthy as possible" (CDC, 2024, n.p.). The following paragraphs present a brief overview of how adult education programs, ELL patients, health organizations, and health professionals can work together and contribute to making health literacy access a real possibility.

Regarding the responsibilities of the ELL patient, it is expected that they stay informed, be critical, and keep up with technology. However, to master these skills, ELLs should be able to participate in health literacy instruction that equips them with the strategies and skills required to succeed in modern times (e.g., high level communication skills, computer skills, digital literacy knowledge, telehealth skills, skills for artificial intelligence usage, cybersecurity skills, etc.). There is a crucial need for creating up-to-date, federally funded, programs and curricula that support the development of adequate health literacy skills of adult ELLs. As an example, the Step One Curriculum for

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older immigrants in Amherst, Massachusetts, provides access to beginning-level English language instruction that meets older learner needs (Weintraub, 2025). Similarly, the Health in the English Language course in Anchorage, Alaska, is an intervention program addressing health information, reporting medical conditions and symptoms, understanding health insurance, nutrition, mental health, first aid, dentistry, vaccinations, and medications (Shashikiran et al., 2023). Transferring best practices from these and similar health literacy programs designed for ELLs is crucial to be able to offer adult education opportunities that are relevant and ongoing throughout the United States.

Likewise, health organizations and health professionals should keep in mind "health literacy best practices" such as the "use of plain language, use of customer preferred language and communication channels, and use of cultural and linguistically appropriate language" (CDC, 2024, n.p.) when creating health literacy materials and when communicating with ELL patients. The language of health and medicine is complex and, in many ways, learning it is similar to learning a second language. As English (2022) suggests, health care providers must ensure that written materials (handouts, brochures, and web sites) do not create barriers for the many patients who have little to no background knowledge on health-related topics (p. 101). Health literacy best practices will benefit ELL patients and native English speakers equally. English (2022) addresses the importance of providing patient-centered care through using adequate interpersonal communication (ensuring patient comprehension), showing empathy (relating to the patient's situation and experiences), and practicing active listening. As English (2022) states, "health literacy skills are affected by age, education, income, health insurance status, and first language [English] acquisition" (p. 101). Health care organizations must become aware of the benefits and overarching need for easier access to health literacy. The health care experience is equally intimidating to all populations, older adults, individuals with disabilities, ELL patients, and native-English speakers.

It is crucial to promote different formats of communication and offer patient-centered care that goes beyond written health materials, as to include support for better verbal communication, technology, and telehealth usage. For example, in Australian adult education settings, Muscat et al. (2017) implemented a health literacy program for adults with low literacy levels to help them develop skills to talk to health care providers and share health decisions. Muscat and colleagues describe the range of health literacy skills needed for communication and decision-making and present a model in which verbal skills are an important part of health literacy. "This model positions 'listening' and 'speaking' as distinct health literacy skills for the verbal exchange between the patient and health professional" (Muscat et al., 2017, p. e258). In this view, the ELL patient should be aware of their right to contribute to the health care consultation and participate in decision making concerning their own treatment and care. As Muscat et al. (2017) state, this asset approach to health literacy "recognizes efforts to improve functional, communicative, and critical health literacy" (p. e259), integrates shared decision-making, and raises critical consciousness to overcome obstacles to good health. According to these researchers, program participants reported new appreciation of the right to participate in decision-making, increased assertiveness, and self-efficacy for health consultations. Muscat et al. (2017) recommend facilitating verbal skill development across the domains of functional, communicative, and critical health literacy, influencing ELLs' attitudes toward question-asking by positioning it as a consumer right, and presenting decision-making as a joint venture between patients and providers. Health literacy programs should adopt a similar approach empowering ELLs to be proactive patients who can discuss medical recommendations, critically reflect on the medical information and advice received, and participate in health care decision-making.

In a shared responsibility approach to health literacy, community health partnerships between universities and literacy programs are useful to promote experiential learning opportunities beneficial to both ELL patients and future health professionals. For instance, Gao et al. (2022), report on Health in the English Language, a partnership delivering two virtual health literacy courses to adult ELLs: "Pre-health undergraduates gain insight into the importance of communicating with and advocating for non-native English speakers" (Gao et al., 2022, p. 33). Based on a needs assessment conducted to design the program, the topics covered in the courses included going to the doctor, what to do in emergencies, healthy eating and exercise, medication safety and use, and

health insurance. In addition, course activities included "student-led discussions, dialogues, vocabulary learning, practice questions such as reading medications or nutrition labels, writing activities, and games" (Gao et al., 2022, p. 35). The health literacy researchers found that although convenient, online teaching and learning posed challenges due to disparities in technology access. For example, having access to a computer did not mean that the learners had adequate digital literacy skills or were able to use basic software features such as typing in the chat when participating in the virtual class. Another important finding from Gao et al (2022) is that the learners participating in the health literacy courses had differing levels of understanding about the U.S. health care system and some did not even have insurance. In addition, they reported that the pre-health student-instructors learned about the importance of grasping the cultural dimension of health to best support non-native English speakers, communicate with them, provide a safe space, or advocate for them. The study by Gao et al. (2022) described the reciprocal nature and benefits of implementing community health partnerships.

To conclude, it is important to continue to explore the issue of shared responsibility further to make sure that ELL patients and native-English speakers are able to access health literacy regardless of their individual conditions (e.g., older adults, individuals with disabilities, ELL patients, and native-English speakers). Adult education programs, ELL patients, health organizations, and health professionals play important and complementary roles making health literacy access possible. Health organizations and health professionals should be mindful of incorporating health literacy best practices so as to not create extra access barriers for ELL patients and other vulnerable populations. More than ever, adult education programs and health organizations should work towards narrowing the digital literacy gap affecting marginalized populations. Modern times require the use of digital media platforms to find, evaluate, and communicate information, but this new approach can contribute to creating barriers to health literacy access. Likewise, critical health literacy should be nurtured in adult education programs to make sure that ELL patients behave as inquisitive health participants and informed consumers. There is a crucial need to create more programs and curricula focusing on health literacy and as part of the regular offerings in adult education programs. In addition, community health partnerships between universities and adult literacy programs should proliferate instead of being offered as sporadic research studies conducted by a handful of interested researchers. Achieving health literacy and health equity should be a goal and a shared responsibility.

