LITERACY EDUCATION AND SECOND LANGUAGE LEARNING FOR ADULTS (LESLLA)

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Nicole Pettitt, Maricel G. Santos, Stefanie Harsch, Editors
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EDITORS' INTRODUCTION

The COVID-19 pandemic forced us to change the 16th Annual Symposium format in 2020 – from a full, in-person Symposium to an online "mini-Symposium" – but in typical resilient fashion, the members of the LESLLA community gathered for a full Symposium again in 2021. The 17th Annual Symposium, held via Zoom on August 11-12, 2021, was titled, "Reconnecting the LESLLA Community in 2021", and featured two live keynotes, 39 recorded sessions and roundtables, three coffee break sessions, and an all-LESLLA membership meeting. Presenters hailed from 16 countries: Australia, Belgium, Canada, England, Finland, Germany and Germany/Afghanistan, Iceland, Italy, Norway, Scotland, Spain, Sweden, the Netherlands, Turkey, and the United States.

We want to recognize the hard work of the LESLLA Board, who planned the 2021 Symposium, and Andrea Echelberger, Patsy Egan, and Raichle Farrelly in particular. This group navigated challenging logistics – from planning for participation from more than 15 time zones, ensuring access to session recordings across a variety of platforms, to troubleshooting connectivity and other technical hiccups for presenters and participants, and much more. A fortunate outcome of our online format is that, as of this writing, many sessions from the Symposium continue to exist online, and we encourage interested readers to enjoy the 2021 sessions again via the LESLLA website: https://www.leslla.org/symposia. The success of the virtual format has sparked new thinking about Symposium modality in the LESLLA organization: the 18th Annual Symposium was our first-ever hybrid event, virtually on Zoom and in-person in Tucson, Arizona, on October 19-21, 2022. Our upcoming 19th Annual Symposium (September 7-9, 2023) will also have hybrid options, again virtually on Zoom, and in-person in Barcelona, Spain. Expanding our Symposium modalities gives us the opportunity to make LESLLA more inclusive and to bring together all LESLLA stakeholders, including students and teachers, in new ways. We are excited to see additional expansion of the LESLLA community beyond North America and Western Europe and to discover how we can learn more from one another, growing a more global and inclusive research base to inform recommendations for teaching and policy in LESLLA contexts.

It's worth pausing to reflect on the legacy of the LESLLA Symposium and the Proceedings that emerge from these gatherings. We have been hosting a Symposium since 2005. To-date, that is 18 years: 2005-2022! During this time period, we have produced 15 Proceedings publications – 2005-2019. Prior to the 17th Symposium in 2021, the process for publishing the Proceedings was managed by the organizers of the Symposium. This meant that, depending on who the Symposium host was, the format of the Proceedings would change – sometimes a host university would help publish the Proceedings, other times the Proceedings was produced through a self-

publishing platform. Since 2019, the Proceedings have been handled by the newly-created Board positions of Publications Coordinator and Assistant Publications Coordinator. In the beginning, the Proceedings were printed and distributed at conferences. In recent years, the Proceedings have become digital or print-on-demand.

This issue of the 17th Annual Symposium marks a significant shift in the way the Publications team will create and publish the Proceedings for the LESLLA community. Specifically, in an effort to make LESLLA Proceedings easier to find and disseminate, we now subscribe to an open-source publishing platform called the Open Journal System (OJS), hosted by the Public Knowledge Project at Simon Fraser University. The OJS platform allows authors, peer reviewers, and editors to upload papers, track progress through review/editorial systems, and communicate manuscript progress in one centralized location. All readers can now access a searchable index of Proceedings papers. We are also registered with the Library of Congress, and every article in our Proceedings has its own Digital Object Identifier (DOI) number. This means the articles in the Proceedings – and all the knowledge about LESLLA learners contained therein – are more likely to be found when people use library databases and search engines. In other words, our voices as LESLLA practitioners, researchers, and advocates will reach a wider audience. Importantly, the open-access format of the journal ensures that access to the Proceedings will continue to be free for readers.

While we believe this is a logical step in the growth of our organization and circulation of LESLLA voices, there has been a steep learning curve in the set-up and implementation of this new publishing platform. We want to thank the authors, reviewers, LESLLA Board, and broader LESLLA community for their generous patience during this time of transition.

Enjoy exploring this new issue, which reflects a broad swath of expertise in the LESLLA field: health literacy, home languages and biliteracy, learner perspectives in L2 writing, oral corrective feedback, diagnosing bilingual abilities in the domain of literacy skills, portfolio use and self-regulated learning, K-12 reading research and LESLLA implications – as well as work that responds to the unprecedented demands of COVID-19, such as teaching and conducting LESLLA research during the early months of the pandemic.

This issue also includes two invited pieces that showcase two wonderful plenary sessions: *Pedagogical Translanguaging in Adult Basic Education* by Ingrid Rodrick Beiler and Joke Dewilde, and an essay from Symposium organizers Patsy Egan and Andrea Echelberger who reflect on Alison Phipps and Tawona Sithole's plenary *Hospitality through Languages: Pain, Joy, Gist.*

We hope you also enjoy exploring 18 years of publishing history on our new platform. We know you will join us in celebrating the many writers, thinkers, and change agents who have helped establish our Proceedings over the years. We end by recalling our mission in the LESLLA organization: "LESLLA aims to support adults who are learning to read and write for the first time in their lives in a new language. We promote, on a worldwide, multidisciplinary basis, the sharing of research findings, effective pedagogical practices, and information on policy." With your support and engagement, we will continue to look for opportunities to strengthen this mission with our work on the LESLLA Proceedings.

Nicole Pettitt, Maricel G. Santos, and Stefanie Harsch

17th Annual Symposium | August 12-13, 2021 | Virtual

Hospitality through languages: Pain, Joy, Gist
A Reflection from the LESLLA 2021 Board of Directors and Virtual Symposium Committee

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I celebrate the sacredness of the gathering.

We will not leave the same way we entered.

We will be transformed in one way or another.

-Tawona Sithole

When the LESLLA community entered the virtual event space for the keynote talk on August 11, 2021, we didn't think of it as a sacred gathering. We simply clicked on the link, adjusted our headphones, and perhaps took a sip of coffee and absentmindedly checked our email while we waited for the talk to begin.

It began with singing.

Maybe like us organizers, you were a bit taken aback. Maybe you put down your phone, made the zoom full-screen, and leaned forward in your chair, curious to see what would happen next.

The next hour was full of anything but what we have come to expect in an academic conference. As speaker Dr. Alison Phipps reminded us, *how* we gather matters. We were hosting this virtual gathering, an alternative way to reconnect the LESLLA community across the globe during a pandemic. There was space for the usual suspects: academics and teachers, and all their slide decks, handouts, Q&A, and tech glitches.

But this time, there was also space for art. Space for music, for poetry. By welcoming Dr. Phipps and artist Tawona Sithole, we expanded our meeting space in new ways. *How we gather matters*, and when academic ways took a step back, something new came forward. Just as Dr. Phipps reminded us in her talk that when English/dominant language takes a step back, we redistribute power. We find that vulnerability and emotion fill in where space has been made. We sink into something more grounded, more human, and we are able to see each other more clearly.

A thread of hospitality runs through any gathering, whether it's a wedding, a dinner party, a conference, or a classroom. Wherever people are gathered, there are hosts and those hosted. On a larger scale, immigration is also a gathering of those who already inhabit that space, and those just arriving. "[Immigrant] integration is a question of mutual, reciprocal hospitality. It's the opposite of assimilation. It's formed in the meeting together, and the making together. We can't know it until we make it together," said Dr. Phipps.

And so it is. As Sithole said, referencing a proverb, "We know the way because our feet have beaten a path. That is how we find our way." We can become the LESLLA community we crave by walking the path we envision for ourselves. Already LESLLA prides itself by hosting a symposium in an English dominant country followed by a non-English dominant country. The heritage language resource hub on the website is extraordinary. How can we continue to make space for each other, as a truly global community of educators? Efforts for more multilingualism might mean more symposium sessions in various languages, as well as multilingual journal articles, blogposts, and social media updates. It might mean more advocacy for immigrant integration that pushes against current policies that mistreat our students, ways that go against how we know people should gather hospitably. It might mean widening our familiar circle - explicitly inviting more teachers, researchers, volunteers, and students into the LESLLA space.

What would it mean to practice radical, reciprocal hospitality in our classrooms? What might happen if our academic and dominant language tendencies took a step back? If we made space for art, music, and poetry in the midst of it all? If students' and teachers' roles were more

fluid, and the creation and nurturing of learning spaces was more shared? As the title of Phipps and Sithole's keynote talk demonstrates, we might find that *grief, joy,* and *gist* all find their way in.

We can make space for each other, for our students, and for new ways. And as Sithole said so eloquently in his welcoming remarks, "We will not leave the same way we entered. We will be transformed in one way or another."

Poet Joseph Cherry writes,
If we have any hope of transforming the world and changing ourselves,
we must be
bold enough to step into our discomfort,
brave enough to be clumsy there,
loving enough to forgive ourselves and others.

May we, as the LESLLA community, be so bold, so brave, and so loving.

Resources

- Full recording of this keynote talk, August 2021:
  Hospitality Through Languages: Pain, Joy, Gist
  https://www.youtube.com/watch?v=rTcIX6fJ0AU&t=219s

- Poem "Good English" - recording from Tawona Sithole
  https://vimeo.com/98254165

- Book of Poetry by Alison Phipps and Tawona Sithole
  The Warriors Who Do Not Fight
  https://www.ionabooks.com/product/the-warriors-who-do-not-fight/

17th Annual Symposium | August 12-13, 2021 | Virtual

Pedagogical Translanguaging in Adult Basic Education[1]

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Abstract

Pedagogical translanguaging has gained prominence as a critical and inclusive approach to education across various ages and contexts, but its potential has been less explored in adult basic education (ABE). In this article, we report on a study conducted at an ABE center in Norway in three linguistically diverse classes, in order to explore the dynamics of pedagogical translanguaging among adult students with limited formal education from a variety of national, ethnic and linguistic backgrounds. The study followed an ethnographic monitoring design, involving collaboration with five teachers, including one multilingual teacher. Our analysis focuses on the teachers' roles within translanguaging pedagogy (see García, 2017). First, we analyze teachers' mapping of students' resources, as they took on the role of detectives. Second, we examine the teachers' roles as builders of an environment where translanguaging could occur, particularly through grouping students strategically. While in some studies in more linguistically homogenous settings, affordances for translanguaging seem to vary according to the teacher's proficiency in a widely shared language, in our case, differences in opportunities varied by students' language background and how widespread this was in the student group and in the wider immigrant population. We argue that pedagogical translanguaging may surface tensions related to such differences, at the same time that it may provide adult students with better opportunities to engage in learning.

Keywords: translanguaging, linguistically diverse classrooms, adult basic education, teacher roles, participatory research, Norway

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[1] This paper is based on an invited plenary presentation at the 2021 LESLLA Symposium on August 22, 2021.

Introduction

Adult immigrants with little formal schooling bring a wealth of linguistic resources and a variety of literacy practices to the classroom. There is an increased awareness of these individuals' resourcefulness among researchers and teachers, reflected in the revision of the LESLLA acronym in 2017 from "Low Educated Second Language and Literacy Acquisition for Adults" to "Literacy Education and Second Language Learning for Adults". Nonetheless, many immigrants report feeling underestimated and expected to learn trivial things in formal education in their new homes (van Lier, 2004; Walqui, 2000). Pedagogical translanguaging has been suggested as a way for teachers to build on the communicative resources learners bring with them to the classroom (Blackledge & Creese, 2010; García & Kleyn, 2016; Paulsrud et al., 2017). This approach breaks with monolingual approaches that favor exclusive use of the target language for teaching and learning purposes, widely used in many classrooms (Wedin et al., 2018). Canagarajah (2013) has noted that teachers may feel insecure when expected to make the transition from monolingual to translingual pedagogies.[2] However, pedagogical translanguaging invites teachers to tap into their students' existing practices rather than inventing new ones.

In this article, we draw on a study conducted at an adult basic education (ABE) center in Norway in three highly diverse classes, in order to explore some of the potential offered by pedagogical translanguaging (Cenoz & Gorter, 2021; García, 2017; García & Li Wei, 2014; Juvonen & Källkvist, 2021). In particular, we focus on teachers' roles as detectives and builders within translanguaging pedagogy (García, 2017). We begin by reviewing research on pedagogical translanguaging in ABE. Then, we present our study in greater detail. In the remainder of the article, we analyze how teachers in our study explored and facilitated translanguaging, through mapping of resources and noticing and organizing instruction to allow communication in and across various languages. Finally, we offer with some pedagogical implications for those working in the LESLLA field.

Translanguaging in Adult Basic Education

García et al. (2017) structure translanguaging pedagogy into three interrelated dimensions: translanguaging stance, design, and shifts. Stance refers to the philosophies, ideologies, or belief systems teachers draw on to develop their pedagogical framework. More specifically, teachers adopting a translanguaging stance assume that learners' communicative resources comprise a single repertoire, rather than reflecting separate languages, and that this repertoire is a resource and never a deficit. In their classrooms, teachers construct safe spaces for teaching and learning by building connections across content, languages, and people, as well as home, school and community (García, 2017). In turn, designing translanguaging instruction and assessment requires careful planning (e.g., grouping students) and great flexibility to respond to different learners' needs. Hearing students' voices may also require assistance from other people and resources. Finally, translanguaging shifts refer to all the moment-by-moment decisions and changes a teacher needs to make to support learners' voices. These shifts are very much related to the translanguaging stance, as meaning-making is centered in all instruction and assessment. García (2017) argues that translanguaging pedagogy requires language teachers to take up new roles, including the detective, co-learner, builder, and transformer. For the purposes of this paper, we focus on the detective and the builder. Taking on the *detective* role involves posing the

[2] The concepts 'translingual practice' and 'translanguaging' have slightly different origins. In this article, we use them interchangeably. For a discussion, see García and Li Wei (2014, p. 40).

following four questions: 1) What does this adult know; 2) Why does this adult want to invest in using new features; 3) What are this adult's preferred ways of meaning-making; and 4) How does this adult use language? Teachers should be able to assess an adult's ability to "express complex thoughts, explain, persuade, argue, compare and contrast, give directions, recount events," as well as "make inferences, identify key ideas, and associate ideas from multiple texts when reading" and "produce written texts of opinion, information, explanation and narration" (García, 2017, p. 22). Importantly, the detective role differentiates between what adults know and can do with language by drawing on their holistic communicative repertoire versus what they can do in a target language (García et al., 2017). As the *builder*, teachers ask themselves the following questions: 1) How can I build an affinity space (Gee, 2004) that bridges differences among learners, and in which they can participate based on their interests and abilities; 2) How do I build a space where power differences are acknowledged and that is flexible enough to accommodate differences; and 3) How do I provide language affordances in line with the learners' interests and engagements? However, a teacher is not expected to find answers to the questions presented above by herself, but rather by collaborating with others – such as multilingual staff, peers, and people in the adult's extended network outside of the classroom – and by means of other resources, including multilingual texts and digital tools.

Even though translanguaging has gained prominence as a critical and inclusive approach to education across various ages and contexts (e.g., García & Kleyn, 2016; Moore et al., 2020; Paulsrud et al., 2017; Prinsloo, 2019), we have found only a handful of studies in ABE applying this lens. In Canada, Burgess and Rowsell (2020) explored the potential of translanguaging and creative approaches in a class of refugees and newcomers with diverse national backgrounds, including from Burundi, China, Colombia, Iraq, Syria, and Venezuela, attending English language classes at a community centre. The study found that these approaches created greater opportunities for students to invest emotionally in their learning and resettlement process. Similarly, two studies in the United States have documented pedagogical translanguaging in bilingual adult basic education settings. Park and Valdez (2018) found that translanguaging and creative methods supported older Nepali-Bhutanese adults' vocabulary learning and writing development. Emerick et al. (2020) documented naturally occurring translanguaging in classes for Spanish-speaking restaurant and industrial workers in an English for Work and Life program at a community-based adult English as a Second Language (ESL) centre. They found translanguaging to be widespread among students as a means of language learning. However, teachers varied in their support for translanguaging, despite an overall commitment to educational equity, which the authors linked to a traditional emphasis on monolingual teaching in adult education. Similarly, studies from Sweden have pointed to struggles with a dominant monolingual norm when teachers try out translanguaging pedagogies (Norlund Shaswar, 2020; Rosén & Lundgren, 2021).

In addition, a few studies on translanguaging outside of classroom settings discuss implications for adult education. Brownlie (2021) found that a translingual creative writing group with three Congolese refugee women in the United Kingdom afforded these women opportunities for agency and empowerment, including through a public performance resulting from the collaboration, which contrasted with their marginalised social position. Another study from the United Kingdom argues for incorporating translanguaging practices into adult education by drawing on ethnographic data that demonstrate the use of translanguaging to accomplish communication in legal aid consultations (Simpson, 2019). Finally, Helm and Dabre (2018) demonstrated that translanguaging contributed to creating a more democratic 'contact zone'

between adult immigrants and other members of the community in volunteer-run English language workshops in Italy. The workshop participants used translanguaging to challenge negative societal discourses about migrants and refugees and to create the possibility of more equitable encounters, by choosing an approach that explicitly valued all participants' existing forms of language and knowledge.

In sum, there is emergent evidence that translanguaging can support adult students' learning and expression in both relatively linguistically homogenous (Brownlie, 2021; Emerick et al., 2020; Park & Valdez, 2018) and linguistically diverse groups (Burgess & Rowsell, 2020; Norlund Shaswar, 2020; Rosén & Lundgren, 2021). The aforementioned studies also vary in the degree of formalization of the educational offers studied, from entirely volunteer-run (e.g., Brownlie, 2021; Helm & Dabre, 2018) to locally supported (e.g., Emerick et al., 2020; Park & Valdez, 2018) to government-funded (e.g., Burgess & Rowsell, 2020; Norlund Shaswar, 2020; Rosén & Lundgren, 2021). The context of our own study was comprehensive government-funded education, leading to recognized lower secondary school completion (tenth grade), in highly diverse classrooms. Apart from one bilingual teacher, the teachers did not share any of the students' language background. These characteristics are common to ABE in Scandinavia and differ, for instance, from community-based offers in the United States, where most students may share a common minoritized language, which teachers may also understand (e.g., Spanish in Emerick et al., 2020; Nepali in Park & Valdez, 2018). Nonetheless, students' needs and learning processes have much in common across these contexts. They often have limited or interrupted schooling histories and face the daunting task of simultaneously learning how to 'do school', learn the dominant language of their new country, develop literacy skills in a language they do not yet understand well, and acquire content in a wide variety of subjects.

The study

The study we report on followed a year-long ethnographic monitoring design and was commissioned by Skills Norway. The study was approved by the Norwegian Center for Research Data. In this section, we describe our researcher positionality, methodological approach, setting and participants, and instructional activities, which we developed with the teachers, in line with a translanguaging design. We are both teacher educators in programs that qualify teachers to work in adult education, but in which adult education has traditionally received less attention than primary or secondary schools. We both identify as multilingual and have transnational backgrounds. Joke grew up in Belgium and moved to Norway early in adulthood, and she has taught sheltered classes for newly arrived immigrant students in Norway. Ingrid grew up between Norway and the United States, and she taught English in Palestine for several years, where she also partnered with refugee organizations in her work. Despite some similarities of transnational experience, we occupy more privileged social and economic positions than the students in this project, as we are white, have Western European language backgrounds, and generally enjoy economic stability. We see such positionalities and experiences as significant frames for engagement and analysis in ethnographic monitoring, the methodological approach we have used, as we will describe next.

Ethnographic monitoring is a form of action research that builds on ethnographic methods of data collection and analysis (De Korne & Hornberger, 2017; Van der Aa & Blommaert, 2017). It is a democratic method of research and evaluation that involves close collaboration between practitioners and researchers throughout the process, from setting goals to

planning interventions to evaluation and reporting. The method is based on extended collaboration between researchers at the University of Pennsylvania and schools in marginalized neighborhoods of Philadelphia, where a common goal was to identify sources of linguistic inequality and to improve the educational offer for bilingual and racialized students (Hymes, 1980). In this process, school leaders, teachers and students share responsibility for defining goals and measures of success. The method is particularly suitable for highlighting the voices of various stakeholders, which are crucial for generating a holistic and credible perspective on issues and solutions, as well as developing local ownership of the continuing pedagogical work that occurs after the completion of intervention and evaluation.

Ethnographic monitoring consists of three phases (Van der Aa & Blommaert, 2017). Here, we describe the phases and how we interpreted them in our study (see also Table 1 below):

1. Defining issues and possible solutions with teachers, language helpers and school leaders;
2. Observing teaching practices, with a focus on language use, including what language resources teachers, language helpers, and students use and need to achieve objectives;
3. Sharing the results of the evaluation with school leaders and teachers.

Phase No	**Phase Description**	**Phase Duration**	**Data Collection and Analysis**
1.	Defining issues and possible interventions with teachers, language helpers and school leaders	Sept. 20–Oct. 20	Interviews with leader and 4 teachers; 2 days of ethnographic observation at school; workshop 1
2.	Observing teaching practices, with a focus on language use, including which language resources teachers, language helpers, and students use and need to achieve objectives	Nov. 20–May 21	Workshops 2–6; 3 days of ethnographic observation in school with video recording; 2 days of ethnographic observation on Teams with screen recording; interviews with 5 teachers, 2 language helpers, and 9 students
3.	Sharing the results of the evaluation with school leaders and teachers	Feb. 21; Sept. 21	Analysis of all data; preliminary report written and shared with teachers and leader; feedback session with teachers

Table 1. Overview of project phases, data collection, and data analysis

The setting of our study was a state-funded adult education center with some experience drawing on multilingual strategies and resources. Although monolingual approaches have dominated the teaching of Norwegian to adult immigrants (Monsen & Pájaro, 2021), the teachers articulated at the outset of the project their belief in the usefulness of students' first languages as a resource for learning and building rapport (see King & Bigelow, 2020). The center was situated in a medium-sized city in the South-East of Norway, an area where the immigrant population is around the national average of 18%. Most students at the center are adults with little or no documented formal schooling, many of them from refugee backgrounds.

The participants included five teachers and two language helpers. In Norway, the term language helper refers to an assistant who shares certain linguistic resources with the students but has not received formal pedagogical training. The term bilingual teacher is a professional title for a support teacher who teaches in Norwegian and a minoritized language, not a description of linguistic competence. One teacher was employed as a bilingual teacher and taught in Arabic, Kurdish, and Assyrian in addition to Norwegian. Four of the teachers were regular classroom teachers. These all identified Norwegian as their first language and also spoke English, in addition to having studied other foreign languages as required in school.

The students were divided into three classes, an introductory module, a vocational track called Module 1A, and an academic track called Module 1B. There was a considerable range of experience with documented formal schooling amongst the participants, though the introductory module was conceived for students without print literacy. In total, 36 students participated in the research project. These were aged between 17 and 57 and came from many different corners of the world. Together, they reported proficiency in the following languages, in addition to the target language Norwegian: Arabic, Assyrian, Dari, English, Filipino, German, Kurmanji Kurdish, Pashto, Polish, Russian, Somali, Sorani Kurdish, Thai, Tigre, Tigrinya, and Vietnamese.

We collaborated with the teachers to design instructional activities through cycles that involved ethnographic observation, a workshop where activities were jointly designed, classroom implementation, and evaluation. The data for this article draws on the first instructional activities, where teachers mapped the students' resources, worked with different ways of grouping students, and worked on noticing students' forms of communication. Our analysis draws on field notes (43,413 words), recordings from interviews (204 min.) and workshops (609 min.) with the teachers, teachers' classroom notes (14 texts), recordings from interviews with the students (204 min.), and students' work (60 pieces), combining content analysis with discourse analysis (Copland & Creese, 2015).

Findings

We organize the findings according to the teachers' enactment of two of García's (2017) teacher roles. First, we examine teachers' mapping of students' resources, as they took on the role of detectives. Second, we shed light on how teachers acted as builders of an environment where translanguaging could occur, particularly through grouping students strategically.

Mapping of Resources

In Phase 1 of the project, the teachers mapped the students' linguistic resources and networks, giving the teachers the opportunity to take on García's (2017) role of detective by exploring the basis for translanguaging in their own classrooms. As an initial mapping activity, the students drew a language portrait (Busch, 2012; see

Figure 1). The teachers themselves first gained experience in making their own language portraits in Workshop 1, as preparation for explaining the activity to the students. Students were provided with a sheet of paper with a body silhouette and colored pencils and asked to illustrate their language resources, for example languages they speak well or understand a little or that have personal significance. In the introductory module, the bilingual teacher and language helpers explained the nature of the task to the students and facilitated group discussion of the

portraits. Some students in Module 1B also received assistance from a language helper, which the teacher found useful for facilitating the students' understanding of the task. An example of a language portrait from Module 1B is shown below, drawn by a student called Saifon (pseudonym) (see

Figure 1). Saifon had attended primary school for six years in Thailand and subsequently taken a lower secondary exam without attending school at this level.

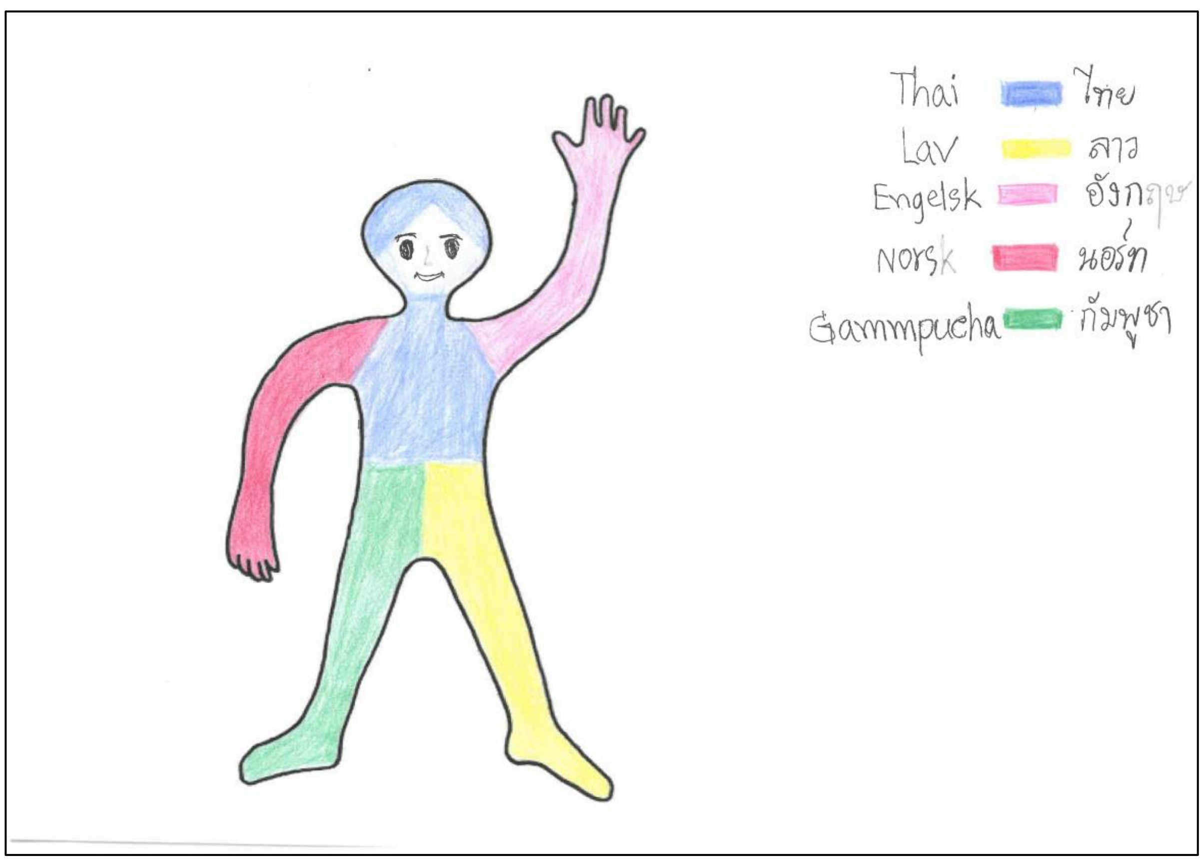

Figure 1. Saifon's Language Portrait

In Figure 1, Saifon has illustrated her linguistic repertoire as including Thai (blue), Lao (yellow), English (pink), Norwegian (red), and Khmer (green). She has named these languages in Norwegian on the left, using inventive spelling for Lao and Khmer, and in Thai on the right. In an interview with a Thai research assistant, Saifon explained that she comes from a region of Eastern Thailand where a dialect of Lao, referred to as Thai Isaan, is widespread. Both she and the interviewer could speak this dialect in addition to Thai. In addition, Saifon noted that, due to the proximity of her home region to Cambodia, she could understand Khmer, though she could not speak the language. Indeed, Saifon explained that there are four different linguistic communities in her region of Thailand, such that many people in this area understand multiple regional languages. Furthermore, Saifon stated that she regularly uses both English and Norwegian in and outside of school in Norway, tending toward Norwegian as she is able and drawing on English when she feels uncertain about her Norwegian. She specifically noted that

English was important for her to communicate with her teachers before she knew Norwegian and that she continues to experience it as an important support for learning Norwegian.

At the start of the project, the teachers tended to think in terms of activating students' (single) first language as a learning resource, whereby Saifon was conceived of as a Thai-speaker who was learning Norwegian. However, her language portrait showed that Thai was only one of several languages she used before beginning to learn Norwegian, such that her repertoire in fact included many more points of connection than this one language. In her interview, Saifon further described experiences of the everyday translanguaging that characterizes multilingual communities in many parts of the world, notably in the Global South, which tend to be obscured by monolingual national language ideologies (Canagarajah, 2013; García, 2009). Thus, Saifon had expertise not only in specific languages but in translingual communication strategies, such as using receptive knowledge of a language (Khmer) and drawing flexibly on bilingual resources (Norwegian and English) to communicate with teachers, friends, and other community members.

Although this language portrait describes one particular student's biography and linguistic trajectory, it also illustrates some commonalities among students' experiences of language and multilingualism. First, the language portrait demonstrates the fact that many participants had more to draw on than a singly conceived first language. Instead, most had a complex repertoire of resources that they had acquired in different contexts for different purposes. Secondly, this language portrait illustrates the presence of certain widely shared languages in the classroom, here English, which several students knew to varying degrees. English was a language that some students had started learning after they came to Norway, while for others it was already a well-developed resource that they experienced as a useful support for learning Norwegian and other subjects. The latter was especially the case for some students from Thailand, including Saifon, and the Philippines, who otherwise had few classmates or staff with similar language backgrounds to communicate with. Arabic was the other language that students with a variety of linguistic and national backgrounds knew to some extent. In addition to ethnically Arab, Assyrian, and Kurdish students from Middle Eastern countries with an Arabic-speaking majority, there were students from Somalia and Eritrea who were fluent in Arabic. Others had familiarity with Arabic due to its religious significance, even though they did not actively use the language for other purposes. We discuss the importance of Arabic for organizing classroom translanguaging below.

The second mapping activity focused on gathering information about the participants' language practices and networks of support outside of school, with a view to linking these practices and networks to classroom instruction. While the language portraits were implemented relatively similarly in all three classes, the network mapping was somewhat different in each class. In the introductory module, the students used the language portraits as a starting point to describe where and with whom they used the language resources they had represented in the portraits. In Module 1A and 1B, there was a greater time delay between the two activities, and the teachers in these modules felt that they did not gain as much insight into how students used their whole linguistic repertoires as a result. Instead, the network mapping became more narrowly focused on how students use Norwegian outside of the classroom, perhaps because students were more accustomed to discussing this in a formal educational setting (Monsen & Pájaro, 2021).

As noted earlier, the teacher in the introductory module emphasized the importance of help from multilingual staff to engage in complex conversations with students about their linguistic practices. Nevertheless, the teacher discovered useful information about students who

did not have access to a bilingual teacher or language helper, with the language portrait as a material support to the conversation. For example, based on a conversation with Ruth, an introductory module student from Congo (DRC), the teacher wrote the following in a mapping note:

> *A brother and sister-in-law with two children. Live in [another city]. They speak Swahili, English, Norwegian.*
> *Two friends (man and woman from Uganda with four children). Live in [same city]. They speak a lot of Norwegian. 20 years in Norway. Man speaks Swahili and woman speaks a lot of Norwegian.*
> *[Name] speaks a lot of Norwegian and Swahili. [3 names]*
> *I know 4 people in [the same city] who speak Swahili and a lot of Norwegian.*
> (Teacher's mapping note, introductory module, 17.11.2020, our translation from Norwegian)

Through this conversation with Ruth, the teacher discovered that this student had resource persons outside of the classroom, beyond her husband, who could help her in both Norwegian and Swahili. The student also described this personal network in an interview with a Swahili-speaking research assistant: "I have close friends from Congo [DRC] and Rwanda, and they do assist me when I want to buy stuff here in Norway or with doctor appointments" (translated from Swahili). This network seemed all the more significant because this student was one of few who did not share any language other than Norwegian with either classmates or multilingual staff. In addition, she was among those who had the least amount of previous formal schooling. In the interview, the student confirmed that being the only person with her language background was challenging: "Using my language is a good thing, although I am the only one in class who speaks Swahili, and I face challenges when I try to speak Norwegian, so I tend to keep quiet most times when I actually need help" (translated from Swahili). The student's statement points to one of the most significant challenges for translanguaging pedagogy in linguistically diverse settings: the fact that some students may not have access to others who share similar repertoires. This student's greater opportunities for translanguaging outside of school represents a resource that her teacher could draw on, for instance in designing assignments with follow-up tasks outside of school, even if doing so would not fully compensate for a lack of multilingual support in the classroom. However, this possibility did not materialize during the project period.

In summary, the teachers in our study took on the role of detectives (García, 2017) by means of mapping activities introduced in the project. Our findings illustrate how these activities have the potential to raise teachers' awareness of students' complex multilingual repertoires and their personal networks. We argue that such awareness is fundamental to adopting a translanguaging stance.

Communication in and across languages

At the start of the project, the teachers already had some strategies for activating students' spontaneous translanguaging when they knew that students had a common language. An important strategy had been and continued to be to group students according to language background or linguistic repertoire, so they could help each other without being restricted to Norwegian. The teachers referred to these as language groups, that is, groups with a shared language of communication. Through this seemingly simple act, the teachers built opportunities

for communication in minoritized languages into classroom practices, even as Norwegian remained the language of instruction. An early observation of group work (Phase 1) in the introductory module illustrated some of the advantages of language groups:

> The class is working on describing body parts and pain. The teacher asks two of the Arabic-speaking students, «Kan dere være med [to andre deltakere]? De forstår kanskje ikke. Kan dere forklare litt, snakke arabisk?» [Norwegian: Can you be with [two other students]? They might not understand. Can you explain a bit, speak Arabic?] One of the male students explains that he has attended classes at the center since the spring, about half a year, while the other man says he started yesterday. The man who has attended longer models and explains in Arabic to the other students. For example, he says, "Jeg har vondt i kneet" [Norwegian: literally, I have pain in my knee; i.e., my knee hurts], stressing the preposition. Then he touches his head and says, "hodet, rasak" [Norwegian: the head, Arabic: your head]. He also says the name of other body parts in Norwegian and Arabic, as he touches each body part. The man who started more recently writes down Arabic translations in Showbie [an educational app]. He also touches the body parts that they name in Norwegian and Arabic. The two female students in the group also write down some translations in Arabic, despite having said that they do not know how to write very much. (Field note, 13.10.2020)

As described in this field note, the teacher placed four Arabic-speaking students together in a group because she expected that some of the students had understood the lesson in Norwegian better than others. A student who had been attending classes for about half a year took on the role of expert by modeling, translating and explaining key words to the other students. Another student who had enrolled very recently also participated actively by writing down translations in Arabic and touching the relevant body parts that the more experienced student indicated. In this way, the teacher used grouping by common language to ensure better understanding of new content than she could achieve on her own by speaking Norwegian to the students. Although she could not herself participate fully in this translanguaging, she built an environment that facilitated translanguaging among students in the classroom, acting as a builder of a multilingual classroom environment (García, 2017).

During the project, language groups became a common routine, to the extent permitted under public health measures at any given time. For most of the project, students were able to meet in-person but had to maintain a distance of one meter to each other, which constrained opportunities for collaboration around material artifacts, but which did allow for conversing at a short distance. Teachers also limited the length of group work in order to reduce students' exposure to each other, such that more discrete tasks, like translation of vocabulary items, may have been a more prominent task than the teachers would have preferred under other circumstances. When the teachers had access to a bilingual teacher or language helper, the latter provided extra support and structure to the work in language groups, explaining tasks, commenting on students' work, and acting as intermediaries between students and classroom teachers.

Nonetheless, an important challenge was how to meet the needs of students who did not share a common language with classmates, apart from Norwegian. The teachers attempted to mitigate this challenge by seating such students toward the front of the class, attempting to compensate through closer contact for these students' more limited opportunities to

communicate freely among themselves. Thus, building a supportive environment extended to the very physical layout of the classroom (see the role of builder, García, 2017). Still, both teachers and students experienced this as an insufficient solution. Another challenge was that students who did not have many in the class with the same language background sometimes experienced more well-represented languages as somewhat domineering or irritating. These reactions were especially true in the case of Arabic. Some of these students, for instance a student from Eritrea, commented that she was afraid of annoying other students if she asked the teacher too many questions about something the others had already managed to construct an understanding of together in Arabic. Thus, she felt somewhat constrained by others' use of Arabic.

In light of this unequal distribution of shared resources among students, English functioned as a means of bridging understanding among speakers of less represented languages (as compared to languages such as Arabic, Kurdish, or Somali). Some of the teachers used English to facilitate dialogue and understanding with students who already knew some English, especially those from Thailand and the Philippines. The students from Thailand, including Saifon, shared in interviews that they wanted the teachers to use English even more actively in their teaching of Norwegian. For these students, drawing on English provided greater affordances for communicating with their teachers, which they felt was especially important in view of their lack of access to many peers or a bilingual teacher with a common language, as was the case for Arabic-speakers. In this way, English contributed somewhat to balancing out opportunities for communication among students.

Though we did not observe efforts by students to constrain others' translanguaging, the teacher in the introductory module did describe a student who did not speak Arabic telling others to stop speaking so much Arabic and to instead speak Norwegian, before the start of our observations. Nonetheless, rather than constraining opportunities for using Arabic, the teachers and we felt that the more important implication was to make explicit efforts also to extend the best opportunities possible for communicating and learning to students with less represented language backgrounds. The teachers found they could do so, for instance, through additional contact with the teacher or drawing on English when possible.

Furthermore, the teachers gradually increased their awareness of the possibility of translanguaging beyond shared languages. Indeed, many students communicated across language boundaries, employing translanguaging spontaneously both for learning and general communication. For example, a student from Afghanistan who spoke Dari commented that she could also understand a little Kurdish because of similarities between the languages. Similarly, two students speaking Sorani Kurdish and Kurmanji Kurdish, respectively, compared translations when learning new vocabulary in Norwegian relating to the home. Over the course of the project, we noticed a greater awareness among the regular classroom teachers of such translanguaging as everyday communication among students.

As noted above, teachers initially described multilingual pedagogy in terms of activating a single first language per student. However, in response to our question as to whether they had started to notice multilingual ways of working or multilingual communication that already exists in the classroom, the teacher in Module 1A described the following:

> An example is someone in the class who speaks Sorani Kurdish, and only one person does so. She wanted to tell me something about her daughter, and she doesn't know much Norwegian, and then she started, but then she couldn't find the words. Then she looks at the woman sitting at her other side, and then they start talking. She has told me that they

> don't understand each other, because this woman speaks Kurmanji [Kurdish] and comes from an area that means she has not been exposed to Sorani. So she is not familiar with that [Sorani], but then they communicate anyway and arrive at something. But then there is a third woman who also comes in, and she also knows Kurmanji, but she also speaks Arabic [as does the woman who speaks Sorani Kurdish]. Together, these three women manage to explain what had happened to this child, and I think that was very nice, that together they managed to explain what she didn't have the words for. (Workshop recording, 10.12.2020, our translation from Norwegian)

In other words, the teacher increasingly noticed that translanguaging was a common part of classroom communication, not only to understand the content of teaching, but also to facilitate general communication among teachers and students. The teachers reported that the project had increased their awareness of such communication among students and of the fact that this practice could provide an important support to relationship-building and learning. This discovery came through teachers taking on the role of detective in the classroom, both through deliberate activities and through incidental noticing (García, 2017).

Discussion of Pedagogical Implications

In our project, teachers began to explore pedagogical translanguaging through taking on the roles of detective and builder in adult basic education classrooms (García, 2017). The detective role was enacted both through a deliberate mapping phase, involving language portraits (Busch, 2012) and conversations about students' out-of-school networks, and through an increased inquisitiveness about how students communicated in the classroom. The formal mapping and ongoing curiosity also fed into each other. As the teachers gave students the opportunity to represent their own communicative repertoires in a visual format, the teachers increasingly noticed that students might be drawing on multiple different resources in their work and communication with each other. Thus, the Module 1A teacher could observe seeming contradictions between self-described competence and practice among students, such as the students who had said they could not understand each other's languages or dialects nonetheless communicating with each other. We as researchers could similarly observe that two women who stated they could not write much in Arabic nonetheless wrote down vocabulary items in Arabic as part of group work that their teacher had instigated. At one point, García (2009) describes translanguaging as "an approach to bilingualism that is centred not on languages […] but on the practices of bilinguals *that are readily observable*" (p. 44, emphasis added). In this sense, taking on the observational stance of a detective was a prerequisite for the teachers to discover the translanguaging that was already occurring in their classrooms, which they could then use as input for developing contextualized translanguaging pedagogies later in the project. For instance, toward the end of Phase 2, the teachers designed a unit on health, which started with work in 'language groups,' where students were given the opportunity to first discuss ideas of good health in their countries of origin, before reporting back to the teacher for comparison across contexts in Norwegian.

An important characteristic of our study setting was linguistic diversity among students, with uneven representation of various languages and unequal availability of pedagogical resources in different languages, including materials, interlocutors and teachers. While in some studies in more linguistically homogenous settings, teachers' varying proficiency in a language

shared among students accounted for differences in opportunities for classroom translanguaging (e.g., the use of Spanish in a study by Emerick et al., 2020), in our case, differences in opportunities related to the particular language background of students and how widespread this was in the student group and in the wider immigrant population. Those who spoke widely shared languages (e.g., Arabic, Kurdish, or Somali) could use these with each other, and they were also more likely to have access to a bilingual teacher or language helper who also knew these languages. Those who had previously learned some English experienced some of the same benefits in their communication with the classroom teachers, who all spoke English in addition to Norwegian. These differences of opportunity were experienced as unfair by some students who shared a language background with few or no other students. Such tensions may also arise in similar settings.

We believe that implementing translanguaging pedagogy in classrooms characterized by such tensions and inequalities involves taking advantage of current possibilities, while also advocating for more ideal conditions for pedagogical translanguaging. On the one hand, taking advantage of current possibilities for translanguaging can mean giving certain students access to follow-up tasks with multilingual staff or facilitating preparatory group work in linguistically homogenous groups, even when not all students have this opportunity. In this way, teachers can build spaces for translanguaging (García, 2017), even when they themselves are not fully able to participate in these spaces. Seizing current possibilities may also mean finding digital resources in various languages that students can learn to use, if they do not do so already, or designing tasks that have a component to be conducted outside of school, where more students might have access to others who share their linguistic repertoires. On the other hand, advocating for greater access to multilingual staff for more students represents an important long-term investment in translanguaging pedagogies. In some contexts, adjusting organizational arrangements might also permit more students to use their full linguistic repertoires, for example by organizing tutoring or collaborative work across classes. García (2017) refers to this aspect of the teacher's work as taking on the role of transformer, within schools but also in the wider realm of political decisions about funding priorities.

As our findings illustrate, teachers working with adult students who have had limited opportunities for formal schooling may discover resources for translanguaging pedagogy through activities that surface students' broader linguistic repertoires and networks and through attentiveness to students' everyday communication. Using these insights to design translanguaging instruction, for example through strategic grouping, would provide students with greater opportunities to express complex thoughts in and across familiar languages first, before doing so in a new language. Working together with bilingual teachers, language helpers or others in the wider community would further foster teachers' opportunities to support students' voices. Adults in our project who had relatively little experience with the practices of schooling benefited from the self-directed forms of communication entailed in translanguaging, despite the relative newness of formal educational routines (see also Burgess & Rowsell, 2020; Norlund Shaswar, 2020; Rosén & Lundgren, 2021).

In conclusion, pedagogical translanguaging can serve as a powerful means of noticing and activating students' language and literacy resources in adult basic education, as in other educational contexts (e.g., García & Kleyn, 2016; Paulsrud et al., 2017). Shifting toward translanguaging in the classroom does not immediately resolve all difficulties that teachers or students may experience due to limited overlap among their linguistic repertoires. In fact, some tensions may become more visible than in a monolingual approach, but translanguaging creates

space for acknowledging such tensions and for supporting students' right to sustain and use different forms of meaning-making. By taking on new roles, including those of detective, builder, and transformer (García, 2017), teachers can develop their own awareness of the complexity of their students' resources and then design classroom tasks and arrangements that allow students to use their resources maximally, while continuing to advocate for better resources and conditions for students' translanguaging and learning.

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LESLLA Learner Perspectives on their Emergent Writing Practices in English

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Abstract

There exists a wealth of skills LESLLA learners must acquire towards gaining the ability to write autonomously, yet we still know very little about the steps involved in their development. Some researchers have attempted to put themselves in the seat of the student, such as Jill Sinclair Bell's notorious self-study as an English speaker learning Chinese print literacy; however as highly literate scholars it is likely impossible for us to truly understand the experience of developing first time print-literacy (in an L2!) in adulthood. While studies have been conducted which highlight LESLLA students' own perspectives on their acquisition of L2 language and print literacy, there are a lack of studies which explore students' thinking as they undergo this process. Addressing this gap, this study aimed to uncover LESLLA learners' cognitive processes during emergent writing activities. Via individual interviews with four adult learners, the researcher elicited both retrospective and concurrent think-aloud protocols to gain deeper student perspective.

Findings indicated that, while engaged in a *copying* activity, the students focused more aesthetics/visual value and quantity of the written words rather than spelling or meaning; while engaged in writing activities which required *independent spelling*, the students relied on a number of strategies, including recalling letter sequence or orthographic patterns, applying phonetic knowledge, as well as eliciting visual representations. Notably, the learners did not require a fully developed knowledge of grapheme-phoneme correlations to produce correctly spelled words. The results have implications for our understanding of the stages of emergent literacy acquisition in L2 adults.

Keywords: adult literacy, emergent writing, learner perspectives

Introduction

In the LESLLA classroom, adult immigrants and refugees not only learn a new language but often acquire first-time literacy. As we continue to grow LESLLA's body of research on first-time reading and writing development, some have foregrounded their work against pre-existing literature on emergent literacy, which is dominated by studies focused on children's L1 literacy acquisition. Admittedly, there are many differences between children learning to become literate in their L1 (a language they already have an oral command of) and adults acquiring first-time literacy in an L2, a language that might still be extremely novel or even unknown; as such this comparison must be viewed with caution (Bigelow & Vinogradov, 2011; Marrapodi, 2013). Nonetheless, the literature on L1 emergent literacy in children can still provide key frameworks and theories as a starting point, to see which elements resonate with the acquisition of literacy by LESLLA learners. Unfortunately, even when this literature is approached with a critical eye, there currently exists far more emergent literacy research devoted to children's development of L1 *reading* than L1 *writing*, creating a further dearth of resources for LESLLA researchers to borrow from.

Fortunately, there has been recent interest in emergent writing practices in the LESLLA classroom; a recent special edition of the *Journal of Second Language Writing* (Pettitt et al., 2021) showcased five studies which focus on L2 writing in a LESLLA context. The purpose of this study, then, is to further contribute to this growing knowledge base on L2 emergent writing on adults with LESLLA backgrounds. I will begin by highlighting key findings in children's L1 writing development, which then informs the most recent literature on LESLLA emergent writing.

Literature Review

Children's L1 Emergent Writing[1]

Children pass through a whole series of stages as they develop their L1 writing skills. To begin, children learn to scribble, draw, and engage in their own play writing long before they learn anything about phonemic decoding in their L1 (Puranik & Lonigan, 2011; Silva & Alves-Martins, 2002; Sulzby, 1992). Through this play the child refines their motor skills (Bloodgood, 1999), starting from whole arm movements and later developing the ability to control movements at the wrist and fingers (Huffman & Fortenberry, 2011). Beery et al. (2010) outline shape development in children, starting with their ability to legibly create horizontal lines shortly before age 3, and over time acquiring the ability to create legible circles, then X's, and later triangles (around age 5).

Some researchers have attempted to outline the various trajectories of L1 emergent writing in children. Puranik and Lonigan (2011) proposed a linear framework of children's acquisition of *orthographic* features, beginning with the acquisition *of universal writing features* (i.e., linearity, segmentation, use of simple units) and then *language-specific features* (i.e., directionality, letter names, grapheme-phoneme correspondences – the latter of which map onto their pre-existing L1 oral phonemic knowledge). They also distinguish between *conceptual knowledge* (understanding that words consist of sequential shapes, that writing serves a function, etc.), *procedural knowledge* (the ability to write letters and simple words upon prompting), and *generative knowledge* (autonomous writing) (Puranik & Lonigan, 2014); this is similar to an

[1] The literature presented is largely based on studies conducted on the literacy acquisition of phonetic languages.

earlier proposal stating children will first engage in a transcription phase (copying and spelling) prior to a text generative phase (Berninger, 2000) when learning to write in an L1.

While there exists a wealth of spelling development frameworks in the literature on children's L1 writing, there is no agreement as to which is the most relevant for any language or group of languages. As LESLLA learners represent a variety of L2s, I will present a sampling of frameworks which have been developed. To begin, Gentry (1982) provided an early framework of children's L1 spelling acquisition in English, entailing five stages: *precommunicative* (no phonetic correspondence), *semiphonetic* (cannot segment all sounds, grapheme-phoneme correspondences are often incorrect) *phonetic* (making direct grapheme-phoneme correspondences), *transitional* (no longer relying on phonemes but relying on visual memory of how the word is spelled), and *correct*. Others have since put forth models which include varying *syllabic* stages as distinguished from phonetic/alphabetic stages, such as writing 'O-O-O' for a 3 syllable word (in English) (Fox & Saracho, 1990), and then moving on to syllabic writing with pertinent letters, such as 'P-I-O' for '*perico*' (in Spanish) (Tolchinsky & Teberosky, 1998[2]; Vernon & Ferreiro, 1999[3]), prior to demonstrating a greater adherence to phonological criteria. Ravid and Tolchinsky's (2002) model further incorporated linguistic features into spelling development, including four knowledge dimensions: *phonology, orthographic conventions, morpho-phonology*, and *morphology*.

Stanovich and West (1989) referred to a child's ability to store and recall written representations of their L1 as *orthographic processing,* however others have emphasized the importance between *orthographic learning*, which is the child's ability to form orthographic representations, and *orthographic knowledge*, which reflects the child's existing repository of such representations (Deacon et al., 2018). The application of this knowledge can be distinct, as seen in children's often differentiated ability to decode versus spell the same words (Bradley & Bryant, 1979; Fletcher-Flinn et al., 2004; Rahbari, 2019). One possible explanation is that spelling, a productive skill, is also inherently multi-modal, encompassing "visual-perceptual, motor-kinesthetic and linguistic information" which requires more processing knowledge and time (Shahar-Yames & Share, 2008, p. 25). These visual-perceptual skills allow children to recall and make judgements about visual 'correctness', permitting them to choose correctly spelled words prior to their ability to correctly decode novel or pseudowords using phonological awareness (Deacon et al., 2018); children from non-phonetic languages such as Mandarin similarly rely on stored orthographic representations (McBride, 2016). These mental orthographic representations aid in the development of reading fluency, which in turn frees up one's cognitive load (Masterson & Apel, 2010). This may also explain why young children (and adults) spell better in written form than orally, because the written form provides an additional visual support (Treiman & Bourassa, 2000).

As writing systems vary across languages, proponents of connectionist models suggest children leverage a variety of acquired skills when engaging with text, depending on the structure and writing system of the target language (Harm & Seidenberg, 2004; Seidenberg, 2007; Seidenberg & McClelland, 1989). For example, not all phonetic languages have a transparent grapheme-phoneme relationships, some languages have more than one graphemic representation per phoneme, and some phonological patterns produce varying results (i.e., in English, GIVE/LIVE vs. FIVE/HIVE – see Seidenberg & McClelland, 1989) thus requiring a far more nuanced acquisition of phonotactic and morphological patterns; moreover, languages that

[2] Study conducted with Spanish and Hebrew-speaking children.
[3] Study conducted with Spanish speaking children.

are based on a non-phonetic system would require an entirely different approach. During reading, children must then make connections between varying codes – orthographic, phonological, semantic, as well as other elements such as syntactic and pragmatic/contextual cues.

Adults' L2 Emergent Writing

For L2 learners acquiring a new script, attempting to create novel shapes and understand the structure of new writing systems can be incredibly cumbersome, even for those who are highly literate in their L1 (Cook & Bassetti, 2005). For adult LESLLA students with *emergent* literacy, relying on either a visual or acoustic/oral strategy may prove useful when their knowledge of both L2 oral language and script is still developing. To illustrate, such learners can recognize words via visually identifying orthographic patterns – like children, using 'sight word' strategies to recognize and recall lexical items (Kurvers & van de Craats, 2007; Smyser & Alt, 2018; Viise, 1996). This use of orthographic memory (versus phonetic strategy) when producing or recognizing text may be due to the novelty of the L2 sounds and script, combined with one's emergent ability to parse phonemes.

Studies on LESLLA *spelling* development have found that writing development largely mirrors stages of writing seen in children (semi-phonetic, phonetic, etc.). Kurvers and Ketelaars (2011) conducted a study on LESLLA students in the Netherlands, analyzing written test booklets as well as results from an oral dictation task. Results indicated the adults generally followed Gentry's (1982) stages of children's spelling development (*precommunicative, semiphonetic, phonetic, transitional*, and *correct*), although sometimes the stages were mixed; this was thought to be due to the magnitude of processing involved: new phonemes, new script, new language, and newly acquiring metalinguistic awareness of word parts and functions. Manjón-Cabeza Cruz & Sosiński (2021) similarly studied classroom writing tasks of LESLLA students in Spain, finding they adhered to stages of L1 literacy acquisition of Spanish children developed by Ferreiro and Teberosky (1979) which begins with pre-phonetic stage followed by phonetic, syllabic, and finally alphabetic stage – but with the "absence of the pre-phonic stages and the syllabic sub-stage" (Manjón-Cabeza Cruz & Sosiński, 2021 ,p.1).

Adult LESLLA learners are not uniquely struggling with decoding and producing script. A study conducted on a dyslexic, English-speaking individual showcased their ability to map spoken spelled words (i.e., for the oral prompt 'C-A-T' the subject said "Cat") despite their inability to manually spell the same word (Schubert & McCloskey, 2015). Presumably, given the difficulty with interpreting visual script, this learner mastered aural/oral spelling but not visual spelling, underscoring the argument that learners may employ different processing systems for letter-name conversion (oral/acoustic system) versus letter-shape conversion (written system).

Leveraging Learner Perspectives

While the abovementioned studies shed incredible light on the processes of and elements involved in LESLLA learners attaining first-time writing skills, much can be learned from hearing the students' perspectives on this experience as well. Second language acquisition studies have long documented learners' perspectives and attitudes towards varying elements of learning (see Basturkmen & Lewis, 2002; Fadda, 2012; Janne et al., 2015; Yoon & Hirvela, 2004). Think aloud protocols – where the learner articulated their thinking as they approach a task – have been used in L2 studies as well, to gain insight into second language processing strategies of reading (Davis & Bistodeau, 1993; Yoshida, 2008) and writing (Chien, 2012;

Cumming, 1989; Jessner, 1999); however such studies have been situated within a university context, and not with adult students with L2 emergent literacy. A number of studies have been conducted LESLLA learners' own perspectives on their success in learning language and print literacy; these include Gonzalves (2012) who highlighted the mismatch between what LESLLA learners deemed as success in literacy acquisition versus the state-level standards that were expected of them; Benseman (2014) similarly highlighted learners' desire to engage in everyday literacy tasks without requiring them to depend on someone else for help, such as paying one's bills. Others who have interviewed LESLLA learners have uncovered the emotional stress of literacy acquisition, such as the anxiety students feel in the classroom (Naif & Saad, 2017), or the "shame, uneasiness, embarrassment, and feelings of lack of self-confidence and self-esteem" which result from needing to rely on others for print literacy needs (Love & Kotai, 2015, p. 41). While all of these studies greatly contribute to our understanding of the student experience, none of these studies focus on students' own perspectives of their emergent *writing development*. LESLLA scholarship could indeed benefit from such learner-perspectives of print literacy development, such as asking students to describe how they are interacting with writing in a reflective way. The students' testimony can then act as a window into a learner's thinking, shedding light on how they interact with the multiple elements involved in the act of writing, and thus providing insight into the trajectory of their writing development. The purpose of this study, then, is to contribute to this knowledge base.

Leveraging a learner perspective, this study aimed to answer the following questions:
1. What can be said about LESLLA learners' cognitive processes as they engage in emergent writing practices?
2. What can then be understood about the developmental stages of emergent writing in adult LESLLA learners, as compared to the scholarship on children learning to write in an L1?

Methods

This study took place at a Northern California adult school, where I had worked for many years. Given my history with this school community, I had a long-established rapport with the students and in some cases their family members, which granted me a great level of trust.

Individual semi-structured interviews were conducted with four female students, two of whom I was actively tutoring once per week and the other two having been my former students. The audio-recorded interviews occurred between November 2018 and January 2019, lasting 30 to 60 minutes each. The questions elicited detail about the types of writing the students engaged in during class, classroom socialization (how they knew what to write, when to write, etc.), orthographic norms (margins, return sweep, etc.), and what they were focusing on during writing production. Two interviews were conducted in the students' homes, where interpretation was provided by the students' adult children[4]. The other two interviews were conducted at the school; of these, one interview occurred in in English[5] and the other in Spanish. These four women were selected to be interviewed based on our positive rapport, their willingness to be interviewed, and

[4] It was a conscious decision to choose another student or family member to interpret as opposed to hiring a professional interpreter, for a number of reasons: 1) most professional interpreters of these languages in our area were men, and due to religious reasons the women often will not or cannot speak to another man, 2) there was a lack of professional interpreters in Pashto and Urdu, and 3) some of the women were incredibly shy around and/or mistrusting of strangers (including women).
[5] The student had declined any form of interpretation.

their representation of differentiated languages and schooling history. Their profiles are outlined in Table 1.

Name[6]	**Country**	**Years of school during childhood**	**Interview Location**	**Interpreter & Language**	**Enrolled ESL level**	**Emergent Literacy profile (in English)**[7]
Fakhira, 60	Pakistan	0 years	Her home	Her son; Pashto-English	Beginning ESL Literacy	Could decode individual phonemes, read basic sight words, quickly memorized spelling
Afia, 49	Afghanistan	4 years	Her home	Her two daughters; Urdu-English	Beginning ESL Literacy	Great oral speller, struggled to write beyond copying, could not decode novel words, struggled with sound-graph associations
Alonda, 35	Mexico	4 years in Mexico; 3-4 years in U.S.[8]	Adult school	The researcher; Spanish	ESL Beginning High	Struggled with oral English, did not know all letter names, struggled to decode novel words
Wazira, 33	Yemen	"*a few years*"	Adult School	The researcher; English	ESL Beginning High	Struggled to decode novel words, could write familiar from memory

Table 1. Student Participants.

This study primarily leveraged the use of think-aloud protocols during the student interviews. A prominent task utilized in cognitive science and psychology, think-aloud protocols require participants to orally state their thinking as they undergo any number of tasks, so that the researcher can get a glimpse into their thought processes. Think-aloud protocols have also been used to gain insight into L2 processing strategies during reading (Davis & Bistodeau, 1993; Yoshida, 2008) and writing (Chien, 2012; Cumming, 1989; Jessner, 1999). Analysis of think-

[6] All names are pseudonyms, each chosen by the individual learner for herself.
[7] Profiles established from observations by the researcher and the students' classroom teacher.
[8] Alonda immigrated to the U.S. at the age of 8. She attended school through 6th grade, though her schooling (in the U.S.) was heavily conducted in Spanish.

aloud protocols help identify what learners are paying attention to and grappling with when undertaking a task, as well as what they are *not* paying attention to, and any emotions that may be at play. Importantly, this discussion about language need not be technical to demonstrate understanding (Basturkmen et al., 2002; Berry, 2014), and therefore can be performed by beginning language learners (Young, 2016). However, it is critical to note such meta-dialogue about language is a culturally-constructed phenomenon, being highly influenced by the socialization patterns and modes of thinking expected in the western classroom (DeCapua & Marshall, 2011; Gegeo & Watson-Gegeo, 1999; Schieffelin & Ochs, 1986; Scribner & Cole, 1978); relatedly, some argue that adults developing initial literacy cannot (yet) adequately engage in introspective thinking about language/education, as such skills are generally attained during formal schooling/literacy education (Huettig & Mishra, 2014) and consequently may lack the expected discourse styles or 'school-based ways of thinking' (DeCapua & Marshall, 2015). While it is true that L2 students with emergent literacy might have limited ability at introspection based on their educational history, this does not mean that it is not worth asking them their thoughts, as their utterances indeed reflect their current understanding of their language learning. Thus, while it was to be expected that the students in this study might not be able to demonstrate deep metalinguistic insight into their cognitive processing, for L2 learners, the thinking process itself can help to generate linguistic knowledge, even when their generalizations or assumptions about the language are still developing (Swain & Lapkin, 1995). As previous studies have shown the importance of including learning perspectives in research (Gonzalves, 2012; Milligan, 1997), it was decided to leverage using think-aloud protocols in this study as, despite their limitations, they can still provide us with their critical first person perspective, rather than relying on the researcher to infer what students are thinking or why they are making the mistakes that they do. There are two types of think-aloud protocols: *retrospective* and *concurrent*. In this study, during the *retrospective* protocols, students looked at a piece of writing they had already completed[9] and orally 'walked through' why they had written something the way they did (focusing on orthographic elements, spelling, etc.); in the *concurrent* protocols, the students engaged in a level-appropriate dictation task during the interview and were asked to say what they were thinking as they were performing the task. Dictation activities were chosen as it was a task familiar to both the ESL Beginning Literacy and the ESL Beginning High Students; additionally, the researcher wanted to decrease the cognitive load on the student by providing a task which only focused on spelling, as opposed to spelling *and* content (as would be the case if given them a writing prompt/asking them to create their own text). The dictation sentences varied between students based on a) their ESL level, and b) vocabulary words the researcher knew (from previous interactions) the individual students were highly familiar with. During the think-aloud protocols the students often needed further prompting, so it was necessary to ask guiding questions such as asking what they were focused on during the task and/or to elaborate upon their writing strategies. Given how little we know about the adult L2 emergent literacy, it was intentional to leverage both concurrent and retrospective think-aloud protocols as part of the methodology – the concurrent protocols to elicit actual thinking as the student undergoes the task and the retrospective protocols to elicit additional reflections on their writing, which may include

[9] As the 4 students in this study represented different ESL levels, the completed writing task varied by level. For example, for Fakhira and Afia, previously completed written work was primarily chosen from in-class copying activities (which were extremely common in their Level 1 class) or dictation sessions; for Alonda and Wazira, previously completed written work was primarily chosen from dictation sessions during small group tutoring sessions at the school (which they both attended together).

hindsight and/or broader perspectives on why students chose the strategies they did (Abdel Latif, 2019; Bowers & Snyder, 1990).

After transcribing the interviews, the data was openly coded multiple times to unveil varying themes among the student responses. Initial codes included issues surrounding quantity of writing, quality of writing, writing speed, orthographic norms, spelling strategies, home literacy practices and culturally specific issues. Interview responses were continually re-compiled per the abovementioned thematic areas which served as 'axis' categories (Strauss, 2003), to then look for any commonalities and contrasts among the responses within the theme. As these responses were then re-analyzed thematically overarching 'core' categories (Strauss, 2003) emerged, which were then used to organize the findings.

Findings

Cognitive Focus While Copying

When the students were engaged in a writing activity that was based on copying, one area of importance (as stated by the participants) was the *quality* of their production. Fakhira mentioned that when she copied, she first thought about what the word meant, then focused on copying it "carefully" so that her letters looked beautiful. Additionally, both Afia and Fakhira stated the importance of having all the content fit on one line of the binder paper. Afia stated this was important so that the writing looked "clean." Similarly, Fakhira mentioned that she wrote in such a way as to ensure that all words fit before reaching the "holes" on the binder paper; conversely, Afia wrote across the holes to fit everything across the entirety of a single line. When asked as to why they skip a line on the binder paper when writing (something that was not explicitly taught in class), both Afia and Fakhira once again talked about the importance of aesthetics: Afia stated that by skipping a line the writing looked "cleaner"; Fakhira stated that by skipping a line you can see the words better, thereby being clearer and easier to understand. Finally, both Wazira and Fakhira mentioned their writing was compromised when hurried or rushed, resulting in sloppier penmanship.

The students also alluded to the importance of the *quantity* of their writing when engaged in a copying-based event. Three students specifically mentioned their intention to write everything down exactly as their teacher writes on the board. Both Fakhira and Afia, enrolled in the Beginning ESL Literacy class, mentioned that sometimes they did not write something if the teacher indicated it was not important or that they did not need to copy it; otherwise, they believed they did copy everything of importance. However, Fakhira mentioned that oftentimes she could not finish copying everything she wanted because her writing was too "slow." She stated that if the content was familiar then she could write faster, but that her speed slowed down when the material was unfamiliar.

Cognitive Focus While Spelling

When engaged in spelling activities (such as dictation), the focus of the students' attention was markedly different than while copying. Additionally, all four women utilized different strategies when figuring out the spelling of the word(s) at hand.

When spelling independently, Fakhira did not sound out the words, but rather would attempt to recall the sequence of letters. During the interview I asked her to write, 'I like chicken and rice.' She quickly wrote 'I like' from memory, correctly and automatically. However, when she got to the word 'chicken' she paused and began to spell the word aloud in the form of a question,

"C. H. I. N?"[10] I continued to repeat the word for her, breaking it up into syllabic parts, whereupon she would respond with another proposed letter: When I said, "chick-", she responded with, "N?" "C?" During this back and forth, her only strategy was to try and guess the next letter in the sequence. As she was choosing letters which did appear in the word, it is unclear whether she was mapping my verbal articulation of the sounds to the corresponding letter (a phonetic strategy) or if she was simply trying to recall the sequence of the letters in the word (or if she was focused on something different altogether).

Alonda stated that when she wrote a word, she mostly relied on her memory to recall the spelling. She stated she thought about the letters, but not necessarily about the sound; rather, it seems she attempted to recall the visual orthography of the word. During the interview, I asked her to write the city where our school was located. As she wrote, she said she thought there was a letter 'N' in the word (which there was not) but that she could not remember where it went. After she wrote the word with the 'N' she realized it did not look right, so she took it out. When I asked her why she took out the 'N' she said, "Porque no iba, la 'N' allí *[because the N didn't go there]";* when I asked her how she knew that, she responded, "No mas porque lei bien dije no, no va la 'N'… *[Just because I read it well and I said no, the 'n' doesn't go there…]."* The conversation continued:

> Alonda: Vino a la mente la 'N' dije, déjame ponerlo aquí… [*The 'N' came to my mind and I said let me put it here…]*
> Lisa: Para ver *[to see].*
> A: Así es asi *[Yes that's right].*

After she indicated she used a visual strategy, I then clarified that she was not using a phonetic strategy :

> L: Entonces no tenia nada que ver de (sic) como sonaba *[So it had nothing to do with the way it sounded].*
> A: No *[No].*

In other words, Alonda used a visual strategy to judge whether her spelled word looked right or not; after determining it visually did not look right, she took out the 'N' to correct the spelling.

In another example during the interview, I asked Alonda to write the sentence, 'I like to read and write English' from memory. She then wrote, 'I live to read and read E-', then paused after writing 'E'. When I asked what she was thinking, all she could repeat was that she was "wrong" ("Estoy mal") and that she "wasn't writing good" ("*Que no estoy escribiendo bien*"); in other words, instead of explaining her strategy, she focused on her emotions – in this case, how she was relating to the writing task. As we went back and reviewed her sentence, she did not have an explanation of why she wrote 'live' instead of 'like.' Notably, she orally said the word 'like' aloud as she wrote the word 'live'. In our conversation we discovered that the day before, in her ESL class, they had done extensive interviews with their classmates using the word 'live', so perhaps she was recalling that spelling pattern from the previous day. Also of note is that, while she wrote the words 'I', 'to', 'read,' and 'and' correctly and with automaticity, she also wrote the word 'read' twice, writing it the second time in lieu of the target word, 'write,' which was incorrect.

[10] In this paper, use of periods after each letter indicates that the student is orally spelling the word aloud, letter by letter.

Wazira appeared to have more diversity of strategies when figuring out how to spell a word. During our interview, I asked her to spell the word 'yesterday.' Upon prompting, she repeated the word a few times, then began to spell it out loud:

Lisa: Okay. I want you to write… um… um… um, yesterday I cooked and cleaned.
Wazira: Wow…yesterday.
L: Yesterday. How do you spell yesterday?
W: S…
L: Yesterday.
W: Oh, yest…
L: Yesterday. How do you spell yesterday?
W: Yesterday. Yesterday. S. T. E?
L: I don't know. Try.
W: I don't know…(laughing).
L: Yesterday I cooked and cleaned.
W: (Laughing)
L: Do you… can you remember how to spell yesterday?
W: Yesterday.
L: Think about it.
W: Um. Y? Yeah. Y. E. Yesterday. S. Yesterday. Yesterday. Y. E, Y. E. S. T? I don't know.

In the above example, Wazira attempted to recall the letters in the word and/or their sequence but did not employ a phonetic nor a visual strategy to aid her attempt.

Later in the interview, I asked her to write the sentence, 'I like to learn English on the computer.' She wrote the first seven words of the sentence correctly and with automaticity. When she arrived at the word 'computer,' she made some attempts to both remember the forthcoming letter in the sequence as well as sound out the word, but gave up after the first few letters:

Lisa: (repeating sentence) I like to learn English on the computer.
Wazira: On?
L: Ah-huh. The. Computer.
W: Not this one. (speaking Arabic to herself) Computer. [kʌ, kʌ] C. O?
L: Ah-huh.
W: P.
L: Computer.
W: I don't know. Computer. (mumbling: Computer, Co- pu-ter. Computer) P? Computer? (Laughing)
L: Computer. What are you thinking about? What are you thinking?
W: (sighs) It's no easy teacher.

When asked what she was thinking about, instead of talking about what strategies she was employing to figure out how to spell the word, she (like Alonda) instead focused on her emotion – an important learner perspective reflecting how she is personally engaging with emergent writing.

During the interview, Afia stated that while she felt fine when engaging in a copying-based activity, spelling activities prompted extreme nerves and anxiety. She attested that sometimes

while spelling in class her brain just "stopped." During those moments of anxiety, Afia could not write anything. She emphasized that while she "could not do" spelling, that copying was more comfortable for her. Specifically, she stated that if she did not know the spelling of a word, she was not going to write it; in other words, either she knew the spelling and would write it or would refrain from trying altogether.

During the interview I asked her write 'Monday.' After speaking in Urdu with her daughters, they informed me that she was not able to write the word. Anecdotally, during my previous experience with her I noted her great ability to spell words orally, recalling the pattern or sequences with great precision. As such, I then switched the focus of the task from written to oral spelling:

Lisa: Afia, how do you spell Monday?
Afia: M. O. N. E. Day.
L: Hold on. Wait. (Writing her letters for her) M. O. N.
A: E.
L: E. No. No.
A: A. A.
L: M. O. N. Monday.
A: D. A. Y.

In this dialogue, it was clear that she knew how to spell Monday, albeit in two chunks; nonetheless, she had successfully memorized the syllabic sequences of letters.

Implications

While the data from the interviews cannot possibly reveal a learner's entire trajectory of emergent writing acquisition, we can gain perspective into the orthographic features of the word focused upon by the learners, as well as the types of strategies they leveraged to write.

Students' Writing Ideologies and Strategies

The data emerging from the writing tasks in which the participants engaged reveal which language-specific elements the students were attuned to, and which went by the wayside. For example, both Fakhira and Afia mentioned their focus on the aesthetics of their copying or transcription tasks, such as having the words fit or ensuring that their print was clean; similarly, Fakhira and Wazira mentioned needing enough time to complete the writing lest their copied text be sloppy. Resonating with Blommaert's (2004) work on orthographic standards, their testimonies reveal that sometimes they placed more importance on *visual-value* rather than *function-value* (i.e., ensuring that they had copied the word correctly in terms of spelling – inclusion of all letters in the correct sequence). While there are certainly culturally (and socially) embedded conventions for 'good' orthography, Fakhira and Afia's teacher had not promoted such ideologies regarding visual precision nor accurate spelling. Perhaps their personal standard reflected a personal (visual) pleasure gained from this process or was part of their ethos of what it meant to be a 'good' student or was reflective of other aesthetically-related criteria prominent in their lives. Nonetheless, this learner-perspective of their aesthetic preference is insightful to instructors, who may then wish to ensure students have adequate time to copy words neatly (and be understanding if they are copying slow and carefully so as to satisfactorily produce pleasing orthography).

During the interviews, the women demonstrated little attunement to grapheme-phoneme correspondences when writing. We saw instances where Fakhira, instead, verbally called out letters questioningly, searching for the next letter in the sequence. While Wazira also engaged in this type of oral searching, she was also the only student who made an obvious attempt to sound out a word while spelling. If the women *were* using a phonetic strategy based on oral word/sentence prompt, it was not obvious from the observed data.

Alonda clearly indicated she relied on a visual strategy, writing a word to see if it looked correct. As seen in the literature on children's L1 literacy acquisition, she had formed mental orthographic representations of the words, and used a process of comparing her written form with this visual representation to check for visual correctness. Still, even when the visual cue indicated to her there was a problem in the orthographic pattern, she continued to rely on her visual memory, focusing on the graphemes and their position. Alonda also suffered from interference in her visual memory, as was seen with her writing of 'live' as 'like', which was less likely a phonetic mistake and more likely either due to having interacted with the word 'like' with high frequency the day before, causing her to retrieve the incorrect (albeit very similar) string of letters and/or having lexically mis-mapped one word for the other. Relatedly, she also incorrectly wrote 'read' as 'write,' here, mis-indexing the orthographic form with the wrong (but similar) semantic item.

Afia stated that if she did not know how to spell something, she would not try to write it. Unlike children acquiring L1 literacy, she did not attempt to sound out words *nor* did she rely on a visual cue to recall spelling. Instead, Afia relied on an *oral* cue, spelling the word orally to gain the correct sequence of letters, a task she often could not equally perform in a written mode. Her strategy to memorize word spellings, then, was more reliant on oral letter-name recall than written letter-shape recall, a strategy seen by Schubert & McCloskey (\2015) in a student with dyslexia. Thus, her inability to write words was <u>not</u> indicative of her inability to spell. She intelligently relied on patterns, which were usually sequences of letters. However, we did see her utilize either syllabic and/or morphological knowledge, showcased when Afia spelled Monday as "M. O. N. E. Day," demonstrating in the first syllable her attunement to the oral sequence of letters, and in the second syllable that she could isolate the suffix 'day' as a single unit at the end of the word.

The women's varying spelling strategies are summarized in Table 2.

Student	**ESL Level**	**Spelling strategies seen**
Fakhira	ESL Beginning Literacy	Automatic; Sequential recall
Afia	ESL Beginning Literacy	Oral ability to spell (without matching written ability to spell)
Alonda	ESL Beginning High	Automatic; Visual strategy
Wazira	ESL Beginning High	Automatic; Sequential recall; Phonetic strategy

Table 2. Students' spelling strategies.

Given that this was not a longitudinal study, the data cannot indicate whether the women were passing through the same sequence of stages as presented in the literature on children's L1 literacy acquisition. However, what can be seen is that they are simultaneously leveraging a variety of spelling strategies represented in the frameworks for children's spelling development. For example, Alonda demonstrated writing some words with automaticity (presumably, words she had frequent exposure to and experience writing), and with other words she leveraged a more

visual strategy. Wazira also demonstrated writing some words with automaticity, but with words she struggled with, she utilized a phonetic strategy as well as a strategy of sequential recall; Fakhira, while at a far more pre-emergent stage of literacy than Alonda and Wazira, also demonstrated automaticity with some words and use of a sequential recall methodology for other words. This 'mixing' of spelling strategies is in line with Kurvers and Ketelaars (2011) work with L2 Dutch LESLLA learners and was, perhaps, as they indicated, due to the magnitude of processing involved. Presumably, as L2 learners are always at various stages of language (and literacy) acquisition with each and every word, it is no surprise that the students had reached the 'correct' spelling stage with words they interacted with frequently in the classroom and demonstrated 'earlier' spelling strategies with words they had yet to develop that same automaticity. Afia was the only outlier in that she leveraged a strategy not typical in children's L1 writing development, per her ability to orally spell words that she could not equally spell in writing. Thus, it may be helpful in our classroom to distinguish between two modalities of spelling – oral spelling and written spelling – as the ability spell in one modality does not preclude the ability to spell in the other modality. We may even wish to employ more oral spelling in the LESLLA classroom to see if this is a platform for students struggling with written spelling to excel.

All four of the women were able to spell some words correctly and with automaticity (in either modality), however the limited data does not tell us *how* they reached automaticity. Did they pass through the same stages as presented in any of the children's literature, or did they take a different route? Could it be that Afia, who orally spelled words in a rote fashion despite her inability to write the same word, had bypassed the visual and phonetic stages altogether? And for Alonda who claimed to never use a phonetic strategy yet had attained automaticity in spelling some words – did she skip the phonetic stage as well? If indeed the women were not (solely) reliant on a phonetic strategy to spell (a stage prominent in nearly every framework in the children's literature), this would possibly imply that phonetic decoding is *not* a *necessary step* to spell familiar words independently.

Accordingly, researchers have suggested that orthographic processing, learning, and knowledge are far more complex than phonetic understanding. To highlight, the women's reliance on orthographic patterns as a developmental strategy of writing acquisition is in line with connectionist models suggesting that learners rely on a wealth of acquired knowledge – phonetic, orthographic, syllabic, phonological, morphological, lexical, and semantic – when engaging with text. This would help explain the students' ability to spell words without phonetic knowledge, such as Alonda's reliance on visual correctness, or Afia's reliance on morphemes/syllables, or Wazira and Fakhira's focus on sequence. These examples cause us to question at what point (or even if) certain elements of phonemic knowledge are essential to a LESLLA learner's initial print literacy development.

Conclusion

While limited in scope, the findings from the women's testimonies shed light onto some of the developmental elements involved in the production of first-time writing in LESLLA learners, and the cognitive processes underlying these skills and strategies. Yet, we are still left with many questions as to the developmental steps and sequences performed by the women, and whether certain developmental steps/sequences which are prevalent in the research on children's initial acquisition of L1 writing (such as using a phonetic strategy) were omitted. Moreover, if

these same developmental steps demonstrated by children were indeed omitted, why? Was it because L2 phonemes were still novel? Was it their lack of fluency in making phoneme-grapheme correspondences, as these are highly abstract concepts? Was recalling sequences and/or using visual representations more natural/easier for these adults? Answering these questions will help to inform our pedagogical practices in the LESLLA classroom, and the strategies we teach our students to employ when writing L2 text. These insights may also aid in transitioning students from the copying and spelling tasks presented here to more communicative, student-generated texts that we also employ in the classroom (and beyond). More research, including more studies situated from a learner perspective, is critical, then, if we are to comprehend and validate LESLLA learners' strengths and needs, and align our teaching strategies accordingly.

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Beginning Adult Literacy Learners, Portfolios, and Self-Regulated Learning

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Abstract

The use of self-regulated learning (SRL) strategies such as planning, goal-setting, monitoring, evaluating, and reflecting on ways to improve learning typically involve print-based literacy skills. Beginning adult English as a second language literacy learners (BELLs) who have had few prior experiences with formal, school-based learning are in the process of developing the formal SRL strategies associated with effective classroom learning. The use of portfolios in the classroom has been found to contribute to the development of both literacy and SRL strategies; however, investigations of BELLs' portfolio use and SRL are scarce. To address this gap, 118 BELLs from 23 different classes were individually interviewed to investigate their experiences with and perceptions of portfolio use and assessment in their task-based language and literacy classes. Bi/multi-lingual interpreters conducted, transcribed, and translated the interviews into English. Students' responses regarding the purpose of portfolios, the processes involved in using portfolios, their attitudes towards portfolios, and the influence of portfolios on their learning were thematically analyzed for evidence of SRL. Results revealed that (a) BELLs' attitudes towards portfolios were generally positive in that portfolios helped them to organize their work for later review and allowed them to see their improvement, and (b) BELLs' emergent understanding and use of portfolios as a tool for SRL was influenced by the high levels of teacher-regulation and the summative use of portfolio results for advancement in these classes. Findings are discussed in regard to the role of portfolios in developing SRL and their practical implications for literacy instruction.

Keywords: task-based language teaching, ESL literacy, Language Instruction for Newcomers to Canada (LINC), Portfolio-Based Language Assessment (PBLA), emergent readers

Introduction

Self-regulated learning (SRL) is a process in which students set learning goals and then control their cognition, behaviours, emotions, and motivation to achieve these goals (Zimmerman et al., 2017). The use of SRL strategies such as planning, monitoring, and reflecting on learning has been reported to help students attain their learning goals (Abrami et al., 2013). The development and use of these SRL strategies in the classroom, however, tends to rely heavily on print-based literacy skills. This reliance presents a challenge for beginning adult English as a second language literacy learners (BELLs) as they have emerging print literacy in their first language (L1) and English, and they also have had few prior experiences with formal school-based learning or experiences with self-regulated learning (SRL) in the classroom. BELLs, as beginning English language learners in the four skills of listening, speaking, reading and writing, form a subpopulation of the broader Literacy Education and Second Language Learning for Adults (LESLLA) learner demographic. According to LESLLA (n.d.),

> a LESLLA learner is characterized as an adult (age 15+) who is learning an additional language against the backdrop of interrupted formal schooling experience. These learners are often, though not always, immigrant or refugee-background individuals developing print literacy skills for the first time as adults, usually in a new language. (para 6)

Like other LESLLA learners for whom reading, writing, and school-based tasks might be unfamiliar (DeCapua & Marshall, 2020), BELLs have been reported to struggle with using formal SRL strategies such as utilizing print literacy strategies to set goals, to reflect on their learning, and to manage their time in task-based language classes (Abbott et al., 2021).

A potential solution for assisting BELLs in developing their formal SRL strategies is the building and use of portfolios and portfolio assessment. For example, findings from research conducted with upper elementary students showed that engagement in portfolio activities positively impacted both the students' literacy skills and their SRL strategy use (Abrami et al., 2013). In second language writing classes, portfolio assessments have also been reported to promote students' SRL (Lam, 2017). These findings, however, are from research that involved learners who had well-developed foundational literacy skills in their first language (L1). In the only one that has been conducted on the use of portfolios by literacy learners, Kurvers (2015) reported that portfolio use predicted growth in writing. However, little is known about the role of portfolios in developing BELLs' SRL. To address this gap, 118 BELLs, who spoke 27 different L1s and were enrolled in 23 different task-based language and literacy classes, were individually interviewed to investigate how SRL was reflected in their experiences and perceptions of portfolio use and assessment in their classes.

The Study Context

The number of newcomers to Canada who have literacy needs has increased significantly over the last five years (Immigration, Refugee and Citizenship Canada, 2020). A majority of these newcomers attend English as a second language (ESL) literacy classes offered in the Language Instruction for Newcomers to Canada (LINC) program. LINC is a federally funded basic ESL program for adult immigrants who are permanent residents or Convention refugees.

The purpose of LINC is to facilitate newcomers' "social, cultural, economic and political integration into Canada" (Citizenship and Immigration Canada, 2010, p. 1). LINC instruction is informed by a set of competency-based language standards outlined in the Canadian Language Benchmarks[1] (CLBs; Centre for Canadian Language Benchmarks [CCLB], 2012). The CLBs contain descriptions of authentic listening, speaking, reading, and writing tasks across 12 levels of language proficiency (CLB 1-12)[2] which are categorized into three stages: Stage I, beginner - CLB 1 to 4; Stage II, intermediate - CLB 5 to 8; Stage III, advanced - CLB 9 to 12. There is also a literacy stream from CLB Foundations to CLB 4L for those beginning ESL learners who are developing print literacy for the first time in English and those who have had few prior experiences with formal, school-based learning in their first language. Learners' literacy skills in their first language and English are assessed by certified CLB assessors prior to placement in LINC (Language Assessment, Referral and Counselling Centre, 2019).

The theoretical framework for the CLBs (CCLB, 2015) includes Bachman and Palmer's (2010) model of language ability and Skehan's (1998) definition of language tasks. As a result, LINC programming is designed to develop learners' strategic competence and their knowledge of grammar, text structure, language functions, and sociolinguistics as they learn to complete tasks that are relevant to their settlement needs (e.g., tasks related to health, housing, banking, employment, and citizenship). The prescribed teaching approach in LINC is task-based language teaching (TBLT) and task-based language assessment (TBLA). Tasks in LINC follow Skehan's (1998) definition of tasks as activities in which "meaning is primary, there is a goal which needs to be worked towards, the activity is outcome-evaluated, [and] there is a real-world relationship" (p. 268). Each term, LINC instructors administer a CLB-based learner needs assessment to identify the topics and tasks that will inform their curricula, and then be used to develop the lessons and assessments for their classes. TBLA in LINC follows a highly prescriptive portfolio-based language assessment (PBLA) protocol that is mandated by the federal government and is described in detail in the ensuing section.

Literature Review

TBLT/A and PBLA in LINC Literacy Classes

Task-based language teaching (TBLT) is "characterized by activities that engage language learners in meaningful, goal-oriented communication to solve problems, complete projects, and reach decisions" (Pica, 2008, p. 71). Results from TBLA can be used to inform both teaching and learning, and enable predictions about the learners' abilities to use language in the real world (Norris, 2016). Portfolios are one of several assessment tools that teachers can use to gather information on learner progress in the TBLT classroom (Nunan, 2004).

As of 2019, PBLA became the mandated assessment protocol in all LINC programs. The fundamental features of the protocol are presented in Figure 1. After administering the learner needs assessment, instructors in LINC literacy classes have their students set language learning

[1] The Canadian Language Benchmarks (CLBs: CCLB 2012) are available at https://www.canada.ca/content/dam/ircc/migration/ircc/english/pdf/pub/language-benchmarks.pdf
[2] The participants in this study were assessed at CLB 1–4. These levels of English language proficiency correspond to A1-A2 in the *Common European Framework of Reference* (CEFR) (North & Piccardo, 2018) and novice-low to intermediate-mid in the *American Council on the Teaching of Foreign Languages* (ACTFL) *Proficiency Guidelines* (ACTFL, n.d.).

goals and then administer a minimum of 16 task-based assessments during the 14 week term, four in each of the skills of listening, speaking, reading, writing (CCLB, 2019). All LINC students are given a binder that serves as their portfolio to compile their needs assessment, learning goals, assessment tasks, instructor- and peer-feedback, and self-assessments and reflections. The information in the portfolio is supposed to assist students in developing strategies for improvement. LINC instructors are expected to teach their students about this process, and design lessons with activities and tasks that address the students' learning and settlement needs. At the end of term, the instructors use BELLs' PBLA results to assign students a benchmark level for each of the four skills and fill out a standardized progress report. Instructors also conduct a learner progress conference with each student to discuss the report and whether the student has sufficient evidence in the binder to be promoted to the next level. According to the CCLB (2019), students are considered to have achieved the next benchmark once they have demonstrated the ability to meet at least 70% of the task criteria on a minimum of 3 assessment tasks in each of the four language skills (listening, speaking, reading and writing). In effect, PBLA results are high stakes in that they affect students' level promotion in LINC, which in turn determine their eligibility for citizenship application.