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Research Digest

Digital Literacies for Digital Health Realities

By Jill Castek, University of Arizona and Tyler H. J. Frank, Clark College, University of Arizona

This research digest addresses digital health literacies, demonstrating the important role that adult basic education instructors can play in supporting learners to adapt to a changing digital world. We structure this review by first examining the relationship between the internet and health. We then discuss the digital health information landscape offering some definitions. We go on to describe four components of digital health literacies and close the review by linking research and practice, offering implications for adult education.

Internet and Health

Internet access is nearly universal for highly educated individuals with at least a moderate income (Pew Research Center, 2024). Demographic groups such as seniors, those with fewer years of formal education, and low-income individuals have less digital access (Federal Communications Commission, n.d.; Tappan et al., 2022). They may require more support in navigating the digital landscape to manage their health. Limited internet access can exacerbate existing health disparities. Therefore, internet access is considered a super determinant of health (Seick et al., 2021).

Digital access alone is not sufficient to acquire digital health literacies. The demands of digital health systems require flexible digital literacies and digital health literacies. Digital literacies include the ability to find, evaluate, understand and use digital information and digital tools (American Library Association, 2013), and digital health literacies contextualize these skills within an online health context (Fitzpatrick, 2023; Norman et al., 2016). Due to the evolving nature of online texts, contexts, tools, and networks for meaning making, we refer to these literacies in their plural form.

Digital health literacies play an important role in health outcomes. Accessing health information online is one of the main reasons individuals use the internet (Di Novi et al., 2024). For example, learning options for staying healthy, maintaining wellness, and managing health care appointments and prescriptions are but a few areas where digital health literacies are important. However, not all online health information is easy to navigate, interpret, or comprehend. Organization, density, and use of hyperlinks to other resources, among other navigational characteristics, can make health concepts more difficult for the general public with average reading ability to grasp (Daraz et al., 2019). Adults need support to develop the skills that are necessary for navigating online health contexts, giving rise to an instructional call to action.

Defining Terms

In the fast-paced, complex, and ever-changing digital landscape, no single set of definitions is sufficient nor universally adopted. In the sections that follow, we offer definitional starting points, recognizing there are obvious overlaps across terms.

Digital skills refer to the use of devices like a computer, tablet or phone for tasks such as finding and using information online, understanding how to be safe and responsible online, communicating socially and professionally using email, messaging and social media (Digital Resilience in the American Workforce [DRAW], 2022). However, digital skills alone are not all that is needed to navigate the complexities of digital health literacies. Digital fluency, the ability to successfully move with ease in and across digital environments, is also important.

Digital problem solving refers to the nimble use of skills, strategies, and mindsets to navigate online using

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novel resources, tools, and interfaces in flexible ways to accomplish goals (Jacobs & Castek, 2018). Collaboration can serve to support digital problem solving when learners participate together and learn a range of strategies.

Digital resilience is referred to as an essential mindset which involves having the awareness, skills, agility, and confidence to be empowered users of new technologies and adapt to changing digital skill demands (DRAW, 2022; Digital US Coalition, 2020). Resiliency improves confidence to problem-solve, navigate digital contexts, and engage in tasks that involve critical thinking. Individuals need multiple opportunities to develop digital problem solving and resilience within and beyond health care. These learning aims are an important extension of digital health literacies and are not gained without support.

Adult learners need the opportunity for contextualized instruction (Jurmo & Mortrude, 2020; Perin, 2011) specifically within online health settings. Teaching digital health literacies means moving beyond the basic functions of web browsers or the steps for using a search engine. Teaching digital skills, strategies, and mindsets should be embedded within broader health situations. By exploring online health information with support, instructors can provide contextualized, just-in-time instruction.

Components of Digital Health Literacy

Castek et al. (2021) conducted a study to examine adults' digital health literacies knowledge and challenges. They designed nineteen scenario-based tasks situated in everyday health contexts in the areas of: (a) navigating online health resources, (b) critical evaluation of online information, and (c) internet safety and security. The scenarios presented real-life situations where critical evaluation, the management of interfaces, and use of digital tools were applied. Results indicated that regardless of age or education level, 93% of participants scored below the minimum competency threshold, with the lowest scores on tasks that required critically evaluating online health information. These findings suggest that many people struggle with digital health literacies and need support and guidance to acquire and apply them.

Drawing on this pattern of results, in combination with findings from our work examining adults' digital problem-solving strategies (Jacobs & Castek, 2018, 2022) we identified four components of digital health literacies: (a) navigating online health resources, (b) checking the reliability of information, (c) managing interfaces and digital tools, and (d) learning digital problem solving. Planning instruction in these areas, and offering contextualized guided practice, can support adult learners in gaining facility with these important skills. In the sections that follow, each of the components is described and anchored to research.

Navigating Online Health Resources

While the use of digital technologies has been broadly associated with being informed, the complexity of navigating online health resources that are unbiased and reliable is challenging. Daraz et al. (2019) found the quality of online health information was not consistently excellent. Internet health resources require careful examination to determine high quality from low quality information, which could have harmful consequences on health.

Determining whether health information is relevant in a given situation involves reading widely to gain knowledge about health, examining multiple sources of information and determining who is an expert, and locating trustworthy sources. About 85 million internet users take online health advice without assessing the quality of the content found on the internet, which can affect the doctor-patient relationship (Luo et al., 2022).

Navigating health concerns requires facing novel challenges, which are enhanced by the need to understand medical terminology. Moreover, ensuring their data privacy and troubleshoot technical issues are also important learning aims.

Checking the Reliability of Health Information

Unreliable claims about health are everywhere online and shared widely by friends, family, news media, and commercial interests. Many of these health claims about products and services are unsubstantiated but many adults may lack the skills needed to evaluate them. The ability to critically evaluate online health information requires attention to the content of the information, the presentation of ideas, and determination of who is considered an expert (Hegeman et al., 2024).