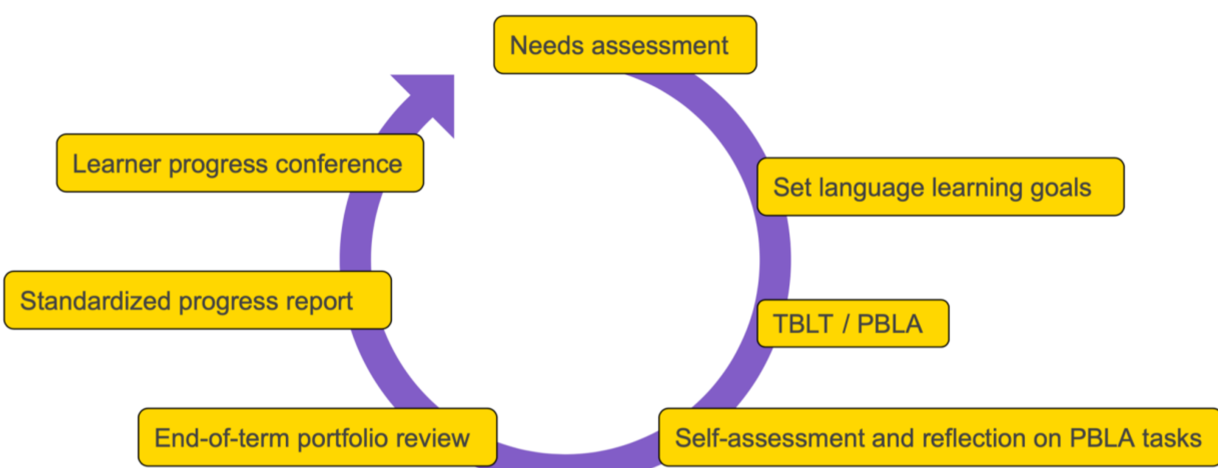

Figure 1: *Fundamental features of Portfolio-Based Language Assessment (PBLA) in LINC*

Research suggests that the reflective activities involved in the use of portfolios fosters the development of self-regulated learning (Abrami et al., 2013; Lam, 2017).

Self-Regulated Learning

Self-regulation refers to an individual's capacity to control their cognition, behaviour, emotions, and motivation when performing tasks (Zimmerman, 2000). SRL involves "the processes whereby learners personally activate and sustain cognitions, affects, and behaviors that are systematically oriented toward the attainment of personal goals" (Zimmerman & Schunk, 2011, p. 1). These processes occur in three cyclical phases: the first is forethought (which involves planning for task performance), the second phase is the performance (which involves monitoring and controlling one's performance), and the third phase is self-reflection (which involves evaluating one's performance) (Zimmerman, 2013). Research in SRL has demonstrated

that learners who proactively engage in the SRL cycle "not only attain mastery more quickly, but also are more motivated to sustain their efforts to learn" (Zimmerman, 2013, p. 135).

Formal SRL strategies, such as setting realistic learning goals, managing time and attention during task completion, keeping records of learning, using positive self-talk, and reflecting on learning, help students to monitor and control their thoughts, behaviours, and emotions when learning in classroom environments (Oxford, 2017; Zimmerman et al., 2017). Researchers (Chen et al., 2020; Seker, 2016; Teng & Zhang, 2016) have argued that SRL plays an important role in language learning as SRL strategy use has been found to predict English language learning achievement. Researchers (e.g., Guo et al., 2018; Pekrun et al., 2011) have also demonstrated that students' emotions related to the classroom, learning, and testing influence their SRL strategy use. For example, Pekrun et al. (2011) found positive relationships between positive emotions (e.g., enjoyment) and SRL strategy use, and Guo et al. (2018) reported negative relationships between negative emotions (e.g., anxiety) and SRL strategy use. These findings suggest that BELLs' emotions elicited by ESL classroom activities will likely affect their emergent formal SRL strategy use, which in turn has the potential to positively impact their English language learning. Nevertheless, these relationships remain to be investigated in the context of LINC with BELLs, TBLT, and PBLA.

Zimmerman (2000) attributed students' success in self-regulation to having the self-regulated learning cycle taught and modeled in their formative years in the home, school, and community. In school, the quality of students' SRL processes can be improved through the mediation and scaffolding by more capable others including teachers and peers (Zimmerman, 2013). For example, a teacher can show students how to divide a learning task into smaller, manageable steps and then demonstrate while thinking aloud how to complete the steps. Then while students attempt the task, the teacher provides any necessary guidance to help the students actively select and deploy appropriate strategies, monitor their effectiveness, and reflect on their task performance. This other-regulation by the teacher supports the development of self-regulation throughout the three phases of SRL that occur before, during and after task performance. The level of support provided by the teacher is dependent on students' ability to complete a particular task independently. As the students achieve the task outcomes/learning goals and develop the capacity to self-regulate, the teacher gradually removes the scaffolding.

Self-Regulated Learning and Portfolios

One way teachers may be able to foster students' SRL is through the use of portfolios in their classrooms. Proponents of portfolios as an assessment tool have argued for their potential to foster students' motivation (Gencel, 2017), goal setting and reflection (Fox, 2017), and to engage students as active participants in the learning process (Baas et al., 2020), all of which are relevant to SRL. Studies of portfolio assessment in L2 writing classrooms have also shown that portfolio assessment fosters the development of effective compositional strategies for self-reflection and promotes self-regulated learning (Lam, 2017). Studies of portfolio building by literacy learners, however, are rare. In one study of Dutch literacy learners, Kurvers (2015) found a correlation between portfolio use and growth in writing, but the study did not examine aspects of SRL. In Abrami et al.'s (2013) experimental study in which upper elementary L1 speakers of English were required to use portfolios which incorporated SRL strategies including goal-setting, planning, self-evaluation, and reflecting on written feedback, portfolio use was reported to stimulate the development of the students' English literacy skills and their SRL. It is important to note, however, that the formal SRL strategies that the students used in Abrami et al.'s study

required print-based literacy skills. Because SRL strategies tend to be print-based and BELLs are in the process of developing print literacy for the first time in any language, portfolio use may not be as effective in developing BELLs' SRL strategies. Nevertheless, little is known about the role of PBLA in fostering BELLs' SRL as only a limited number of studies have been conducted in the context of LINC literacy classes.

Research on PBLA

Only a few studies have examined LINC literacy instructors' (Abbott et al., 2021; Abdulhamid & Fox, 2020; Fox & Fraser, 2012; Karasova, 2019; Ripley, 2018) and literacy learners' experiences of PBLA (Abbott et al., 2021). A common theme reported in all five of these studies was that LINC instructors questioned the appropriateness of PBLA for literacy learners mainly due to the exorbitant amount of time required to implement the PBLA protocol with these unique learners; however, SRL was not the focus of any of these studies. Nonetheless, Abdulhamid and Fox (2020) suggested that students need to understand the purpose of portfolios in promoting learning, which may be interpreted as an important form of scaffolding for BELLs. In Abbott et al.'s (2021) study of PBLA's alignment with learning-oriented assessment, we found that BELLs experienced challenges completing print-based inventories or checklists that required critical self-reflection, which is one aspect of SRL. Research that extends our understanding of how portfolio building and assessment promotes the development of all aspects of BELLs' formal SRL in the LINC classroom is needed to inform effective instructional practices for BELLs. However, no research has been conducted to date that has specifically focused on BELLs' perceptions of PBLA and its potential for developing their SRL. To address this gap, we addressed the following research question: What evidence of SRL is present in BELLs' attitudes towards PBLA, and their perceptions of the purpose, processes, attitudes, and influence of their PBLA portfolios on their learning?

Method

Participants

BELLs (n = 118) enrolled in Foundations to CLB 4L LINC classes from five programs in 23 different classes participated in the individual interviews conducted in this study. The majority (80%) identified as women and the other 20% identified as men. Their average age was 38 years (SD = 11, Range = 17–71 years). All had few prior experiences with formal, school-based learning in their first language: 23% had not had the opportunity to attend school and 77% reported 6 years or less of school-based learning in any language. At the time of the study, the amount of ESL education that they had received varied widely; the average was 12 months (SD = 11). The most common L1s spoken by the participants included Arabic (29%), Somali (20%), Tigrinya (11%), Oromo (7%), and Swahili (6%). In addition, 3% or less of the participants reported each of the following languages as their L1: Albanian, Amharic, Creole, French, Karen, Kinyamulenge, Kisi, Kurdish, Dari, Dzonkha, Mandarin, Mina, Nuer, Pashto, Persian, Pular, Punjabi, Spanish, Thai, Turkish, Uyghur, and Vietnamese. The distribution of participants' language proficiency across the beginning levels of the CLBs was as follows: Foundations (4%), CLB 1L (24%), CLB 2L (33%), CLB 3L (15%), CLB 4L (24%).[2]

Data Collection

After receiving university and institutional ethics approvals, we contacted five LINC program administrators to gain their permission to conduct research in their programs and to request that they email our study information letter and consent to their literacy instructors. Twenty-three LINC literacy instructors responded to our email and granted us permission to attend their classes so we could invite their students to participate in the study. With the assistance of bilingual and multilingual interpreters, we explained the purpose of the study and received informed consent from 118 BELLs to participate in the individual semi-structured interviews about their perceptions of and experiences with PBLA. The interpreters and members of our research team, who were also multilingual, conducted the student interviews in the BELLs' L1. The interviews, which lasted from 20 to 30 minutes, were recorded, translated into English, and transcribed by the interpreters and members of our research team.

Analysis

We thematically analyzed the interview transcripts by following the procedures outlined in Braun and Clarke (2012). To familiarize ourselves with the data, we independently read the transcripts in their entirety. Then we performed concept coding (Saldaña, 2016) on the BELLs' responses to the questions asked during the interviews about their perceptions of the purpose of the PBLA portfolio, the processes involved in using PBLA, their attitudes towards PBLA, and the influence of their PBLA portfolios on their learning. Concept codes were assigned to text segments that represent broader underlying ideas or processes (e.g., the sentence *I look at my previous tests and compare my current results* contains two observable actions that collectively represent the overall concept of *tracking one's performance*). Next, we met to reach a consensus on our coding; the few disagreements we had were resolved through discussion. Finally, we reviewed the coded segments to identify, refine, and name the themes and subthemes in the coded data.

Findings and Discussion

Our thematic analysis revealed two main themes and five subthemes (see Figure 2). The two main themes were that (a) BELLs' attitudes towards aspects of the PBLA protocol were generally positive in that PBLA helped them to organize their work for later review and allowed them to see their improvement, and (b) BELLs' emergent understanding and use of portfolios as a tool for SRL was influenced by the high levels of teacher-regulation and the summative use of portfolio results for advancement in these classes. Findings related to each of these themes and their associated subthemes are presented in the ensuing subsections and discussed in relation to the literature and our research question.

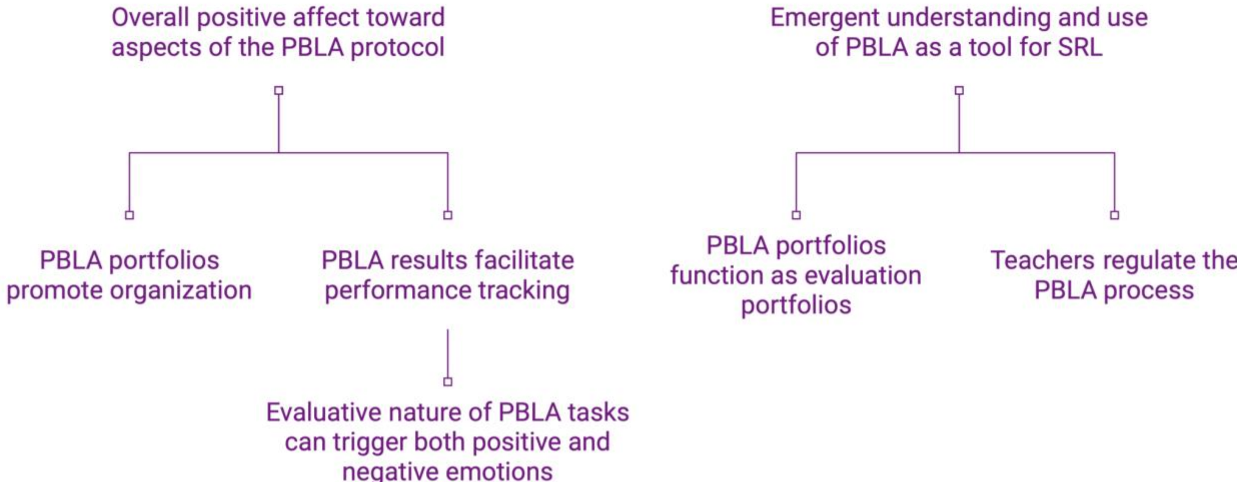

Figure 2: *Themes and subthemes in the BELLs' interview data about their PBLA perceptions and experiences*

Overall Positive Affect Toward Aspects of the PBLA Protocol: Organization & Performance Tracking

A majority (93%) of the BELLs in our study indicated that they liked aspects of the PBLA protocol. The following representative quotes demonstrate BELLs' positive attitudes toward the protocols' capacity to promote their organization and performance tracking:

- "I like PBLA because it saves and organizes my stuff. I can easily find my tests whenever I need them" (P15).
- "I like PBLA because my binder helps me not to lose my test papers" (P102).
- "It's good to see your results" (P36).
- "I can see if I am improving or not" (P55).
- "I like PBLA because I can easily go back to my previous work" (P59).

Our findings imply that BELLs' positive emotions toward aspects of the PBLA protocol may be attributed to their recognition of the value of tracking their performance and monitoring their progress when learning English, and that portfolios are a useful tool for tracking and monitoring their learning. Because research suggests that positive emotions predict SRL (Pekrun et al., 2011), if BELLs hold positive attitudes towards PBLA, they may be more likely to use SRL strategies, such as monitoring their task performance and progress.

The Evaluative Nature of the PBLA Tasks Can Trigger Both Positive and Negative Emotions

Although BELLs regarded aspects of the PBLA protocol positively, the evaluative nature of the PBLA tasks elicited both positive and negative emotions. BELLs were proud of their PBLA task results when they achieved level-appropriate CLB standards, and these achievements, in turn, increased their confidence in their ability and motivation to learn English. These findings are evident in the following quotes:

- "Good marks give me confidence, but bad marks indicate that I have to work harder to improve my English. Sometimes when the tasks are hard I feel worried and stressed that I am not doing good with learning English. But when I understand a task and then complete it, I feel so proud of myself and I feel motivated to do even harder tasks" (P58).
- "How I feel about my learning depends on the results because when I make mistakes, I feel frustrated, but when I get good results, I feel happy" (P17).
- "I get nervous because I want high marks" (P31).
- "The tests make me a little bit anxious" (P93).
- "I'm worried sometimes when my classmates can do it but I cannot. I try my best though" (P86).

Our findings show that the evaluative nature of the PBLA tasks triggered BELLs' negative emotions including worry, stress, frustration, nervousness, and anxiety. Abbott et al. (2021) also reported similar findings as LINC literacy instructors indicated that PBLA tasks triggered debilitating emotions in some BELLs and these emotions impeded BELLs' task engagement and performance. Findings from the current study, however, add to our understanding of BELLs' negative emotions in that some BELLs appear to have used SRL strategies to manage their negative emotions. For example, despite being worried about their task performance, some BELLs were clearly goal-oriented and they did their best to achieve their goals through the use of positive self-talk and self-reflection. It is also possible that a bit of worry facilitated their task performance, as Brady et al. (2018) found that when students can refocus their worry (i.e., self-regulate their emotions), their anxiety will not necessarily be detrimental to their performance. Other BELLs, nevertheless, struggled to regulate their emotions in relation to the PBLA tasks:

- "I feel disturbed, worrying about how I did. Did I do well? Sometimes I feel I did well before the teacher tells me that I didn't" (P12).

It may be the case that despite the instructors' best attempts to communicate the task criteria, the BELLs such as P122 did not understand the task criteria due to their emergent literacy and beginning levels of English proficiency. It is difficult to use formal SRL strategies when using task rubrics to plan for and reflect on one's performance when the rubrics are presented in English only and the learners are in the process of developing strategies for using other supports such as technology to translate the rubrics into their L1s. As Adbulhamid and Fox (2020) emphasized, for portfolios to be effective in promoting learning, the language used in the portfolios and assessments needs to be responsive to the students' levels of language proficiency and students need to understand "what they are doing" (p. 185).

Emergent Understanding and Use of PBLA as a Tool for SRL: PBLA Portfolios Function as Evaluation Portfolios

BELLs' emergent understanding of PBLA as a SRL tool was largely influenced by the high-stakes, evaluative nature of PBLA.

- "It [the PBLA binder] is used to file and store my exam results to show as proof to the government that this is what I am doing. Every time I have a test, the

teacher has us put it there for the government. The results will let me go to the next level" (P82).

Many BELLs perceived that their portfolios belonged to the government and were being used as a measure of accountability. This perception hindered both the BELLs' sense of ownership of their portfolios and their understanding of the potential uses of PBLA as a tool for SRL in that the BELLs primarily focused on the holistic criteria, which indicated whether their task performance met the CLB level:

- "I look for the *yes* or the big chicken [on a developmental pictorial scale of egg-chick-chicken] that shows I passed the task" (P90).

This quote indicates an understanding of the task rubric which could then be used to inform self-reflection on learning; however, a focus on passing the task may draw the learners' attention away from the additional information contained in the rubric (e.g., written descriptions of the analytic criteria such as *writes information in the correct spaces*, *prints legibly*, *follows conventions for writing telephone numbers*) that could be used to inform future SRL. During our interviews, a few BELLs asked us for assistance in interpreting some of their results in their portfolios because they did not understand the meaning and developmental nature of the pictures used in the holistic rating scales or the meaning of the analytic criteria. This may be attributed to their emergent literacy. While other researchers (e.g., Adbulhamid & Fox, 2020; Ripley, 2018) have reported an over-emphasis on evaluation in PBLA, they did not explore PBLA's potential to foster BELLs' SRL. Our findings imply that the evaluative function of portfolios in LINC literacy classes hinders this potential.

Emergent Understanding and Use of PBLA as a Tool for SRL: Teacher-Regulation

The role of PBLA as an evaluative accountability tool may explain why all of the BELLs in our study described PBLA as a highly teacher-regulated process. The following quotes are representative of their descriptions of the portfolio building process across all 23 LINC classrooms.

- "The teacher returns my test and tells me to put it in the binder" (P92).
- "My teacher tells me to use the binder, that's why I use it. She tells me which section to put the test in" (P58).
- "The teacher directed me on how to arrange the binder" (P93).
- "The teacher tells us what and where to put the tests into the binder" (P16).

Teacher-regulation is important given that formal SRL develops through the mediation/ scaffolding of more capable others (Zimmerman, 2013). However, due to the highly prescriptive, evaluative nature of PBLA, LINC literacy instructors have to over-regulate the portfolio building process to ensure that all of the required portfolio components outlined in Figure 1 are documented and included in the students' binders. When asked who chooses what goes into the binders, all 118 participants responded with "the teacher." Therefore, students have very little control over the PBLA process. This finding that PBLA is highly teacher controlled due to government requirements is echoed in previous studies of PBLA (Abbott et al., 2021; Abdulhamid & Fox, 2020). Our findings suggest that BELLs' understanding of the purpose and

potential of PBLA to promote all aspects of formal SRL in the classroom is emerging in that their binders helped them to organize their learning, but the full potential of PBLA as a tool for planning, monitoring, evaluating, and reflecting on their learning remains to be reached. Abdulhamid and Fox (2020) argued that students need to recognize the purpose of portfolios before portfolios can achieve their potential as a tool for supporting learning. Our results add to this argument in that this recognition is vital for the development of BELLs' formal SRL.

The high degree of teacher-regulation required in the PBLA protocol has the potential to foster aspects of BELLs' formal SRL including goal setting and reflection. Nonetheless, the goals that were mentioned in the interviews were very broad:

- "I want to learn English to talk to the doctor and my son's teachers in school" (P78).
- "My goal is citizenship. I need CLB 4 [to apply]. It's reading that's hard" (P110).
- "My goal is to learn English so I can find a part time job" (P96).

This finding may be a result of the PBLA goal setting tools that led BELLs to understand goal setting in broad terms as opposed to specific learning targets. Example tools include a checklist of goals such as *to participate in the community* or *to read or listen to the news*. Goals that refer to specific performance standards have been reported to have greater potential for enhancing aspects of self-regulation, including planning and self-reflection, than generic goals, such as *try harder* or *do better work* (Latham & Locke, 1991) or in the case of BELLs *to read English*.

As described previously, the PBLA protocol requires that instructors have their students self-assess and reflect on their task performance (see Figure 1); nonetheless, those PBLA reflection activities that have the potential to promote SRL were not always perceived by the BELLs as self-reflection activities, rather the purpose of these activities was construed as an opportunity to provide constructive feedback that their instructors could use to improve the PBLA tasks.

- "After every exam [PBLA task], the teacher gives us an evaluation form that asks if the test was too easy, just right, or too difficult. We then circle our choice. I think this is so she can improve the exam" (P126).

Greene (2020) suggested that how students use portfolios as a self-assessment and SRL tool is influenced by their (a) prior exposure including how their teachers mediate the development of students' SRL through portfolio building, and (b) the language involved in portfolio use and the SRL activities/tools. The following quote shows that other-regulation by the instructors and language were factors that impacted BELLs' SRL in our study; however, the development of SRL through portfolio building is much more complicated for BELLs than for students with well-developed L1 literacy skills due to BELLs' emergent literacy.

- "I understand the task criteria because the teacher explained them but I keep forgetting. It is my main problem. I keep forgetting. I do not understand the numbers at the bottom of the tests. I just put the test in the binder. I don't understand the 'about me' section [which includes learning goals, a pictorial needs assessment, and learning reflections]" (P78).

To sum up our findings in this section, teacher-regulation, which we found to promote SRL in PBLA, involves ensuring that BELLs set language learning goals, complete task reflection activities, and organize their portfolios. While goal setting, reflecting on learning, and organizing one's work are useful SRL strategies (Oxford, 2017; Zimmerman, 2013), our results imply that BELLs' understanding and use of the information in the portfolios to maximize their SRL would benefit from additional types of teacher-regulation (scaffolding) and learning supports. Some ideas for scaffolding support are included in the ensuing section.

Practical Implications for Portfolio Use with BELLs and Implications for Future Research

The creation of learning conditions and supports that foster formal SRL in BELLs is needed to assist instructors who are required to implement evaluation portfolios in their classes. Programs that require the use of evaluation portfolios for literacy learners must develop materials to ensure that the learning potential of portfolios is maximized. Given our findings, the development of materials and supports to assist instructors with the following practices would be beneficial.

- Continue promoting a positive learning environment that cultivates positive emotions in conjunction with teaching and encouraging BELLs to develop and effectively use formal SRL strategies when learning with portfolios (see SRL strategies in Oxford, 2017).
- Teach coping strategies such as positive self-talk to help BELLs deal with negative emotions elicited by the evaluative aspects of portfolios.
- Use L1 oral language support to ensure BELLs understand the purpose of portfolios and the associated activities.
- In addition to helping BELLs identify their broad language learning goals, help them to set realistic goals that reflect specific performance standards (e.g., accurately write basic personal information in the appropriate sections of a job application form rather than learn English to get a job).
- Use L1 oral language support to help BELLs learn how to use formal SRL strategies to regulate the (meta)cognitive, behavioural, motivational, and emotional aspects of learning in formal classroom environments (e.g., create L1 demonstration videos).
- Use technology to orally translate the scoring rubrics into the BELLs' L1s.
- When using pictures in rubrics that are intended to represent growth in learning (e.g., seed, sapling, tree), ensure that BELLs actually understand the developmental nature of the pictures. L1 support is likely needed to communicate this as well.
- Use L1 oral language support to model how to use the task assessment criteria in the rubrics to self-assess task performance, especially the analytic criteria.

The effectiveness of these materials and supports in promoting BELLs' SRL are avenues for future research. To increase our understanding of the emergent nature of SRL in BELLs and the role of portfolios in fostering BELLs' SRL, additional studies are also needed in other

literacy program contexts which use different types of portfolio protocols (e.g., showcase or working portfolios).

Conclusion

In our study, BELLs' reactions to the process of building their portfolios were generally positive, but their understanding and use of portfolios as a tool for SRL was emergent. Although portfolio building was recognized as developing and supporting BELLs' goal setting, reflection and organizational skills, an explicit induction and instructional process for BELLs in their L1 that highlights the purpose of portfolios and their usefulness as a tool for developing SRL strategies, not just as an assessment tool, may be helpful in allaying BELLs' negative affect associated with task-based assessment and their ability to control their cognition, behaviours, emotions, and to some extent their environment and ultimately support their language learning.

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Promoting Health Literacy among LESLLA Learners: Empirical Findings and Practical Implications

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Abstract

LESLLA learners are physically and psychologically stressed not only by Covid-19 but by general living conditions. Hence, they are at risk of becoming ill, so the ability to communicate with health professionals is crucial. An ideal setting to support migrants in developing their health literacy is through second-language courses (SLCs). However, scientific evidence is scarce and insufficient to support SLC teachers in targeting health literacy.
In the research project SCURA, funded by the German Federal Ministry of Education and Research, we used various ethnographic methods (including participant observation, interviews, and textbook analysis) to explore the health literacy of LESLLA learners in German-as-a-second-language courses and analyzed the different approaches of promote health literacy. Based on the empirical data, we developed numerous theoretically sound and practical interventions for second-language teachers, including training, manuals, and guidelines.

The study showed that health and health literacy can be promoted in SLCs, but this should move beyond words, deal with real-life communicative situations, both functional and critical/ ambivalent, and consider the sociocultural and political context. Although second-language teaching and health promotion are two distinct disciplines, they overlap in the goal of enabling people to act and care for themselves. As a content-and-language-integrated approach focusing on developing action skills, the combination of both disciplines allows for a sustainable impact. This contribution deepens our understanding of the potential of health literacy promotion in SLCs by discussing the challenges and limitations, good practices, underlying theories, and practical strategies for moving forward.

Keywords: health literacy, ethnographic research, social practice, second-language course, health promotion

Introduction and Relevance

The Covid-19-pandemic made humanity painfully aware that health and health information are vital for everyone worldwide, including teachers and LESLLA learners. In 2020 and 2021, people such as LESLLA learners received numerous health information through mouth-to-mouth, television, radio, the Internet, and social media and discussed them among families, friends, colleagues, and even strangers. However, not all information was accurate and much disinformation and misinformation was spread (García-Saisó et al., 2021); therefore, the ability to find, understand, appraise, and apply health information wisely (= health literacy) (Sørensen et al., 2012) became a critical skill (Nielsen-Bohlman et al., 2004). Population-based studies reveal that not all people have good enough levels of health literacy (HL) (Duong et al., 2017; Sørensen et al., 2015; WHO, 2013), and people with low literacy, incomplete schooling, and second-language learners, like our LESLLA learners, are especially at risk for having lower HL (Nielsen-Bohlman et al., 2004). Moreover, people with low HL often exhibit more inadequate health behaviors, have higher health expenditures, and are often sicker (ibid.), negatively affecting their ability to concentrate and learn. Therefore, promoting HL among all people, specifically among LESLLA learners, is imperative as HL empowers the individual, favors (language) learning, and reduces social and health disparities (Mantwill et al., 2015). To improve HL, the World Health Organization (WHO) and likewise educational specialists suggest using educational settings (WHO, 2018) such as second-language courses (SLCs) (Rudd & Moeykens, 1999; Singleton, 2003). Researchers and practitioners identified multiple reasons for incorporating HL in language courses (Hohn, 1997), suggested several topics and appropriate methods ideal for promoting HL (Rudd & Moeykens, 1999), and demonstrated how HL can effectively be covered in general language classes (Levy et al., 2008) and bilingual classes (Soto Mas et al., 2015). By summarizing publications on HL in SLCs, three observations remain. First, health is not always addressed in SLCs. Second specific health-related courses are often short-term project-based endeavors (Erikson et al., 2019; Wagner, 2019). Third, empirical knowledge on the effectiveness of promoting HL in SLCs is scarce (Chen et al., 2015), and quantitative and qualitative data on HL in SLCs that describe the context, intervention, outcomes, effectiveness, and lessons learned (Harsch et al., 2021) are scant and wanting for many countries, including Germany. However, without empirical data on both the possibilities and limitations of SLCs and the concrete process of promoting HL, their potential will inevitably be over- or underestimated, and language instructors lack guidance on how to target HL deliberately.

To fill this research gap and provide practical recommendations for policymakers, researchers, and language instructors, we initiated the research project SCURA. Here we ethnographically explored the role of HL in SLCs in Germany and jointly developed appropriate measures to improve HL there. As a certified and experienced German-as-a-second language teacher and public health researcher, I had the privilege to combine two crucial aspects in this study: my expertise and experience as a teacher and the critical lens as a researcher. In this paper, I share key insights we gained, highlight the potential and limitations of promoting HL in SLCs, present how LESLLA learners engage with health information, and how we, the teachers, can facilitate HL development in LESLLA learners. As health literacy is rarely discussed among teachers for people with no or interrupted (second-language) learning, I first introduce the relevance of health and health literacy in second-language courses, then briefly introduce the research project and then present findings related to three core questions. Finally, I will critically discuss the findings and draw conclusions for the LESLLA community.

Background of the Study and the Concept of 'Health Literacy'

In recent years, the number of migrants (271 Million), specifically displaced and forced migrants (82.4 Million), has grown globally, and many countries have experienced an increasing influx (IOM, 2021; UNHCR, 2020), leading to greater demand for language courses. One of these countries of destination is Germany, where more than 2.1 million people have applied for asylum since 2014 (BAMF, 2021). The situation in Germany can serve as a case study for the LESLLA community. Germany's newcomers are highly diverse in terms of countries of origin, first languages, and educational attainment: with no or incomplete schooling to people with university degrees (Hünlich et al., 2018).

Due to various experiences and harsh life conditions before and during migration, these newcomers arrived exhausted in the destination country. Although these newcomers no longer faced war, insecurity, or hunger, they encountered many challenges, such as orientation, language, an unfamiliar culture, and lack of social support, significantly affecting their health and ability to integrate. Besides the individual's characteristics (e.g., age, sex, and hereditary factors) and his/her lifestyle, various socio-economic, cultural, and environmental conditions influence his/her health and health concerns. These are i.e., the availability of and accessibility to (healthy) food), education, work, water/sanitation, health care services, and housing (IOM, 2017). This already provides clues that essential health concerns of newcomers and LESLLA learners go beyond communication with the doctor and encompass an understanding of the origin of health problems, such as living and working conditions and social status. Additionally, it reminds us to consider all health-relevant aspects and areas of the newcomers' and LESLLA learners' lives in which they communicate about health orally and in writing. Multiple studies provided ample evidence of these factors' influence and that newcomers' health status is likely to deteriorate after arrival and, in turn, affect their ability to learn the language and integrate (IOM, 2017). Therefore, maintaining and improving health requires good HL for the given context (WHO, 2018). While studies on migrant show that health and HL are associated with education (Andrulis & Brach, 2007; Zhu, 2018), one group of newcomers are particularly vulnerable, those with little or no formal schooling or who are functionally illiterate in Latin scripture (Philippi et al., 2018; Quenzel & Schaeffer, 2016) like LESLLA learners. Consequently, it is necessary to improve their health literacy. Nevertheless, what is health literacy (HL)?

HL is a comparably new but rapidly advancing topic in Public Health, and studies have proved it is a critical determinant of health (Nielsen-Bohlman et al., 2004; WHO, 2013). The concept is dynamic, evolving, and varies across regions: While many researchers in the USA stressed a biomedical perspective focusing on the healthcare setting, how to get access and understand the payment and health insurance system, European countries with widely available universal health insurance embraced a Public Health perspective and defined HL as

"Health literacy is linked to literacy and entails people's knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course." (Sørensen et al., 2012, p. 3)

HL contains two concepts that need clarification because their conceptualization informs the research design, questions, analysis, and conclusions. The first concept, *health*, varies enormously within and across countries. In the WHO tradition, we utilized a holistic ecological model of health, which conceptualize health as the "state of complete physical, mental, and

social well-being, not merely the absence of disease" (World Health Organization, 1946) and is strongly influenced by context and its prerequisites for and determinants of health (WHO, 1986). The second concept, *literacy*, is understood and operationalized in multiple ways (Sørensen et al., 2012). While some HL researchers refer to literacy level or reading and writing skills (similar to the autonomous model of literacy), others conceptualize literacy as a skill, complex competence, or contextual situated social practice (see the ideological model of literacy) (Street, 2016). Adopting a health promotion perspective on HL, we conceptualized HL as a contextual, situated social practice (Harsch, 2022; Papen, 2009).

Aware of the lower HL level of newcomers and the resulting challenges, policymakers and health experts suggest using interpreters and translating written material into other languages or same-language community health workers (Altgeld, 2018). While these interventions are essential for sharing information and improving comprehension, they do not actively promote individuals' ability to advocate for their health (Harsch, 2021). Since HL can be improved through education (Nutbeam, 2000), SLCs were recommended for migrants (WHO, 2018, p. 17). Ultimately, HL is not foreign to SLC because SLC aims to equip people to use language independently, including communication about health (Council of Europe, 2018; Goethe-Institut, 2016). This setting is particularly interesting in Germany because SLCs are mandatory for newcomers, and the state covers the costs of the course for recognized asylum seekers (Integrationskursverordnung - IntV, 2017). As SLCs offer great potential and an excellent opportunity to reach many newcomers with health information (more than 1.5 million participants in *integration courses* since 2015 (BAMF, 2021)), we decided to explore it as a setting for HL development and develop suitable interventions, materials, and tips for second-language teachers.

Research Project and Methods

Research Project

This research project was part of a large research consortium on Health Literacy in Childhood and Adolescence (Okan, Bittlingmayer, et al., 2020), funded by the German Federal Ministry of Education and Research from 2015-2022 and is based at different universities and research centers in Germany and explored multiple aspects of HL using various research methods. This research project is called SCURA: *Structural conditions and the use of resources of disadvantaged adolescents to promote literacy, (e)health literacy, and healthy lifestyle.* Since the beginning of the second funding phase in 2018, a research team from the University of Education Freiburg has been implementing the basic and applied research of SCURA (Harsch et al., 2020; HLCA, 2022).

Method

As the educational setting of SLC and the promotion of HL within it is a highly complex intervention (Robert Koch Institute, 2012) influenced by multiple factors, exploring the practice and promotion of HL in SLC and developing appropriate interventions is a tricky endeavor and requires a multi-method approach. Therefore, we aimed to explore the current process of using and teaching HL as a social practice in SLC from as many angles as possible, provide a thick description and analyze the data qualitatively (Bittlingmayer et al., 2020; Harsch et al., 2021). For this purpose, an ethnographic research paradigm using various research methods is appropriate for studying HL as a social practice (Street, 2016). First, we performed a Realist

Review and a Scoping Study on HL in SLC to sketch the context, potential effectiveness, theory of change, and content based on interventions from worldwide (Harsch & Bittlingmayer, 2020a). We then conducted semi-structured qualitative interviews with 15 second-language teachers and directors of educational settings in urban and rural regions and an online survey with 25 teachers from SLC in initial reception centers. In addition, we purposefully selected 8 of 22 approved language textbooks (the most recent textbook(s) from each publisher) and analyzed the content thoroughly (Harsch & Bittlingmayer, 2020b). Lastly, we accompanied two language courses with literacy training for 2.5 months each and thus could explore how more than 30 LESLLA learners engage with health information. We created thick descriptions of the observations in the courses, analyzed them, triangulated the finding, and discussed it with researchers and teachers (Harsch et al., 2021). Afterward, we drew on the research findings for intervention and established theories, collaborated with teachers (limited due to Covid-19 restrictions), and developed workshops and a website with much information on promoting HL in SLC.

Research Questions

This research project provides many empirical findings, but this paper focuses on three critical questions relevant to us LESLLA teachers (and our LESLLA courses).

- To raise awareness of the relevance of HL in SLC and describe its nature, potential, and limitations: *What is the role of health in SLC, and what are the potential and limitations of promoting HL in SLC? (O1)*
- To illuminate the existing opportunities to engage with health information in SLC: *How does HL as a social practice occur in SLC? (O2)*
- To equip and inspire teachers to promote HL in SLC: *How can teachers support LESLLA learners in advancing HL? (O3)*

Results

The Standardized Language Courses in Germany: Potential and Limitations

Addressing and promoting HL in SLCs is impacted by the context in which they occur, rules and regulations, standard syllabus, opportunities, and limitations. The scoping study and realist review described numerous courses that varied in length, content, target group, interventions, and sustainability (Harsch & Bittlingmayer, 2020a). This diversity in courses was common in Germany until 2005 because Germany had no standard second-language courses. In 2005, the German Parliament passed the Immigration Law and Integrations Course Ordinance (BMJV 2017), defining the rules and regulations of standard so-called "integration courses" for people with low German language skills and newcomers. The courses have two goals: to acquire the language up to level B1 Common European Framework of Reference for Languages and learn to navigate the new society (Goethe-Institut, 2016).

The standard integration course consists of seven modules with 100 hours of instruction each, six modules for language acquisition and one for orientation (politics, history, and culture). Primary or functionally illiterate students receive an additional 300 hours of literacy instruction before beginning the first module. The German Federal Office for Migration and Refugees (BAMF) defines the curriculum and covers twelve *action areas*: education, living, shopping, and health (Goethe-Institut, 2016). Publishers produce textbooks based on this curriculum, and the BAMF reviews and approves them (BAMF, 2019). Language schools and adult education centers select one of these textbooks, and language teachers use it as the primary teaching

material. Some teachers use it exclusively, others add additional materials, while others (especially experienced and highly motivated teachers) create their own material (Interview, representative of language course teachers, February 2020). The textbooks are essential in teaching language and cultural orientation regardless of the teacher's preference. (See further elaboration on the courses in Harsch, 2022; Harsch & Bittlingmayer, 2020b).

Results: 1 Health in Second-language Courses

The first objective was to understand the role of health and health literacy for second-language learners by carefully exploring when health or health-related issues (holistic understanding of health) occurred. Overall, teachers expressed different opinions regarding the relevance of health, from "health is not relevant" (SL teacher of courses of young students) up to "very relevant, health influences every aspect of the course" (SL teacher of an SLC for people with no or limited school/second-language learning experience). In the ethnographic study, six themes emerged in which health became tangible: Curriculum, Attendance, Student Motivation, Learning Success, the general Health-Influencing Setting, and Context. Table 1 summarizes the critical aspects of the six topics, examples from the ethnographic study, the teachers' interviews, and practical ideas for LESLLA.

MAIN THEME	SUB-THEMES	EXAMPLES	IDEAS FOR LESLLA
Course Curriculum	Describing own **health** (body parts, diseases)	*Students label body parts, name pictures of diseases*	Teach health-related words, and interaction patterns, using pictures and stories as examples. Guide students' attention to the health content and stimulate reflection and discussion. Successively improve the components of HL.
	Interacting with healthcare providers	*Students make an appointment, describe symptoms, converse with pharmacists*	
	Talking about **food** and eating preferences	*"What do you like to eat?" Write a blog entry on food, discussing soups worldwide*	
	Talking about **sports** activities	*Conversation about leisure time activities*	
	Talking about **feelings/friendship**	*Tasks: Describe how you feel today. What do you do with your friends?*	
Attendance	**Physical** absence	*because of sickness (own/family member) or doctor appointment*	Remove barriers of access (elevator, childcare), and plan interactive, varied lessons with mental breaks and relaxation phases.
	Mental absence	*because of experiences during migration/settlement, a young child that accompanies the mother in the course*	
Student's Motivation	Own **characteristics**	*e.g., having a disability, older age, responsibility for a large family, self-perception as a learner or not,*	Identify what motivates the students, provide guidance in possible job perspectives (e.g., in healthcare), build on it, support learning from another, talk about circumstances, share interesting material with the student in informal conversations.
	Current personal **situation/health-related concerns**	*HL is needed because of own sickness (e.g., cold) or sickness in the family (e.g., heart disease and operation, an infant that needs to be checked regularly, disabled child, own pregnancy*	
	(Professional) Goals	*being a health professional or interested in pursuing a career in the health sector*	
	Inspired by life situations of relevant others	*e.g., conversations about food, free time activity (hiking, bicycling), or the death of a classmate's sister*	

MAIN THEME	SUB-THEMES	EXAMPLES	IDEAS FOR LESLLA
Success in language learning	Better learning if healthy, relaxed, and rested	*"Healthier students learn better," "students are too stressed to concentrate,"* and *"I create a relaxed atmosphere for all to learn."*	Teachers can share tips (using earplugs while sleeping) and can create a welcoming atmosphere (see below).
Influence of Setting	**Health-promoting** setting	*clean sanitation, relaxation areas for breaks, offers healthy food and drinks, students can participate, guidelines for behavior in case of an emergency and/or fire outbreak*	Teachers can create a welcoming atmosphere and, if possible, organize and create a health-promoting environment.
	Detrimental to health	*noise, unhygienic tools, untidy facilities, wrong chairs in a crowded room*	
	Creating **social** networks	*good atmosphere, emotional & instrumental support*	
Influence of the Context	600 + 100 hours to acquire B1 (CERF)	*Students have 600 hours to acquire B1 (CERF), which is "impossible" for LESLLA learners*	Extremely relevant but impossible to change as an individual teacher. In Germany, teachers are limited in their flexibility to change the syllabus, and many teachers move away from precarious, insecure, self-employed working conditions. Improving these conditions on a political level would drastically change the opportunity for teachers to support the student's well-being, learning success, and health.
	Heterogenous group	*"Very heterogeneous from university students to people without any prior education."*	
	Strict requirements of a minimum number of students	*Finding enough students is challenging, and a student's drop-out can lead to the course's closing. "Very stressful" for adult education centers*	
	Standardized testing (complex procedure)	*The tests require marking the correct answer in a separate 'solution file.' Many LESLLA learners are not familiar with this, face many challenges and fail the test because of the lack of abilities to transfer*	
	Massive administrative burden	*Teachers must document the presence of the students closely and check letters of excuse or letters of absence due to doctor visits. Only if everything is accurate, the language school receives the fees for the students from the German government*	
	Insecure working conditions	*Many teachers are self-employed, and their salary is dependent on the realization of a new course – which is often comparably late*	

Table 1: Occurrence of health topics and opportunities for language teachers in Germany to influence health literacy

The first and most obvious way how health occurs in second-language courses is in the curriculum. The "general curriculum" defines health as one of the 12 "action areas" in which language learners are expected to acquire linguistic, content, and cultural knowledge (Goethe-Institut, 2016). The analysis showed that each textbook includes communication on health-related topics such as talking about the body, going to and interacting with the doctor, food, sports, feelings, and friendship. However, the textbooks differ significantly in how broadly and deeply they teach communication (pattern) within these health-related situations (Harsch & Bittlingmayer, 2020b). Thus, the content depends heavily on what the textbooks provide. Particularly noteworthy is that the syllabus specifies that besides these twelve *action areas*, five overarching language areas are addressed, which contribute to the newcomers' ability to cope

with the new situation and promote mental and social health. These topics are: dealing with the migration situation, dissent and conflicts, one's own language learning; realization of feelings, attitudes, and opinions; forming social contacts (Goethe-Institut, 2016, p. 17).

Second, health topics often appear through their absence, such as being sick (themselves or a family member) or having a doctor's appointment resulting in the physical absence of learners. Additionally, the teachers and the observation revealed that several students (mainly refugees) are mentally absent due to various experiences related to migration and even more to life in the new country (living conditions, asylum process still ongoing, illness or death of family members). All this affects their ability to concentrate and learn.

Third, we observed many occasions when students' motivation to participate in class was influenced by health-related aspects, such as personal characteristics, a current situation, (career) goals, and situations inside or outside the classroom that stimulate conversations about health.

Fifth, the ethnographic study revealed how the buildings and classrooms set up could influence health and courses with a friendly, welcoming atmosphere where people trust and help each other contribute to mental and social health.

Fourthly, teachers reported that students who are healthy, relaxed, rested, and feel well learn better and are more likely to pass the final exam successfully. Consequently, some teachers deliberately dedicate time to teambuilding activities at the beginning of the course and celebrate achievements (e.g., the completion of a module) with the students.

Fifth, both the infrastructure but also the social climate can be health-promoting as well as detrimental to health. The teachers specifically emphasized the role of a good climate within the course can improve the well-being of the students.

Sixth, the overall context of SLC strongly affects what happens in the course. Due to scarce resources such as a high workload, only 600 hours to reach language level B1 and many students in one class making individual attention impossible, high administrative burden, and precarious working conditions of instructors limit the time and effort to promote HL in the course.

Although all these aspects play a role, the influence of the first and the last topic is the strongest and beyond the single instructor's control (or influence) (Harsch et al., 2021).

Result 2: Health Literacy in Use

These six general topics illustrate when health occurs but do not reveal how actors (teachers and students) use health information. To explore HL in practice, we specifically analyzed how students and teachers engage with health information. Four key influences that can stimulate engagement with and conversations around health emerged. These are the textbooks (and supplementary material), learners, instructor, and extracurricular influences such as family situations, social and political events, and weather.

Figure 1 illustrates how students and instructors engaged with health information observed in the ethnographic study, but even more formal and informal ways to address HL exist. Specifically relevant is that the mere presence of health information does not result in students (or teachers) paying attention to it or the content and does not only focus on the linguistic features of the health information. We observed seven distinctly different ways: ignore the health information and merely look at the words; focus on it and talk about it, e.g., colds and treatments of it; apply it, e.g., use the model dialog between a patient and a doctor and memorize it for the next doctor appointment; bring in other information, e.g., talk about the health aspect of your lunch; appraise the available information, e.g., the importance of providing first aid in

Germany versus in other countries, e.g., Syria; transform/change the information based on personal and cultural or contextual concerns, e.g., the importance of lifestyle changes and not only drug intake to cure diseases, share the information with others, e.g., in the break with course participants in other courses or with family members, e.g., the health insurance covers that preventive visits at the dentist twice a year.

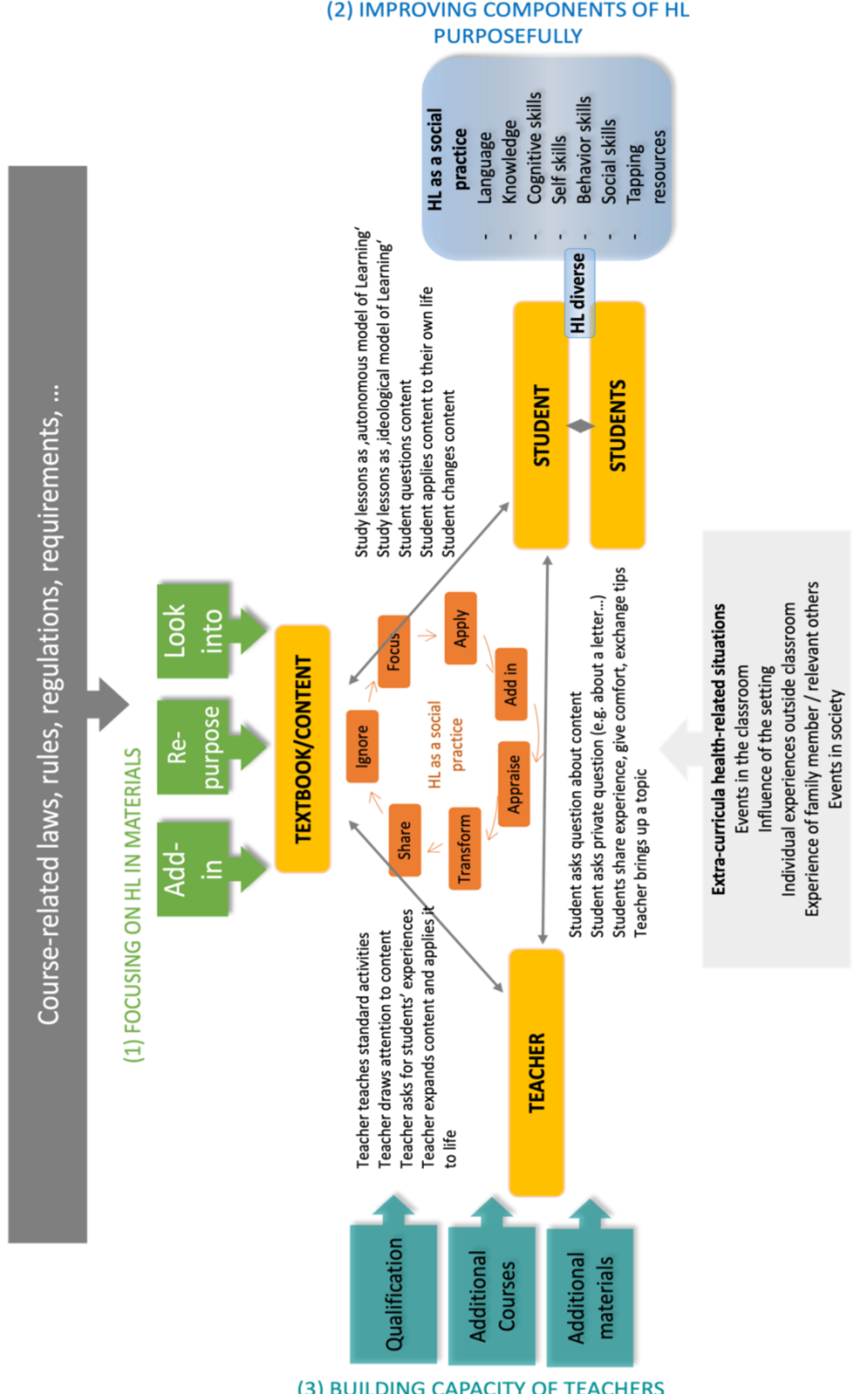

Figure 1: Possible activities to engage with health information (cf. Harsch, 2022)

These forms of engaging with health information and the various listed situations in which teachers can focus on health are relevant because they allow teachers to become aware of the opportunities and use them as starting points for engaging with health information and promoting health-related language skills pertinent to LESLLA learners.

Despite this immense potential of promoting HL, the ethnographic study showed four critical aspects: (1) communication about health topics (written and oral) is overly complex and teachers should address it cautiously. Health topics can be private; people may have different (socioculturally shaped) ideas about health and what is considered appropriate health behavior and treatment and have good reasons to present or hide their health status. (2) A supportive environment and trusting relationships are critical if the conversations about health should move from the general level and address the individual's health concerns. (3) Individuals can bring in topics, but the teacher decides if health topics are expanded and deepened. Including new topics also depends on the lecturer's perception of his/her role in the classroom and his/her confidence in addressing health topics. Lastly, (4) the time spent on topics related to health in second-language courses is strongly limited by contextual and structural topics (purpose of language courses, course length, workload, teachers' administrative burden, and poor working and employment conditions) in Germany.

Result 3: Promoting HL in LESLLA Learners

Following the ethnographic study, we developed interventions to support teachers in promoting HL among second-language learners, especially those with no or incomplete formal education. We paid attention to the entire situation and context to create sustainable interventions. Two findings guided our intervention: Due to the great diversity among learners, teachers constantly adapt materials to learners' interests, needs, and language levels, and therefore designing a one-size-fits-all program is not suitable. Due to the SLC's rigorous conditions, focusing on HL during extra hours is prone to fall, but it is possible to start from the actual processes in the course and equip the teachers to promote HL within the given constraints. Since "health" was part of the curriculum, we identified three feasible strategies to *add* new topics based on the learners' interests, *re-purpose* and expand health topics and make them more relevant, or *look inside* and draw students' attention to and engage them with available health content.

The ultimate goal of our intervention was to improve newcomers' HL and empower them, which aligns with the course's goal of enabling participants to communicate independently in real life (including health) (Goethe-Institut, 2016; Huber et al., 2011). To achieve this goal, we focused on teachers – who already promote communication about health – and designed ideas to equip them with motivation, knowledge, and skills to create activities and interactions that facilitate the development of HL as a social practice. For this, we applied a three-step process informed by salutogenesis: First, raising awareness on the role of health in SLC (meaningfulness); second, unraveling multiple occasions and opportunities for promoting HL in SLC (comprehensibility) and third, equipping teachers with materials, ideas, and hands-on activities (manageability), in line with the structure of this contribution.

The conceptualization of the interventions is empirically-informed and theory-driven[1] and based on the Theory of Salutogenesis (Antonovsky, 1987), the Health Promoting School

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[1] Derived from the field of public health, I briefly explain here the three lesser-known theories/frameworks that were not only crucial to the research process but can also be particularly useful for language learners. First, the *theory of salutogenesis*. The theory of salutogenesis was developed by Aaron Antonovsky, who wondered about Jewish

approach (Okan, Paakkari, & Dadaczynski, 2020), promotes assets and the individual capability set (see capability approach cf. Bittlingmayer & Ziegler, 2012), and incorporates principles of Freire's adult education (Freire, 1996, 1970), adult learning theories (Knowles, 1973) and second-language-teaching like scaffolding (Gibbons, 2015), and translanguaging (Garcia & Wei, 2013). They equip learners not only to function within society but to interact and critically assess and question daily ambivalent situations (Nutbeam, 2000). In this regard, placing learning in real-world examples and raising awareness on various sociocultural and political aspects are essential. The SCURA project used the terminology 'HL' not as a substitute for health information but as a contextual, situated social practice. Therefore, various components of HL are needed to engage with health information effectively besides knowledge and communication skills. The scoping study identified seven crucial components (Harsch & Bittlingmayer, 2020a): language skills, knowledge, cognitive skills, behavioral skills, self-skills, social skills, and linking skills (such as reaching out and collaborating with other people and institutions), which were adopted for this intervention and led to labeling our approach as content or better competence-and-language-integrated learning (CompLIL).

We developed approaches that tied in with the identified ways of using HL (see Table 1 and Figure 1).

ADD IN: To support teachers in their search for health information and ideas for addressing health topics in class, we have developed a *treasure box of ideas and materials for health promotion in second-language courses* with 29 topics, each containing introductory remarks on the topic's relevance, language and content objectives, various concrete ideas for all phase of the learning process: introduction, elaboration, deepening and consolidation, supplemented by additional materials and links to relevant, informative websites.

RE-PURPOSE: To assist instructors in expanding on health topics, we have developed several materials, such as a framework to guide the step-by-step promotion of seven HL components in the SLC (see Vygotsky's theory of the zone of proximal development (Kozulin et al., 2003). A guide to critically reflect on sociocultural representation in activities and empower people (among others, guided by cultural competence (Papadopoulos & Gebrehiwot, 2002) and focusing on translanguaging (Garcia & Wei, 2013)). A handout to prepare for and conduct collaborations with healthcare professionals (e.g., guest speakers) or plan an exposure trip. A

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women in Nazi concentration camps who were not ill. He asked himself what keeps these people healthy despite circumstances that are severely detrimental to their health. He identified various general resistance resources and also the sense of coherence as factors that keep people healthy. The sense of coherence is an overall perception of life that makes it seem understandable, manageable, and meaningful. Women with a high sense of coherence and good overall resilience resources tended to be healthier and recover from illness more quickly than women with lower scores. Antonovsky called his theory salutogenesis, the genesis of health, so to speak (Antonovsky, 1987). In line with Antonovsky, LESLLA teachers can support their students in developing their sense of coherence and overall resilience. Second, the *health promoting school approach* recognizes that health is not only promoted through health education, but even more through the school environment. It identified numerous ways in which health can be improved through structural processes, school design, interaction and participation, and curriculum. This whole-school approach guided the ethnographic process and recommendations drawing (Okan, Paakkari, & Dadaczynski, 2020). Finally, the *capability approach* developed by Amartya Sen and Martha Nussbaum, who thought about justice and the idea of a good life. Their capability approach can be a theoretical basis for any intervention in public health, but also in education, because it does not primarily focus on the end results (success in school or good health) but looks at what capabilities a person has and can use to make choices that are relevant to them. Capabilities (=chances) are a combination of personal abilities but also all external support, information, and the removal of barriers. The role of education and other public services should be to enhance the individual's capabilities so that he/she can choose to use them to achieve self-defined goals. Thus, this approach is not paternalistic, but truly empowering (see Bittlingmayer & Ziegler, 2012).

working paper to reflect on the standard methods used in SLC and how they can be modified to improve other components of HL.

LOOK INSIDE: We conceptualized a series of workshops to help instructors draw learners' attention to the textbooks' content and facilitate discussions about health in SLC. The workshops included: Health – the Big Picture, Health and Me as a Teacher, Harnessing the Potential of Idea Collections, Critically Evaluating Materials and Developing Activating Activities, and Promoting Family Health Literacy in the SLC. The workshops are available on-site, online, and as a self-study course (due to the corona-pandemic) (Harsch, 2022).

All interventions, materials, and further information are available on www.scura.info.

Discussion

Given the urgent need for HL and its promotion among newcomers and the paucity of information on how it is promoted in language courses, the SCURA project explored the limitations and opportunities for promoting HL in language courses. The project generated thick descriptions of course activities in the ethnographic study and identified numerous entry points for improving HL in the courses observed.

However, our findings and interventions are limited.

First, due to the scarcity of empirical data from other courses, the findings and conclusions can only be compared with a few other ethnographic studies (Bittlingmayer et al., 2020; Papen, 2009; Samerski, 2019) or qualitative findings of some projects but not broadly. While general observations can be applied to most courses, other studies cannot verify precise, unique observations.

A second limitation in generalizing our findings and the developed intervention to all courses stems from the sample. Although our courses were representative of integration courses in Germany (in terms of educational background, language, residence status, and goals), the remarkable heterogeneity within a course, between courses in the same country, and between courses in different countries is a challenge to be considered (Chen et al., 2015; Hünlich et al., 2018).

A third limitation derives from the conceptualization of the concept of HL. The SCURA project framed HL as a contextual, situated, social practice, thus, identifying numerous influences on health and HL in SLC and describing numerous ways to promote HL to different extents and scopes. When the topic of health is not restricted to healthcare access and diseases but framed holistically, then health is fundamental for second-language learning because it provides the constitutions (of learners and teachers) for attending the course and learning success. Moreover, health is addressed in the curriculum (narrowly and broadly), influenced by the setting influences, and can be enhanced within the course (see health-promoting school). Thus, good HL is beneficial for teachers and students to be aware of these multiple influences on health, discuss any health concerns, and influence health positively. As we studied HL not as a fixed skill but as a social practice (Papen 2009), we could observe the use of health information in our study and expressed itself as dynamic, evolving, and multifaceted (Bittlingmayer et al. 2020; Samerski 2019; Harsch et al. 2021). Next, HL occurred as social practice visible in the interpersonal conversations about health and other people's involvement while engaging with health information (Lareau & Cox, 2020; Papen, 2009). Moreover, the ethnographic study in textbooks and interactions showed that manifold situational features influence HL in a given

event and how much the situation and HL are impacted by the context (including its sociocultural specifics).

Due to the heterogeneity in classes and interests and the dynamic contextual and situational nature of HL, we refrained from developing one manual for all courses. Instead, we provided a general perspective, tips for action, and a material collection for teachers to use freely (to broaden and deepen the rather superficial health topics in the textbook and discussions).

We sought to compensate for the bias of a single-participant observation study by including expert interviews, textbook analysis, and scoping review findings. Thus, we identified and developed numerous ideas on promoting HL in language courses that go beyond the two courses researched and can be adapted to each course's unique situation (e.g., conditions, heterogeneity). To make the materials suitable for many teachers in this heterogeneous setting across Germany and beyond, various tips were created similarly to Singleton (2003). Unlike Levy (2008), Soto Mas et al. (2013) or Diehl (2006), no separate manual was developed, but materials were provided for teachers (McKinney & Kurtz-Rossi, 2000; Rudd et al., 2005) and training offered so that teachers could include the materials and expand their competencies similar to Rudd et al.'s approach (2005) but with an even greater emphasis on self-learning modules due to the corona pandemic. In order to increase the usefulness and acceptance of the offers among teachers, we applied several well-known principles (e.g., the differentiation of competencies and the gradual increase of these) and provided many concrete examples.

The immediate applicability is also limited (or at least not fully applicable) because we conceptualized HL based on a holistic ecological model of health. HL is framed as a contextual, situation, and social practice composed of seven components that can be promoted in its sociocultural context. Other teachers and researchers might come to different conclusions and interventions based on their conceptualization of health and HL (Handley et al., 2009; Nimmon, 2010; Soto Mas et al., 2018). To expand our knowledge on HL promotion in SLC, further basic research is needed to explore HL practice in other SLCs and applied research to assess the usability of the developed materials in other settings. The examples given here, the conceptualization of HL as a social practice, and the numerous influencing factors and starting points can help teachers become more aware of health literacy in practice and encourage teachers to develop appropriate interventions for their given group.

Three further constraints are related to the intervention's implementation. First, the constraints associated with the general conditions of SLC (or integration course), which are firmly dependent on the course context, regulations, and requirements, make time-intensive engagement with health topics almost impossible. A second constraint lies in the high relevance of a good, welcoming, trusting atmosphere between the course participants and teachers and whether they support each other (in language learning, health issues, and questions of everyday life) (see also Hohn 1997). The atmosphere decisively determines whether personal issues are brought into the course and promoted. A last constraint of promoting HL in language courses also lies with the teachers, in their training, their motivation to respond to learners' health needs (Rudd et al., 1998), and their concept of their professional role (language teacher or enabler of linguistic action in many life situations).

Conclusion

Promoting health literacy in SLC is not a novum but has become more urgent since the Corona-pandemic revealed the necessity to equip LESLLA learners with the ability to use health

information effectively. The SCURA project provided manifold insights into how SLCs shape health and HL, how learners engage with health information, and tips on strategically promoting it.

Health is a fascinating topic that motivates students to participate, but it must be handled carefully. HL is more than just having words for diseases; it is a contextual, situated social practice. Teachers are suitable to promote HL and can purposefully stagewise promote the seven components of HL. Here, a salutogenic-informed three-step process guides the training: teachers become aware of the relevance of health and HL in SLC, sharpen their view for occasions to promote HL, and are equipped with ideas of how to include HL and good practice examples. With this, the sociocultural influence on HL should be acknowledged in research, diagnosis, and promotion.

In conclusion, standard SLCs in Germany and globally play a critical role in promoting HL, entail various occasions to address HL, and have the potential to promote HL. However, they are severely restricted due to political, contextual, and structural issues, the tremendous heterogeneity among LESLLA learners and course compositions, and teachers' roles, qualifications, and motivations. All this strongly determines the corridor of the scope of action for HL promotion in SLC.

Overarchingly, this project showed that second-language teaching and health promotion are two distinct disciplines but share the same objective: empowering and thus can benefit mutually from the collaboration.

One fundamental finding remains paramount: Second-language courses for LESLLA learners are not neutral; they affect health and HL explicitly through materials and implicitly through interaction, setting, and regulations. All teachers should be aware of this influence on HL to decide how to respond to it and, if desired, address it more proactively. Consequently, newcomers are better empowered to learn about and shape their health purposefully.

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An Early Look into Leveraging the Home Language for Biliteracy in the LESLLA Context

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Abstract

Situated in a pilot project exploring biliteracy teaching and learning with adult L2 learners with emergent literacy, this practitioner paper describes what the home language literacy lessons of a Nepali learner, Renuka, looked like in an early phase of the pilot. SLA has recognized the value of strategic L1 use in target language learning (Wrigley, 2003), and LESLLA researchers have identified a biliteracy pedagogical approach as an important area for future research. In the micro-context of the present study, this paper considers the potential for a biliteracy approach to promote crosslinguistic transfer (particularly metalinguistic skills), and to support teacher awareness of learners' funds of knowledge (Moll et al., 1992). It further explores the promise of an in-depth intake process, and increased teacher observational skills to support practitioner-learner conversation about literacy and learning. By sharing our work, we hope to reignite discussion around the potential of a biliteracy approach with LESLLA learners.

Keywords: adult L2 learners with emergent literacy, LESLLA, home languages, biliteracy, funds of knowledge

Introduction and Background

As a field, LESLLA has grown in its understanding of teaching and learning with adult L2 learners with emergent literacy. However, while teaching practice with LESLLA learners has evolved, print literacy development continues to be laborious and uneven with such learners. Kurvers (2015) noted a striking variance in the study load, or contact hours, needed to attain the next level in Dutch as a Second Language. Some learners remained at the pre-beginning level (pre-A) after 850 hours, while many took 1,000–2,000 hours or more to advance to beginning levels (A and B). Tammelin-Laine & Martin (2015) have posited that the 1,400-hour course LESLLA learners access in Finland is insufficient for learners to learn to read at a functional level. As these studies demonstrate, there is considerable effort needed to pass the beginning and functional levels of literacy, suggesting a need for a revised approach to teaching literacy.

Condelli and Wrigley's (2002) 'What Works' study found use of learners' home language with LESLLA learners particularly helpful when introducing new or complex concepts. However, as Wrigley (2003) notes, such usage should be judicious. Engaging home languages can be viewed as a means to building on learners' existing resources. And yet, as Peyton (2012) has discussed, little research exists into the use of LESLLA learners' home languages to support target language and literacy development. Despite research which shows the value of home language use in other bilingual contexts (Bajt, 2019; Cummins, 2021; Makulloluwa, 2016; Zaidi, 2020), this lacuna in the LESLLA context remains. Peyton (2012) suggests the LESLLA community consider the role of home language and culturally responsive teaching and asks whether we might work to develop "bilingual oral proficiency, biliteracy and multicultural competence" (p. 150), with a recognition that there is value to a both-and approach. Kurvers et al. (2015) echo the call for further inquiry into home language development prior to introducing print literacy in a target language with adult L2 emergent literacy learners.

The smattering of documentation on the topic of home language literacy to support dominant language literacy with LESLLA learners includes a study in the New York City metropolitan area (Burtoff, 1985). In that study, learners with up to two years of prior schooling who had not yet developed print literacy skills in their home language of Haitian Creole were placed in one of two types of class: 1) a class with 12 weeks of home language literacy learning followed by 12 weeks of home language and literacy classes, or 2) a class with 24 weeks of English language and literacy learning. Learners in the former class made greater literacy gains than peers in the English-only class. Comparable to the aforementioned US-based model, similar models are exemplified in Hyllie Park Folk School's established biliteracy classes in Sweden (Mörnerud, 2010), a Dinka and English literacy class pilot in Australia (Commonwealth of Australia, 2009), and Farsi and Arabic literacy classes in support of Icelandic language and literacy instruction (O.M.A.H.A.I., n.d.). With LESLLA learners, an approach where home language literacy is developed before, or alongside, target language and literacy development, shows promise. However, only one of these programs appears to be established and sustained. Little attention has been given to the potential ongoing benefits of such an approach. I (Theresa) have observed the promise of home language use in dominant language and literacy learning with teachers and learners in my sphere. At a time when many Dinka-speaking learners were accessing literacy classes in the program I worked in, a colleague shared a poster of the Dinka alphabet that was later used to demonstrate letter-sound correspondence. Another colleague created a learner mentorship program where beginning literacy learners were each paired with an upper-level language learner who spoke the same home language in their multilingual target

language classes once or twice a week. The bilingual student mentors provided invaluable support explaining language and literacy concepts.

The pilot project presented here, *Biliteracy Learning for ESL Literacy Learners,* was guided by the experience, research, and recommendations described above. It was further predicated on the work of researchers who have worked to promote home language use with children in Canada, both to support target language learning and to elevate home language use and development. Cummins (2021) argues that the use of children and youth's home languages in schools allows for crosslinguistic transfer. Particularly relevant in our context are the transfer of phonological awareness, and "metacognitive and metalinguistic learning strategies" (Cummins, 2021, p. 32). Additionally, strategic use of home languages can promote multicultural and linguistic identity (Cummins, 2021; Zaidi, 2020). If such benefits exist for young learners, adult L2 emergent literacy learners might experience similar benefits.

LESLLA research to date has shown us how LESLLA learners develop reading and writing skills in the target language and indicates that target language reading, writing and oral skills are all influenced by home language print literacy. We as a field now know that learning to read and write in a language whilst learning to speak that language takes an extraordinary amount of time and effort, even with best practices in place. What we are doing still is not working well enough, but with our collective knowledge of how print literacy is developed with LESLLA learners, we are well-positioned to take what we know so far and apply it to developing a literacy foundation in the home language and determine additional best practices to support our practitioner work.

The biliteracy pilot project seeks to address calls to investigate the value of home language literacy development with adult L2 learners with emergent literacy. At the time of writing, we are in the early stages of working with such an approach, with home language literacy being introduced. This phase of the project may not provide many answers to bigger questions posed by Peyton (2012) and Kurvers et al. (2015). However, this descriptive paper offers insights into four aspects that stood out for us: 1) how one learner, Renuka, responds to home language literacy teaching and learning; 2) how connecting literacy learning to a learner's interests and goals might influence engagement in the challenging tasks at hand; 3) how a comprehensive learner intake process can highlight a learner's funds of knowledge (see Moll et al., 1992) to guide the teaching and learning process; and 4) how teacher reflection might strengthen our capacity to promote metalinguistic strategies in a meaningful way.

In this paper, Theresa provides an overview of a multiphase pilot project. Next, Sangita describes her experience and observations working with the project to support Nepali literacy development with one learner in Phase II of the project. We conclude with questions for the field and directions for future work.

Project Overview

After extensive work with LESLLA learners and some promising experiences working with home language use in literacy learning in Canada, Theresa sought out interested organizations and potential funding sources to pilot an approach similar to that described in a report of a Dinka-English literacy pilot project in Australia (Commonwealth of Australia, 2009). A local organization offered to support such a project's application for funding. When the project was awarded a grant in 2019, a small team of consultants joined the project to conduct needs assessments with potential learners, consider literacy development in included languages, and

create resources for learner intake in Farsi/Dari, Nepali, and Tigrinya. Sangita joined the project team at the onset. While new to working with adult L2 learners with emergent literacy, Sangita had worked to support adult basic literacy learners whose home language was English in the past.

As shown in Table 1, the project team has obtained a series of small grants to conduct a needs assessment, develop teacher resources, and pilot a curriculum framework for biliteracy learning with LESLLA learners over a multi-year, multi-phased approach.

Year	*Activities*
2019–2020	Community needs assessment Curriculum framework
2020–2021	Pilot project: Home language literacy lessons Reflective practice Teacher handbook
2021-2022	Pilot project continued: Home language and dominant language literacy lessons Teacher training resources

Table 1. Biliteracy Pilot Project Activities by Year

Year 1: Laying the Groundwork

In the first year of the project, community interest in biliteracy classes was established. The project team reached out to community organizations and to community members with LESLLA backgrounds who speak Farsi/Dari, Nepali, and Tigrinya. We conducted two focus groups: one in Farsi/Dari, and one in Tigrinya. Participants reported up to two years of prior schooling and were mainly new to print literacy. When asked whether they would be interested in biliteracy classes, participants' responses ranged from 'I'm too old' to 'When can we start?' (Wall, et al., 2020). It was determined that there was enough interest to pilot biliteracy learning with adults the following year.

Year 1 of the project also involved the development of a Curriculum Framework (Wall, et al., 2020). This document includes a literature review, a description of the teaching philosophy, a brief overview of the features of each of the home languages included in the project, and parallel intake assessment tools in Farsi/Dari, Nepali, Tigrinya, and English (see Figure 1 for an example of the tools).

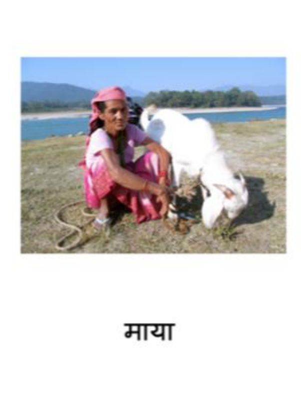

Figure 1. Front cover of book used for Nepali reading assessment

The Curriculum Framework is grounded in whole-part-whole (WPW) teaching methodology (Trupke-Bastidas & Poulos, 2007) and the 5 essential components of reading instruction, as outlined by a report on the science of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension (Learning Point Associates, 2004). Within the WPW model, fluency and comprehension fit naturally in the 'whole', where the focus is on making meaning of text. Explicit instruction of phonemic awareness, phonics, and vocabulary (or word knowledge) was included in the 'part' segment of literacy lessons. Because this population of learners is new to print literacy, pre-reading skills such as directionality and letter formation have also been embedded into the Curriculum Framework.

Intake Assessment Tools

A set of intake assessment tools in Farsi/Dari, Nepali, Tigrinya, and English are also included in the Curriculum Framework. The package begins with an intake interview, in which a teacher asks the learner about their prior schooling, literacy practices, availability, and what they want to learn. It may seem counterintuitive to conduct an extensive intake assessment with learners new to print text, however, skills have been broken down into discrete steps. For example, to explore a learner's understanding of print concepts, they are shown a book and asked where they would start reading and where they would go next, before being asked to point out a word, and then the first and final letter in that word. This all takes place before learners are asked to attempt to read at the word or sentence level. This incremental approach enables teachers to see what a learner already knows, and what existing skills and knowledge about print literacy the learner has—even when a learner may report that they are unable to read and write at all - and offers more opportunities for learners to experience success during the assessment.

Year 2: Home Language Literacy Learning

Year 2 of the project focused on three main activities: 1) home language literacy lessons, 2) a reflective practice approach to teaching, and 3) the development of a teacher handbook. The Curriculum Framework was piloted in two languages: Farsi/Dari and Nepali. Home language literacy lessons were mainly offered in one-on-one tutorials, though in one of the sessions, a learner's sister joined the tutorials near the end of the pilot. While we had originally planned for face-to-face lessons at public libraries, tutorials were moved online due to the COVID-19 pandemic. Teachers worked with learners to find a learning platform that would work for them. Learners spent two or three sessions developing the digital skills necessary to engage in tutorials such as making a video call, accepting a video call, and taking and sending a picture. Online learning was supplemented with a small package of printed materials consisting of a book, picture flashcards, a personal-sized whiteboard, and a dry erase marker.

Throughout 2020-2021, practitioners employed a reflective practice cycle that involved teaching, self-assessment, considering new ways of teaching, and putting these ideas into practice. (Cambridge Assessment International Education, n.d.) (see Figure 2). Using a reflective model supported practitioners to plan and modify content and approaches based on observations and learners' feedback. The project team read articles, attended LESLLA webinars, and participated in EU-Speak's *Bilingualism* module.

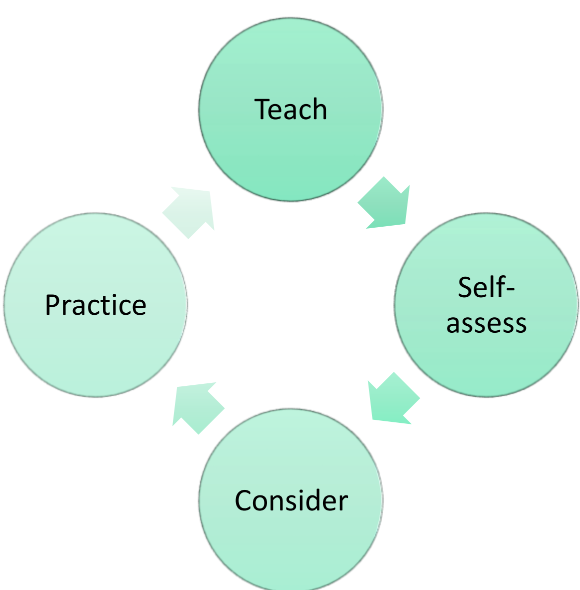

Figure 2. The Reflective Teaching Cycle (adapted from Cambridge Assessment International Education, n.d.)

This pilot project relied heavily on the expertise of bilingual and biliterate team members who have been engaged in every step of the project. Sangita joined the project in 2019 and was involved in the needs assessment in the Nepali-speaking community, Nepali intake assessment development, and identifying language and print features specific to the Nepali language. In 2020-2021, Sangita worked one-on-one with a learner to develop Nepali print literacy in the home language literacy teaching and learning phase of the pilot. As you will see below, Sangita's funds of knowledge (see Moll et al., 1992) were invaluable in this project.

Introducing Sangita

I felt so honored to be a part of the LESLLA community as it was my first teaching experience with a LESLLA learner. I have over twelve years of teaching experience, from kindergarten to college-level, back in Nepal. I taught mathematics in junior and high school when I was a student majoring in Math. Then, after completing my master's degree in Anthropology I started teaching Anthropology/Sociology. When I came to Canada, I changed my profession. I completed a diploma in Human Services and worked as a community resource worker with people with special needs. I supported clients to find a job, volunteer work and educational opportunities available to them. My responsibility was to support them in the class as well. Later I worked for a college as a program administrator. There I got an opportunity to work with basic literacy learners who were developing reading, writing, and digital literacy skills.
In the biliteracy pilot project, we, the teachers were literate in our home language and second language, English as well. We were from the same country and spoke the same language as the learners we worked with. Culturally, we observed and practiced the same festivals, norms, values, and rituals. It was easy for me to understand my learner's tone and gesture in her

responses during classes and in our conversation. As a student of Anthropology, I am always interested in observing such aspects of human behaviour.

In the next section, Sangita shares experience and observations working with the Curriculum Framework and the reflective practice model as she taught home language literacy.

Introducing Renuka

Renuka is an emergent literacy learner who attended one or two classes in grade one before she stopped going to school. She was married when she was 14 years old. Renuka enjoys her life with her husband, three daughters, and one son. She moved to Canada with her husband three years ago, and has been living with her oldest daughter and son-in-law and their nine-year-old daughter. When she began Nepali literacy tutoring sessions, she was 55 years old. All of her three daughters are married, and her youngest son will be married later this year.

Renuka regrets declining the opportunity to go to school when she was young. At that time, she thought that she could not do well in school as she perceived herself to be a poor student. When she was young, it took time for her to learn math and the Nepali alphabet. She felt her teachers and her cousin brothers (who wanted to help her with her homework) would get mad at her because she could not learn quickly.

Now, however, she wants to read books, especially the holy books. Renuka shows curiosity about the information and the signs and print she sees in her Canadian community. She thinks that if she learns to read and write in her home language it will be easier for her to learn a second language. Her nine-year-old granddaughter is also learning Nepali language as a second language in Canada. Now that all of her children are grown up, and she does not have the responsibilities to take care of them, Renuka wants to go back to school. Her daughters and sons-in-law also encourage her to join the literacy classes. I worked with Renuka 3 times/week for one and a half hours for a total of 55 hours over the course of 14 weeks.

Learner Intake Process

The intake interview and assessments helped Renuka and I get to know each other and to establish a teacher-learner relationship. Conducting the intake assessments gave me an idea of both her literacy and language levels, and her metalinguistic awareness. It made it easy for me to develop the lesson plan. I made it clear to Renuka that the intake interview and assessments were not tests that could give her a passing or failing result. Instead, they were part of a discovery process to know *how* and *where* to begin learning sessions. Renuka and I developed the topic/context of the text and the content of each lesson plan, but the assessments led me in the direction of our biliteracy teaching and learning journey.

In the learner intake process, my learner went through a series of steps. She showed a couple of the print concepts such as how to hold a book, the top and the bottom of the book, the front and back pages of the book, and words in a sentence. She was able to say and write the first 12-15 of the Nepali alphabet letters in order, even though she missed a few and several she said randomly. The assessment of every step gave an idea of the skills in print literacy. She learned to read and sign her name. The teaching strategies and development of the lesson plans were based on the learner's knowledge and skills shown in every step of the intake process.

Writing in Nepali

To contextualize the teaching and learning shared in this paper, here we describe a few language features key to Nepali literacy. The Nepali writing system reads left to right. It uses the Devanagari script and is alphasyllabary (Nepali Language Resource Center, 2021). Each unit consists of a consonant and vowel symbol, and each word is joined by a line, a *shiro rekha,* which runs across the top of the symbols. A *purna biram*, or vertical line, marks the end of a sentence. The Nepali orthographic system is transparent, meaning the letters and sounds correspond consistently.

Intake interview and assessments: I used the intake assessment tools that our biliteracy pilot project team created to know the learners' strengths and to have an idea of making a lesson plan for the literacy class. We were not able to work together in person because of COVID-19 restrictions, so I dropped off the intake assessment in a package that had the storybook of Maya, a fictional Nepali character, intake assessment worksheets, a whiteboard, and a marker. We split the intake assessment over three sessions via Messenger. The following paragraphs provide an overview of Renuka's intake assessment results.

Print Concepts and Reading Fluency

For the print concepts and reading fluency assessment, the learner was given a book about a character named Maya. Each page of the book had one simple sentence of text supported by a photograph with one sentence stem repeated throughout. The main purpose of this assessment was to determine the learner's familiarity with print concepts, such as directionality, word boundaries, and letter identification, in Nepali.

During the assessment, Renuka could tell me the front and back pages of the book when asked to identify them. She knew which way to hold the book, and which direction to turn the pages. When I asked her what she saw on the front page of the book, she was able to describe the pictures. When she was reading the book 'Maya', I observed that she could recognize some consonant letters. She did not have any idea of the vowel letters and vowel signs attached to the consonant letters. She just read the consonant letters but missed every vowel sign and letter. She was not aware of the signs attached to a letter (e.g., the *shiro rekha* and *matra*). She also could read some of the letters in words but could not decode them. Thus, when asked comprehension questions about the story, Renuka referred to the pictures, not the print text.

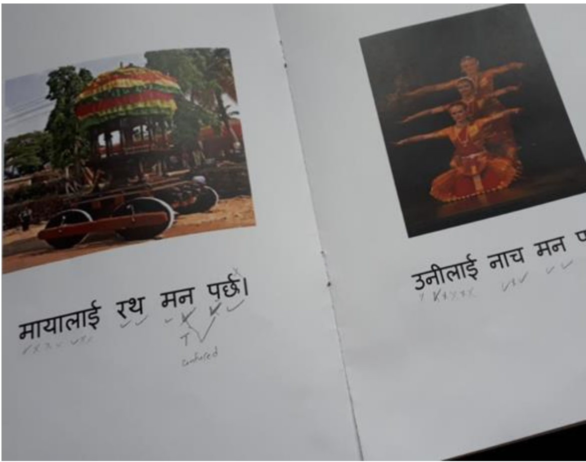

Figure 3. Renuka's reading assessment

Pre-emergent Literacy Skills

In this portion of the assessment, I asked Renuka to write as many Nepali letters and words as she could. She could read and write some of the alphabet letters. She wrote the first 10-15 consonant letters (see Figure 4). As observed in her print concepts and reading fluency assessment, Renuka had not learned how to read vowel letters and vowel signs. Similarly, she could not write the vowel letters. She was not able to write any Nepali words, apart from her name.

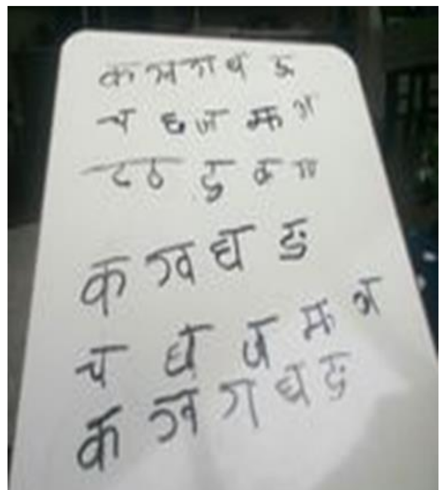

Figure 4. Renuka's writing assessment: Renuka wrote as many letters as she could

It was just three years ago that Renuka learned how to write her name. She had been motivated to do so when she was in the process of coming to Canada because she did not want to sign documents with an inked finger. Thus, Renuka's daughter taught her how to write her name. She is also comfortable writing her name as a signature. During the intake assessment, I noticed that Renuka held her pen and whiteboard marker comfortably.

During the intake assessment, Renuka was not able to recognize most of the environmental print and symbols. Since she arrived in Canada just six months before the start of the pandemic, she did not get a chance to go around the community. A common supermarket logo and the hospital sign, for example, were unfamiliar to Renuka. She was, however, able to recognize two sight symbols but was not sure what exactly were those for. When I showed the sign 'Exit' and asked what it was for, she said that she had seen that in the hospital, but she thought that was just a blinking light. She knew the 'Stop' sign was related to driving but did not know what it referred to.

Phonics

In the phonics assessment, Renuka was asked to write the missing letters of the name of the pictures. The missing letters were with and without a vowel sign. She found the missing letters in some of the pictures. She wrote the missing letter that did not have the vowel sign. But she was not able to write the letter with a vowel sign attached to it. In her work (Figure 5), we can see that she wrote the missing letter of the picture of a lotus but not of the picture of a banana. From this we see that Renuka was able to complete a word with a missing consonant, but not with a missing consonant and vowel symbol.

Phonemic and Phonological Awareness

During this part of the assessment, the learner was asked to identify rhyming words and initial and final sounds. When I read a set of words like पानी बग्यो नानी, she was able to name the rhyming words from the set. She could also tell the initial and final sound of two letters words किताब /क/, पंखा /ख/ but she found it hard to identify the initial and final sounds of three-letter words. As a beginning literacy learner, Renuka was unable to hear beginning and final sounds in longer words. Here, the assessment tool helped me identify the learners' skills that might not be visible in other assessments.

Other Notes about the Intake Assessment

During the phonics assessment, Reunka could not follow my instructions to figure out where to write the missing letters. She wrote somewhere close to the picture, not in the designated place (See Figure 5). The intake assessment was online, and it was her first-time doing assessments.

Figure 5. Phonics Assessment: Learners are asked to fill in the missing consonant (top) or vowel sign (bottom).

What Teaching Looked Like

Context and Content of the Literacy Classes

As part of our learner-centered approach, lesson content was based on Renuka's interests and goals. In the intake interview, I found that Renuka was family-oriented and loved cooking Nepali food. She also let me know that she was learning how to write both her husband's name and the family's name. So, we developed two stories for her to practice literacy on. In the first story, we picked one fruit from her fruit basket, one food from the freezer, etc. To supplement

her learning, and to use her funds of knowledge, I suggested picking fruits and items that had at least one letter or any vowel signs that her name had. For the second story, we focused on introducing her family. This helped her to practice writing the names of people she knew, a personal goal of hers.

A Whole-Part-Whole Approach

In this biliteracy pilot project we applied the whole-part-whole approach. Each day's lesson plan was based on the whole-part-whole model. During each lesson, we worked on new words. If the words had letters and vowel signs new to her, she practiced reading and writing those words, letters, and signs a lot. After learning to read and write a new word, we looked for some rhyming words for more practice with the same vowel signs and some new letters. This way she built up her sight word vocabulary as well as got time to practice phonics and phonemic awareness.

Figure 6. Renuka's Book (cover above) included foods with letters found in her name.

The Five Components of Reading

For each topic, I used the five essential components of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension. When I introduced a new word, Renuka practiced reading and writing that word. She learned to sound it out (phonics), write with right vowel signs attached to it, and read pointing to the corresponding letters and signs when she was reading that word (phonics). Once she was able to read and write all of the words in a sentence, she was asked to read the sentence. When reading the sentence (fluency), she was able to understand what the sentence said (comprehension). Because of the implicit and explicit instruction, she had ample time to practice. I also tried to find words rhyming with content words within her knowledge (phonological awareness). As far as possible, I also introduced new words from her surroundings and the famous landscapes of Nepal. The purpose of choosing words from her surroundings and the famous landscapes of Nepal was to teach her reading and writing with familiar words so she would not need to apply extra effort to learn reading, writing, and new concepts.

Literacy Classes

In the first two weeks of class, Renuka tried to copy the text of her story of likes and dislikes (Figure 7). I asked her to notice and write the signs and symbols attached to every letter, even though she was not familiar with them. We worked on each word of a sentence and each letter and vowel sign belonging to that word. She practiced reading and writing more if a letter or

a sign was new to her (every vowel sign was new to her at that time). She learned to read and write the content words and the rhyming words of the words. This way she had more practice with the vowel signs as well as an idea of phonics and phonemic awareness. I describe Renuka's progress over the following 12 weeks below.

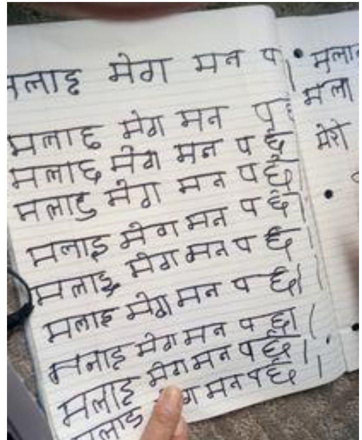

Figure 7. Renuka copied a line from her story.