Developing a critical mindset involves paying attention to relevancy, accuracy, reliability, source credibility, and commercial bias (Coiro, 2015). Checking reliability requires questioning stances found in texts (Korona, 2020), reading laterally to corroborate claims using multiple sources (Breakstone et al., 2021), and analyzing health resources to look for effects of commercial bias (Peñafiel-Saiz et al., 2024). Critically evaluating information becomes even more essential when navigating across numerous interfaces and tools to access health information and health care systems. These vital aspects of digital health literacies should be folded into adult education.

Managing Interfaces and Digital Tools

Adult learners not only face the challenge of evaluating the health information they find online but also must navigate a plethora of interfaces and digital tools, including search engines and AI chatbots (Sun et al., 2023). Kim et al., (2023) argue that navigating interfaces are part of the core competencies of digital health literacies.

Management of interfaces and digital tools involves working through tasks systematically while remaining focused on the end goal, keeping in mind ethics and safety, and utilizing networks for continued learning and support. Given the dynamic and ever-changing digital health world, with the constant rise of new platforms and information, adults need support to learn and practice digital health literacies (Harris et al., 2019; Paige et al., 2018).

Learning Digital Problem Solving

Merga (2024) found that adult learners need to acquire specific knowledge, skills and attitudes to work with data, digital information, and digital technologies. Our work in digital problem solving (Jacobs & Castek, 2018) engages learners in situations they have not encountered in the past where they need to problem solve in the dynamic and ever-changing setting of the online world. Learning digital problem-solving means learning-how-to-learn in an evolving digital world. Adapting to evolving digital contexts requires flexibility in the face of challenges that abound online such as maintaining safety and security of private health information. Jacobs and Castek (2022) demonstrate that working in collaboration with more knowledgeable peers can be important for individuals with limited access and skills in using digital tools.

Implications: Research-Based Pedagogies

Building on the foundations described in this research review, we encourage practitioners to support digital health literacies by situating instruction and practice in meaningful, real-life contexts. The need for contextualized practice across the four areas described above can be accomplished through a variety of approaches to instruction. We organize these approaches within three research-based pedagogies, each of which recognizes literacies as a social practice (Barton et al., 2005) and views learning as socially mediated (Lin et al., 2016).

Collaborative Learning

Van Laar et al. (2017) define collaboration as the ability to use digital technology to develop a social network, work in a team to exchange information, and make decisions to achieve a common goal. When teaching adult learners how to navigate online health resources, collaborative learning a beneficial approach to learning from one another (Johnson et al., 1998). Collaborative learning emphasizes the importance of working in groups, building on the strengths of all members, and valuing the lived experiences of adult learners. Structuring collaborative learning invites learners to bring their background knowledge and experiences to bear while evaluating health information, exploring websites and interfaces, learning digital tools, and problem solving with digital health resources found online.

Teaching learners in the dynamic and expansive digital world brings challenges and new situations in which to problem solve. Collaborative learning leverages the diverse knowledges and perspectives of all learners working together as they navigate websites, resources, and interfaces. Learners can support each other in recognizing navigational features, exploring potentialities, and making strategic choices. Opening up space for working collaboratively can help learners develop investigative abilities to track sources and corroborate claims as they read laterally (McGrew, 2020). Additionally, open discussions encourage learners to share real-world applications and strategies that help develop critical skills for evaluating online information (Jacobs & Castek, 2022).

Community-Based Adult Education

Community-based adult education (European Centre for the Development of Vocational Training, 2014) emphasizes the importance of working with adult learners in the context of their communities. It builds on the strengths of those communities to solidify connections. Sui and Facca (2020) argue for the importance of developing digital health instructional materials in collaboration with community members, emphasizing the importance of local relevance, for example in rural communities.

Teaching digital health literacies provides adult learners with the knowledge and skills they need to address the specific issues and challenges they face in their communities. Engaging community members, such as community health workers, in the process of developing instructional materials allows for an authentic focus on learners' relevant health concerns. Surfacing these concerns provides space for learners to voice their experiences and make connections to their lives.

Co-Teaching

Co-teaching emphasizes the importance of teachers working together to support the diverse needs of a wide range of adult learners (Friend & Cook, 2009). Co-teaching reflects a shift towards decentralized and participatory learning models and can be a useful approach for planning instruction for digital health literacies. The flexibility and collaboration of co-teaching encourages instructors to better meet students where they are, which is especially important given the multiplicity of skills, settings, and decisions involved in navigating digital health literacies. Co-teaching empowers diverse learning approaches and provides many opportunities for just-in-time learning. Moreover, co-teaching supports learners in ways that are responsive to their needs.

A useful resource to build on is *The Library Toolkit for Addressing Health Misinformation* (San Diego Circuit, 2023). Not only do these activities offer guidance for avoiding misinformation, but they also include editable versions of handouts. Learners can edit and expand the examples in the materials. During learning projects, adults can further develop these materials, engaging in editing digital documents and learning digital tools to communicate about health misinformation.

Learn more: https://libguides.sdsu.edu/library-toolkit-addressing-health-misinformation

Conclusion

In closing, adult educators know and understand their learners' backgrounds and are skilled in designing responsive instruction. The areas of digital health literacies outlined in this review are not simple to learn or teach but hold significant potential to impact the lives of adult learners. While research findings provide general guidance, our advice for educators is to find ways to engage the diverse backgrounds, knowledge, and abilities of learners (Ladson-Billings, 1994). By drawing on adult learners' knowledge and experiences, educators can create contextualized digital health literacies learning that forges personal connections for learners with meaningful life impacts.

Adult basic education educators are making great strides in learning with and from their students, but these efforts are sometimes overlooked largely because the work is not often published in peer-reviewed journal articles (Santos et al., 2019). The challenges adult learners face in navigating and learning digital health literacies are an imperative that calls for continued knowledge sharing among adult educators.