Renuka's Progress

After learning to read and write each word of a sentence, Renuka could arrange the words to make the sentence by herself. By the end of the term, she was able to recognize over fifty words including content words and rhyming words. All the words were within her knowledge and experience. The words were not new to her, the new thing she was learning was to read and write with an awareness of vowel signs. She learned to decode and encode words and the meaning to it. In the term-end assessments, she was also able to write over 20 words of her story without any help (Figure 8).

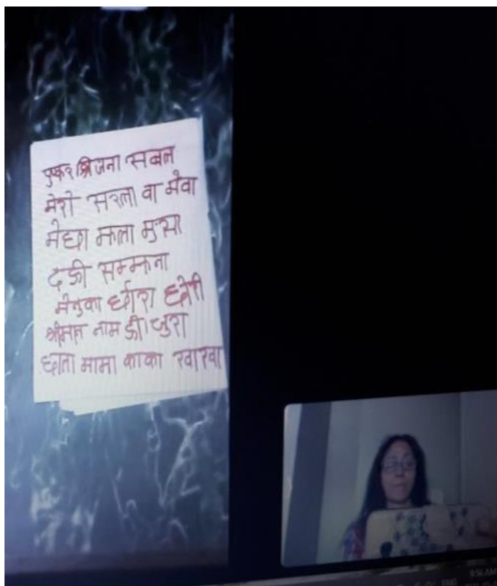

Figure 8. Renuka's wrote over 20 words after 55 hours of instruction.

She could copy sentences with an awareness of the vowel signs and symbols. She was also able to arrange words to make her story. When we began working together, Renuka drew on her knowledge of the sentence stem and the pictures in the book about her family, pointing to different words as she read. After learning to read and write the words of her story, she started to point out the right word when she was reading. Still, she needs to work on phonemic awareness to learn to point out the right letter and vowel sign attached to it when she is reading a word.

Observations

A Biliteracy Approach with LESLLA Learners

I have experienced the importance of the home language in the beginning when you are learning a second language. In my home country of Nepal, I started learning English as a foreign language when I was in grade four. At that time, our teacher used to give us the foundational concepts of the English language in our home language. It made it easier for me to learn the distinctive features of the two languages when the teacher explained them in my first language.

When I learned about the biliteracy pilot project from the biliteracy pilot project team lead, I was excited to be a part of this project. I thought, in the future, this type of program would be in high demand with LESLLA learners, who had not yet developed literacy in their home language but were compelled to learn a second language after migrating to a second country.

Renuka's Funds of Knowledge

During the sessions, I came to know that even though Renuka did not attend formal education herself, she was exposed to print literacy and formal schooling in her life. When her brothers used to go to school and do homework, she listened to them and watched how they read and wrote. She used to look at their books. Her grandfather used to chant the holy book. After getting married, Renuka saw her husband read daily magazines. When Renuka's children started school, she would watch them doing their homework and listen when they read the Nepali and English alphabets aloud. This exposure to literacy and schooling unknowingly helped her to acquire a few pre-emergent literacy skills, reflected in her intake assessments as well.

Motivation to Each Other

Renuka was an enthusiastic and committed learner. She always practiced after class. She used to show me her work in class or sometimes sent pictures of her work on Messenger (see Figures 9 and 10). Sometimes she brought new words to our lessons and asked me how to write them. The learning was all about her. So perhaps what is significant is that Renuka was motivated to learn because her learning was contextualized, and because she was making progress. One day she said to me that she felt proud that now she was able to read and write her family members' names.

Transferable skills she acquired

Renuka developed skills that will likely support her English literacy development in the future:

- **Directionality and Spatial Awareness:** Since beginning Nepali literacy tutoring sessions, Renuka practiced printing with paper and pen and with a whiteboard. In the beginning, Renuka sometimes put her notebook upside-down when writing. Now she is aware of which way to hold her notebook. I also noticed that she used to write in her

notebook wherever she saw some blank space, but now she turns over pages in order and keeps writing with the pattern of two lined paper.

- **School skills:** She engaged in the learning process by attending sessions on time and regularly, following the instructions, and completing classwork and homework. She also initiated learning content by bringing new words and ideas for writing.
- **Print Concepts:** She became mindful of the direction and order of words in a sentence when reading and writing. She acquired the concepts of a letter, a word, and a sentence, and she is able to talk about them (metalinguistic skills). She began to build reading skills to decode and encode words. Before joining the literacy class what she knew was that a book gives information about something, or it tells a story. But now she knows that every sentence of a book has meaning.

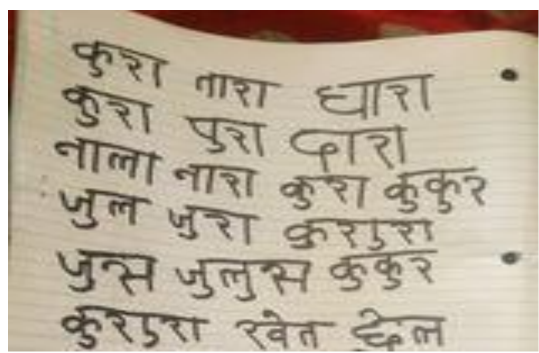

Figure 9. Renuka sent photos of her writing to Sangita

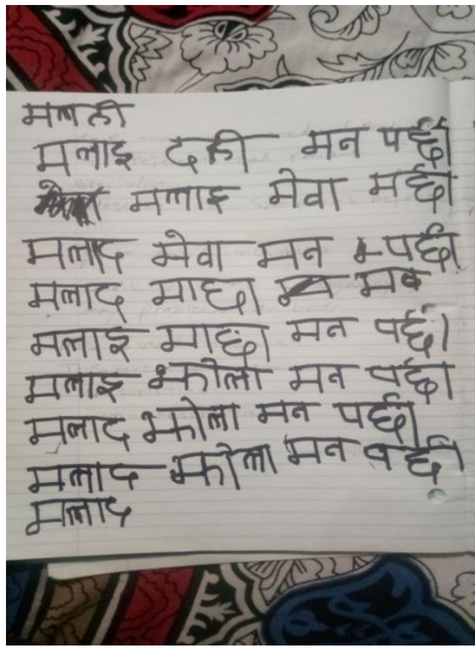

Figure 10. A sample of Renuka's writing which demonstrates her awareness of writing conventions

The Role of Reflective Practice in my Teaching

The reflective teaching cycle helped me evaluate my teaching in each step of the biliteracy project. I think back to the class when I introduced two vowel symbols in one class, Renuka felt overwhelmed. I expected she would compare the shapes of two vowel symbols, making it easier for her to learn the shapes and sketch and remember those two symbols. But this strategy did not work. In the next classes, I introduced one vowel symbol at a time. She practiced using that symbol until she felt confident enough to read and write the symbol with other different letters.

To learn to read and write a word, Renuka needed to know more than one vowel symbol, sometimes she was confused with the shape of the symbols, so we gave funny names to each symbol. It helped her to remember the symbols when she needed to use them in a word. The reflective teaching practice convinced me to go back and think about my teaching strategies and assess whether they needed any modifications before bringing them back into practice. It also helped me to apply the teaching strategies according to the learner's learning style, funds of knowledge, and interests.

Additionally, the reflective practice cycle became helpful to see whether the whole-part-whole approach applied in the biliteracy class was appropriate or not. In each lesson plan, if applicable, I reflected on how I included the five components of reading and whether I applied it in the right way or not.

Reflections

Teaching and learning in the biliteracy project was a learning journey for both of us. I think Renuka's decision to show a willingness to come back to school was a brave one. As an adult learner with emergent literacy, she built up some beginning literacy skills.

This teaching and learning journey was an opportunity for me to learn and apply the whole-part-whole model. When I started to teach her using the model, I was reluctant to apply it. I thought the traditional way of teaching (first the alphabet, then the vowel signs, and then words) was better. But after two or three classes, I found the whole-part-whole model was effective for adult learners.

Thinking about the *whole*, the concept of relevant context and content within the learner's experience and interest inspired my learner to feel confident in learning. When we worked with the *parts*, explicit and intensive instruction gave her ample time to practice. It also helped Renuka to go at her own pace**.**

In the Nepali language, the basic concept of Consonant Vowel (CVCV) of a word (किताब) is a bit tricky for beginners. It took almost 12 weeks for me to give her that concept. Later, if I gave her a word to write, she was aware of the letters and vowel signs attached to each letter of that word. But she was confused about the vowel signs, which one is attached to which letter of the word. Sometimes she messed up the vowel signs as well. So, I taught her to go one step at a time. First, I broke one word into letters, and then attached the vowel sign to it. She practiced reading and writing the letter first, then the sign attached to it. After learning to read and write a word, we began to work with another content word. Reading and writing skills were contextualized using a whole-part-whole approach, so letters and vowel signs were always taught within meaningful words.

I learned that if word knowledge begins with what the learners already know, the learners enjoy the learning and are inspired and motivated to learn more. I also learned that teachers should go at literacy learners' pace instead of following a set curriculum schedule, and we should create the lesson plan that way. Some days, we cannot follow the lesson plan of that

day. We should go back to review the lesson again instead of moving forward. I followed Renuka's lead until she felt confident in her learning. I also realized that LESLLA learners are fellow travelers of the teaching-learning journey. We cannot move ahead of them until they are ready to move forward.

Summary and Conclusion

The *Biliteracy Learning for Adult L2 Emergent Literacy Learners* pilot project was developed in response to increased awareness that building on learners' strengths facilitates literacy teaching and learning. By drawing on learners' prior experience and developing print literacy in a language that learners already know, we intend to work with all of the resources, or funds of knowledge, that learners bring to literacy learning. We also draw on the extensive funds of knowledge of bilingual and biliterate teachers.

In the case of Renuka, her knowledge of the Nepali language and her life experience as an adult in the world and contributor to her family were recognized as valuable assets by her teacher. Sangita observed Renuka's growth and challenges as she engaged in Nepali literacy lessons. Renuka learned 'school skills' such as the expected way to use a notebook. The learning materials Sangita created were accessible to Renuka, as she was able to practice reading and writing independently, outside of class time. Her growth in metalinguistic skills is evidenced in her understanding that letters represent sounds and words and sentences convey meaning. We expect that, as Renuka joins us in the next phase of the project, these skills will be transferred to her English literacy learning.

The value of an in-depth intake process is shown in multiple ways. First, the interview invites the learner to share prior experiences with print literacy and schooling. Renuka's limited experiences with formal schooling were not positive. With this type of knowledge in hand, the teacher may approach the teaching and learning process with extra care. Further, in an intensive intake assessment where skills are broken down into discrete steps and in a language the learner speaks well, the teacher becomes aware of what the learner brings to literacy learning and can plan lessons based on the specific skills and gaps identified during the assessment. This would not be possible if the intake relied on self-reporting alone, as many LESLLA learners will report that they are unable to read or write anything at all. Sangita learned that Renuka was able to write her name and some consonant symbols, and that she recognized some environmental print shown to her, despite having had little opportunity to explore her community. She also identified that Renuka was able to write some letters, but was unfamiliar with vowel signs. Notably, Sangita's knowledge of the Nepali language, culture, and her own prior experiences with language learning allowed for a rich understanding of Renuka's own experiences, skills and engagement.

A strategic, extensive intake process serves as a guide to teachers as they plan lessons and develop materials. Time taken to get to know the learner at the onset made it possible for Sangita to develop lessons that were responsive to Renuka's interests and skills. As a result, Renuka was fully engaged in the learning process. Importantly, they support teachers to develop the observational skills that are essential to working with adults who are learning to read and write for the first time. This aligns with Cummins' (2021) suggestion that, when L2 learners are only assessed in the target language, we are apt to miss what learners are already doing in their home languages. The approach we have taken may not work in multilingual settings, or where there are teachers and learners who speak the same home language. However, with a little research into

learners' home languages and their writing systems, teachers in multilingual classes can conduct informal home language assessments, too, by asking learners to write their name in their home language, or having class discussions about what letters, words and sentences look like in the languages learners speak at home and at school.

With an additional year of funding secured, the project team plans to implement another phase of the project with three main objectives. First, this additional phase of the pilot project will allow us to continue home language literacy teaching with participating learners, while introducing L2 language and literacy learning. Secondly, project team members will offer opportunities for teacher learning to community organizations interested in implementing biliteracy teaching and learning with adult L2 learners with emergent literacy. Thirdly, the team will develop a digital resource to be made accessible to teachers globally.

While we are unable to answer the questions posed by Kurvers et al. (2015) and Peyton (2012) at this time, our experience thus far shows that there are likely to be multiple benefits to a biliteracy approach with LESLLA learners in conditions fostered in this pilot. This includes crosslinguistic transfer, enhanced linguistic learner identity, and teacher responsiveness to clearly identified skills, interests, and goals. Finally, we hope this small contribution opens the door to further exploration of biliteracy work with LESLLA learners.

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The Science of Reading: Key Concepts and Implications for LESLLA

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Abstract

In the past few years, a new surge of attention to reading research in primary and secondary education has emerged in the United States. This movement, dubbed "The Science of Reading," aims to promote research-based practices in K-12 literacy instruction. The Science of Reading (SOR) movement also seeks to inform practitioners of strategies commonly seen in K-12 literacy instruction that are not research-based, or that may be contrary to scientific evidence of how the brain acquires the ability to read. Because teaching reading is an essential component of our work as LESLLA practitioners, there is value in examining the research and discussion that is being generated through the SOR movement. Although the large majority of current reading research involves young readers in primary and secondary schools learning to read in their L1s, understanding the processes involved in learning to read for the first time is applicable to the work of LESLLA as well. This paper will provide an overview of key concepts highlighted in the SOR literature, and discuss implications for LESLLA practitioners.

Keywords*:* LESLLA, science of reading, structured literacy

Introduction

In March 2021, I stumbled upon a podcast about literacy instruction by Emily Hanford, an investigative journalist with American Public Media. Hanford's three-part audio documentary series (2020; 2019; 2018) reports on the state of reading instruction in U.S. elementary schools, including several aspects of common teaching methods that do not align with cognitive science, and urges teachers and school administrators to take action to improve literacy instruction for all students. Although Hanford's reporting is centered on K-12 reading instruction, I was inspired to take a deeper dive into reading research and consider how the recommendations apply to my work as a teacher and curriculum developer for LESLLA students.

Hanford's reporting has had a similar effect on many others (Petrilli, 2020). Her work is credited as one of the early kick-starters of a new wave of attention to literacy research and practice, dubbed the Science of Reading (SOR). The SOR movement has gained momentum among teachers, administrators, and literacy researchers -- so much so, that the academic journal *Reading Research Quarterly* dedicated special issues in both 2020 and 2021 to "The Science of Reading: Supports, Critiques, and Questions." As I began to see the amount of attention focused in this area and the underlying urgency to improve or replace inefficient and ineffective practices, I was further motivated to continue my learning. I was already familiar with "The Reading Wars" of the past, swinging between "Phonics" and "Whole Language Instruction," with the subsequent recommendation for "Balanced Literacy." I'll be sharing through this paper what I've recently learned about recommendations to "Shift the Balance" to "Structured Literacy."

The purpose of this paper is to bring attention to some recommendations from reading science and share thoughts on implications for LESLLA practitioners. First, I will highlight key concepts that are prominent in the Science of Reading literature. In the second section, I will explain why I believe this information is important for LESLLA practitioners, and suggest several thoughts on how these concepts can frame or influence our work with LESLLA students.

Research to Practice Disconnect

The Science of Reading movement aims to bridge research to practice in order to improve the efficiency and effectiveness of literacy instruction. The research brief titled *Narrowing the Third Grade Reading Gap* (EAB Global, 2019) reveals that "there is an alarming disconnect between what scientific research recommends for reading instruction and what actually happens in most classrooms (p. 30)" and that due to lack of training in research-based teaching methods, some teachers may "struggle to provide high-quality reading instruction (p. 30)." However, the brief concludes, when schools implement research-aligned practices, including professional development for administrators and teachers, curriculum alignment, and attention to assessment and data, dramatic improvements in student reading abilities can occur (p. 38). *Narrowing the Gap* provides a summary of reading science and suggestions for teachers and programs. I recommend it as one possible resource to provide an introduction and overview of the Science of Reading.

The *Narrowing the Gap* research brief is directed to U.S. K-12 school administrators and teachers, particularly those involved in the early elementary grades. However, I found the information also relevant to my work as a LESLLA practitioner. In the same way that some primary grade teachers may not have received adequate training to provide high-quality reading instruction, it is likely that some teachers and volunteers working with LESLLA learners also

have not been provided information about what scientific research recommends for reading instruction. The phrase "know better, do better," borrowed from poet Maya Angelou, comes up in some conversations around the Science of Reading (SCORE, 2020). As teachers learn new information and shift their instruction to be more efficient and effective, there is sometimes a sense of guilt at not serving past students as well as they could have, but also a determination to improve practice moving forward. Training and knowledge are key; when teachers and programs "know better," they can "do better." The following section will outline some of the basic concepts from the Science of Reading.

Key Concepts in Reading Science

The Simple View of Reading

One of the concepts that is regularly referred to in SOR literature is the Simple View of Reading. Introduced by Gough and Tunmer in 1986, the Simple View of Reading describes reading comprehension as the product of two components: Decoding and Language Comprehension (see Figure 1).

It's important to recognize that the SVR equation is a statement of multiplication rather than addition. This matters because when a student's ability is at or near zero in either one or both of the major components, reading comprehension will be at or near zero. In order to be able to gain meaning from reading, a student must be skilled in *both* decoding and language comprehension.

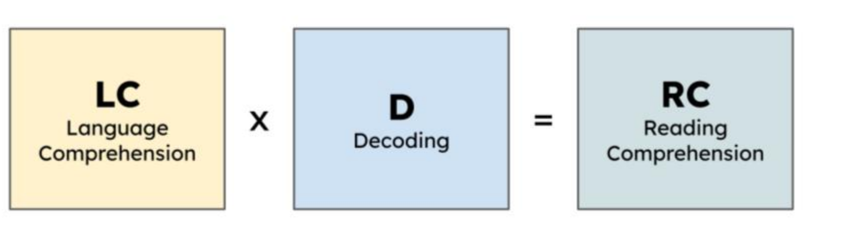

Figure 1. The Simple View of Reading (based on Gough and Tunmer, 1986)

The Simple View of Reading is not new. It has been part of the reading science literature for over 35 years and is well known in the research community. Since its introduction, SVR has been expanded and updated. For example, Duke and Cartwright (2021) offer a newer, more complex "Active View of Reading" to incorporate additional understandings gained by reading science. I've included the Simple View of Reading in this article because it is often highlighted in Science of Reading literature as an introductory model to understanding reading.

Scarborough's Reading Rope

Another concept often referred to in the Science of Reading literature is Scarborough's Reading Rope (Scarborough, 2001). In the Reading Rope diagram, the two major components of reading are further broken down into multiple sub-strands. A diagram and discussion of the Reading Rope (IDA, 2018) can be seen at the website of the International Dyslexia Association at https://dyslexiaida.org/scarboroughs-reading-rope-a-groundbreaking-infographic/.

The Reading Rope is a useful way to understand the complexities of learning to read. In order to develop strong readers, teachers need to be addressing all of the sub-strands of each

component. The Reading Rope also illustrates that, in the earliest stages of reading, the components and sub-strands are developed more separately, while in later stages of reading, sub-skills are practiced simultaneously.

The Four-Part Processing Model

Mark Seidenberg is a neurocognitive psychologist whose work is often cited in Science of Reading discussions. His work has demonstrated that reading happens through four distinct brain processes, which are often diagrammed as a "Four-Part Processing Model" (Seidenberg & McClelland, 1998, p. 526; Seidenberg, 2017, p. 140).

A diagram of the Four Part Processing Model can be seen in Figure 2. The phonological process deciphers sounds. The orthographic process interprets visual symbols, including the squiggles on a page that create letters and words. The semantic process attaches meaning to a word, and the context process considers the word in context to understand the meaning more clearly or adjust meaning if necessary (Seidenberg & McClelland, 1989). The act of reading is a highly complex process, happening in many areas of the brain. For a more detailed understanding of brain activity while reading, see Coch (2021a, 2021b), Seidenberg (2017), Castles, et. al (2018, p. 20), or EAB Global (2021, p. 12-18).

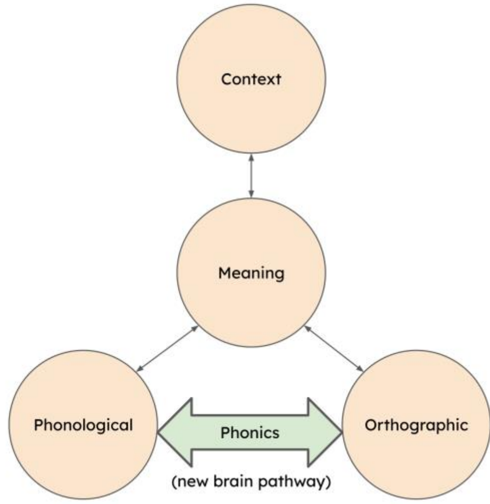

Figure 2. The Four-Part Processing Model (based on Seidenberg & McClelland, 1989)

Learning to speak is a natural process, and children learn to speak without explicit instruction. In contrast, learning to read is not a natural process and requires intentional teaching to create new pathways in the brain (Castles, et. al., 2018, p. 11; EAB Global, 2021, p. 12). An emerging reader is creating new connections between the phonological (sound) and orthographic (symbol) processes in the brain. Brain science underscores the importance of phonemic awareness and the sound-symbol relationship, also known as the alphabetic principle or phonics, in learning to read (Seidenberg, 2017; Coch, 2021a, 2021b). Each of the two-way arrows in the diagram can be developed through natural interactions with language and the environment except for the two-way arrow at the bottom of the diagram between Phonological and Orthographic processing. Explicit teaching of sound-symbol relationships is necessary for most students to develop this new un-natural connection.

Phonemic Awareness

Phonemic awareness is the ability to distinguish individual sounds (phonemes) within a word. Training students in phonemic awareness can be completely sound-based, in contrast to phonics, which involves connecting sounds to symbols. As Kilpatrick (2016, p. 15) explained, phonemic awareness activities can be done "with your eyes closed."

According to research shared by Blevins (2017, p. 7), phonemic awareness training is an essential element in the early stages of learning to read and "as few as 11-15 hours of intensive phonemic awareness training spread over an appropriate time" is needed to gain this skill. Heggerty is a commonly used curriculum for developing phonemic awareness in K-2 classrooms, and the Heggerty YouTube channel is a good resource to see examples of young students practicing phonemic awareness activities such as segmenting, blending, and manipulating sounds. Phonemic awareness can also be strengthened by using letters to represent the manipulation of sounds. Word Ladders are a common activity to give students this kind of practice. An example of a Word Ladder slideshow created for LESLLA students can be seen at shorturl.at/cyGNW (Christenson, 2022).

Explicit Systematic Phonics

Luisa Moats is another expert regularly referred to in Science of Reading discussions, and is seen as a leading voice asserting the importance of phonics and phonemic awareness instruction. Moats (2017) states that "there is wide agreement among researchers that explicit, systematic, synthetic, code-based instruction works best" (p. 16). She goes on to say that "although most programs used in classrooms have come to pay lip service to the important foundational skills of phonemic awareness, phonics, fluent word recognition, writing and spelling, few actually teach the important concepts about speech-to-print relationship, develop skills systematically, or apply skills to reading itself" (p. 16). The importance of systematic, sequential phonics instruction will be further addressed after introducing the next concept.

The Three-Cueing Method

The Three-Cueing Method is also frequently referred to in Science of Reading discourse. However, it is highlighted as a practice that is commonly seen in early literacy instruction, but that is *not* backed by science (Adams, 1998; Hempenstall, 2017). The Three-Cueing system is a method in which students are taught to use various guessing strategies when they come to a word they don't know (see Figure 3). When a student comes to an unknown word while reading, the Three-Cueing System encourages the student to use various guessing strategies. For example, students might be taught to look at the first letter of a word, then guess the rest, or students might be encouraged to look at a picture in order to guess a word. Three-Cueing strategies have been identified as strategies that poor readers rely on. Strong readers, in contrast, solve unknown words by attending to all of the letters and sound patterns in a word (Seidenberg, 2017, p. 300-304).

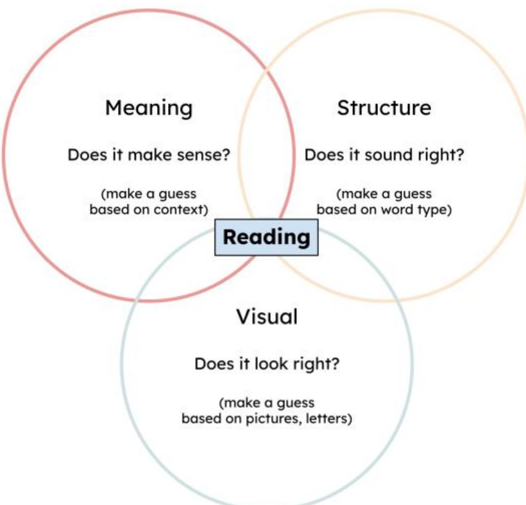

Figure 3. The Three-Cueing Method (based on Goodman, 1973)

Interestingly, eye movement studies reveal that the eye movements of poor readers dart around the page instead of moving smoothly from left to right, line to line (Meltzer, 2020). If students have been taught to use Three-Cueing clues to guess at words, their eyes may dart around the page looking for clues to base their guesses on. Teachers should avoid teaching Three-Cueing strategies as a primary method for figuring out words because it undercuts the creation of strong connections in the brain between the phonological (sound) and orthographic (symbol) processes of the brain.

When I first came across the discussion of Three-Cueing in my exploration of the Science of Reading, it genuinely caught my attention since I have employed these kinds of first-letter and picture-guessing methods with my students in the past. I wanted to understand why this method is less efficient, and could actually be impeding my students' progress toward becoming proficient readers. This is one of the key ideas that motivated me to continue learning about the Science of Reading.

Decodable Texts

Decodable texts are a teaching tool used to develop and practice decoding skills within connected text. To understand the importance of decodable texts, consider again the concept of systematic phonics instruction. As emphasized by Moats (2017), phonics instruction should follow a systematic and intentionally sequenced structure (p. 19). According to Blevins (2017), "there isn't a right or perfect scope and sequence" (p. 27) for teaching phonics, but the sequence that you choose should start with the simplest and most common sound/symbol patterns in one-syllable words, then systematically build toward more complex patterns and multisyllable words. The following chart is an example of a systematic sequence for teaching phonics from simple to complex:

most-common consonant sounds	ing, ang, ink, ank
a, e, i, o, u (short vowel sounds)	easy morphology: -ing, -s; -er, -est
VC and CVC words	closed syllables vs. open syllables (men / me)
ch, sh, th, qu, x	R-controlled syllables
ss, ll	final syllable -tion
ee, oo	consonant -le (table, little)
2-consonant clusters: bl, cl, fl, gl, pl, sl	soft c, soft g, ph
br, cr, dr, fr, gr, pr, tr	two sounds of final -y (cry, baby)
sc, sk, sl, sm, sn, st, sp, sw	more vowel patterns (au, aw, ew, ow, ea)
Vowel Teams: ay, igh	consonant trigraph clusters (str, spr, scr…)
ai, ea, ie, oa, ue	wr and kn; other silent letters
Silent e rule	stressed and unstressed syllables (schwa)
ow, ou, oi, oy	three sounds of -ed
four sounds of oo (pool, good, door, flood)	common suffixes and prefixes
ar, or, er, ir, ur	greek and latin roots
all, oll	vowel stress shifts (apply vs. application)

Table 1. Sample Systematic Sequence for Teaching Phonics

Systematic, sequential phonics instruction focuses on word sets that highlight a certain phonics skill, but also incorporates decodable text as a tool for practicing decoding skills within connected text (Moats, 2017, p. 17). A decodable text contains, as much as possible, words that follow sound/symbol patterns that the student has already been introduced to through the phonics sequence, while also telling a story or sharing meaningful information. There are many options for decodable readers designed for children's K-2 literacy instruction. The Decodable Readers from the Engage New York curriculum, freely available as an Open Educational Resource (OER) at https://www.engageny.org, is one example designed for elementary school students.

Language Comprehension

Learning to decode is an essential component of learning to read, but it is not the only essential component. Language comprehension is also a major component in learning to read. Language comprehension includes the skills necessary to understand spoken language, including vocabulary, grammar, and background knowledge. Proponents of the Science of Reading emphasize that early literacy instruction should not focus solely on phonics work, and that early emergent readers should not be held back in their learning of vocabulary and background knowledge due to their limited ability to decode. To accomplish this, K-2 instructors employ "read-alouds" centered on authentic, relevant topics and use structured, teacher-directed discussions to introduce students to vocabulary and background knowledge.

The Engage New York curriculum is one example of how a Structured Literacy approach, based on the Science of Reading, might look in an elementary school classroom. Engage New York splits early-grade Language Arts instruction into two strands, a "Skills Strand" that focuses on phonics and decodable text, and a separate "Listening and Learning" strand that focuses on building vocabulary and background knowledge. According to the Engage New York website, "the goal of the Listening and Learning Strand is for students to acquire language competence through *listening*, specifically building a rich vocabulary, and broad

knowledge in history and science by being exposed to carefully selected, sequenced, and coherent read-alouds." In the Engage New York curriculum, first grade students are practicing decoding skills within Decodable Readers containing text such as "Dad and I went up on top of a path at the pond. Mom got a snap shot of us." In the other part of their literacy instruction, students are engaged in a read-aloud session about the Human Body, in which the teacher explains engaging images and uses rich and deep vocabulary to build students' knowledge about the selected topic, which will be a focus for several weeks. Phrases such as "digestive system," "muscle development," and "nutritious food" would be too complicated for most first-grade students to decode, but can be learned and practiced instead through listening and speaking. Building rich vocabulary and background knowledge should not be constrained by the student's ability to decode. Oral language development activities such as read-alouds and interactive classroom discussions accomplish this, preparing students to have a rich base of vocabulary and background knowledge that will become vital as they enter future stages of reading.

Stages of Reading Development

Finally, it can be helpful to understand that there are multiple stages of reading development, and that a different instructional approach is appropriate for each. Jeanne Chall's stages of reading development are diagrammed in Figure 4.

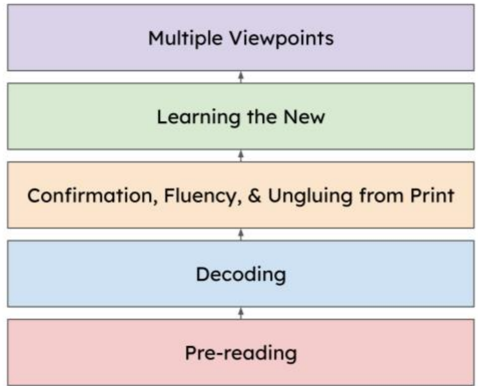

Figure 4. Chall's Stages of Reading Development

Although Chall's stages of reading development were first introduced in 1976, Science of Reading advocates still refer to them today. For example, Semingson and Kerns (2021) suggest that instructors "should draw on a developmental stage model to teaching reading, such as the six-stage model provided by Chall" (p. 157). Chall's earliest stage of reading development is Prereading, when students learn that text conveys meaning, that text has a direction, and that words and symbols represent meaning. Next, in the Decoding stage, students develop an understanding of sound/symbol relationships. This is the stage typically seen in kindergarten and first grade classrooms. In the decoding stage, students are "glued" to the print, and reading is slow and requires a great deal of effort. As students become more automatic in their ability to decode, they enter the next stage of reading, where Confirmation, Fluency, and Ungluing from Print become the target goals, commonly seen in second and third grade classroom instruction. Once a student has gained ability in these areas, the student moves to the final stages of reading development, Learning the New and Multiple Perspectives. Each stage of reading development necessitates different types of instruction. For example, teaching tools such as phonemic

awareness training, systematic phonics instruction, decodable text, and read-alouds are important to the decoding stage, but are tools that would be discarded in subsequent stages.

SOR: Controversy and Criticisms

Regrettably, the Science of Reading, much like the Reading Wars before, can be a triggering topic for some. During the process of writing this article, I have been genuinely surprised at the degree of emotion that this topic can provoke. My own experience in learning about the Science of Reading has been generally positive. I was introduced to these ideas through an education podcast, found the ideas intriguing, and spent a good deal of time reading up on the source academic articles and books to learn more. I've experimented with adapting my teaching to match some of these ideas, and have seen positive outcomes in my LESLLA students. I'll explain some of my teaching adjustments at the end of this section. First, I'll address the reality of controversy and a few of the criticisms of the Science of Reading.

Teaching reading is complex. Teachers can feel bombarded by conflicting information about how to teach reading effectively. In my own experience over the past several months, it has been somewhat overwhelming and at times frustrating to tackle this broad and complicated topic. I have appreciated the work of others who have consolidated information into readable and usable summaries. One of the more useful summaries I've returned to often is *Ending the reading wars: Reading acquisition from novice to expert* (Castles et al., 2018). Others I have found useful are the books *Reading Above the Fray* (Lindsey, 2022) and *Shifting the Balance* (Burkins & Yates, 2021), and the research brief *Narrowing the Third Grade Reading Gap,* (EAB Global, 2019). I acknowledge that any person's or organization's summary of a broad topic might be incomplete and/or biased. It is important to read critically and consider an author's sources, motivations, and background. With that in mind, I often find myself reading the references lists and then evaluating even more resources and information. One of the major challenges of this topic is that the number of academic articles and books on reading science, as well as the number of interpretations of those articles and books, is vast and continually expanding.

There are several common criticisms of the Science of Reading movement. One common criticism is that it is too heavily focused on phonics, and is simply a "swing of the pendulum" away from Whole Language instruction and back to Phonics. In my opinion, this criticism is not valid as it stems from an incomplete understanding of what the Science of Reading or Structured Literacy approach entails. As explained in both the Simple View of Reading and the Reading Rope, decoding is one of two essential components in learning to read. The other essential component is language comprehension. Attention to both is necessary. A teacher that over-emphasizes decoding skills and neglects language development is not in line with reading science.

Another criticism of the Science of Reading movement is that it is not an appropriate approach for diverse learners. In a 2021 study, Vargas, et al. conclude that the components described in the Simple View of Reading apply to both English learners (ELs) and English monolinguals (EMs). Both ELs and EMs need to develop the two major components of reading (decoding and language comprehension), however, they emphasize that English learners will need extra attention in developing vocabulary and other language development skills relative to their English-speaking peers. It is important for teachers to understand the unique backgrounds of their learners, and specifically to understand the additional support that language learners will need to develop language comprehension skills. Nevertheless, the process that occurs in a human

brain when learning to read an alphabetic language for the first time is similar regardless of age, socioeconomic status, or language background (Coch, 2021a, p. 1).

An additional criticism of the Science of Reading is that Culturally Responsive Teaching (CRT) should take priority when working with diverse students. However, it's simply not necessary to choose between CRT and SOR. A structured literacy approach to teaching reading can and should co-exist with Culturally Responsive Teaching, including Social Emotional Learning, Trauma-Informed Teaching, and Asset-Based Instruction. CRT is about the teaching *environment, attitudes, and relationships* that a teacher creates. SOR is about *content, order, and techniques* for teaching the components of reading with the goal of efficiently moving students to a high level of independent reading comprehension. A high-quality teacher can utilize all of these methods simultaneously.

In the United States, frustrations have also arisen over legislative action mandating K-12 school districts to send teachers to lengthy, in-depth Science of Reading training programs (often the expensive and exclusive LETRS training, authored by Luisa Moats), or replace long-used K-12 curriculum programs that are not deemed SOR-aligned (such as Marie Clay's Reading Recovery, Fountas and Pinnell's Leveled Readers, or Lucy Calkins' Units of Study). For sample discussions on these topics, see Schwartz (2022).

For me, the value in exploring the current discussions around reading science has come from implementing some adjustments in my own teaching habits and observing new increases in positive student outcomes. My phonics instruction is much more systematic and sequential now. I avoid teaching students three-cueing or guessing strategies, and spend a significant amount of effort helping students overcome guessing habits. I have a better understanding of the role of phonemic awareness and the appropriate use of decodable text. I still help students develop their oral language and vocabulary using authentic text and natural language experiences. I create opportunities for students to intentionally practice fluency. When students are ready for it, I utilize informational text, and I explicitly teach academic vocabulary. Anecdotally, I can see that my teaching adjustments are making a positive difference for my students. I was able to learn about the above reading science concepts without attending expensive, legislatively mandated training. In my own experience, journalism and media attention around the Science of Reading served as an intriguing gateway that motivated me to explore reading research much more in depth than I might have otherwise. For LESLLA practitioners who would like to learn more about reading science, I offer this paper and its references section as a springboard to continue learning about the Science of Reading.

LESLLA and the Science of Reading

In the first half of this paper, I have given an overview of some of the major concepts promoted by the Science of Reading, a movement toward more effective literacy instruction. I've also briefly addressed some of the criticisms of the SOR. Because most conversations surrounding the Science of Reading are presented from a K-12 and L1 perspective in the literature, some extra thought is necessary to apply the ideas to the LESLLA context. In the following sections, I will share some ideas about how the Science of Reading can influence our work as LESLLA practitioners.

LESLLA learners often have limited time to spend on learning since they also juggle significant work and family commitments. As LESLLA instructors, our goal should be to maximize our students' limited time by using efficient and effective instructional strategies. If the

Science of Reading movement claims to offer more efficient and effective methods for teaching literacy, there is value in exploring those methods within LESLLA. The knowledge promoted by the Science of Reading movement is particularly relevant to LESLLA, as teaching literacy is the element that differentiates LESLLA from the broader community of language instruction.

LESLLA and the Simple View of Reading

The Simple View of Reading can provide a framework for categorizing different types of beginning level learners. The Simple View of Reading identifies that decoding and language comprehension are the two major components of reading comprehension. Figure 5 diagrams four types of learners based on decoding and language comprehension ability.

Some students are at beginning levels in both decoding and language comprehension, a group labeled Emergent Reader 1 (ER1). In contrast, Emergent Reader 2 (ER2) students are also at beginning levels in decoding ability, but have high language comprehension skills. Other students have learned decoding skills in another language, but have beginning-level language comprehension ability in the target language. Since this type of student is the most typical type of student seen in adult English Language Learner (ELL) classrooms, this group is labeled ELL 1. Finally, ELL 2 are high-beginning students who have higher-level skills in both decoding and language comprehension. Each type of learner has differing instructional needs. Although all four types of students can be considered beginning-level learners, it is extremely difficult to effectively teach all four of the above types of students together in the same class. Whenever possible, programs should be grouping these different types of students separately so they can receive the specific type of instruction they need.

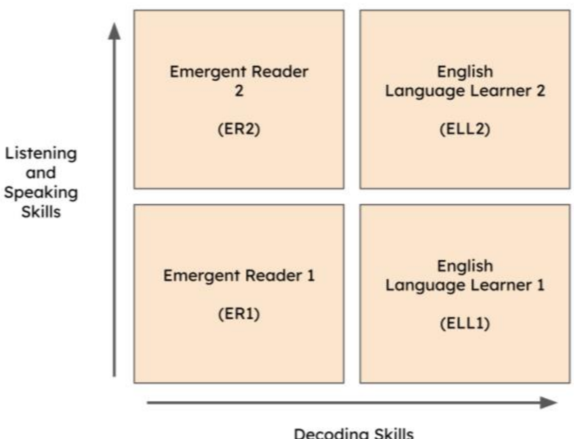

Figure 5. Four Types of Beginning-Level Learners

LESLLA and Assessment

The Simple View of Reading designates both decoding and language comprehension as essential components of skilled reading. LESLLA programs in the United States have a variety of options for assessing language comprehension through listening/speaking tests, including the NRS-approved CASAS and BEST Listening/Speaking tests. However, there are few formal

Christenson / LESLLA Symposium Proceedings, 17(1) (2023): 95-110. DOI: 10.5281/zenodo.8075633

assessment tools for monitoring progress in decoding abilities that are designed for LESLLA students, and none that is widely used throughout the LESLLA community.

In elementary schools in the United States, DIBELS is an assessment tool commonly used to monitor progress in decoding ability (University of Oregon, 2021). The assessment consists of short tests of letter knowledge, word reading, and timed fluency passages appropriate for Kindergarten through 8th grade, and is freely available at https://dibels.uoregon.edu. While the letter knowledge and word reading subtests of DIBELS could be appropriate for any learner, including LESLLAs, the topics featured in the fluency passages are geared toward young children. In addition, the DIBELS assessment system is designed to measure students against benchmark points related to grades K through 8, which is also not relevant to adult literacy students. I have created a prototype of a decoding assessment tool specific to LESLLA (loosely influenced by the structure of the DIBELS test), and invite LESLLA practitioners to use it and share feedback for improvement in future iterations. The assessment, called the Assessment of Basic Literacy for Adult and Adolescent Emergent Readers, or ABLE Test, can be freely accessed at abceng.org/assess (Christenson, 2021).

A decoding assessment tool would enable LESLLA practitioners to screen students for decoding ability for proper class placement, establish a baseline of skills to monitor progress over time, and identify gaps in order to focus instruction. Programs would be able to set a threshold level of basic decoding ability that teachers and students could aim for as a prerequisite to embarking on challenging goals that are important to many students, such as preparing for a driver permit test or for a citizenship test. It would also be valuable to have LESLLA-identified students demonstrate a minimum threshold level of decoding ability before having them begin an assessment track with tools such as the CASAS or BEST Reading Comprehension tests. Doing so would prevent testing frustration for students and provide more useful and reliable testing data to programs.

LESLLA and Lesson Structure

A typical Science of Reading lesson structure for students in the decoding stage incorporates both decoding work and language comprehension work. During the decoding stage, the two strands are separated in order to develop phonics skills sequentially, but also to develop rich vocabulary and deep background knowledge without limiting text to students' decoding ability. Table 2 outlines a sample 90-minute lesson structure based on Science of Reading recommendations, and adapted for the LESLLA context. In the outline, you can see two separate strands of teaching - one segment of time focused on developing decoding skills in a systematic manner, and another segment of time focused on language comprehension, working with authentic vocabulary and relevant situations.

Decoding Focus (35 minutes)
Objective: Develop the next skill in a systematic phonics sequence
5 minutes - Short review of past phonics pattern(s) (letter / sound correspondences)
5 minutes - Word Ladder activity with past sound patterns (phonemic awareness / phonics)
10 minutes - Teach and practice words with new target sound/phonics pattern (phonics)
10 minutes - Sentences or stories that include review and target patterns (decodable text)
5 minutes - Dictation practice with target pattern (encoding to reinforce decoding)

Language Comprehension Focus (55 minutes) *Objective: Develop vocabulary and language comprehension, with an emphasis on speaking and listening, using topics relevant to students' daily lives. Focus on one topic for 1-3 weeks.* 5 minutes - Use engaging images or realia to introduce relevant topic (housing, for example) 20 minutes - Listening & discussion activity (rich vocabulary and knowledge building) 20 minutes - Interactive speaking activities to practice vocabulary and language patterns 10 minutes - Review and retell (oral LEA), to be repeated as an intro for next LC lesson

Table 2. Sample 90-minute LESLLA Structured Literacy Lesson (Decoding Stage)

The Science of Reading movement calls on school administrators and literacy practitioners to seek out and use High Quality Instructional Materials (Chiefs for Change, 2017). High Quality Instructional Materials (HQIM) free up teacher time to focus on quality teaching. Teachers shouldn't be expected to use their limited planning time to create lesson materials from scratch. Within the LESLLA community, there are only a few high quality teaching resources appropriate to adult emergent readers. Although some practitioners and programs are working hard to develop new teaching resources for the LESLLA community, LESLLA practitioners do not yet have a large variety of HQIM to choose from. For those who are working to create new materials for LESLLA learners, attention to the principles of the Science of Reading within curriculum development and materials design is an effective way to bring research-aligned instruction to programs, teachers, and learners. During the past year, my own work creating resources for LESLLA teachers and learners has been heavily influenced by what I've learned about reading science. Resources for Systematic Phonics instruction designed especially for LESLLA students can be found at abceng.org/library. Feedback from the LESLLA community is welcome as I continue to develop and improve these resources.

LESLLA Teacher Training and Professional Development

The Science of Reading movement seeks to bring attention to research-based principles for teaching literacy and calls for improved teacher-training and professional development. Likewise, LESLLA practitioners can more effectively serve learners when they have received training specific to literacy instruction that is informed by current research. Any high-quality TESOL teacher training program would address principles of teaching language comprehension. However, LESLLA is unique in the language-teaching community because LESLLA practitioners also need to understand how to teach the word recognition elements of reading, including phonemic awareness, phonics, and fluency. LESLLA teachers working with learners at the Prereading, Decoding, or Fluency stages of reading need training and professional development opportunities to meet the specific literacy needs of their unique students. Because there are some common literacy instruction approaches that are not research-aligned, it is especially important to become informed in order to provide quality literacy instruction to students.