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Book Review

Review of *Career Pathways in Adult Education: Perspectives and Opportunities*

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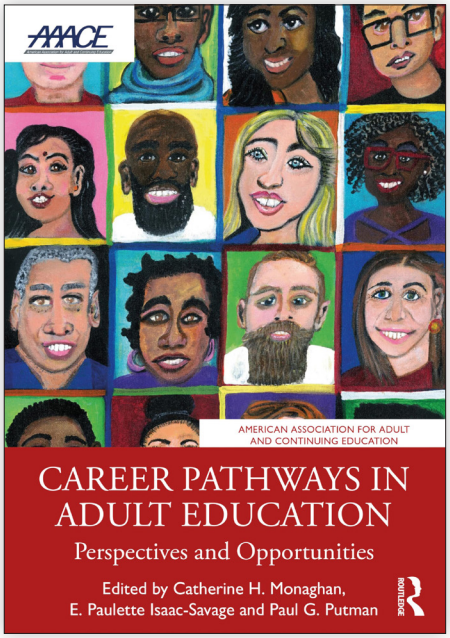
Career Pathways in Adult Education: Perspectives and Opportunities, edited by Catherine H. Monaghan, E. Paulette Isaac-Savage, and Paul G. Putman is a well-written book that showcases the dynamic field of adult education, the myriad concepts and theories that support it, and various careers and pathways one can embrace. The authors have put together a strong resource that can be used for newcomers to the field, learning about the underpinnings that make success possible or as a mid-career professional looking for a change. Readers will find the organization and writing of this book easy to understand and meaningful as they work their way through it. The editors appear to have been intentional in identifying contributing authors and inviting experts within their respective subdomain of adult education.



The book is written in two major sections. Part I focuses on skills needed to be successful in adult education and includes foundational knowledge from the general field. These concepts include a field overview, skills for teaching adults, facilitation skills, steps for successful program planning, how to evaluate and assess the success of adult education efforts, and necessary technology skills and applications for engaging in the education of adults. Part II is a collection of chapters from individuals in various disciplines of the adult education field. The format of these chapters usually starts with a personal description of the unique paths the author took to get into an adult education career followed by the day-to-day activities they conduct in their jobs. Many include specific skill sets, competencies, and credentials needed to be successful. Some chapters use callout boxes highlighting tips for being successful in the particular subfield. Other chapters include ways to advance in a specific adult education career.

In support of their personal experiences, authors provide additional information about the theories and practices used and the relevant connections to adult education. While the authors do not provide extensive explanations of the concepts of a theory, they do provide enough of a description to get the basic understanding and then provide citations and references to explore further, if needed. Some chapters provide needed competencies and directions for being successful in that particular subfield of adult education. Still others include trends in the subfield and resources for locating tools and job opportunities. What is helpful in each of the chapters of Part II is that they focus on that particular subfield and provide the reader with unique insights of the career they

Monaghan, C. H., Isaac-Savage, E. P., & Putnam, P. G. (Eds.). (2024). *Career Pathways in Adult Education: Perspectives and Opportunities.* Routledge. 272 pages. $55.99 (paperback). ISBN: 9781032195278

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are exploring. Readers will be able to see themselves in several of the chapters and have a better understanding of the varied paths that can be taken to become a professional in adult education.

This book will be helpful for students studying adult education as a potential career and needing a foundation of the various adult education contexts. Additionally, this book will be helpful to instructors looking to teach these concepts to developing adult educators. The editors have included voices from 17 practitioners and researchers who provide their direct experiences and the paths they took to enter and grow in the field. As developing adult educators seek to understand what it is like to work in the various careers identified and described, having that personal narrative will support their investigation into the nooks and crannies of the field. The chapter authors do an excellent job articulating the day-to-day experiences and the seminal resources they use to be successful.

Readers of the book will find the personal experiences resonate with actual experiences of other practitioners in the discipline and the connection of these experiences to the citations and literature to be a meaningful way of gaining a clearer picture of the vast and changing domain of adult education. The structure of the book is organized and takes an intuitive approach to laying out various career paths in the line of work. While the reader could read the book from front to back, they may find it useful to start with the first six chapters and then seek out specific chapters related to careers they would like to explore. The last chapter helps to tie it all together and explains how to use the information from the book to better understand the possible careers that one can pursue and how this resource can be used for instructors, students, and researchers.

The editors have put together a strong resource that can be used in a variety of ways. Rarely have I seen a book focusing on career paths in adult education and certainly not put together in the manner of the editors'. The use of personal experiences combined with updated citations and references to research and literature makes this book a meaningful resource to keep on one's desk to explore the vast roles and actions of champions working in adult education. Finally, this resource provides the reader and the field a way to view the preparation of adult educators for the work they will do and a strong understanding of the linkages between the professionals they work with and why they do the work they do.

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Resource Review

abc English

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https://www.abceng.org/

During my time in adult education classrooms working with adult English language learners (ELL), many of whom were attending school for the first time in their lives while also learning to speak in a brand-new language, I spent countless hours searching online for worksheets and handouts that were not covered with teddy bears and dinosaurs. Eventually, like so many adult English teachers, I gave up and spent even more of my limited prep time creating original resources from scratch. While working as a teacher trainer, the online resource abc English was recommended to me by teaching colleagues; however, I did not dig deeply into the site until I returned to the classroom in 2021. I greatly appreciate the abc English resources because they take the guesswork out of teaching systematic phonics and provide level- and topic-appropriate texts for adult learners. Moreover, the materials are well-designed and easy to use. Jennifer Christenson, the site's creator and author, has drawn upon her long-time classroom and training experience to develop effective, clear, and well-researched materials that can be easily incorporated into online, in-person, or hybrid instruction.

The abc English resource library contains a wide array of tools for teachers and tutors that include:

- teacher training resources that demonstrate how to use the materials
- assessment tools for beginning ELL literacy learners
- slideshows on systematic phonics, vocabulary, and easy English grammar
- home language resources (Spanish, Swahili, Kinyarwanda, and Somali)
- citizenship materials
- decodable texts, easy readers, and reading skills stories
- phonics-based flashcards, handouts, and classroom posters

All of the online library content is available to paid subscribers as Google slides through the site or as PDFs that can be downloaded and printed. An individual license costs $25 for three months, or $90 per year, and group licenses for 5 or more teachers are available for $6 a month per teacher. Potential subscribers can sign up for

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a free 30-day trial to explore whether the materials are the right fit for learners. Print copies of the abc English phonics books Levels 1-4, the reading skills stories, and decodable readers are available to order. The teacher training resources, home language materials, assessment tools, and full online previews of the print books are always available for free.