Conclusion

The purpose of this paper has been to bring attention to current recommendations from K-12 reading research and discuss how those recommendations can be applied to the work of LESLLA. Concepts such as the Simple View of Reading, Scarborough's Reading Rope, and Chall's Stages of Reading can help frame LESLLA practitioners' understanding of our learners' literacy instructional needs. LESLLA teachers can be better equipped to serve emergent readers by learning about the cognitive science behind reading development, or what needs to happen in the brain to create strong readers, through understanding the Four-Part Processing model. Assertions that some common instructional methods may not align with reading science, such as the Three-Cueing Method, are important for LESLLA teachers to think through. Teaching tools commonly used in early elementary reading instruction such as phonemic awareness training, systematic phonics, decodable text, and language-building activities are useful to look to as models for creating lessons and materials for LESLLA learners. Finally, the call for High Quality Instructional Materials and improved teacher training and professional development in literacy instruction is as applicable for LESLLA as it is for the K-12 context.

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How Covid-19 Intruded and Improved My Applied LESLLA Research in Progress: Reflections on Research-Design and Research Ethics of an Empirical Serious Game Study on L2 Literacy Support of Adult Migrants in Finland

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Abstract

In this paper, I am reporting on the impact the Covid-19 pandemic had on my ongoing doctoral study. Due to the disruptive effects of the pandemic in 2020, it was not possible to carry out planned field-testing with adult literacy learners in Finland. This paper intends to illuminate the pandemic-related research implications for this study, by highlighting how the pandemic circumstances challenged and crystallized this study's initial focus and feasibility, consequently, changing and, therefore unexpectedly, enhancing this study's research design. This paper reflects on the evolution of a specific study design, its process and progress to encourage reflection and discussion on current and future LESLLA study design, feasibility, and ethical considerations in exceptional conditions.

Keywords: migrant education, adult second language literacy, digital literacy, mobile-assisted language learning, serious games, research ethics

Multiliterate, Digital Learners - Educational Objectives and Expectations in Finland

The growing research interest in the field of technology-supported second language (L2) learning of LESLLA students in Finland (see Eilola & Lilja, 2021; Tammelin-Laine et al., 2020; Törmänen, 2021) is captivating and crucial to supplement international LESLLA research. In my current research, I am examining the role of mobile-assisted language learning (MALL) in adult late second language and literacy education, by focusing on gamified digital literacy support of adult migrants with emerging Finnish literacy and language skills (see Malessa, 2021). In my local research context Finland (see Malessa, 2018), the three main educational paths migrant learners can take to gain and train literacy skills are either 1) basic adult education, 2) liberal adult education or 3) integration training, see Figure 1 below. New and flexible forms of more learner-specific late L2 literacy training, including non-formal training at liberal adult education institutions, were introduced in early 2018 (Finnish National Agency for Education, 2019, p. 2). Formal training is provided by basic adult education and integration training.

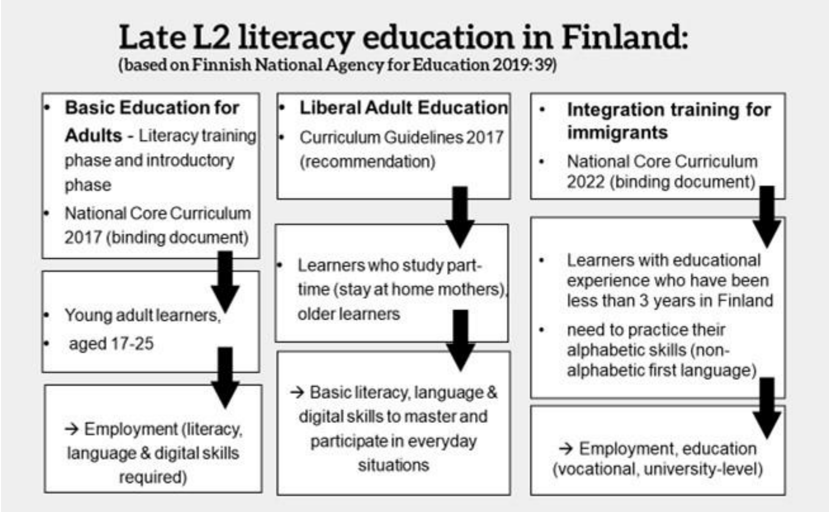

Figure 1. The main educational paths for adult L2 late literacy training

Suitability of different training modes depends on the learners' individual circumstances and professional objectives. Functional basic literacy, language, and digital skills necessary for daily life are at the core of adult liberal education targeted at learners who need flexible and/or part-time studying opportunities such as stay-at-home parents, elderly learners, and learners with sensory or other disabilities who need special support. These learners are seen to benefit especially from activity-oriented learning (Finnish National Agency for Education, 2017b, p. 9, 15). While literacy training in liberal adult education is guided by non-binding curriculum guidelines (see Finnish National Agency for Education, 2017b), there are binding curricula in place for the formal educational training in basic adult education[1] and immigration training[2]. The

[1] Basic adult education follows the National Core Curriculum for Basic Education for Adults 2017 (see Finnish National Agency for Education, 2017a), a regulation issued by the Finnish National Agency for Education, providing the foundation for the creation of local curricula.

[2] The former curriculum for the integration training of adult immigrants (see Finnish National Board of Education, 2012) was reviewed, and a new version ratified in early 2022 (Finnish National Agency for Education, 2022). For

joint objective of adult basic education and integration training is to provide the required skills and knowledge for further education and future employment; thus, educational demands are higher compared to learning objectives in liberal adult education.

Multiliteracy, "the competence to interpret, produce and evaluate different text types, which helps students understand diverse cultural modes of communication and build their own identity" is a key content and integral competence area in both basic and liberal adult education (Finnish National Agency for Education, 2017a, p. 28; 2017b, p. 28). Its definition is based on a comprehensive view of text including verbal, visual, auditive, numeric and kinesthetic symbols which can be "interpreted and produced in speech or writing as well as in print, audiovisual or digital format" (Finnish National Agency for Education, 2017a, p. 8; 2017b, p. 14). While multiliteracy was not mentioned in the 2012 Core Curriculum for adult immigration training, the newly ratified curriculum lists both multiliteracy and digital skills as vital everyday study and life skills (Finnish National Agency for Education, 2022, p. 29). In the 2022 Core Curriculum for immigration training, multiliteracy skills are seen to cover in addition to reading and writing skills, also visual literacy, media literacy, and mathematical literacy skills, and to enhance the critical reading of texts and cultural understanding of references.

Digital skill expectations in integration training are high, as the curriculum's objective postulates that students can use computers, smartphones, and other mobile devices as interactional tools to study, retrieve information, translate texts, and search for professional as well as educational opportunities. In addition, students are expected to know how to act responsibly on social media and in digital environments. Furthermore, the curriculum proposes that students securely use public authorities' and other electronic service providers' digital services (Finnish National Agency for Education, 2022, p. 29). Similarly, the ability to use digital technology is seen as an essential study skill and main objective in both basic and liberal adult education (Finnish National Agency for Education, 2017a, p. 28; 2017b, p. 33). Regarding the different literacy skills encompassed in multiliteracy, it is therefore crucial that adult basic and liberal education enables students to practice skills "in both traditional learning environments and in multimedia learning environments that make diverse use of technology" (Finnish National Agency for Education, 2017a, p. 28; 2017b, p. 15).

The current inquiry is motivated by these educational objectives and requirements and aims to support both LESLLA teachers and learners by considering present teaching practice and planning future research. Using a qualitative content analysis approach, this study's first re-designed sub-study examined in-service teachers' views and experiences regarding the role of technology in late literacy and L2 education of adult migrants in Finland (Malessa, 2022). The unprecedented Covid-19 health crisis has illuminated the importance of digital device and tool access and accessibility in education, particularly in adult education. Moreover, teachers reported a lack of adequate digital learning material targeted at their learner population. This study's investigation of technology-enhanced literacy training in LESLLA classrooms in Finland is underpinned by this dual approach, satisfying practical needs and necessities as well as scientific investigation.

an overview of adult migrant integration and language education policies in Finland see Pöyhönen and Tarnanen (2015); Pöyhönen et al. (2018).

Initial Research Design

The initial study design focused on the following three aspects of technology-enhanced language and literacy training, especially serious game literacy support, in LESLLA classrooms in Finland:

1. the effect of a specific digital literacy support tool, originally designed for children, on adult learners' (technical) literacy skill development (see A in Figure 2),
2. the beliefs and reactions of LESLLA teachers and students related to the use of educational technology, particularly serious games in teaching (see B in Figure 2) and
3. the potential impact of digital literacy learning and teaching from multiple objective and subjective views (see C in Figure 2).

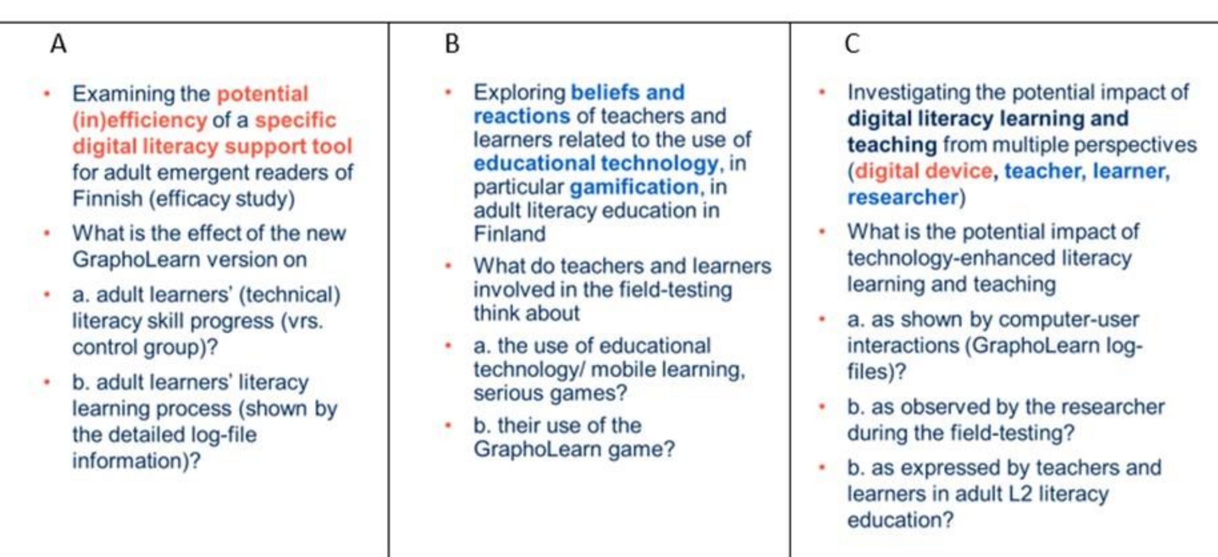

Figure 2. Research objectives and questions in the initial study design

To produce empirical evidence, this study was originally designed as a mixed methods study[3] including respectively:

- quantitative research questions (see A in Figure 2) and perspectives focusing on digital devices (see C in Figure 2, and D in Figure 3)
- qualitative research questions (see B in Figure 2) and perspectives focusing on the human perspective (see C in Figure 2, and E in Figure 3)
- as well as mixed methods research questions (see C in Figure 2) and a mixed data set, see Figure 3.

To address the proposed research questions examining the aspects A, B & C presented in Figure 2, a mixed method approach was adopted. Following Calfee and Sperling (2010), multiple methods were chosen to gain a more rounded understanding of how and why learners develop effectively as emerging readers. Accordingly, a mixed data production, including classroom intervention, observation, and teacher/learner interviews, was designed. Human behaviour was

[3] For methodological references, see, for example, Creswell and Plano Clark (2011); Plano Clark and Ivankova (2016); Teddlie and Tashakkori (2009).

seen to be best tracked and recorded by digital devices, producing quantitative log file data. Qualitative data production was planned to capture beliefs and reactions observed and reported by different agents (teachers, learners, and the researcher). This integration of quantitative and qualitative methods was considered to serve best the inclusive research purpose of investigating the multi-faceted role of technology-enhanced literacy learning in Finnish classrooms, see Figure 3.

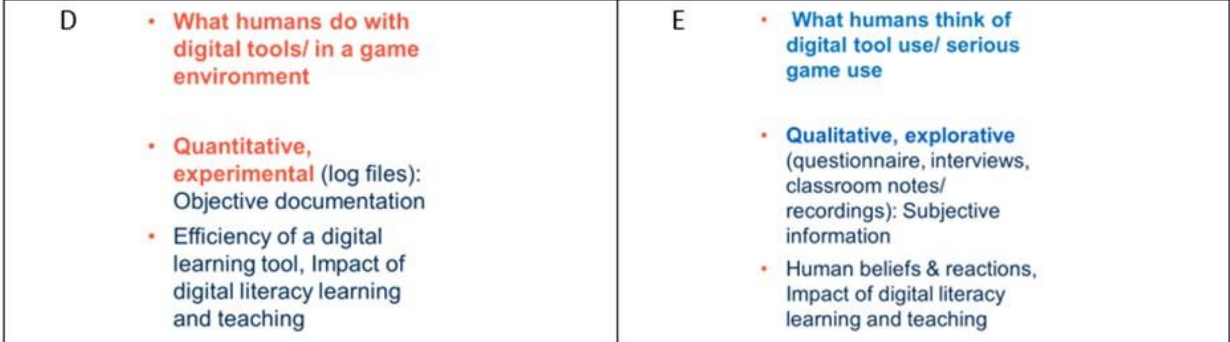

Figure 3. Mixed method and data approach of the initial study design

Ethical Research Issues and Considerations Regarding the Initial Intervention Design

The planned efficacy study included field-testing of an existing research-only literacy game app with adult literacy learners in adult basic education institutions in Finland (see Figure 1). This formal setting, opposed to non-formal settings in liberal adult education, was chosen to ensure a regular and long-lasting attendance of students, a factor crucial for testing purposes. The preparations for field-testing and classroom observation entailed materializing informed consent. The standard material at my home university in Finland includes *research notification, privacy notice* and *consent form* (see University of Jyväskylä, 2021a, 2021b). Starting with a traditional approach to informed consent documentation (see Thomas & Pettitt, 2017), a research notification letter informing game testers and their teachers about the ongoing doctoral research and the planned intervention was created. The letter included a photograph of the researcher to make the letter with its official letter head and university logo more welcoming and was devised in both Finnish and English (see Figure 4).

Dear student,

my name is Eva Malessa and I am a researcher at the University of Jyväskylä. I am writing my doctoral thesis. I am researching how adult immigrants in Finland learn to read in Finnish.

In autumn 2020, I am testing a digital learning game in Finnish literacy classes. The name of the game is GraphoLearn. If you take part in the testing, you play the new learning game during your classes. The testing lasts 4-6 months.

I want to understand whether this digital game helps students to learn to read and write. I also want to hear students' and teachers' thoughts about the game.

This research knowledge is important for students, teachers and schools of literacy education. I will talk about my research in Finland and abroad. When I finish my thesis, you can read it online.

I ask you to participate in this research study. Do you want to help me and be part of my study?

Figure 4. Screenshot of an excerpt from the created research notification letter

Multiple versions benefitting collegial feedback were created to obtain simple language versions. In addition to the research notification, a privacy notice was required.

A privacy notice is a description of the processing of personal data required by the EU General Data Protection Regulation (GDPR), which was implemented in May 2018 (see Proton Technologies AG 2021a)[4]. The data subjects, i.e., the study participants, must be informed about the processing of their personal data for scientific research purposes and provided with a privacy notice (see https://tietosuoja.fi/en/what-is-personal-data). Two versions were created, an official one (see University of Jyväskylä, 2021a) and a simplified participant version, renamed information package. To ensure that informed consent was truly informed (see Thomas & Pettitt, 2017), the so-called information package included visual illustrations (see Figure 5) and a list of questions to enhance participants' comprehension of informed consent by providing "just the right amounts and kinds of information" (Thomas & Pettitt, 2017, p. 279).

[4] For scientific research purposes, Articles 13, 14 and 30 of Regulation (EU) 2016/679 are of particular importance (see Proton Technologies AG 2021b).

Processing and use of data

I process information and data confidentially and without names. If you give permission, I can use your visual material in public events.

I do not show your face. I do not use your name.

If you give permission, I can use your visual material for publications. An article or poster is a publication and it can be electronic or on paper.

Figure 5. Screenshot of an excerpt from the created privacy notice

The creation of the privacy notice turned out to be very laborious. The official template (see University of Jyväskylä, 2021a) had to be scrutinized and essential information re-disseminated in a LESLLA-proof manner as participants with no/interrupted educational backgrounds have been found to have significantly lower levels of comprehension of informed consent (Breese et al., 2007). Diligence, careful attention to detail, including language use, font size and type, was needed and the early design benefitted tremendously from collegial advice.

Finally, consent forms were drawn up. Even though consent no longer is the primary legal basis for scientific research, due to ethical reasons, consent is normally still required for study participation even if the basis of processing is in the public interest (University of Jyväskylä, 2021a). Several ways for participants to express their consent including written and oral documentation, as well as a combination of both were considered. My reflections became very meticulous, obsessed with details. I considered for example whether the researcher or teacher could write the participants' names and the date on the form with the participants putting marks (ticks or crosses) themselves or whether first name signature would be satisfactory to indicate consent. Even participants' fingerprints were considered as a sign of consent.

I sought advice from my university's ethical committee and was, subsequently, instructed that the subject's consent to participate shall be documented orally, in writing, electronically, or otherwise (R. Oikari, personal email conversation, June 30, 2020). 'Otherwise' was not specified further and thus left open to interpretation. If consent is sought orally, it must be documented. The presence of more than one researcher was deemed acceptable in addition to a reliable documentation of the notification process as well as the requesting and obtaining of consent. The situation could also be videotaped or recorded, if possible (R. Oikari, personal email conversation, June 30, 2020). Likewise, Ortega (2017, p. xiii) reminds us of the contextual and situated nature of ethical decision making and accordingly, a combined flexible approach was chosen, providing various alternatives to demonstrate and record consent, in traditional written form (see Figure 6) or in oral form by answering questions asked by the researcher/interpreter.

This individualized approach was seen to enhance truly consensual consent, allowing "participants to freely express their desire to be involved or not" (Thomas & Pettitt, 2017, p. 280).

	YES	NO
I have understood the information about the study and the processing of my data.		
I could ask enough questions about the study and I got enough information about the study.		
I want to participate in the study.		

Figure 6. Screenshot of an excerpt from the created participants' consent form

Originally it was planned to have translators produce videoclips of themselves reading their translations of the various documents (research notification, privacy notice, and consent forms) while simultaneously showing written documents of their translations to visually demonstrate the connection between written and oral text. These audio-visual video clips were created in English and Finnish and further planned to be produced in the learners' main languages to be send via WhatsApp to the language-users. Another promising alternative could be the visualization of the research process and procedure with animated videos, e.g., the online animation software *Vyond*, as reported by Grinden (2021). The translators were also expected to be available for a Q&A session with potential participants before learners would have been given written consent or produced oral consent files. This procedure was seen to further enhance mutual understanding and ensure informed consent, acknowledging that "participants may need additional information as they go along" (Thomas & Pettitt, 2017, p. 279).

In hindsight, starting a field-testing intervention amidst a global pandemic was clearly going to be a complicated endeavour. However, while I carefully considered the resources needed for a successful conclusion of the planned data production, I did not sufficiently consider the resources available to support my research during the global pandemic age. Patton (2015, p. 21) mentions financial and people resources, time, and access as potentially available resources. The feasibility of the initial study and the re-design of its original design turned out to be significantly determined by the lack and the constraints of the resources listed by Patton (2015, p. 21) regarding people resources and access, which the next section will illustrate.

Pandemic-Related Challenges

In mid-March 2020, working on campus was only allowed in exceptional circumstances. However, research requiring physical contact with test subjects was allowed throughout the pandemic time, even though it required a separate decision of the vice rector responsible for research (University of Jyväskylä, 2020). Despite the prevailing restrictions, I was quite hopeful,

even overly optimistic that I would be able to start the planned experiment in six months' time. Amidst recruitment for potential teacher participants and translators in late September/early October I started to realise how unrealistic my initial plans were against the backdrop of the pandemic (see Figure 7). The unprecedented nature of the pandemic clearly contributed to my overly optimistic outlook.

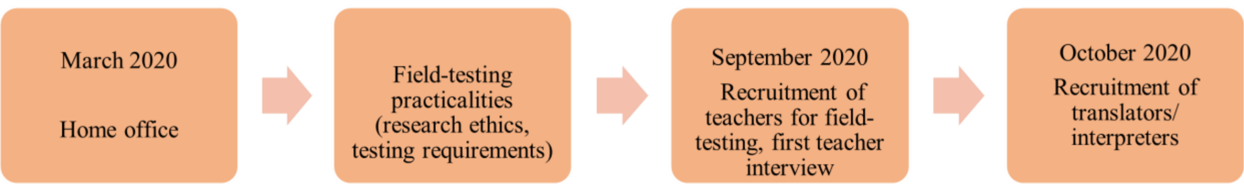

Figure 7. Timeline (spring 2020-autumn 2020)

Finally, after processing my first teacher interview in late September 2020, I realized that it was not feasible to pursue my initial study plan due to the amounting practical challenges in the age of this pandemic. The main challenge that presented itself was the restricted access. Teachers and learners had to adapt on a truly short notice to new teaching arrangements, most moved to hybrid or remote teaching models, only some classes were able to remain in contact teaching. Hybrid or remote teaching suffered from a lack of digitally available materials, unstable internet connections and a lack of suitable technological devices for remote teaching. Figure 8 below presents a visual overview of the various components at the heart of this study's research focus. Components marked in yellow (the stakeholders, learning materials/tools and context as well as technology) were seen to be directly affected by the pandemic, to various degrees regarding access and availability. At the core of this research project is the human factor of LESLLA training in Finland: the adult learners and their teachers who have been surrounded by challenges, some intensified by the Covid-19 pandemic, while many having pre-existed (see Malessa, 2022).

Resuming contact teaching was only possible with protective equipment including face masks and visors, which understandably made communication and comprehension more difficult. Similarly, contact research required researchers to use protective equipment when working in a close distance of less than two meters. Participant recruitment was further complicated by the fact that members of risk groups could not be taken as test subjects (University of Jyväskylä, 2020). The recruitment of participants would thus have possibly entailed handling sensitive health information and the exclusion of potentially vulnerable participants. Access to learner participants and face-to-face interaction in classes that were still conducted in contact teaching mode was moreover complicated by travel restrictions and recommendations to avoid work-related travel (University of Jyväskylä, 2020).

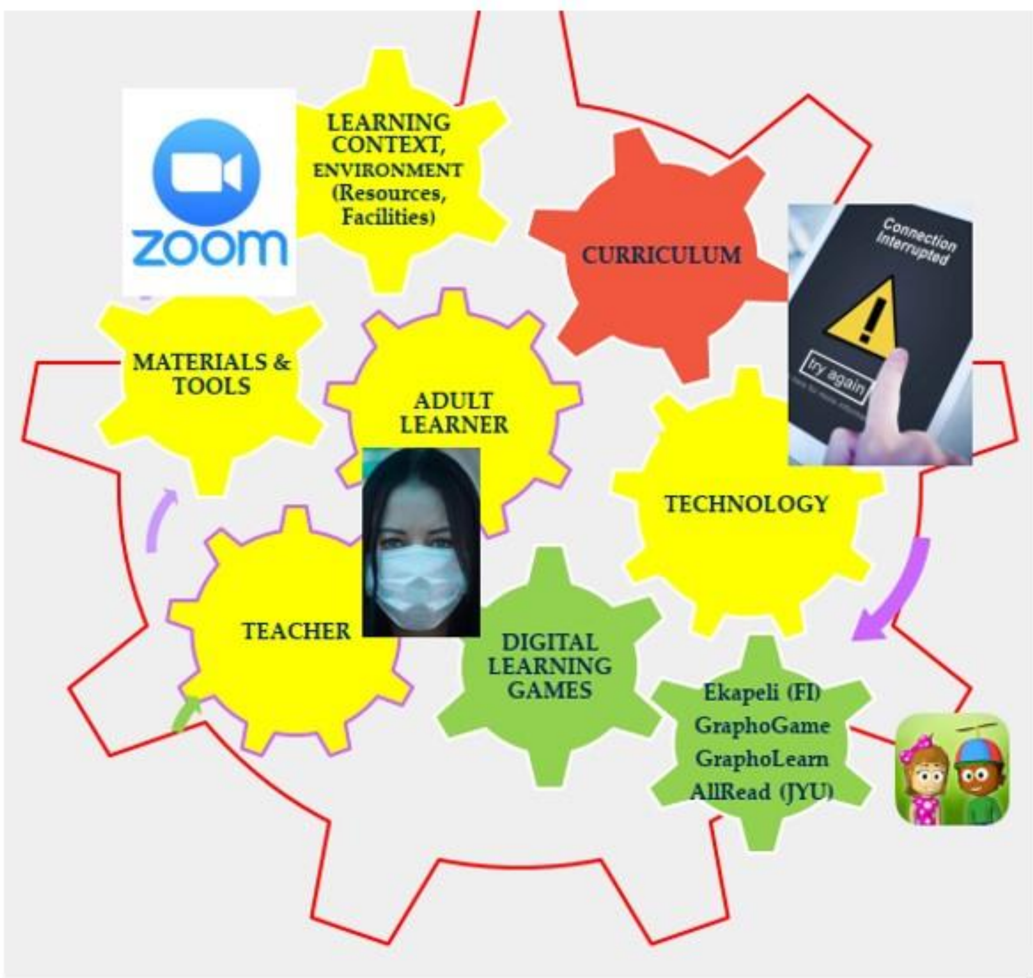

Figure 8. Components in L2 literacy education affected by the pandemic and exemplary visual illustration

Furthermore, teachers also denied access themselves, for the very practical reason that despite their initial interest they had to decline study participation due to their increased and intensified workload and other pandemic-related burdens. It became clear that the limited resources available to this scientific inquiry necessitated immediate design trade-offs and decisions (see Patton, 2015, p. 258). Consequently, my initial mixed methods study came to a halt before its experimental stage. Once I accepted the impossible execution of field-testing under the prevailing conditions, I was able to redirect my focus from the perceived failed intervention to my research purpose and vision.

Pandemic-adapted Solutions

Whereas the realization of the initial study design's non-feasibility was a slow process, gradually emerging during the teacher and translator recruitment in late autumn 2020, the re-design and re-calibration process was rather the opposite, taking place in a speedy manner. Firstly, I turned to available resources, in this case, findings of an online LESLLA teacher survey (N=32) I conducted in 2019. Most teachers (n=23) stated that they use the *Ekapeli* serious game

app[5] for initial literacy training with their adult learners. The original research design plan intended to test a new digital literacy support game, similar to the Ekapeli game and also originally developed for children (see Malessa, 2021). Examining the teachers' survey responses with regard to my study design's imminent re-design, a call for a more appropriate and suitable, adult-focused and LESLLA-friendly game design, started to echo and thus, the recurring statement by the LESLLA teachers: "The students want to play something that is primarily designed for them" (teacher response in survey) served as final impetus for the re-calibration process. I realised that in order to avoid exhausting potential participants by feeding into possible biases towards a game targeted at children, flattening motivation and willingness to genuinely engage with this mode of learning, I needed to change my research design. A design change was targeted towards a future re-design of the existing literacy support app to be able to genuinely test efficiency and enjoyment of the new literacy support app. Consequently, to being truly able to study the potential impact of digital literacy learning of LESLLA learners, the appropriateness and suitability of the testing device, in this case the game app, used in the research process had to be scrutinized and secured.

According to Smyser (2019, p. 136) "the question is not so much whether or not these technologies will prove helpful, but rather what the limiting factors are for employing these technologies with a different population and how best to implement". The revised research design turned towards exploring the limitations (according to the teachers) and envisioning solutions and modifications to create the best possible testing version. For this purpose, it was decided to field-test and evaluate the existing app with LESLLA experts, i.e., practitioners. Methodologically this study's re-design meant the abandonment of the quantitative inquiry while pursuing and concentrating on the qualitative inquiry of the original research plan (see E in Figure 3).

In the transformed study, teachers provided their feedback on the gaming experience reflected on with their LESLLA expertise via personal gaming diaries and online interviews with the researcher. The focus of this study has thus shifted to evaluating and redesigning a specific literacy game app with adult literacy educators to:

1. Re-design the existing game creating a prototype suitable for adults to be tested with learners in class
2. Devise non-language specific design guidelines for literacy support games enhancing LESLLA learning and teaching

In this newly designed user study, game design is explored to find answers to the crucial question: What makes a suitable literacy support app for adult L2 learners? It is expected that a future prototype of the tested literacy support app, once modified based on participating educators' expertise and experience-based observations, expressed in the conducted teacher interviews and their observational gaming diaries, will better correspond to the characteristics, and needs of LESLLA learners.

By enhancing the literacy support testing device with a more unbiased, participant-centered game design, not only the conditions for successful testing are improved, but furthermore also the testing experience of LESLLA learners, hopefully engaging them in an enjoyable and

[5] Different versions can be downloaded at Google Play and Apple Store for free: the Finnish *Ekapeli Alku* (targeted at L1 preschool and primary school children) and *Ekapeli Maahanmuuttaja* (targeted at L2 children), as well as the Swedish *Spel-Ett* (targeted at L1 children).

effective learning experience. This reciprocal benefit for both LESLLA research and education is seen to enhance scientific value and validity as well as technology-enhanced learning and teaching of adult emerging L2 Finnish readers in the various educational settings of L2 literacy learning in Finland (see Figure 1).

Discussion and Implications

In this article, I presented my study's pandemic-related challenges and pandemic-adapted solutions as well as the evolution of a specific research design, its process and progress. Retrospectively, this study's research design was unpredictably enhanced by the challenges faced as they demanded a thorough reflection of this study's fundamental purpose, its available resources and viability/feasibility issues. Recalling Patton's (2015, p. 243) statement: "always be suspicious of data collection that goes according to plan", the perceived failure of not adhering to the initial research plan provided the opportunity for professional development as a researcher. As applied researchers serve real-life problems they cannot escape prevailing and future challenges, extreme conditions, global developments, but need to learn to face "failure" and be flexible and adaptable in order to serve the fundamental purpose of their trade.

I encourage more open discussion on research "failure" and feasibility, as joint reflection and deliberation of obstacles and complications can often be beneficial for the whole research community and not only lead to successful re-design on an individual level but promote re-thinking of common practices and problems. Moreover, I encourage reflection on and discussion of current and future LESLLA study design and feasibility in exceptional conditions. This paper intends to contribute to the necessary discussion of practicalities, ethical issues, and implications of LESLLA research. I agree wholeheartedly with Ortega (2017, p. xvii) that "the very nature of being a researcher and doing research in today's complex, contradictory world means that applied linguists will need to be able to garner human and adaptive responses to the many challenges of ethical research"; for current reflections and suggestions regarding potential ethical challenges in LESLLA research, see Bigelow and Pettitt (2016), Fox et al. (2020), Kubanyiova (2008), Ngo et al. (2014), Ortega (2005, 2012), Pettitt (2019), Shepperd (2022), Warriner and Bigelow (2019).

Following Thomas and Pettitt (2017, p. 282), I would like to add to the on-going debate on problematic issues accompanying more systematic incorporation of informed consent into research practices. Ensuring and documenting LESLLA learners' informed consent is a complicated issue and raises the question, whether, to what degree or at what point, we as researchers can be assured of the truly informed nature of consent. How can we ensure the best possible research resilience to produce valuable data on, with and for LESLLA learners and teachers? One potential solution could be a LESLLA research community-driven creation of a database of LESLLA-specific guidelines focusing on research ethics and practicalities. The existence of such guidelines could even lead to an increase in experimental research in LESLLA settings.

LESLLA practitioners are only too aware of the daily challenges, which in turn mean that LESLLA research, even pre-pandemic, has often been conducted under extreme conditions, regarding practicalities and available resources, limited means and access that were described in Section 2. Most pedagogical decisions and choices are necessitated by various resource limitations (time constraints, access and availability issues, people resources). Empirically grounded applied research can potentially provide solutions to ease limitations and support

teachers in adult late literacy teaching and training. Indeed, Smyser (2019, p. 136) calls for more empirical LESLLA research that is also applicable in praxis and Piccinin and Dal Maso (2021, p. 20) highlight the role of experimental efficacy studies in providing research knowledge that has the potential to inform LESLLA curriculum design work. However, many practitioners conducting research, lack access to academic publications that are locked away behind publishers' paywalls, hence researchers should strive to enable teachers' access to research by favouring open-access publications.

To make sure that learners and teachers are benefitting from present, existing interdisciplinary research, it is of utmost importance to reflect on the role of research facilities including universities, publishers and other stakeholders involved in the academic publish-or-perish race to initiate open debate about availability and accessibility of different publication channels. Furthermore, as teachers might not view research articles as the most relevant way to inform practice (Rosen & Vanek, 2017, p. 56), there is a need for scientific findings to be disseminated in applied and accessible ways, for example in professional development courses with LESLLA experts (see e.g. the EU-Speak project, https://research.ncl.ac.uk/eu-speak/,Young-Scholten et al., 2018).

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It's More than Elementary: Remote Teaching and Learning with Arabic Learners

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Abstract

A challenge teachers often face is finding or making high interest, culturally relevant texts at lower reading levels. A case study of a Yemeni Arabic emergent reader in a Spanish-dominant high school drew needed attention to the paucity of Arabic materials and challenges of supporting literacy across first language groups. Such challenges were exacerbated in remote instruction, when for a time, sheltered instruction was limited due to shorter instructional times, staffing, and evaluation of the stable technological hardware and instructional platforms. Using a translanguaging stance the researcher drew on her experience learning Arabic as a beginner to inform online material making and instruction of Arabic LESLLA background learners. Constructivist online tools, usually marketed to young children, were carefully selected and fully integrated into a larger class novel study without appearing childish or disconnected to what more advanced readers in the mainstream class were using to practice and improve their literacies. A more holistic situated view of the learner was possible when teacher and student roles were disrupted and the teacher had to deal with her own linguistic incompetence in the minoritized language, Yemeni Arabic. This double case study offers teacher educators and teachers a way towards needed restructuring and 'decreation' of language teaching and learning toward individualized instruction and exchange where materials from the start are matched to a learner level, technological access, and rights to multiliteracy.

Keywords: pandemic remote learning, decolonizing multilingualism, Yemeni Arabic

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Introduction and Background

In this article I reflect on what is elementary, or a necessary foundation, for working with LESLLA background learners, and on how online remote teaching and learning afforded connection between me and my learners, particularly one sixteen-year-old learning to read for the first time in Standard Arabic and English after not attending formal school since the second grade in Yemen. On one level, this article can give readers tips about modifying online technology tools originally designed for elementary-aged children learning to read for use with learners 15 years or older. While the context of this study includes a high school and high school curricula, the circumstances of learning to read for the first time at an older age connects to the LESLLA community. On a second level, this is a self-study where I asked: How could I better teach literacy to learners whom I knew very little about due to remote learning and my own linguistic assumptions and limitations? I wondered how taking an online Arabic language class at the same time I was teaching English online could improve my communication with LESLLA students.

Alison Philips, in her 2021 LESLLA conference keynote, discussed what it means to really see someone and to speak language together. While I had prided myself as a language educator on being culturally and linguistically open, remote teaching and language learning with Yemeni Arabic learners has positively begun the decentering of my practice. While I did not know it when I began struggling with my linguistic incompetence in Arabic, as Phipps (2019) argues, my struggles to 'decreate' were prerequisites necessary to a process begun (and continuing) of decolonizing my own multilingualism. As with so many of us during the global pandemic, understanding decreation has meant learning and acting in new and unforeseen ways. For me, my pre-pandemic role as a literacy coach at an international high school had me working with – or glimpsing "at" in passing to be more accurate – a minoritized language group: Yemeni Arabic speaking adolescents, ages 14-18.

All students at the New York City high school where I am a literacy coach have been in the United States for less than four years. In the last two years, approximately 86 percent of our student body of about 400 high schoolers has been Spanish speaking, but at least 15 other languages are also used by students from 30 countries. Before remote instruction, literacy classes were grouped by language proficiency. However, in the months of the pandemic when New York City public school[2]s were giving families a choice of remote or in-person learning, classes were grouped based on mode of instruction. In those months, our school, like many, had an "all hands on deck" mandate. With remote class sizes of 27 students on average, the classroom teachers and I, as literacy coach, would differentiate classes into smaller groups, or in "Zoom-speak": breakout rooms. Because the other teachers were Spanish-bilingual, unlike me, I would especially work with the non-Spanish speaking students. It was here that I began seeing our Yemeni Arabic speakers, in particular, more clearly. I could see how the lack of Arabic bilingual resources, compared to our Spanish and French resources, was not equitable.

As I was working with one Arabic learner, Abdullah[3], in response to how our school could do a better job, he asked for two improvements: leveled work and teachers who spoke the variety of Arabic that he did:

[2] Our school takes a decidedly translanguaging approach whereby we want our students to use their other languages in support of English learning.
[3] All teacher and student names are pseudonyms.

> Give us work that is at the same level. We want to learn step by step. The work you do should not be expected at the same level as the other students. Please give us less assignments that are at our level of English. I think this is more fair.
>
> I have a second idea. There are not so much [sic] Arabic teachers at school. My idea is to get more teachers who can speak Arabic. Please give us more teachers that speak Arabic of Saudi Arabia and Yemen.[4]

To answer this call for action, I began learning Arabic. This was fairly easy to do as I was approaching a semester without college teaching and could take it practically free from the university where I also work as a professor. Having studied languages (Italian, French, and Japanese) before, it had been my interest to put myself in the shoes of my learners, particularly as online language learners without a large community to practice their new language. As is typical of formal Arabic language course offerings I would learn Modern Standard Arabic[4]. I was not intimidated by Arabic not being a roman alphabet language, and figured similar to my learning of Japanese, I'd learn the new writing while also learning some basic syntax and communicative vocabulary. I planned to keep a learner diary, when relevant, similar to the diaries I had seen other language teachers do of their experiences of language learning, in hopes that my recording of learning insights could inform my teaching (e.g., Casanave, 2012; Schmidt & Frota, 1986). Such a diary had been useful in my recent study of Italian at the same university: I would bring learning experiences into the Teaching English to Other Speakers of English (TESOL) graduate courses I teach on second language acquisition and literacy.

For context, the high school expectations of English as a new additional language to study were quite different from the expectations of me as a remote so-called "foreign language" learner. My Arabic teacher did not use content-based teaching (Lyster, 2007). Instead, a linguistic syllabus was used. By contrast, our high school literacy team does project-based learning where, each spring, across levels, our students read a novel that will later elicit social action[5]. For many students it is the first chapter novel they read in English. At the start of the semester when I started learning Arabic, my high school students were reading the novel, *The Color of My Words* by Lynn Joseph.[6] Students were expected to engage with the novel's themes which included first love and heartbreak, alcoholism, loss of family and home, government

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[4] Abdullah's request is rhetorically aware. At the time we actually only had one language paraprofessional at the school who spoke Arabic. The variety she spoke was from Morocco. We had tried to recruit two other Arabic speakers (one Yemeni and one Syrian, but their work availability unfortunately had been inconsistent and short).

[4] It is important to know that Modern Standard Arabic (MSA) is a second language and language of schooling because there are approximately 30 varieties of Arabic (World Bank Group, 2021). MSA is also the language used when reading the Qu'ran. At the time of my placement in the beginner course I was aware that MSA would not necessarily help me in speaking Yemeni Arabic, which itself is a cluster of varieties depending on where you are from in Yemen. When I inquired about Yemeni Arabic, my lab instructor, knowing my interest, and being from Yemen himself, offered to teach me some "street" language or dialect. In looking for Arabic instructors in NYC, most at that status of instructor were from Morocco, and reflect socio-economic immigration patterns.

[5] More on pedagogical linguistic approaches in a public international high school like this one can be found in Mendenhall, Bartlett and Ghaffar-Kucher (2017).

[6] There is also a Spanish version of the novel, *El color de mis palabras.* This 840 lexile level novel is considered at a 5th to 9th grade interest level or for early teens.

injustice, human rights, overcoming trauma, and self-actualization, particularly through language. The protagonist is a 12-year-old girl living in the Dominican Republic who grapples with what the power of words can do for herself, her family and her community, writ large. This was precisely what we hoped for our students: that becoming more literate in the languages they knew would give them more power to tell and live their stories. Because of the personal and creative nature of exploring, at times, heavy themes, student expression throughout the term was encouraged toward final projects that were to include the writing of poems, use of music, spoken word, diaries, and other multi-modal or multimedia presentations. Choice in modes and means of expression were how the team carried and negotiated three theoretical frameworks into pedagogy: being anti-racist, translanguaging, and applying a Mutually Adaptive Learning Paradigm, or MALP (DeCapua & Marshall, 2010, 2011). Certainly, perhaps more than ever, with the media focusing since spring 2020 on violence toward people of color and social activism, we saw encouragement everywhere to "disrupt" and make "good trouble" similar to the work of activists like John Lewis.

Theoretical Frameworks

Kendi (2019) defines an anti-racist as someone who "is expressing the ideas that racial groups are equals and none needs developing, and is supporting policy that reduces racial inequality" (p. 24). Likewise Love (2019) writes that she wants to teach her students not just the basics of academic literacy, "their abcs and 123s," but to teach them "to demand their 'undisputed dignity' and 'the recognition of one's inherent humanity'" (p. 52). To be an anti-racist teacher working with new immigrants means to actively take on the roles García (2017) and DeWilde (2021) have outlined in their work with adult migrants of being "a detective, co-learner, builder, and transformer" (García, p.22). These are similar to guiding questions in which DeCapua (2019) directs teachers to: 1) question your own assumptions, 2) foster two-way communication, 3) explicitly teach school tasks and academic ways of thinking and 4) promote project-based learning (p. 80). These frameworks informed not only our instruction as teachers at the international high school, but my motivation to take up Arabic study. As such they are woven throughout all aspects of this study.

Methods

The data I report on here are from my diary reflections both from my teaching of LESLLA learners, and from my own learning of Modern Standard Arabic. I began studying Arabic online in late January 2021. My Arabic professor and undergraduate classmates in the Zoom class verbally consented to Zoom video recordings of our class sessions. The practice of recording Arabic class Zoom sessions was for pedagogical purposes such as emailing recordings to students who could not attend a session, had WIFI connection interruptions, and for students to use for review. At this time, I had over-lapping roles as a teacher educator for an MA-TESOL program, and as a literacy coach at a high school serving new immigrants to New York City. Therefore, when New York City public schools were forced to close from March 15, 2021 to September 2021, students and faculty, there too, verbally consented to being recorded on Zoom for the same reasons my Arabic class had. The high school Zoom recordings were used in addition for teacher training and professional reflection since, at the high school level, remote instruction was completely new. The recordings I drew on for this study included approximately

40 hours of English teaching and 40 hours of Arabic class or 4 hours of instruction per week for 10 weeks.

Methods followed self-study using diary reflections like those described by Christine Pearson Casanave (2012), where she documents her “ecology of effort” to learn the language of her students (Japanese) in an interested and curious way “in situations where other life activities take priority and it would be tempting to avoid language study altogether” (p.642). Despite knowing the importance of teachers being language learners themselves, I had put off my learning of Arabic as a new language. The opportunity to learn Arabic online, I reasoned, would help me be a better online language teacher, literacy coach, and teacher educator, as I am all three. In my review of diary reflections and Zoom recorded video from my different roles, I looked for “critical incidents” or unplanned events that helped me to question my “taken for granted thinking about teaching” (Farrell & Baecher, 2017, p. 3).

Context: Adjusting Focus on the Material Needs of Arabic Learners

As mentioned above, pandemic instruction at the international high school meant large, mixed-level classes formed based on student choice for in-person or remote learning, not on proficiency level as the classes had previously been based. A further complication was that the teacher of record had to negotiate a dilemma of teaching both in-person and remote students at the same time. While some schools used a “HyFlex learning” design where the online and in-person students were taught by the same teacher at the same time (Educause, 2020) our team instead divided our human resources so that online teachers only worked with online students and vice versa. However, these classes did not operate completely autonomously. On days when all students and staff were remote (e.g., by schedule, regularly, once a week, or because a COVID case closed the school), we managed large class instruction with four adults: the teacher of record, a student-teacher, a literacy coach [me], and a language paraprofessional[7]) in one large zoom room. This room looked like Figure 1.