Assessment

abc English is the most comprehensive classroom resource that I have encountered for teaching reading to learners who have had no or limited print literacy in any language. This website offers an extensive collection of materials specifically designed for educators who work with adult and adolescent emergent readers who are also developing English. The site provides valuable tools and, importantly, also outlines the methodology I was looking for to incorporate systematic and explicit phonics instruction into reading instruction. It breaks down the components of reading into manageable pieces for beginning readers and offers resources for building fluency, vocabulary, and comprehension, not phonics alone. Critically, the topics on abc English are of high value to English learners with immigrant and refugee backgrounds through building vocabulary and phrases as well as integrating common sight words. Among the topics in the reading skills stories are family life, paying bills, taking the bus, and working. The easy English readers feature discrete components of phonics and vocabulary, as well as listening tasks to build up verbal and print familiarity with core language learning topics such as shopping, food, and emotions.

In my multilevel literacy class, learners of all levels benefit from the focused practice on phonics rules and patterns. The more advanced learners appreciate the explanations of the "why" behind the spelling rules, and the beginning literacy learners thrive on the explicit and methodical phonics instruction. Once a week, an in-person volunteer works with a group of beginning literacy students using one of the Level 1 phonics lessons. Together, the group reviews vowel sounds, sounds out words with the target sounds, practices cumulative blending, and writes as the tutor dictates sentences and short words. I use these same materials when I am teaching without a volunteer, expanding the phonics activities with Tier 2 academic words that use the targeted sound patterns to challenge and engage the more advanced learners as we move through the lesson.

In my English Level 1-2 class, an online volunteer leads a reading group in a breakout room with several online learners, working with them on a reading skill story from the abc English resource library. The learners have a print copy of the reading packet in front of them, and the volunteer takes them through the accompanying slide show, providing each learner in the small group multiple opportunities to sound out words, identify word patterns, and read out loud. In addition, one of the learners who is preparing for the citizenship test gets pulled out twice a week by a volunteer to work on the 100 civics questions and the reading and writing portions of the test with the abc English citizenship resources, which are appropriately leveled for a beginner including with clear visuals, simple language, and several ways to review.

What's the best thing about abc English? For me, it is the thoroughness and predictability of the resources which enable my volunteers to walk in the door and jump into teaching. I do not need to spend 15 minutes meeting with them before they begin to explain the materials and activities. Everything the volunteers need is ready and waiting for them, and they are able to maximize their time working with learners. This means that I do not spend hours preparing and adapting materials, which frees up my limited prep time.

Of course, adult learners have unique needs and experiences; no single curriculum or resource is able to provide all of the information that immigrants and refugees need to navigate a new culture and language successfully. Verbal skills and oral vocabulary provide the foundation that literacy skills are built upon, so it is essential that teachers bring in multiple opportunities to practice developing speaking and listening skills to supplement any phonics and reading resource. Learners also need the opportunity to apply the decoding skills they are learning to authentic texts that they encounter outside of the classroom (e.g., receipts, signs, notes from their child's school). They also need opportunities to produce original writing. While the abc English phonics materials are beautifully scaffolded and systematic, the open enrollment nature of many adult education programs means that teachers have to decide how to

regularly revisit previously introduced material so that learners who are new to the class are not lost. Fortunately, the materials are easy to retrieve and review, and even experienced readers benefit from the repetition of basic phonics concepts.

Recommendations

The resources on abc English can function as stand-alone lessons and as a supplement to existing curriculum. They can also provide opportunities for extensive reading. The materials on this site are valuable for novice and experienced teachers alike. In particular, programs that use volunteer tutors to deliver instruction will find the ready-to-use slideshows with their step-by-step teacher instructions a welcome addition to their curriculum, especially since proven literacy and language teaching practices such as scaffolding, repetition, practicing skills in a variety of ways, and using high-quality visuals are expertly woven into the materials and activities. While abc English requires a paid yearly subscription, the fact that its resources are constantly being updated and added to means that they remain relevant and fresh. abc English is definitely worth a closer look for any teacher who is teaching reading and English to adults who are new to both.

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Technology and Adult Learning

ReadWorks: Unlocking Literacy for Adult Learners

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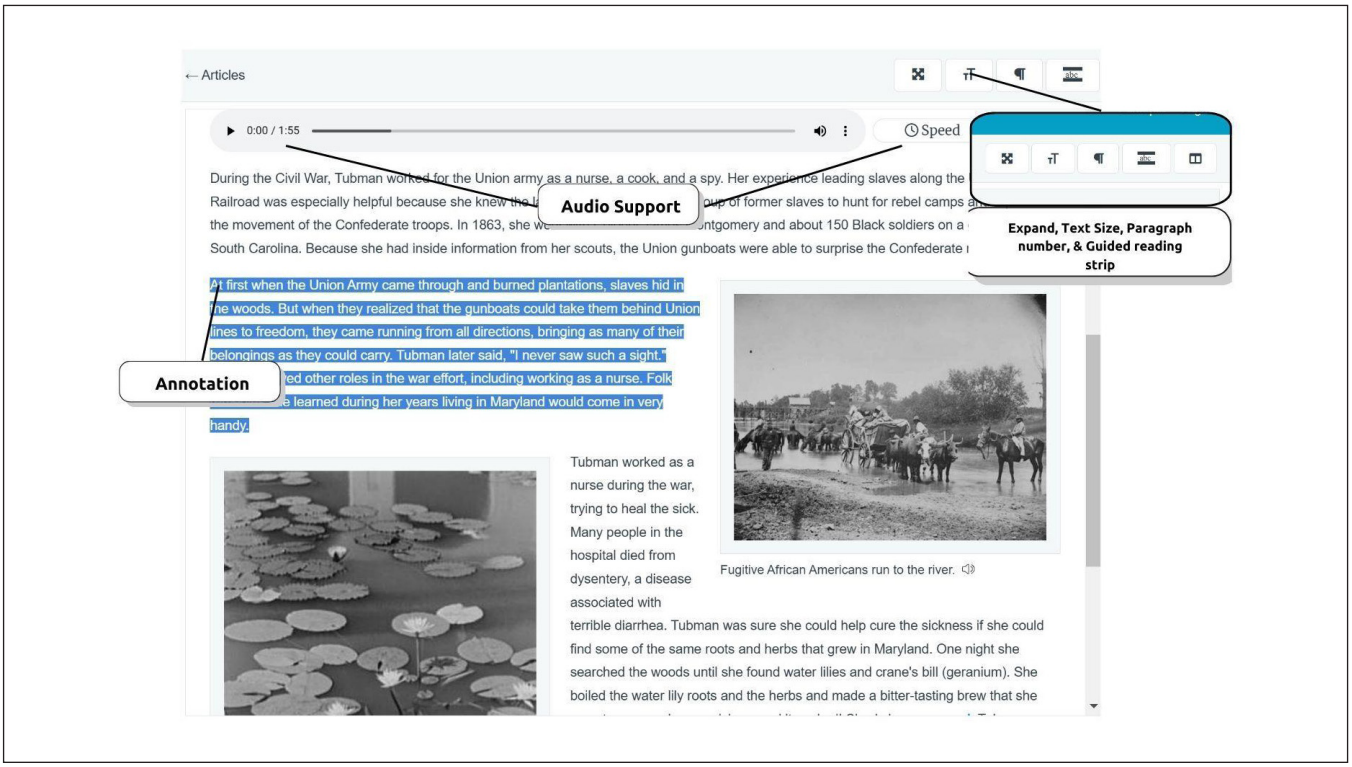
What is ReadWorks?

ReadWorks is an online educational platform designed to enhance reading comprehension and literacy skills, primarily in K-12 education. It offers a vast repository of reading materials, including articles, stories, and comprehension questions tailored to various grade levels and reading abilities. By utilizing evidence-based practices, ReadWorks supports differentiated instruction, allowing teachers to cater to the diverse needs of their students (Tare & Shell, 2019). Its user-friendly interface and extensive resources create a more interactive and effective learning experience (Fithriyah, 2021). While its primary audience is K-12 educators and students, the platform's principles and tools can also be adapted for adult education.

Features

ReadWorks offers a range of features that make it an effective tool for literacy instruction. The platform provides a comprehensive library of reading passages across various subjects, including science, social studies, and literature, which can be filtered by grade level and reading complexity. Built-in comprehension questions and vocabulary support accomplish each passage, enabling educators to assess understanding and promote critical

FIGURE 1



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thinking (Fithriyah, 2021). Additionally, ReadWorks incorporates research-based tools aimed at addressing learner variability, such as audio supports, split-screen viewing for simultaneous access to texts and questions, text magnification, guided reading strips, paragraph numbering, and annotation tools like highlighting and note-taking (Tare & Shell, 2019) (Figure 1). These features are grounded in learning sciences research and are designed to scaffold students' reading experiences by bolstering strengths and mitigating challenges like working memory limitations or attention difficulties (Figure 2).

Teachers can create customized assignments tailored to specific learning objectives or individual student needs while tracking progress over time through the platform's analytics tools (Tare & Shell, 2019) (Figure 3). Additionally, ReadWorks integrates seamlessly with digital platforms like Google Classroom, making it easier for educators to distribute assignments and manage student performance. These features collectively enhance the teaching and learning process by providing flexible and accessible tools for educators to implement effective literacy instruction.