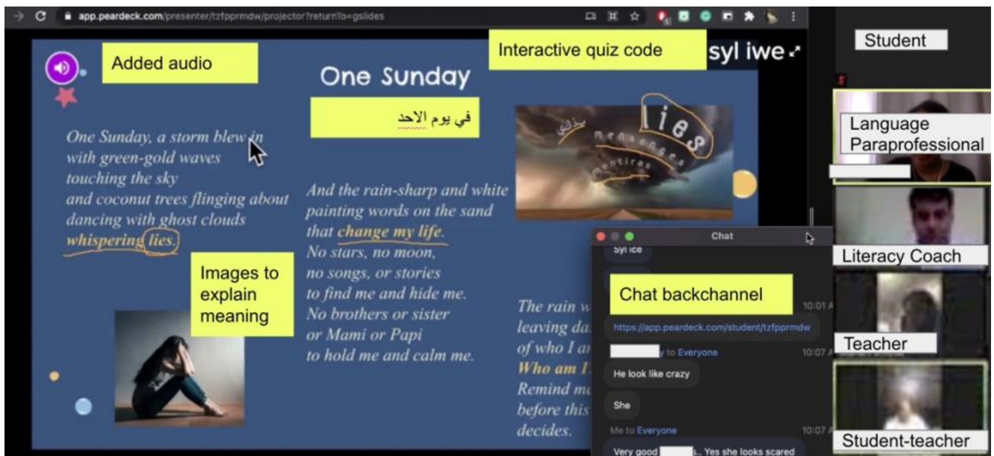


Figure 1. Full Class Instruction on Zoom
Note. The images of people are stock images and real names are blocked.

[7] A language paraprofessional works with students individually or in small groups providing first language supports, particularly when a student has newly immigrated and needs significant translation of the language of instruction. Translator and language paraprofessional are interchangeably used in this paper.

A benefit of having all the teachers in the large zoom session at the same time (once we coordinated tasks), was co-constructing material that gave students and teachers multiple entry points. One entry point was the interactive multimedia itself. In Figure 1, for instance, you see a Google slide that students could use outside of the synchronous class that had embedded audio of the text being read (see the purple play button). Inside the Zoom session, the slide became interactive for the teachers and students via software that let them circle or underline keywords (i.e., lies, change my life). In addition, Zoom chats were used as a backchannel between all users (and privately between members) for multiple purposes, especially to offer multilingual translations, add more information, ask questions, and give comments. The sample chat in Figure 1 also shows the complex diglossia of delivery through technology. While the code and link for the interactive quiz is given, you also see two things: first, a student using the chat instead of the quiz link because this was the fastest way to reply from their phone ("He look crazy" and then the self-correct to "She"), and second, me encouraging yet a different student, recasting her spoken answer of "scary" to describe the image of a girl with, "Very good, Fatima. Yes, she looks scared." Other entry points included using images that were labeled in the three other languages of the class: for instance, in Figure 1 "Lies" is translated into Arabic, French and Spanish. Finally, we all benefited from open (written and spoken) translingual translations of the text as part of our translanguaging norms of participation.

As much as students and teachers all worked to make the learning environment accessible, large group instruction still meant fewer opportunities for students to practice expressing themselves. Therefore, we worried about the different reasons for this, including lack of prowess and speed in muting or unmuting oneself, teachers not being able to see a student's face or body language, home environment constraints, hardware and WIFI issues, and, despite the use of more than one language in instruction, those languages were predominantly Spanish and English. Arabic learners were at a clear disadvantage. This was particularly true of one student who is the focus of this case study, Fatima. The context of reading a class novel in English or Arabic did not match her LESLLA background. In the next section, I document my progression of working with Fatima first through full-class material design, then in small group instruction, and finally in individual sessions.

Fatima and Me

Fatima was a new 9th grader at the international high school in January 2020. Only the language paraprofessional had met her in a home visit before the pandemic lockdown. Fatima, 15-years-old, and her family had just moved to New York. In Yemen, Fatima went to school until she was in the second grade, but her formal education was interrupted after being the victim of an explosion that had left her with hearing loss and extensive burns. Fatima reported not coming on camera during Zoom classes because she felt self-conscious of her appearance. Her degree of hearing affected the pronunciation of her Arabic and English. In Spring 2021 she had just begun home instruction in reading Modern Standard Arabic (MSA): her parents were paying for a tutor for Fatima and her siblings. Because Fatima's language and literacy repertoires did not include MSA, we teachers knew she could not read the class novel, even if we had a translated version. We knew content-based instruction would need to be heavily modified for Fatima because her explicit print literacy instruction had just begun.

Fatima's print literacy in English at the time of this study was comparable to mine in Arabic: I was still learning letters and sounds. Both Fatima and I could write from memory only a few words , and relied on copying them. These words were greetings, so, in our respective language classes, Fatima and I excitedly said "good morning" and "goodbye" to our remote teachers as soon as we could. We wanted to participate. Besides in our Zoom classrooms, neither of us had someone talking to us in the new languages we were each learning. Another point of similarity between our learning experiences was a lack of social connection or communication with classmates. This, of course, was exacerbated by the pandemic where one could not make small talk with classmates before or after a class. While there was another girl from Yemen in Fatima's class, the other girl often had internet connectivity issues and relied on using English chat as her preferred backchannel. Efforts to pair the girls for oral practice in Arabic or English never worked. In fact, because of internet issues, for months I had not understood that Fatima's classmate could read in English at approximately a 4th grade level.

Despite my work through a translator to tell Fatima that I was in a similar language learning boat, I was unsuccessful at doing so, and we were not able to communicate with one another about our shared experiences. Phipps (2019) captures our mutual vulnerability:

> How, when we do not share language, do we work at this fragile edge between human beings, those whose language dominates and those whose language is almost inaudible in cognitive terms? How do we show ourselves to be capable of speech, of presence in conversation and the social bond, how do we make and tell stories, and how do we create a space for ethics, without a language to share, or without a language in which to be understood as doing precisely this? (p. 41)

Question Your Own Assumptions

Until I began studying Arabic from a beginning level, I did not viscerally realize the impact of using classroom materials that were far above a beginner learner's language level. Even when my teacher gave detailed explanations of interesting content (e.g., what the words of a song meant linguistically and culturally) in my dominant language of English, I became frustrated that this explanation did nothing toward my ability to communicate in Arabic. It was one thing, for instance, as an observer to realize the poem Fatima was reading with her class in Figure 1 needed to be heavily translated, and that only high frequency content words were applicable to her study (e.g., "lies" and "sunday"), but another to grapple with how explicitly-taught language was (not) interacting with repeated instruction. The differentiation of pictures and live translations from a paraprofessional got Fatima through a gloss of content and inclusion of age-appropriate high interest themes, but what language learning was appropriate next? In the phrasing of the MALP® framework, I was "accepting conditions" (DeCapua & Marshall, 2010, p.70) that Fatima was in a class which was reading a novel far above her English level, and questioning how school work could be differentiated to language and content practice that truly was immediately relevant to her? We, her teachers, lacked clarity, and I wondered, despite us lovingly teaching her (Custodio & O'Loughlin, 2017; Hos, 2020), how she viewed our curriculum.

I thought about similar issues in my own beginner language learning. In my Arabic class, similar to Fatima's experience, the materials used during class and the textbook seemed to give

me only one choice: to be okay with “gist” and “waiting” (Phipps, 2019, p. 39). Phipps (2019) defines “struggling for gist” as occurring when one is learning “on the margins with hourly paid teachers on precarious contracts” (p.39) or “outwith familiar pedagogical structures and resources, and with no, or highly limited, aids for learning” (p. 40). Teaching in the early days of the pandemic embodied this. In class, I would get translations, but the number of new phrases to memorize before I really understood letter-sound correspondence, for me, was overwhelming. I did not have the kind of resources as a language learner I was used to getting to be active in the language I was learning. Indeed, in a “note to teachers,” the authors of my textbook explained, “the vocabulary used in listening and handwriting exercises is not active vocabulary. The meanings of some of these words are given merely as *entertainment* [emphasis mine], so the learner knows that he or she is writing meaningful words” (Brustad, Al-Batal, & Al-Tonsi, 2019, p.xii). Therefore, I’d often be given a list of words as shown in Figure 2, perhaps with the intention of a fair snapshot of my future with the multiple varieties of Arabic, but this was never explicitly discussed, similar to Fatima’s workout of grappling with a full novel.

Meaning	maSri	shaami	Formal /written
bread	^{c}eesh عيش	خِبز	خُبز
chicken	firaakh فِراخ	دجاج	دَجاج
neighbor (male)	جار	جار	جار
neighbor (female)	gaara جارة	jaara جارة	jaara جارة
brother	أَخ	أَخ	أَخ
sister	أُخت	أُخت	أُخت
new (masc.)	جِديد	جديد	جَديد
new (fem.)	gidiida جِديدة	jdiide جديدة	jadiida جَديدة
Good evening!	مساء الخير misaa' il-kheer	مسا الخير masa l-kheer	مَساء الخَير masaa' al-khayr

Figure 2. Sample Vocabulary list from my textbook, Alif Baa, 3rd edition, p. 86
Note. Materials in the course often showed three varieties of Arabic side-by-side to expose students to them: “maSri” or Egyptian spoken Arabic, “shaami” or Levantine Arabic (spoken in countries such as Lebanon, Jordan, Palestine, Israel and Turkey), and “formal/written” Arabic or MSA.

My Arabic teacher, also a Gnawa musician, instructed me specifically, given my newness to the language, to expect a kind of “silent period” and to learn through my senses. When we learned the Arabic long vowels, he traced them back (perhaps as a creative entry point) to the sounds of birds. Similarly, he connected the “ta” (or “ta mabuta”) feminine gender marker to animism. Both of these abstract connections, he said, were how Arabic “preserved its soul.” I remember thinking the man was out of his mind, but it is not hard to find a pedagogical emphasis on listening, particularly an audio-lingual method, in beginner materials. For example, in a note to students my textbook advised:

> The key to dealing with the richness of variation in Arabic is to differentiate between what you recognize and what you use actively. Choose one form to use actively and leave the others for recognition. This is what native speakers do when they interact with people from other countries, and it is an important skill to develop (*Alif Baa*, 2019, p. viii).

Therefore, part of confronting my own assumptions about language and decolonizing my multilingualism was to be more open to ways of learning that have been criticized in the field of TESOL such as the audio-lingual method. This is still not easy. As a professor of language teaching, I am more comfortable in raising alarm when I witness a pedagogy that does not align with research I know. I remember feeling justified in my critiques of my teacher's audio-lingual methods when a friend sent me an article from *The Economist* (September 18, 2021) titled "No book at bedtime: The travails of teaching Arabs their own language." It opined that "the root of the problem" of "almost 60% of ten-year-olds in Arabic-speaking countries struggling to read and understand basic text" was "bad teaching" (para, 2). The article points out "[a]dults often stumble over the written word, too, so bedtime reading to children is rare. Only about a quarter of Arabic-speaking parents read to their children often, compared with more than 70% in much of the West" (para., 5). In the U.S. context, the reading wars are again aflame with the pandemic, and interestingly, here too I had to catch my resistance when reading articles on the Science of Reading, which blames education professors for not teaching more about the dangers of "cue reading" (whereby teachers emphasize looking at the cue of a picture to help them to unlock words versus explicit phonics decoding) and not doing more to teach explicit language processing (Schwartz, 2020).

I had learned that Fatima was learning Arabic through Qu'ran reading with audio-lingual methods, and my own Arabic teacher emphasized explicit phonics teaching. As a result, I began changing my own teaching and learning. Additionally, it was not lost on me that Fatima chose the word "patient" to describe herself as a learner (see Figure 7b), and I took inspiration. In my Arabic learning I still felt frustrated from time to time, and I used my notebook to record those feelings. However, I stopped wanting my teacher to make materials the way I wanted them, and made my own materials practicing what I could not fully grasp in class. I used an online book maker, bookcreator.com, with a notebook template for my learning, because it let me place audio models near the words I could not pronounce well. Bookcreator is a tool that, before the pandemic, had been mostly used in elementary settings; in one platform it allows users to add text (including a dyslexic font), audio, video, transcription, pen-writing/drawing, and speech-to-text. I would screen record my Arabic lessons or audio record them with my phone so that later I could upload the recordings. I would listen to my own recordings in comparison. It helped me to see and hear words over and over. Figure 3 shows some of my first pages:

Figure 3. My Online Arabic Learning Diary

Note. Inside margins, I would write comments like this one: "I feel sad at the amount of time I am using to decipher the sound to the words. I feel like the teacher could have made some listening materials for me and the class. I know the class is mostly heritage speakers who have awareness of sounds already, but I know that like me, they cannot read yet, or read well, so this would still help them. I know my classmates cannot read, because they ask lines to be read for them."

Changing Instruction

Based on my own struggle, I wanted Fatima to have more multimodal support and practice activities, clearly connected to what the rest of her class was doing, but at her level. I wanted her to know her teachers were looking for a better language learning fit for her. This began with language modification. For example, the class was asked after a class read-aloud to respond to "Why does Ana Rosa love and fear Sunday?" A first level modification by Fatima's teacher was to break this question into two simple questions and to give pictorial clues as hints for typing in a response (see Figure 4). This modification, however, needed further refinement upon the realization that the idiomatic expression "spends time," and the compound sentence were too difficult for Fatima to comprehend. The cues provided by teachers were not obvious. In addition, the task of filling in a sentence frame or blank as an academic and school-based task needed explaining (see the MALP® Framework's "Focus on new activities for learning with familiar language and content" [DeCapua & Marshall, 2010, p.70]). Third, the typing Fatima needed to do to complete the "fill in the blank" activity was slow-going.

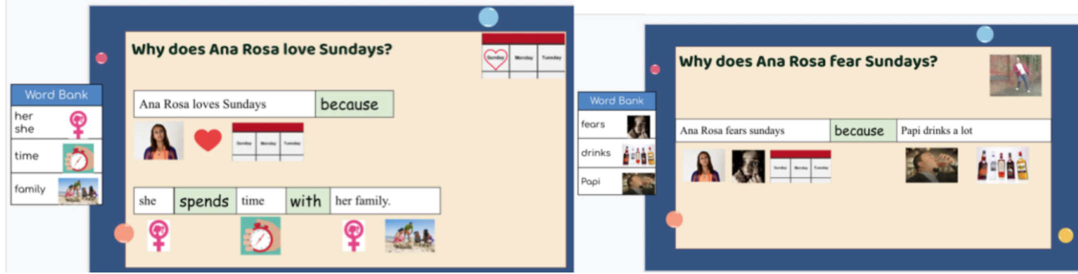
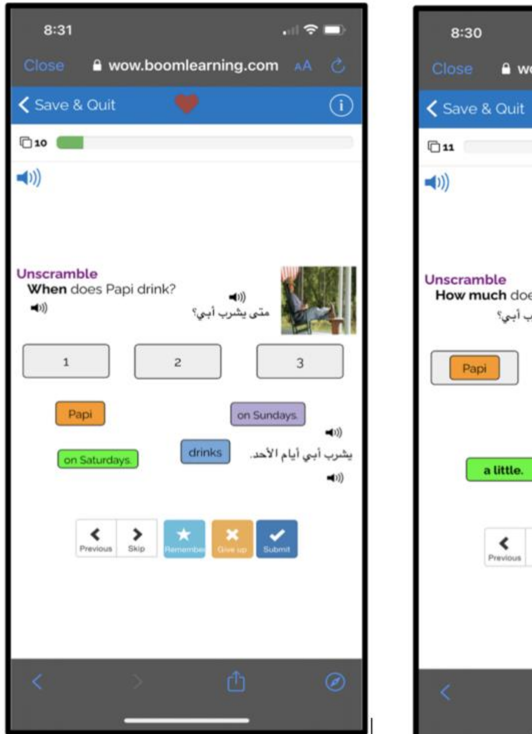


Figure 4 First modification of class novel materials by another teacher using Google Slides

Note. This model was meant to lessen cognitive load for Fatima but it actually increased it due to relying on needing to know cues such as the woman symbol for "she" and idiomatic expressions like "spend time with."

A second modification was to use a simple sentence structure and to ask Fatima questions in order to build up her comprehension and arrive at the understanding that the protagonist has mixed feelings about Sundays due to her father's alcoholism. Rather than typing a sentence, Fatima would practice dragging and dropping the parts of the sentence as users do in the language learning app, *Duolingo*. I was using *Duolingo* in my own Arabic learning and found the daily practice and instant feedback comforting, even if it was still based on learning letter sound correspondences only. The online constructivist software, *BoomCards* (boomlearning.com) allowed me to mimic the *Duolingo* environment with the novel content I choose. Because the sentences were very simple (matching my Arabic proficiency), I could use *Google Translate* to add audio and text in Arabic, as well as in English. Figure 5 shows cards from the deck Fatima practiced from her phone.



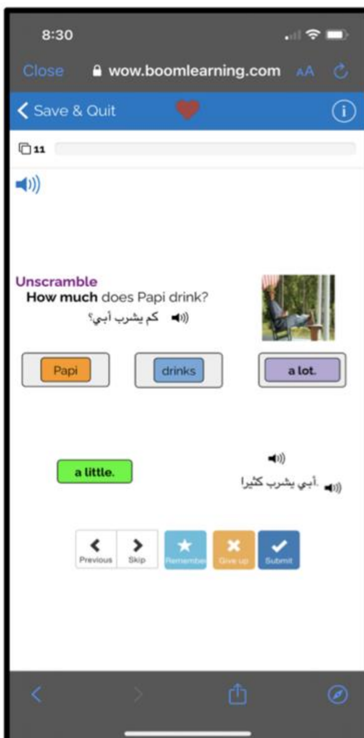


Figure 5. Second Modification: Self-correcting practice with audio and text in Arabic and English.

Over time I added more practice around the content of Fatima describing her family and the family in the novel. I designed this practice to follow a sequence of first " unscrambling the sentences," to second, "typing in the blanks", to finally using handwritten sentences about her family (see Figure 6).

Figure 6. Learning sequence from BoomCards to BookCreator
Note. Boomcard (unscramble and fill in the blanks) lead to handwriting about Fatima's family.

Furthering School Tasks and Academic Ways of Thinking

As the end of the school year approached, both Fatima's teachers and mine needed assessments to formally evaluate our respective learning. At Fatima's high school, students do an oral presentation for their literacy class. At this point in the term, I was becoming Fatima's and three other students' primary teacher. The class had finished the novel and Fatima's group was using BookCreator as both a platform to discuss the novel and to create their presentation, which would be a comparison connecting their hopes and dreams with those of the novel's protagonist. Following the MALP® paradigm, the final project was taken apart into smaller pieces using group co-construction and "scaffolding of the written word through oral interaction" (DeCapua & Marshall, 2010, p.70). That is, students orally dictated their responses to a teacher who wrote their words for them. Fatima, like her classmates, was taught how to search for images and video to show meanings (see Figure 6). I moved back and forth between what the students knew about Ana Rosa (Image A) and what they knew about themselves. BookCreator allowed Fatima to practice and get feedback on her oral production before presenting. Before and during the presentation (*Images B* and *C*), Fatima's classmates could read about her and ask her questions.

Figure 7. From group discussion to Fatima's presentation

Note. Image A shows a description of the protagonist, Ana Rosa, made by Fatima and her classmates. Images B and C are multilayered pages used by Fatima to prepare and give her presentation about herself, in contrast to Ana Rosa.

This process was purposefully different from the options given to me for assessment as a student of Arabic. By contrast, I was asked to memorize a script introducing myself, the Arabic equivalent to: "My name is Christine. I am American. I live in Brooklyn, in the city of NYC. I am a student. I study Arabic. I love Arabic." While this was communicative language and at my level, after I had presented in front of my classmates, as Fatima had, I did not walk away feeling any more connected to my classmates or teacher than before.

Two-way Communication: Building Literacies

Unlike in my previous language learning, when taking my beginner Arabic course, my teacher did not give me ways to practice hearing the language beyond decoding. I missed nursery rhymes or simple songs I had used when studying beginner Italian, French, or Japanese. When I asked if my Arabic teacher had any supplemental materials such as jazz chants (Graham, 1978) to practice, my teacher explained that Arabic is not a rhyming language in the way English can be (see Figure 8). I would need to wait on the accumulation of vocabulary to see and hear patterns.

I missed books and stories. I found some online bilingual materials, but few had written text and audio. For example, from my teaching, I knew of the website library, *Unite for Literacy* (https://www.uniteforliteracy.com/) which had translations of English pattern books in other languages, including Arabic. The translations, however, were audio narrations only, so did not help my letter-sound correspondences for studying Arabic or Fatima's matching need, though I welcomed the change to read actual texts. Therefore, I tried to take the audio narration from the site and see if the transcribing feature within BookCreator could help me to make a pattern book bilingual (see Figure 9).

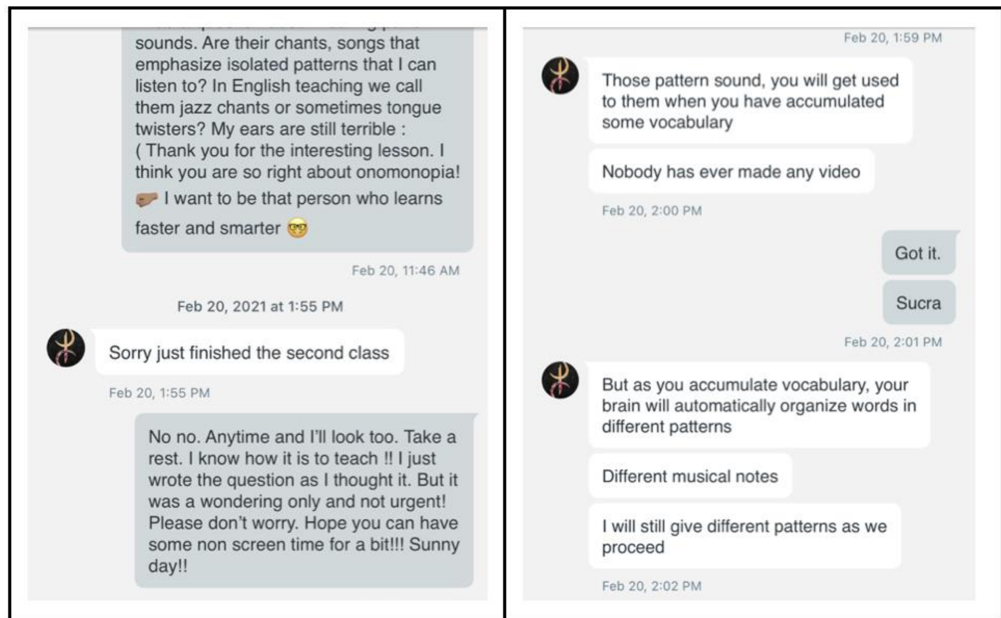


Figure 8. Chat with my Arabic professor asking for familiar materials

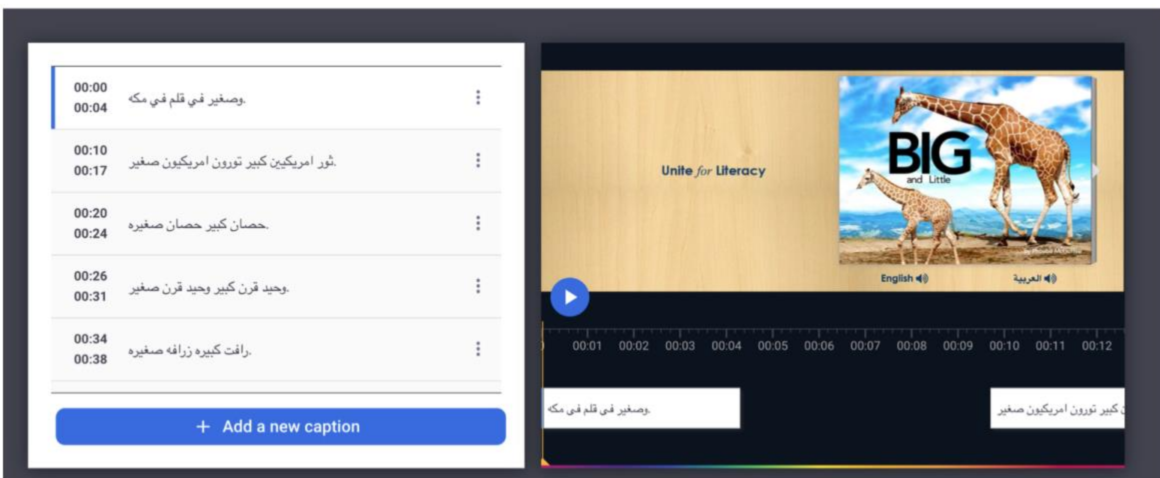


Figure 9. BookCreator's transcript generator of a Unite for Literacy narrated book

I had some success in that, with help, I could make corrections to the machine learning translations – even if I was not very interested in learning how to say animals such as "bison" in Arabic. I could hear and see repetition of "big" (كبير) and "little" (صغير) in Arabic. So, too, could Fatima when we practiced reading in English. In this particular pattern book's case, there was not a difference between how to say this main vocabulary, but the differences in how to say some of the animal names between Egyptian Arabic and the Yemeni Arabic were sometimes significant. While technology gave us a head start, I quickly realized (again) the struggles of when there seems to be no commercial market for language learning in the languages you are learning. To search in English for children's materials in Arabic, assuming such books would offer repetition of key phrases like this one, or lower-level decoding, provided little help because of my lack of knowledge of children's literature in Arabic, and my ability to search in Arabic was limited due to my beginning-level language skills.

I knew story and repetition of vocabulary in a meaningful context would improve Fatima's literacy as well as my own. Plus, Fatima and I would be working together over the summer, and I wanted a book at our level. Despite living in New York City with a wealth of libraries and bookstores, I was able to find only one children's book that fit my requirements, an Arabic bilingual version of Eric Carle's (1994) *The Very Hungry Caterpillar*. I also mailed some "high low readers" such as the decodable reader *Fake* (Saddleback Publishing, 2016) to Fatima. For both of these books, I wanted to make bilingual versions with English and Arabic narration. Determined to do this, I serendipitously was able to hire an undergraduate work-study student who spoke Yemeni Arabic. She was able to not only help me make digital versions of these books on BookCreator, but joined me in sessions for about one month with Fatima over the summer. Figure 10 shows a sample of the digital bilingual activities and versions we made from the paperbacks.

Once it was summer break, Fatima and I had less pressure to follow a class curriculum. There was no more class novel that needed modifications because it was above her language level at the time. I had the time and space to explore different materials based on her interests and to follow even more closely her language progress. For me, too, I could learn some spoken Yemeni Arabic for communication. For our shared mutual learning, I continued to make exercises recycling studied vocabulary and syntax (days of the week, family) in multiple

contexts, but I also used a language experience approach to find out about Fatima's daily routines and interactions. Asking her what she did between weekly sessions opened up more personalized word study. I spoke more about my language learning to normalize finding what works for her and in giving her more choices of the books she wanted to read. Therefore, when we read a decodable book focusing on the language point of using "can" ("I can help") we could make jokes about getting her siblings to do things for her (e.g., Sister, can you help me make the bed?) and I could draw on her love of *Dunkin Donuts* (see Figure 11). Fatima began to giggle in sessions, and to report on using English more outside of our sessions. Because our sessions were on Zoom, it was possible for Fatima's younger siblings to hear, and they began to engage with us at times. They began to not only translate for her, but to practice role plays, and "take the mic" to tell stories about their loved sister. In one session the girls turned on their camera to show who was taller and explain who had read the most pages in their personal Qu'rans. Fatima was in the lead! In another session, they taught me how to kneel properly when praying and showed me how a clock in their home reminded them when to pray.

Figure 10. Digital versions and activities made from paperbacks
Note. I used and recreated these copyright print materials I had purchased following FairUse copyright laws during remote instruction on a password protected website.

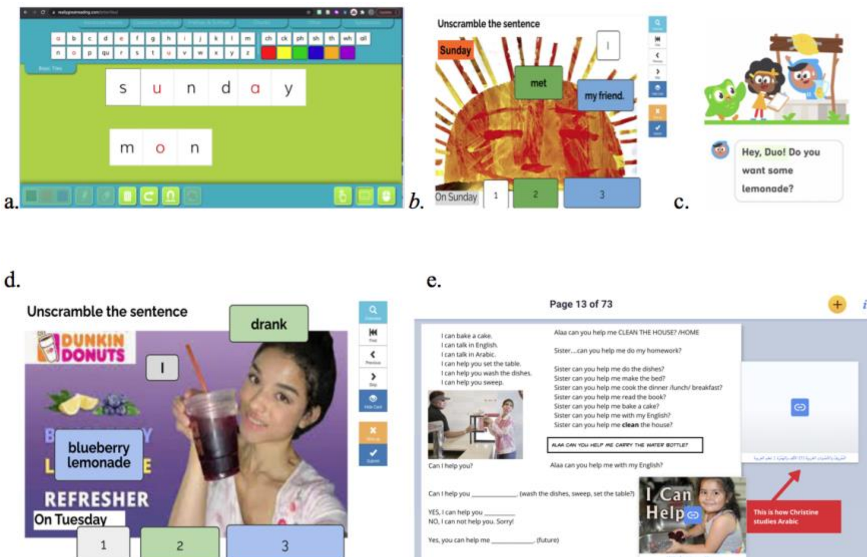


Figure 11. Enjoying and connecting literacy practices across technologies and texts on daily habits

Note. a. Using letter tiles on http://www.reallygreatreading.com/lettertiles/ to spell days of the week, b. and d: Using BoomCards to recall the week using images from *The Hungry Hungry Caterpillar* and *Dunkin Donuts* fan channel, c. *Duolingo ABC* Lemonade Stand story, e. *BookCreator, Unite For Literacy,* and *Aljahera Media Institute* https://learning.aljazeera.net/

Discussion and Call to Action

What does it mean to really see someone? How do you not become that teacher who has the same first day for 25 years? Having experienced the COVID pandemic, what does it mean to positively disrupt and transform pedagogy so that possibilities are gained, instead of regressing back to a status quo of doing school with exceptions (Delpit, 2006; Love, 2019; Chang-Bacon, 2021)? In the course of my learning Arabic remotely, I understood what it meant to be a linguistic minority in a language class and to struggle to find appropriate learning resources at my level. While it is difficult to try to teach bilingually without basic competency in the language, the experience of grasping for "gist" (Phipps, 2019) in Arabic has made me a stronger advocate and teacher. In order to make co-learning online with emergent readers possible, it's not enough for teachers to know the challenges such learners face; my experiences show that teachers are more effective when they have visceral, first-hand experiences engaging with similar kinds of learning, coupled with a knowledge of available online tools such as *BookCreator, DuolingoABC* and *BoomCards,* among others. These online tools may be marketed more to elementary teachers, but I found they could be used powerfully with LESLLA learners.

My co-learning with Fatima has also made me curious about pedagogical transfer, my own and Fatima's. For instance, at the time I worked with her, Fatima was learning Modern Standard Arabic (MSA) through recitation of the Qu'ran. While as a pedagogue I have a predisposition to think repeated reading of the same text over and over again would be boring, this method is a familiar entry point that I could be using more with Fatima, and with a different appreciation than expected in my own learning of Arabic. Custodio and O'Loughlin's (2017) recommendation of using Readers Theatre for connecting to oral readings might be especially

appreciated by L1 Arabic learners of English, along with always offering audio recordings. Similarly, knowing that readers of Arabic rely on a "trilateral-root model" (whereby they know when they see the same three root consonants that they will be able to unlock meaning[8]), I should emphasize morphologies that do repeat in English, helping to understand meaning in a regular patterned way such as English affixes like *-re, -able, un-*,etc.

In word study programs such as *Words Their Way* (Helman et al., 2010) morphemic analysis tends to come at an advanced "derivational stage," but for L1 Arabic learners of English it could come earlier. Teachers should expect that teaching minimal pairs means introducing words that have the same consonants, but very different meanings, such as *pulls* and *plus*, knowing that Fatima, and learners of similar backgrounds, may be looking for a consonant pattern such as *PLS* (Ahmad, 2017). Other important cross-linguistic differences are noted by Palmer et al. (2007) (see Figure 12). Finally, understanding that Yemeni Arabic is a cluster of dialects or varieties of Arabic that varies by region and within the Arabic-speaking world is part of seeing our full learners.

How can LESLLA, if it does not exist already elsewhere, develop literacy resources that reflect varieties of Arabic, spoken and written? A call to action for multilingual literacy needs to be full bodied, and intentional. The start of decolonizing and rebuilding certainly should include teachers learning the languages of our students, particularly minoritized languages. Also imperative are technological pedagogical practices that can modify and mimic gamification seen in early reading technologies in order to gain the benefits of making learning joyful. In my work with Fatima, I intentionally modified resources I could find in MSA or in other Arabic varieties to include her first language, spoken Yemeni Arabic. For literacy instruction, the World Bank (2021) recommends capitalizing on similarities between languages (what they term "capitalization of the convergence" [p. 10]) and the interplay of lexicon between languages, as well as focusing on systematic phonics instruction and "whole-word" instruction – methods that are commonly overlooked in TESOL teacher education, but that also seem to have not been in use in many Middle East and North African countries. Finally, any deeper learning and teaching must be done in partnership with students' families. Anecdotally, in my 2-year experience of working with four Yemeni girls, in-person attendance has been sporadic for complex reasons, but online learning has helped bridge gaps in access. Remote learning with Fatima allowed both of us into each other's personal spaces, homes, families, and multilingualism. Such a radical welcoming must not be wasted, but integral to the process of transforming education not just so "a foot is in the door" with technologies such as Zoom, but so that the teacher-student relationships can resist future storms, such as future school shut-downs or limits in physical accessibility. I am still learning and welcome LESLLA Community feedback.

[8] For example, the root KTB (which has the basic meaning of *write*) can be combined with different patterns of vowels to give, among other words, *kataba* (he wrote), *yaktubu* (he writes), *kitab* (book), *maktab* (office), and *maktaba* (library).

English	Arabic
Orthography • Letter forms remain the same regardless of placement in the word. • Many phonemes are represented by multiletter graphemes. • It has unpredictable phoneme-grapheme patterns—deep orthography. • Vowelling system remains constant from childhood to adulthood. • Vowels are letters of the alphabet. One vowel letter, however, represents multiple vowel phonemes. • It contains many heterographic homophones (same pronunciation, different spelling, and different meaning) such as *sale* and *sail.* • Though bound and free morphemes are present in English, the system is much simpler than the Arabic morphological system. Infixes are not present.	• Letter forms take on a different shape based on placement in the word—initial, medial, or end. • One letter equals one phoneme. • It has predictable phoneme-grapheme correspondence when vowels are present—shallow orthography. When vowels are not attached to letters, Arabic is considered to have a deep orthography. • Short vowels are present in works written for children, the Qur'an, and poetry; however, short vowels are omitted in all other works intended for adult audiences. • Short vowels are diacritical marks attached to consonants; for this reason, some linguists consider Arabic a syllabic rather than an alphabetic language. Long vowels are expressed in Arabic by using letters; however, each letter represents a single long vowel phoneme. When vowels are present, there are no homophones in Arabic. • Three and four combinations are converted to hundreds of variations on the root by complex use of morphemes through a pervasive use of derivations including tense, gender, person, and number, as well as meaning. Infixes are numerous. It has a trilateral/quadrilateral root model.
Concepts of print • Although English includes dialects and the concept of standard and nonstandard English, the variation between dialects is minimal • It is written from left to right.	• All Arabic countries have two forms of Arabic formal (FusHa), also called Modern Standard Arabic (MSA), and colloquial (Aamiyya), also called Non-Standard Arabic (NSA). Furthermore, NSA varies from nation to nation. NSA can also vary within the same country by geographic regions. • It is written from right to left.
Syntax • All sentences contain a verb. • Contains verbs for to be and to have. • Tenses of regular verbs are indicated by suffixes or by helping verbs. • It has articles a, an, and the.	• Noun sentences do not contain a verb (e.g., God great). • It has no verbs for to have and to be. • Tenses are indicated by addition of suffixes to a single root. • It has one article, al- (close to meaning to the) but no articles similar to *a* or *an.*

Figure 12. Contrastive analysis comparison of English and Arabic, adapted from Learning from Abdallah: A case study of an Arabic-Speaking child in a US school (Palmer et al., 2007, p.10).

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Oral corrective feedback with LESLLA students[1]

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Abstract

The role of corrective feedback has aroused much interest in English as a second or foreign language research. However, Catalan as an additional language is an emerging field of research. This paper focuses on the oral corrective feedback that the teacher provides to the students' errors in a context of Catalan as an additional language with LESLLA students of an educational center located in a penitentiary center. Five 45-to-50-minute lessons of classroom interactions were recorded, transcribed and coded for the analysis. The findings show that there is a high amount of lexical and pronunciation errors. Furthermore, related with oral corrective feedback, the most common strategy is recast. Differences between reformulations and prompts were noted in terms of frequency. Prompts are less common, even though clarification requests and elicitation stand out. Finally, in most cases, students notice the oral corrective feedback provided. With recast the amount of uptake is very high, although only a third of the cases conduct to repair. Prompts lead students to a correction of the error by the students more frequently.

Keywords: LESLLA students, oral corrective feedback, uptake, Catalan as an additional language, classroom interaction

[1] This paper draws on research previously published in Catalan in CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education

Introduction

The oral corrective feedback (OCF) that the student receives from an erroneous utterance during an interaction has been the focus of interest of many studies, which have shown its importance in additional language learning (Lyster & Ranta, 1997; Panova & Lyster, 2002; Ranta & Lyster, 2007; Ellis, 2009; Nassaji, 2009; Fu & Nassaji, 2016, among others). Most of these studies were carried out with students with high levels of literacy and, until now, few studies have investigated OCF with students with emergent literacy (Tarone, 2010, 2021). The aim of this paper is to study OCF and uptake in the context of teaching Catalan as an additional language and with LESLLA students.

Oral corrective feedback and students' uptake

In this study, we define OCF as a teacher reaction that clearly transforms, disapproves or demands improvement of learners' errors (Chaudron, 1977). Lyster and Ranta (1997) identified six types of OCF: reformulation, explicit correction, metalinguistic feedback, request for clarification, elicitation and repetition. Later, Ranta and Lyster (2007) grouped the types of OCF into reformulations, those teacher's interventions in which the correct form would be offered, and prompts, those corrections in which the teacher intervenes with the intention of encouraging the learner to self-correct the erroneous utterance.

In Lyster and Ranta (1997), recast was the most frequently used type of OCF (55% of the cases), followed by elicitation (14%) and clarification request (11%). The other three cases of OCF were all below 10%. Panova and Lyster (2002) obtained similar results, where the most frequently used OCF was recast (also 55%), followed by the clarification request (11%). The rest of OCF were also below 10%. The main difference between the two studies was that in Panova and Lyster (2002) elicitation was only 4%, compared to 14% in Lyster and Ranta (1997). Lyster and Mori (2006) analysed OCF in Japanese and French immersion contexts. They noted differences in the relationship between types of OCF and uptake depending on the context. In the Japanese immersion course, uptake was more frequent after recasts, whereas in the context of French immersion classes, students' uptake was more frequent after prompts. Fu and Nassaji (2016) analysed classroom interaction during a Chinese as a foreign language course in a university context and showed that 56.7% were recasts, 10% consisted of metalinguistic feedback and in some cases both types were combined. When teachers offer OCF they expect uptake from students. According to Lyster and Ranta (1997), in this study we define uptake as a student reaction that follows immediately the feedback given by the teacher to the student's erroneous utterance. It can include responses with repaired utterances as well as utterances that still contain errors. It is also possible that students do not take the OCF into account and continue with their discourse.

Lyster and Ranta (1997) and Panova and Lyster (2002) have shown that recasts lead to less students' uptake and repair than prompts. Other studies have shown that recasts can be effective and lead to a high percentage of uptake (71.6%), repaired in 76.3% of the cases (Ellis, Basturkmen & Loewen, 2001). In Fu and Nassaji (2016), the high amount of recasts did not produce a high percentage of uptake (49.6%) by students, although it led to a 45.3% repair rate. In Shirani's study (2019) teachers used prompts more than recasts. Prompts provided more opportunities for students' uptake, although they only led to repair in half of the cases. Recasts, on the other hand, led to a high percentage of repair (74.5%), which were not self-generated repair but were repetitions of the teacher's OCF.

Oral corrective feedback with LESLLA students

In recent years a growing body of research has investigated OCF with LESLLA learners. Bigelow, Delmas, Hansen and Tarone (2006) and Tarone and Bigelow (2007) showed that, unlike high-literate learners, LESLLA learners process language in terms of meaning rather than linguistic form. Subsequently, Tarone, Bigelow and Hansen (2009) indicated that the level of literacy was

related to better cognitive processing of the formal linguistic features in the spoken language required to perceive and incorporate the recasts provided by teachers. Bigelow, Delmas, Hansen and Tarone (2006) partially replicated Philp's (2003) study on uptake by university-level students when they received CF focused on question formation. Philp (2003) concluded that recasts were more effective when the students' competence in question formation corresponded to the level of the forms provided in the recasts. Bigelow, Delmas, Hansen and Tarone (2006), in their replication, compared the results of two groups of students, one with a slightly higher level of literacy than the other, and showed that the more literate group remembered recasts significantly better than the less literate group. Furthermore, Tarone and Bigelow (2007) noted that LESLLA students used more semantic strategies to process recasts and had problems noticing and repeating recasts related to grammatical aspects (e.g., inversion of the order of the sentence), as these changes in the order of the words did not cause any change in the meaning of the original utterance. According to Tarone (2021), the absence or limited knowledge of written language hinders students' ability to learn form-focused OCF and to assimilate it.

In a classroom context of Dutch as an additional language, Strube (2006) analysed recasts, and showed that with LESLLA students, recasts were more effective and led students to repair the error in activities in which the focus was very clear (e.g., activities with a linguistic focus). On the other hand, recasts were less likely to generate repair in communicative activities in which the teacher's recast would focus both on aspects of language use and linguistic form.

The aim of this study is to extend research on OCF to a context of learning Catalan as an additional language with LESLLA learners in prison, a context in which exposure to Catalan is limited (Bretxa & Torner, 2005). The research questions guiding this study are:

- What is the type and frequency of errors made by students?
- What kind of OCF does the teacher provide and how often?
- What effects do the different types of OCF have on students' uptake?

Methodology

Context

The context of this study is Catalonia (Spain), where a multilingual curriculum is implemented with Catalan as the main means of instruction, along with Spanish and English (Generalitat de Catalunya, 2019; Vila et al., 2016). Following the current legislation, the majority of the primary, secondary school and adult education subjects are taught in Catalan (Law of language policy, Generalitat de Catalunya, 1998; Law of Education of Catalonia, Generalitat de Catalunya, 2009). In this context, adult education leads adult students to primary and secondary school graduation.

The study was carried out with a group of 13 students, all men from Morocco and aged from 19 to 23, who were attending the second year of an adult school[2] located in prison to obtain their primary school certificate. Morocco lives in a situation of diglossia, in which a cultured language used in formal situations coexists with a dialectal variant, with a clearly delimited distribution of functions between the two. Classical Arabic, taught in schools, is the language of the media, administration and literature, and it is used as medium of interdialectal communication. The dialects have notable differences from one region to another but are mutually intelligible. They constitute the mother tongue of the Moroccan speaker and the means of communication in everyday family situations (Benyaya, 2007). Their linguistic repertoire included Dàrija (Moroccan Arabic) as their first language and some knowledge of French and Spanish (co-official language in Catalonia), as Sans Bertran (2018) also reports in her study. The teacher's L1 is Catalan and she also knows Spanish and English. She has been teaching at the same adult school for three years.

[2] Primary school for adult lasts three years.

The Catalan language course followed a communicative approach and the research did not require any changes in the teacher's lesson plan. The sessions observed and analysed were organized always in the same way. First, the teacher introduced a new topic aimed at providing the students with the linguistic contents needed to talk about jobs and trade. Each session began with a semi-structured conversation in which the teacher asked questions and the students answered freely, without having to use a specific linguistic form, which served to introduce the topic of the session and motivate students. Next, the students carried out activities with a linguistic focus on pronunciation, vocabulary or grammar. In some cases, activities were carried out to recognise the vocabulary or to create short dialogues based on a model.