FIGURE 2: Split Screen Feature

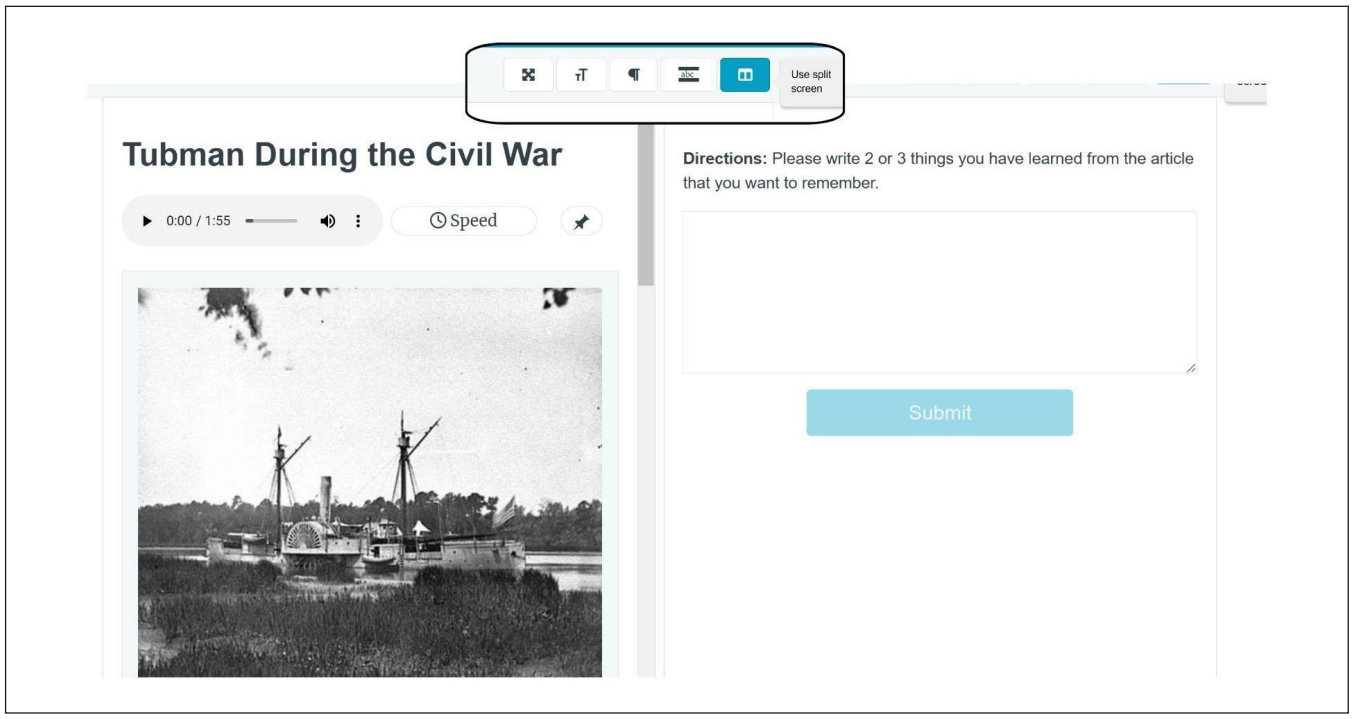
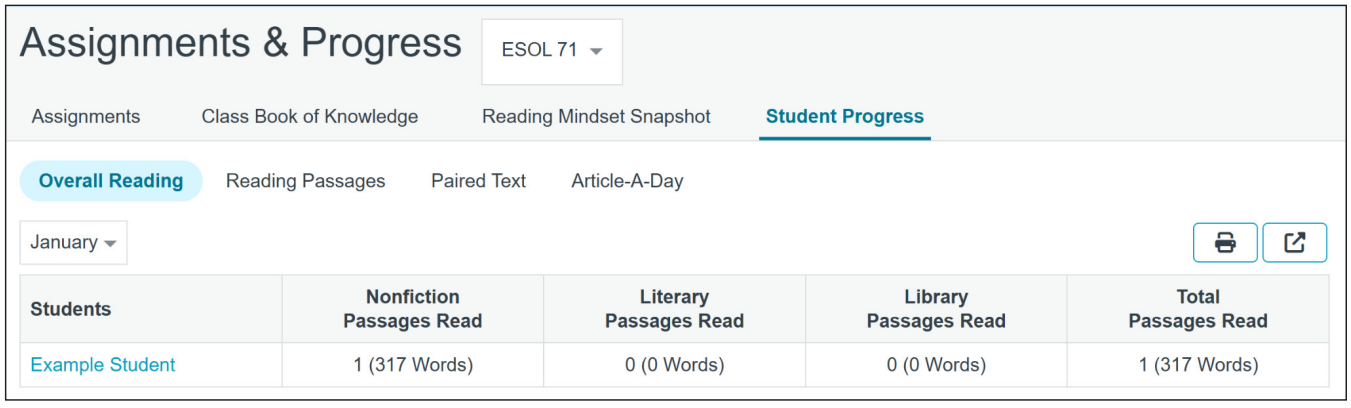


FIGURE 3



Students	Nonfiction Passages Read	Literary Passages Read	Library Passages Read	Total Passages Read
Example Student	1 (317 Words)	0 (0 Words)	0 (0 Words)	1 (317 Words)

How ReadWorks Addresses Teaching Challenges in Adult Education

ReadWorks, while primarily designed for K-12 education, offers features and methodologies that can be adapted to address the unique challenges of adult education. Adult learners often face obstacles such as limited time availability, lack of motivation, and the need for practical, real-world applications of learning (Rosa et al., 2022). The platform's emphasis on differentiated instruction allows educators to assign texts based on individual reading abilities, accommodating the diverse literacy backgrounds of adult learners. Furthermore, its extensive library of nonfiction texts can be tailored to align with adult learners' interests or career goals, making the content more relevant and engaging.

One of the critical challenges in adult education is the disconnect between classroom content and students' lived experiences. Many adult learners find traditional methodologies infantilizing or irrelevant to their personal and professional needs (Rosa et al., 2022). ReadWorks addresses this issue by offering customizable assignments that enable educators to select materials that resonate with learners' realities. Additionally, digital tools like text-to-speech functionality and vocabulary support help bridge gaps for English as a Second Language (ESL) learners or those with limited literacy skills (Oyebamiji & Ezeala, 2024).

The platform also supports flexible access, allowing learners to engage with materials on their own schedules–a critical feature for adults balancing work or family responsibilities. By integrating technology into its instructional approach, ReadWorks aligns with the digital literacy demands of the 21st century, equipping learners with skills essential for navigating today's information-driven world (Oyebamiji & Ezeala, 2024). These features collectively make ReadWorks a valuable resource for addressing the methodological and practical challenges faced in adult education settings.

Real-Life Applications of ReadWorks

The adaptability of ReadWorks makes it a versatile tool for various educational contexts, particularly in adult education. Here are some practical applications:

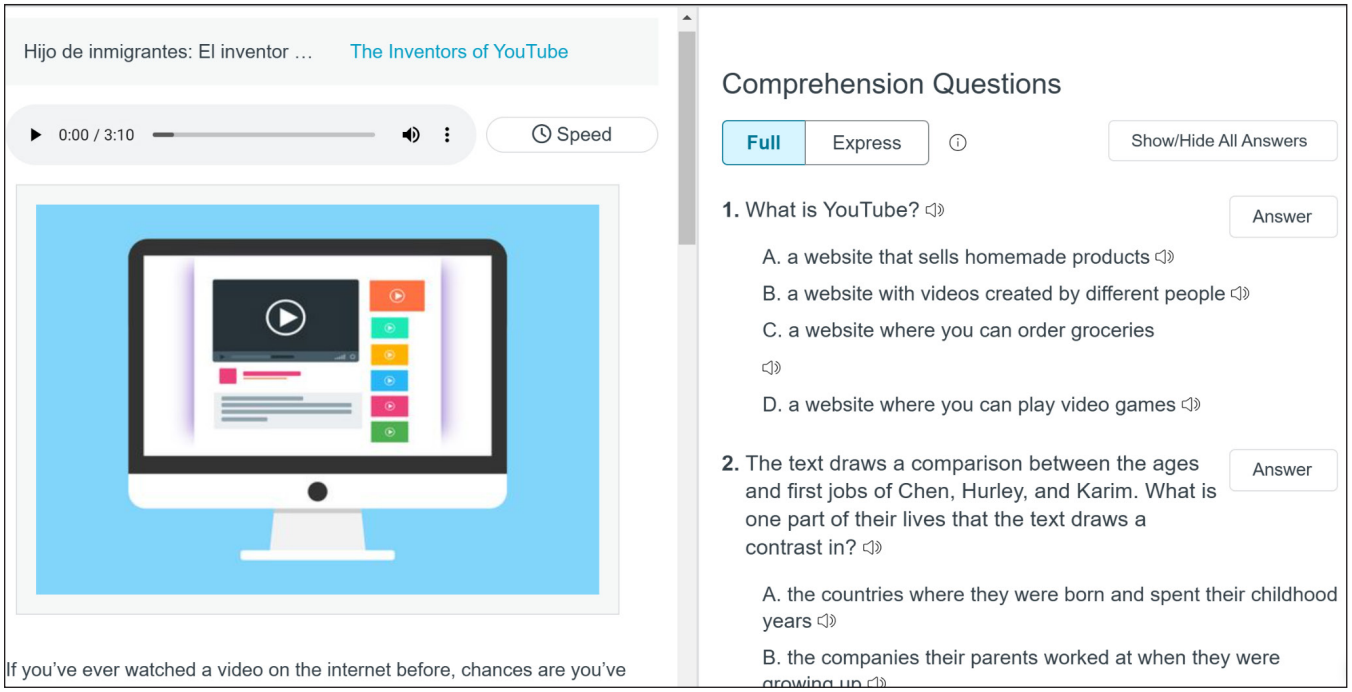
- **Workforce Development Programs:** Adult learners can use the platform to improve literacy skills essential for job applications, understanding training manuals, and workplace communication.
- **GED Preparation:** Educators can assign nonfiction texts to help learners develop the critical reading and comprehension skills required for GED exams.
- **Community Literacy Programs:** Libraries and community organizations can leverage ReadWorks to provide underserved populations with access to reading materials that support literacy improvement.
- **ESL Classes:** The text-to-speech functionality helps ESL learners improve pronunciation, fluency, and comprehension skills.
- **Hybrid or Remote Learning:** The platform's digital format allows adult learners to access materials anytime, making it ideal for flexible learning environments.

By incorporating ReadWorks into these practical applications, educators can promote literacy as a foundation for lifelong learning while addressing the unique needs of adult learners.

Benefits of Using ReadWorks

ReadWorks offers numerous benefits that make it a valuable resource for enhancing literacy skills. One of its most significant advantages is its extensive library of high-quality reading materials, which are aligned with educational standards and designed to engage learners across various age groups. The platform promotes active learning through interactive features such as comprehension questions and vocabulary exercises, encouraging learners to think critically about the texts they read (Figure 4). Additionally, ReadWorks supports differentiated instruction by allowing educators to tailor assignments to meet the diverse needs of their students, whether they are K-12 learners or adults with varying literacy levels. The ability to track student progress through built-in analytics further enhances its utility, enabling teachers to identify areas for improvement and provide targeted support. By fostering critical thinking, promoting engagement, and offering tools for personalized instruction, ReadWorks serves as a powerful resource for improving literacy outcomes and cultivating a love for reading.

FIGURE 4



Challenges of Using ReadWorks

Despite its many strengths, implementing ReadWorks comes with several challenges. However, each challenge can be addressed with thoughtful strategies to maximize the platform's potential:

1. **Limited Adult-Specific Content**
   Most of the resources on ReadWorks are designed for K-12 students, which may not align with the interests or life experiences of adult learners. This mismatch can make the content feel less relevant or engaging for adults. To address this, educators can adapt existing materials by selecting nonfiction texts that resonate with adult learners' goals, such as workplace literacy or GED preparation. Additionally, incorporating supplemental resources specific to adult education can help bridge this gap. Leverage adaptive learning systems, which dynamically modify content to suit individual learners' abilities and knowledge levels, could also enhance personalization and relevance for adults.

2. **Digital Divide**
   Not all learners have access to the Internet or devices needed to use ReadWorks effectively, particularly those from financially marginalized communities. This digital divide creates barriers to equitable access and participation (Kumar Nigam, 2024). Strategies to address this issue include providing offline access to materials by downloading and printing resources for learners without reliable connectivity. Community organizations and libraries can also play a role by offering access to devices and internet services. Additionally, government policies and private partnerships could fund digital infrastructure and technology initiatives in underserved areas (Kumar Nigam, 2024).

3. **Professional Development Needs**
   Teachers may require additional training to effectively use ReadWorks and adapt its K-12 oriented materials for adult learners. Professional development programs focused on integrating EdTech tools into adult education contexts are essential. These programs should include hands-on workshops that demonstrate how to customize assignments, track progress using analytics, and facilitate discussions that promote deeper engagement with texts. Tailored professional development models that address varying levels of teacher experience–such as peer mentoring for novice educators–can also enhance confidence and instructional effectiveness.

4. **Instructional Dependence**

   The success of ReadWorks depends heavily on how well educators facilitate discussions and activities that promote critical thinking and engagement with texts. Without effective instructional strategies, learners may struggle to fully benefit from the platform's resources. To mitigate this challenge, educators should focus on fostering interactive learning environments where students actively engage with the material through group discussions or reflective exercises. Incorporating principles–such as scaffolding tasks based on cognitive science insights–can further enhance comprehension and retention for adult learners.

Conclusion

ReadWorks is a powerful tool that enhances literacy instruction through its extensive library of resources and interactive features. While it was originally developed for K-12 education, its adaptability makes it a valuable asset in adult education as well. By addressing challenges such as varying literacy levels and time constraints through differentiated instruction and flexible access, ReadWorks empowers educators to meet diverse learner needs. However, limitations like lack of adult-specific content and potential technology barriers must be considered. With proper adaptation and support for educators, ReadWorks has the potential to transform literacy education across age groups.

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