Data collection

Before starting the data collection, consent was requested from the prison, the adult school management and all the students who participated in the study. The data were collected from 11th to 15th January 2021 for five 45-to-50-minute sessions. For reasons of participant privacy, we were not allowed to video-record the sessions, so they were audio-recorded. The recordings were transcribed following van Lier (1988) conventions and generated a total of 1,336 turns, of which 764 were from the teacher and 572 from the students.

Both researchers coded the data independently and compared their results of the coding, which coincided in 90%, and discussed jointly the differences in order to reach an agreement for the remaining 10%. In this study, reliability was estimated using the formula "Agreement/ Agreement+Disagreement" (Miles & Huberman, 1994) and the level of agreement reached between the researchers was high: 187/187+19=0.91.

Error codification

To code the errors, we adopted the grammatical criteria of Vázquez (1992) and, following Ferreira (2006) and Bao (2019), we classified them into four categories: pronunciation, lexical, grammatical and multiple errors. Regarding to pronunciation errors, inappropriate accentuation and mispronunciation of vocabulary in Catalan during conversation activities were documented (Example 1):

Example 1
1. S: la pintora pinta [ˈparets] [ˈparets] (*the painter paints [ceiˈling] [ceiˈling]*)
2. T: molt bé! la pintora pinta [paˈre::ts] (*very good! the painter paints [ˈceiling])*

In the case of lexical errors, we took into account the inappropriate and inaccurate use of vocabulary (Example 2):

Example 2
1. S: vetenario vetenario de: ("vetenary" instead of "veterinary") (*vetenary vetenary of ("vetenary" instead of "veterinary"))*
2. T: veterinari aquest els que cuiden els que curen els animals (*veterinary this the person who takes care of animals)*

For grammatical errors, we considered errors such as sentence structure, verb conjugation, subject/verb, noun/adjective and article/noun agreement (Example 3):

Example 3
S: quin imatge **corresponde** al ofici de co- de coci- de cu- cuina **cocina** (student confused the gender of the noun "image" -feminine in Catalan- and did not make the required question word agreement) *(which image corresponds to the trade kit- kitch- kitchen kitchen)*

Regarding multiple errors, all cases that included more than one type of error in the student's production were examined (Example 4):

> Example 4
> S: [taˈʎer][taˈʎer][taˈʎer] no? **exacto**? (inadequate use of the word “taller” -workshop- instead of “tallar”-to cut- and mispronunciation)

Coding OCF types

The coding of the OCF types was based on Lyster and Ranta (1997) and Fu and Nassaji (2016) taxonomy. Table 1 provides a definition of each OCF type with an example drawn from the data collected. It should be noted that the following OCF types were excluded from our classification: re-ask, asking another student and using L1, as no cases were documented in our data.

Table 1. Coding OCF types (adapted from Lyster & Ranta, 1997; Fu & Nassaji, 2016)

OCF types	**Definition**	**Example**
Immediate recast	The teacher provides the correct form by reformulating the learner’s utterance.	1. S: **vividor** vindidor (*soldier selder)* 2. T: venedor (*seller)* 3. S: venedor (*seller)*
Delayed recast	The teacher reformulates the learner’s erroneous utterance with some delay.	1. S: quinze a policia (.) **qué** imatge **corresponde** a l’oficina **yo** he post al = (*fifteen police (.) **which** image **corresponds** to the office **I** put to =)* 2. T: no: (*no:)* 3. S: = imatge (*= image)* 4.T: no:: quina imatge correspon a l’ofici de:: (*no:: which image corresponds to the trade of::)* 5. S: la policia! (*the police!)*
Clarification request	The teacher asks questions to better understand the student's erroneous utterance, without providing the correct form.	1. S: **jaima las mantas**: XXX (***tent the blankets**: XXX)* 2. T: ah:: com has dit? (*ah:: what did you say?)*
Metalinguistic feedback	The teacher provides comments or brief analyses of a student’s erroneous utterance, without explicitly providing the correct form.	1. T: què vol dir ven? (*what does it mean he sells?)* 2. S: ven? (*he sells?)* 3. T: ven (*he sells)* 4. S: **que trabaja: en: de camarero** (***that he works: in: like waiter**)* 5. T: no:: (*no::)* 6. S: XXX (*XXX)* 7. T: no:: ven ve del verb vendre: (*no:: he sells comes from the verb to sell)*
Elicitation	The teacher does not provide the corrected form but intended to give the students a chance to self-correct the error without asking a direct question.	1. T: com es diu? (*how do you say it?)* 2. S: soldadura (*welding)*
Explicit correction	The teacher explicitly provides the correction of the student’s erroneous utterance and clearly signals that the students made an error.	1. S: quin imatge corresponde a la oficina (*which image correspond to the office)* 2. T: l’ofici per què dius oficina si no hi ha un- (*the job why do you say office if there is not a-)* 3. S: ofici ofici metge metge (*job job doctor doctor)*
Repetition	The teacher repeats the student's erroneous utterance with a raising intonation to highlight the error.	1. S: no! **chapista** (*no! **panel beater**)* 2. T: és **chapista**? (*is panel beater?)*

Coding uptake

To code the students' uptake, we followed Fu and Nassaji (2016) study, distinguishing between successful, unsuccessful uptake and no uptake. Table 2 gives a definition and an example for each type.

Table 2. Coding uptake (adapted from Fu & Nassaji, 2016)

Uptake types	**Definition**	**Example**
Successful uptake	Student's successful correction of the error after the feedback of the teacher.	1. S: [‘metɣe] [‘metɣe] (*[‘doctor] [‘doctor]*) 2. T: metge **vale**: (*doctor **ok**:*) 3. S: metge (*doctor)*
Unsuccessful uptake	Student's partial or off-target correction of an error after receiving teacher feedback.	1. S: quin és el [‘paɣes] (*who is the [‘farmer]*) 2. T: pagès (*farmer)* 3.S: se ((sí afirmatiu)) (*ya ((yes affirmative)))*
No uptake	Student did not produce any verbal response to the teacher's feedback.	1. S: quin (*which ((masculine form in Catalan)))* 2. T: quina (*which ((femenine form in Catalan)))* 3. S: [ma'txe] (*[image])* 4. T: imatge (*image)* 5. S: imatge imatge (*image image)*

Results

A total of 163 errors were detected in the data. Most of the errors (Table 3) were related to pronunciation errors accounted for 42.4%, followed by lexical errors (30.7%), grammatical errors (15.3%) and multiple errors 11.6%.

Table 3. Frequency of each error types

Types of error	**Frequency n**	**Frequency %**
Pronunciation errors	69	42.4%
Lexical errors	50	30.7%
Grammatical errors	25	15.3%
Multiple errors	19	11.6%
Total	163	100%

Languages other than the target language also appeared during the lessons: Spanish, French and Arabic (Table 4). Students used them in n=125 occasions: they used Spanish in 95.2% of the cases, then French in 4% of the cases and Arabic in 0.8% of the cases. They used Spanish even when dealing with linguistic content that has already been covered in class. The students also use in five occasion French and in one occasion Arabic.

Table 4. Use of other languages of students' linguistic repertoire

Language used	**Frequency n**	**Frequency %**
Spanish	119	95.2%
French	5	4%
Arabic	1	0.8%
Total	125	100%

In the cases where students used Spanish, the teacher intervened consistently offering a translation into Catalan in order to provide them an extra input in the target language. Since the teacher did not know French and Arabic, she did not intervene in those cases.

Table 5 shows that in the 32.5% of the cases students did not receive any type of OCF. For instance, although not reflected in this table, the teacher decided not to provide all the OCF when the utterance included more than one error. In other cases, the teacher focused her attention on the functioning of the activity and prioritised the students' understanding of the meaning. The most frequent OCF types were recasts. Specifically, 33.5% of the cases of OCF were immediate recasts and delayed recasts accounted for 11.2%. The teacher, through the OCF, provided the correct answers to the students and only 22.8% were OCF that encouraged the student to correct their own errors: clarification request, elicitation, repetition, metalinguistic feedback. In this second group, the clarification request was the most frequent OCF type (8.1%), followed by elicitation (7.1%). Each of the other OCF types accounted for less than 5% of the total.

Table 5. Frequency of OCF provided by the teacher.

OCF types	**Frequency n**	**Frequency %**
No OCF	64	32.5
Immediate recast	66	33.5
Delayed recast	22	11.2
Clarification request	16	8.1
Elicitation	14	7.1
Explicit correction	8	4.1
Repetition	4	2.0
Metalinguistic feedback	3	1.5
Total	197	100

Table 6 presents the frequencies and relationships between the type of error in the students' utterances and the OCF types provided by the teacher. In total, the teacher did not provide any OCF in the 39,5% of the cases. Students' utterances that include pronunciation errors did not receive any OCF in the 36.2% of the cases. The 39.1% were immediate recast and the 10.1% of cases, the pronunciation errors were corrected with delayed recast. All the other cases of OCF were below 10%: clarification request (5.8%), elicitation (4.3%), explicit correction (1.5%), repetition (1.5%), metalinguistic feedback (1.5%). Regarding the lexical errors, the teacher did not provide any OCF in the 42% of the cases. When she provided, she preferred immediate recast (24%), followed by elicitation (12%), clarification request and explicit correction (both 8%), delayed recast (4%). In the 68% of the cases, the teacher did not intervene with grammatical errors. When she decided to give OCF they were mainly immediate recast. In the 8% of the cases, the teacher used elicitation, 4%

delayed recast, clarification request and repetition. With the multiple errors, the teacher's moves were mainly immediate recast (12%) and delayed recast (10.5%). All the other cases (clarification request, explicit correction and no OCF) were below 10% (all of them 5.2%).

Table 6. Frequency and relationship between error types and OCF types.

OCF types	Types of error								Total	
	Pronunciation error		Lexical error		Grammatical error		Multiple errors			
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
No OCF	25	36.2	21	42.0	17	68.0	1	5.6	64	39.5
Immediate recast	27	39.1	12	24.0	3	12.0	12	66.6	54	33.3
Delayed recast	7	10.1	2	4.0	1	4.0	2	11.0	12	7.4
Clarification request	4	5.8	4	8.0	1	4.0	1	5.6	10	6.2
Elicitation	3	4.3	6	12.0	2	8.0	0	0	11	6.8
Explicit correction	1	1.5	4	8.0	0	0	1	5.6	6	3.7
Repetition	1	1.5	1	2.0	1	4.0	0	0	3	1.8
Metalinguistic feedback	1	1.5	0	0	0	0	1	5.6	2	1.3
Total	69	100.0	50	100.0	25	100.0	18	100.0	162	100.0

Regarding the effects of the different OCF types on the students' uptake after the teacher's move, 33.8% of the cases led learners to successful uptake and repair the error. In 34.6% of cases, the students were able to take the turn, but were unable to repair the error or only partially repaired it. In the remaining cases (31.6%), there was no attempt of learners' uptake. Table 7 shows the relationships between the different OCF types and the students' uptake.

Table 7. Relationship between OCF types and learner uptake

OCF types	Types of uptake								Total	
	Successful uptake		**Unsuccessful uptake**		**Total uptake**		**No uptake**			
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Immediate recast	25	37.9	20	30.3	45	68.2	21	31.8	66	100
Delayed recast	4	18.2	5	22.7	9	40.9	13	59.1	22	100
Clarification request	3	18.8	10	62.5	13	81.3	3	18.8	16	100
Elicitation	7	50.0	5	35.7	12	85.7	2	14.3	14	100
Explicit correction	4	50.0	2	25.0	6	75.0	2	25.0	8	100
Repetition	0	0	4	100.0	4	100.0	0	0	4	100
Metalinguistic feedback	2	66.7	0	0	2	66.7	1	33.3	3	100
Total	45	33.8	46	34.6	91	68.4	42	31.6	133	100

In order to see the different students' behaviour in relation to the two types of recasts, this study comments them together. The high amount of immediate recast (n=66) and delayed recast (n=22) meant that most of the students' uptake was related to these two OCF types. Immediate

recasts led to 37.9% of repairs, while only 18.2% of delayed recasts led to learner uptake. Delayed recasts were the OCF type with the highest percentage of no learner uptake (59.1%).

Although they were not the most frequent OCF types, elicitation and explicit correction were the OCF that proportionally led students to repair the error in 50% of cases. The clarification request, although the third most frequently used OCF type, was not a very effective, as in the 18.8% of the cases did not produce any move by the student and in 62.5% of cases the students' uptake it did not lead students to repair or they repair partially their utterance. The other types of OCF (explicit correction, repetition and metalinguistic feedback) appeared on very limited occasions and are therefore not very informative. However, the use of explicit correction and the metalinguistic feedback point to a tendency towards students' repair. On the other hand, repetition could be perceived as discursive rather than corrective strategy and, therefore, did not attract the students' attention.

Discussion

The analysis of the data showed a strong presence of other languages in the Catalan lesson, mainly Spanish (95.2% of the cases), the other official language coexisting in Catalonia (Spain), and a language that students share with the teacher. Students also use other languages in their language repertoire, French and Arabic, but in a much smaller quantity. This result is striking because as Branchadell (2015) pointed out, the first immigration plan of a new left-wing and nationalist party coalition in government was to turn Catalan into the vehicular language of immigrants. This turning point coincided in time with a shift in the language ideologies underpinning the overall Catalan language policy. In terms of Woolard's celebrated distinction (2008), an ideology of authenticity gave way to an ideology of anonymity: the goal was to move from a conception that locates the value of a language in its relationship to an historically specific social group to the supposedly neutral hegemonic language associated with the public sphere of nineteenth and twentieth century nation-states. According to this framework, Catalan was supposed to become the common language of Catalonia. In the process of turning immigrants into citizens (the key idea of this plan), the Catalan language teaching and learning was a necessary condition. For this reason, appeared a new approach to the teaching of the Catalan language to foreigners, the linguistic welcome (*acollida lingüística*) that was included in a comprehensive welcome program (Branchadell, 2015).

Following Vila, Sorolla and Larrea (2013), it must also be considered that Moroccan people who arrive in Catalonia usually prioritise learning Spanish for two reasons: they have a migration history that leads them to follow their family, friends or work in different parts of Spain, and it is the language that predominates in the workplace where they are incorporated. Other authors have shown that Spanish is the most frequently used language in the prison context (Bretxa & Torner, 2005; Sans Bertran, 2018, Birello, Pérez Ventayol & Casadellà Matamoros, 2017). As Branchadell (2015) said, a Statistics Institute of Catalonia study indicates that there is ample evidence that foreigners tend to choose the dominant language, in the case of Catalonia, Spanish. In a 2006 survey focused on people of Moroccan, Ecuadorian, Romanian and Chinese origin, the following conclusion was reached:

> "The predominant language in the family and with friends is that of the country of origin, although Spanish is also widely used with acquaintances. At work, the prevalence of Spanish is overwhelming, especially when compared to Catalan. The use of Catalan is very scant and few immigrants understand it." (Institut d'Estadística de Catalunya, 2006).

In 2010, another survey gave similar results: Spanish is the main language of respondents in all areas, although most keep their language of origin, especially at home. The presence of Catalan in daily life is minimal (Branchadell, 2015).

The dominance of Spanish in penitentiary context also can be explained due to a deep-seated social norm according to which Spanish, not Catalan, is the language to be used with foreigners (even if they happen not to know it). This is part of the status quo that Catalan immigration policy and education is intended to challenge with specific policies and measures (i.e., awareness campaigns and workshops for teachers).

The first research question of this study focused on identifying the different types of errors and their frequency. Of the 163 cases of errors noted, the majority of them (42.4%) corresponded to the pronunciation errors. This high number of pronunciation errors can be explained with the fact that, as Benyaya (2007) suggests, a characteristic that makes Moroccan speaker more easily identifiable is the confusion of some vowels or the neutralisation of some consonants, which are adapted to Arabic pronunciation. In our data, sometimes the difficulties with the pronunciation of some Catalan words depends on Spanish because they confuse both languages. In the 30.7% of the cases were lexical errors, this may be because the lessons observed were very much focused on the introduction of new vocabulary and therefore the students were not familiar with it. The presence of grammatical errors (15.3%) and multiple errors (11.6%) was significantly lower.

The second question focused on the type and frequency of the OCF provided by the teacher. As in other studies, most of the OCF were immediate recasts (33.3%) (Lyster & Ranta, 1997; Lyster, 1998; Panova & Lyster, 2002; Lyster & Mori, 2006; Jimenez, 2006; Fu & Nassaji, 2016) or delayed recast (7.4% - see Table 6). This result points to a tendency for the teacher to provide a more implicit OCF, with the intention of providing more samples of the target language to a group that had little chance of listening and using it. It should be noted that grammatical errors, although an infrequent type of error (15.3%), did not receive OCF in 68% of the cases. This result can be explained by the fact that most of the classroom activities had a lexical focus and therefore the teacher prioritised the correction of this type of error.

Regarding OCF cases where the student has to look for a solution on his own from the teacher's questions or suggestions: clarification request (6.2%), elicitation (6.8%), explicit correction (3.7%), repetition, (1.8%) and metalinguistic feedback (1.3%) were used very sporadically (see Table 6). Most probably, the teacher preferred to use an OCF that seemed less invasive to her in order to avoid cases of adult inhibition (Fernández López, 1995). It should be noted that in a total of 39.5% of the cases of errors, no OCF was provided (Table 6). In some cases, the teacher decided to prioritise communication. In other cases, such as in those utterances that contained more than one error, the tendency was to correct the error found at the end of the student's utterance.

The third research question of the study aimed to find out what effects the different OCF had on the students' uptake. The students' reaction to the OCF was fairly evenly distributed between successful (33.8%), unsuccessful (34.6%) and no uptake (31.6%). In 68.4% of the cases, the students replied to the OCF provided, but in only 33.8% of the cases was there a repair. As in Strube (2006), the recasts were effective. In our study, the most effective recasts were the immediate ones, as students replied to them in 68.2% of the cases and in 37.9%, they led to repair. The case of delayed recasts was slightly different, as they seemed to be less effective in that only 18.2% of cases led to repair. It should be noted that delayed recasts were the OCF with the highest percentage of cases in which there was no learner uptake (59.1%). One reason for this result may be that when the delayed recast was provided, the students were concentrating on other tasks and did not notice the teacher's OCF or do not understand that it is as a correction of an error that had occurred previously.

It should be noted that, although they are not very frequent OCF, clarification requests and elicitation led to students' uptake in 81.3% and 85.7% of cases, respectively. In this sense, a similar tendency is shown with LESLLA students to that detected by Fu and Nassaji (2016) with university

students. With regard to repair, LESLLA students behaved differently from highly-educated students in Canada in Fu and Nassaji (2016): half of the cases of elicitation led to repair, while the clarification request was not as effective, as in most cases (62.5%) it did not lead students to repair the error. Perhaps the students in the present study did not perceive clarification requests as corrective strategy but as discursive strategy. In this sense, more research is needed.

Finally, even though there are few cases, it seems that there was a tendency to repair when the teacher used a more explicit type of OCF, which guided the students more towards repair, such as, for example, explicit correction, elicitation and the metalinguistic feedback. Most probably this depended on the fact that with this OCF type the teacher clearly indicated where the problem was and this helped the students to identify and locate it. In this sense, more research is also needed.

Conclusions

The results of this study show that in the Catalan context, there is a very high use of Spanish during the Catalan lessons. This aspect encourages some dynamics in the classroom because the teacher tries to offer a translation into Catalan as an extra input for the students. The results show that most of the OCF are recasts which are effective in the sense that they produce a repair from the student.

It must be considered that the present study has some limitations, as it was carried out in a single school, with a small number of students and a limited number of recorded sessions. We did not have the opportunity on this occasion to make a more in-depth study about the use of other languages of the student's linguistic repertoire. For future research, the participants and groups with different levels of literacy should be increased. Moreover, the level of learners' awareness of the OCF received, especially of recasts and the OCF types, which are more precise when indicating the error and encourage the learner to self-correct, should be examined. Finally, a qualitative study from a translingual perspective is needed in order to fully understand the use of the entire students' linguistic repertoire to accomplish their communicative goals and the kind of classroom interaction it promotes.

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Appendix 1

Transcription conventions

S, S1, S2: student
T: teacher
Emphasis with falling intonation: va!
Rising intonation, question: què és?
Lengthening of the preceding sound: no:::
Abrupt cut-off: co-
Turn continue below: =

Comments: ((laugh))
Use other languages: **Spanish**
Phonetic transcription: [ta’ʎer]
Brief pause: (.)
Reading: <u>read</u>

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Diagnosing Bilingual Abilities in the Domain of Literacy Skills

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Abstract

Recent research on bilingualism has seen a paradigm shift from a fractional to a holistic view of bilingualism (Grosjean, 1985; Gort & Bauer, 2012) according to which all, not just multilinguals' non-primary language(s), need to be taken into account, which also brought about significant changes with regard to how a bilingual learner's linguistic abilities are conceived of (e.g., re-evaluating the appropriateness of monolingual standards). Hereby, an important claim is that all, but not only the learner's weaker languages, should be taken into account when assessing the linguistic repertoire of a multilingual speaker. Yet, this approach has not yet been sufficiently endorsed for biliteracy, while L1 literacy is claimed to be a significant predictor of literacy in an additional language (Arslan & Edeleva, 2022; Bernhardt, 2010; Kuperman et al., 2022). In our contribution, we present preliminary empirical data on two different possibilities for diagnosing multilingual abilities of adult emergent readers in the domain of literacy skills. Using common experimental procedures to investigate reading performance (e.g., visual word recognition, reading fluency) as an example, we demonstrate how they can be adapted to take account of literacy skills in German as L2 and in the respective L1 of adult emergent readers (e.g., Turkish or Farsi-Dari). Finally, we discuss the potential of combining both the languages within one task type and the utility of modern techniques such as eye tracking to determine the extent of concurrent orthographic knowledge in a bilingual's L1 during literacy-related task execution in their L2.

Keywords: adult literacy, L2 German, bilingual abilities, assessment benchmarks

Introduction

Multilingualism is a commonplace phenomenon in the present-day society. Yet, in some populations it is often restricted to oral communication while the ability to read and write in one of the languages remains rudimentary. The most well-documented explanation for the absence of the ability to read and write in one of the languages is lack of formal education or any appropriate systematic instruction (e.g., during schooling or special courses in most European countries). Additionally, the learning process itself may be constrained by specific linguistic and general cognitive abilities so that some individuals may remain functionally illiterate despite sufficient years of schooling. Numerous investigations converge on the obvious benefit of such key concurrent skills as phonological awareness (Schnitzler, 2008) or auditory processing span (Wild & Fleck, 2013) for the development of reading and writing ability both in children and in adults (Landgraf et al., 2012; Sebastián & Moretti, 2012). The development of those skills is also stipulated in respective curricula on literacy training (e.g., as one of the components of the National Reading Panel).

Bilingual Abilities and the Role of L1 Literacy

In research on multilingualism, there is a long-standing debate around measuring language abilities of bilinguals. In the course of history, this debate has grown into a paradigm shift from a fractional deficit-oriented to a holistic view of bilingualism (Treffers-Daller, 2018), which had an impact on how linguistic knowledge of bilingual speaker-hearers should be measured. Proponents of the holistic view (e.g., Grosjean, 1985; Gort & Bauer, 2012) advocate the standpoint that linguistic abilities of multilinguals should be considered in their entirety by making use of relevant information in all, but not only the learners' additional language(s). The holistic view of bilingualism challenges native speaker standards that focus on what language learners cannot achieve compared to the native speaker target. Contrary to that, it implies focusing on what makes language learning unique. Even bilinguals whose language proficiency is uneven across their languages display the well-attested unique abilities that characterize them as multilingual (e.g., translanguaging). Though detecting multilingual abilities is increasingly attracting attention on the part of researchers and assessment test developers, there have yet been only a few attempts to develop comprehensive tools for detecting and subsequently measuring them in the domain of literacy skills[1].

The role of literacy skills in the multilingual learners' first language (L1) remains controversial. In a recent large-scale study (Kuperman et al., 2022), L1 literacy has been shown to have the strongest explanatory power among various predictors of reading efficiency in L2 learners of English in different L1s. A strong correlation has also been observed between reading fluency scores in L1 and L2 for adult emergent readers with L1 Turkish and L2 German (Arslan & Edeleva, 2022). On the other hand, especially in classroom settings, hybrid spellings where two writing systems clash against each other are treated as cases of interlingual transfer. For instance, German orthography is characterised by noun capitalisation. Russian-German bilingual children who have operational knowledge of German orthographic conventions often transfer this feature onto their Cyrillic spellings (Usanova, 2016) which is classified as a misspelling. Yet, those children who have also learnt some basics of Russian orthography are less prone to overuse capitalisation in Russian. Further, the overall pattern reveals that these children are more accurate with regard to capitalisation restrictions in German, which lends support to the

[1] Yet, none of them with reference to German as an additional language.

assumption that 'biliterate bilinguals possess above average metalinguistic awareness' (Usanova, 2016: 171) and generally should be rewarded. Thus, the spellings that appear to be faulty at first sight might yield a consistent pattern where the knowledge of both orthographies is applied systematically if considered in its entirety.

German Assessment Metrics in the Domain of Literacy Skills

As becomes clear from the previous section, L1 literacy skills need to be taken into consideration for an accurate and wholesale understanding of a learner's L2 performance as well as adequate classroom support. Yet, in the case of German, appropriate assessment tools are largely missing. Much of the professional discourse on literacy assessment until 2019 is framed by the results of the "Level.one" studies by Grotlüschen (2010; 2019) which served as a basis for several diagnostic tools, e.g., the lea.Diagnostik (Grotlüschen, 2010), Oldenburger Diagnostikbögen (Engel, 2016), VHS Diagnostik (Ossner et al., 2021). They are primarily directed at native speakers who cannot put their literacy skills to work to an extent that would fulfil societal demand in the domain of written communication. Conceptually, those tools rely on so-called alpha-levels that allow for diagnosing literacy skills on a continuum from the level of individual characters up to entire texts. In a classical picture-based spelling inventory found in Oldenburger Diagnostik (Engel, 2016), the participants are asked to write down the word that corresponds to the image. The scoring procedure generally allows more fine-grained assessment than a simple binary choice between correct or incorrect spellings can provide. Specifically, it offers to look at particular challenges of German orthography that serve as a decisive criterion for word selection. The mastery of these challenges is then placed on a scale from Level 1 to Level 3 (also termed lea-levels) that reflect natural development of literacy skills as documented in observational data of monolingual children.

When those diagnostic instruments are applied for multilingual readers, some of the accommodations which appear necessary for multilingual learners are not sufficiently reflected. Multilinguals who learn an additional language in adulthood come in with an already established phonological system and varying literacy skills in their first language. Therefore, language learners' performance on the spelling test may be affected by their difficulty regarding phoneme discrimination in the target language. On the other hand, it may also be reflective of the transfer of relationships between letters and sounds in the learners' first language (e.g., the non-realisation of vowels in Farsi-Dari writing). Metalinguistic knowledge of this kind may leave its trace resulting in faulty spellings so that superficially these individuals might be displaying poorer performance at the beginning of instruction and be perceived as poor achievers in the eyes of both the instructor and peer learners. At the same time, they might catch up and eventually progress at a quicker tempo than their peers. Thus, to develop a long-term course concept that would ensure adequate and appropriate support, all relevant information about the multilingual learners' language abilities should be taken into account. In addition to lea-levels[2] based diagnostic tools, several other tools (Bulut et al., 2015; Markov et al., 2015; Perlmann-Balme, 2010) have been developed that place emphasis not only on technical literacy skills, but also on the learners' achievement in formal courses, their individual biographies (e.g., their favourite books or films) as well as their communicative functioning in the written domain.

[2] Lea-levels are used by test developers for reference to construct appropriate tasks and accurately estimate the level of learners' literacy development

Current Study

In the current contribution, we present two potential approaches to incorporating the screening for L1 literacy at the level of isolated word recognition and reading fluency. For isolated word recognition, we discuss an example of an adaptive picture selection task originally developed for children (Schneider et al., 2011) that incorporates the phonological and orthographic properties of a particular language. Further on, we will present reading protocols as a way to document multilinguals' reading ability and consider how possible misreads might be motivated and how they are reflective of the interplay between two writing systems as well as possible metalinguistic strategies. In the discussion section, we will bring together the results of the pilot study for L2 German and Turkish and Farsi-Dari as L1. Finally, we will discuss the potential of more advanced techniques such as eye tracking and how they can be informative with regard to the learners' implicit knowledge at the phono-graphemic level as well as how the integration of several languages into one paradigm may be revealing with regard to the strength of co-activation of the learner's weaker language(s) moderated by their degree of proficiency.

Isolated Word Recognition

In the Würzburg Silent Reading Screening (Würzburger Leise Leseprobe, Schneider et al., 2011) that served as a prototype for the current study design, children are asked to select one image out of four that best matches the printed word and cross it out with a pencil. A restricted amount of time is allocated to complete the task so that children are required to work through as many items as possible. The reading skill is, thus, measured through the reading speed expressed in the number of words that children could handle and through the reading precision expressed in the proportion of correct and erroneous judgements. For multilingual speakers, a separate version of such a task for different languages that takes into account their phono-graphemic properties may allow to estimate how stable phono-graphemic representations in each respective language are, that is, how quickly and robustly printed words can be identified in a crowded environment.

Materials and Method

Twenty target words were implemented as a picture matching activity. The participants saw the printed word in the middle of the screen and had to choose the matching image out of four that are presented on the visual display. The task was implemented digitally. An appropriate experimental software (e.g., Open Sesame) registered accuracy judgements and the time that the participant took to arrive at their decision.

Three competitor images were selected to generate interference with the target to be identified. One of them had an overlapping word onset with the target (e.g., *Ei* 'egg' and *Eimer* 'pail'), a second pair presented a phono-graphemic competitor (e.g., *Ei* 'egg' and *Eis* 'ice-cream'). The third competitor was a semantic competitor interfering at the level of word meaning (e.g., *Ei* 'egg' and *Huhn* 'hen'). For languages with an alphabetic writing system such as German, written characters generally correspond to individual phonological segments rather than whole words (cf. Chinese characters) or syllables (cf. Japanese). A phono-graphemic competitor in this case is a word that bears phonological and, therefore, graphemic similarity to the target. Here, graphemic similarity should be differentiated from orthographic similarity. Graphemic similarity results from a range of possible spellings which make up the 'graphemic solution space' of a language, but not a single spelling which is declared orthographically correct by the

codified norm (Neef, 2005). For instance, though German *Geld* 'money' is spelled with a <d> word-finally, this letter is not pronounced straightforwardly as [d] but it is devoiced to [t] due to the phonological process of final devoicing. Therefore, '*Gelt*' would also be a plausible (though orthographically wrong) spelling for the phonological representation in question and, for example, a phono-graphemic competitor to *Zelt* 'tent'. Other languages also display specific phenomena at the level of writing system that should be reasonably taken into account to construct such a task for a different language. These phenomena may be critical to determine the optimal choice of phono-graphemic competitors.

For instance, Turkish is a language with a relatively transparent alphabetic writing system. There is almost one-to-one correspondence between alphabetic characters and individual sounds, which holds both for reading and spelling (Czevriye et al., 2020). Thus, in contrast to German there are very few cases in Turkish where alphabetic characters display more complex correspondence rules than the ones with one-to-one letter-to-sound mapping (e.g., in Turkish the letter <ğ> is sometimes pronounced as a consonant but sometimes it is mute). Additionally, Turkish is characterised by so-called vowel harmony. The vowel in the suffix should align with the vowel in the preceding syllable of the stem. Practically, this results in a direct match between the suffix vowel and the last vowel of the stem (Gürsov, 2010). Another important characteristic of Turkish is extensive agglutination. Where additional lexical and grammatical meanings are expressed by separate words in English or German, word roots are extended by respective suffixes in Turkish (Mavis & Balo, 2020). Morphological markers in Turkish are less plurifunctional than in German or English. In German, the inflectional ending *-t* in a word like *singt* '(he/ she/ it) sings' comprises information with regard to person (3rd person), number (singular) and tense (present). In Turkish, such individual meanings may each receive a separate morphological marker. Thus, the words tend to be longer. This can be demonstrated by the following question: *temizlikçilerden misin?* //temzik.*cleanliness* çiler.*cleaning personnel.plural* den.*one of* misin.*are you*// *'Are you one of the cleaning workers?'* Elaborate affixation is also a very productive word formation strategy. A great number of words rely on a restricted number of stems while new meanings are expressed by affixation. This poses an additional challenge to search for competitors that are phono-graphemically similar, but at the same time semantically unrelated (i.e., not derived from the same root). For example, *uçurtma* 'kite' is not the most suitable competitor for the target *uçak* 'airplane'. Instead, the homophonous and semantically more distal *uç* 'top' was used.

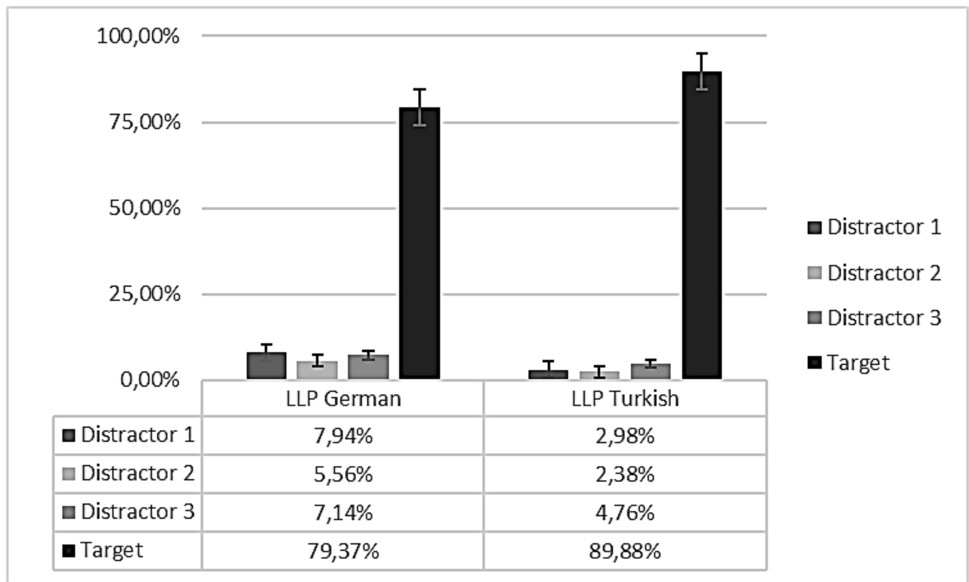
Participants

The task was administered to five adult emergent readers with L1 Turkish and/or Kurdish (four females; mean age = 50.8). Their participation was voluntary. Prior to the investigation, all of them provided their informed written consent to participate in the study and were surveyed for demographics.

Results

Response proportions for the target and each of the competitors were calculated for isolated word recognition in German and in Turkish (cf. Figure 1). Additionally, we calculated the participants' mean reaction times[3] in milliseconds for the Turkish and the German tasks separately.

[3] The time that elapsed from the presentation of the stimulus till the participant's response.



	LLP German	LLP Turkish
Distractor 1	7,94%	2,98%
Distractor 2	5,56%	2,38%
Distractor 3	7,14%	4,76%
Target	79,37%	89,88%

Figure 1. Mean accuracy scores on the isolated word recognition task in L1 Turkish and L2 German. Distractor 1 signifies the phono-graphemic competitor; Distractor 2 – the competitor with the overlapping word onset; Distractor 3 – the semantic competitor.

Though highly skilful in visual word recognition in both the languages, the learners were generally less accurate on the items of German than on the items in their respective first language (cf. Figure 1). They also took about 500 milliseconds longer to select the target in L2 German compared to the targets in their L1. The distribution of errors reveals that the interference from the phono-graphemic competitor is more pronounced for German as L2 than for the respective L1. It is indicative of the fact that phono-orthographic representations for L2 lexical items are generally less stable and might get overridden in competition with phono-orthographic neighbours.

Reading protocols: Parallel texts for measuring reading fluency in L1 and L2

Though the reading speed and the reading precision at the level of isolated words appear to be a robust measure of the reading skill, words are rarely read or written in isolation in everyday life. The use of written language typically takes place at the level of phrases, sentences or even whole texts, because the goal of reading and writing is the generation of meaning (Edeleva et al., 2022). Reading fluency in L1 and L2 appears informative for an integrated investigation of partial abilities, ranging from word-level decoding accuracy to reading speed and prosodic reading at the sentence and text level as well as the degree of their automaticity. Taken together, those subskills enable reading for meaning construction (cf. Rosebrock & Nix, 2017). On the one hand, an oral reading fluency task allows for quantitatively assessing the average reading rate which is necessary for successful reading comprehension. On the other hand, a qualitative examination allows to describe the pattern of linguistic features that is characteristic of a multilingual speaker depending on their constellation of languages and the properties of writing systems as well as the learners' degree of literacy in each respective language.

Materials and Method

We compiled three texts for each respective language using the procedure proposed in Liversedge et al. (2016). Three source texts on a variety of topics (home schooling, Olympic games, measles vaccine) were selected from the German-speaking website *Nachrichtenleicht* which publishes the news in accessible language for people with reduced literacy skills. German source texts were translated into Arabic, Turkish and Farsi-Dari using an automated translation tool. Once the text versions in Arabic, Turkish and Farsi-Dari were edited for grammar and vocabulary inconsistencies, they were translated back into German. Any sentences that did not translate directly were edited both in the German source text and in the respective target language. The process was repeated until the translations were stable, i.e. backtranslations did not impair sentence meaning or grammar. In this way, the texts were consistent across languages in terms of linguistic structure and word choice, but not oversimplified.

Participants

The oral reading task was performed by the same group of adult emergent readers with Turkish (or Kurdish) as described in the previous section and an additional group of learners with Farsi-Dari as L1. The rationale behind including Farsi-Dari readers was the difference in the script. In contrast to Turkish, Farsi-Dari uses the Arabic script where only long vowels are represented in spelling while short vowels are realized with the help of diacritics, though the use of diacritics is register-specific. Additionally, two control groups (experienced native readers in L1 Turkish and L1 Farsi-Dari and readers in L2 German who had diverse L1 backgrounds, but were highly skilled in reading their L1) contributed their data that served as a baseline to estimate the reading fluency of adult emergent readers. All the subjects provided their informed written consent to participate in the study and to be audio-recorded during the session. Their participation was voluntary.

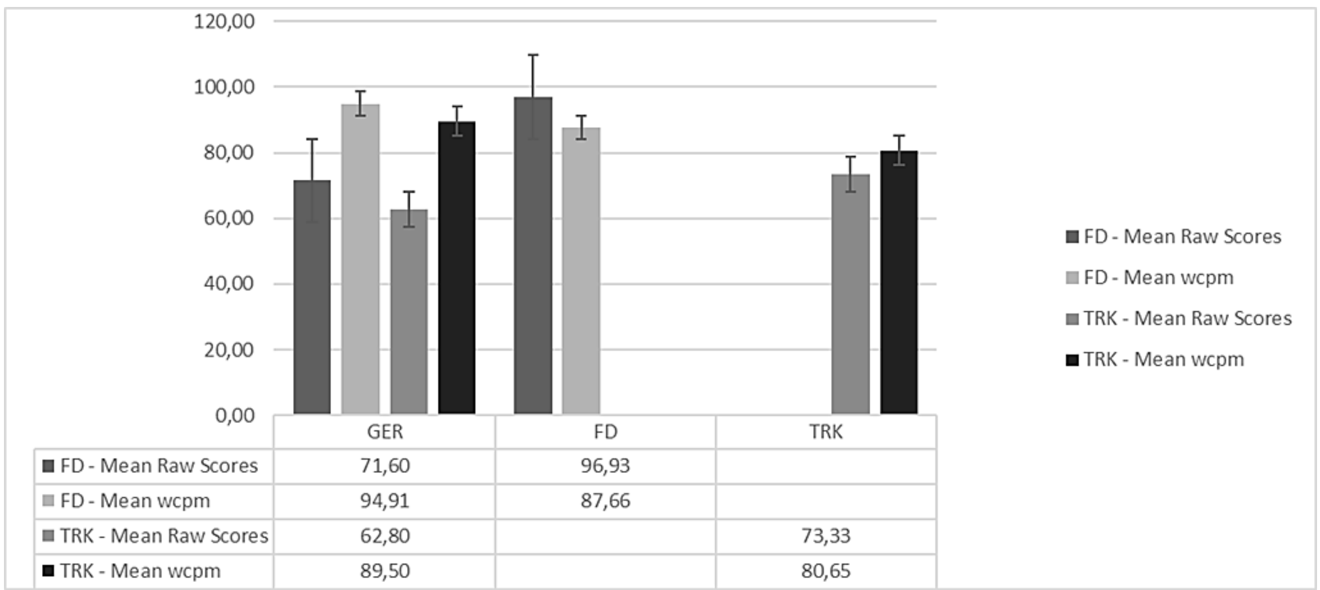
Results

To have written notations of the audio-recordings, we compiled reading protocols for each participant and text. The protocols were produced by a pre-trained coder as to the pre-defined guidelines. Orthographic notations in the reading protocols were selected with the basic idea in mind that they should be easy to read for a broad audience. Phonological notations were provided where necessary. Individual reading protocols were provided along with the original texts so that deviations from the target form (either as misread words or as a language-specific deviation in pronunciation) can be easily identified. Additionally, each single deviation was highlighted in bold.

Reading Fluency

For each participant, the numeric reading fluency score in words read correctly per minute (wcpm) was computed. This estimate relies both on the reading speed and the reading accuracy (Rasinski, 2004; 2012). For raw reading fluency scores, we subtracted the number of misread words from the total number of words that the participants read in one minute. In the next step, we computed relative reading fluency scores by relating raw reading fluency scores to the control scores of experienced adult readers in Farsi-Dari and Turkish. We utilised the equation suggested in Kornev and Ishimova (2010) $CoRR = 100 + ((M-m)/m)*50$, where M is the raw reading fluency score of a particular experimental subject, m is the mean number of words in the same text read correctly within one minute in a control group (Kornev and

Ishimova, 2010; Dorofeeva et al., 2019). Similarly, raw reading scores for L2 German were related to the reading scores of a control group of three literate non-native speakers with various linguistics backgrounds (Russian, Arabic).



	GER	FD	TRK
FD - Mean Raw Scores	71,60	96,93	
FD - Mean wcpm	94,91	87,66	
TRK - Mean Raw Scores	62,80		73,33
TRK - Mean wcpm	89,50		80,65

Figure 2. Mean reading fluency scores of low-literate learners in L1 Turkish (TRK), L1 Farsi-Dari (FD) and L2 German (GER). ‘Mean raw scores’ designate mean number of words read correctly in one minute. ‘Mean wpcm’ designate raw scores relativised against the baseline derived from the reading scores in a control group.

Figure 2 reveals that L1 Turkish readers displayed poorer reading performance than L1 Farsi-Dari readers in their L1. Yet, once raw reading scores are related to the baseline of highly literate Turkish and Farsi-Dari readers, they are negatively adjusted for Farsi-Dari low-literates, but positively adjusted for Turkish low-literates. Obviously, the texts that we selected generally appeared more challenging to L1 Turkish speakers compared to the Farsi-Dari group. Alternatively, it might be conditioned by the fact that the Farsi-Dari control group displayed better literacy skills than the Turkish control group, so that it would be advisable to also use control groups that are matched by the level of literacy skills to make valid judgements. Further, the learners’ average raw reading scores were generally lower for L2 German (62.8 for L1 Turkish readers and 71.60 for L1 Farsi-Dari readers) compared to their reading performance in L1 Turkish (73.33) or L1 Farsi-Dari (96.93). Once the scores are relativised against the baseline of L2 learners who are experienced readers in their L1, the values were upgraded to the benefit of the adult emergent readers (94.91 for L1 Farsi-Dari readers and 89.50 for L1 Turkish readers). Therefore, the baseline that the reading performance in L2 is related to might deliver a more equitable measurement of reading fluency.

Reading Accuracy. Regarding reading accuracy, the reading protocols were used to detect and note all the deviations that might be critical in terms of meaning differentiation. Deviant stress patterns as well as unconventional intonation were disregarded as long as the word that the participants pronounced remained understandable.

To classify the systematic deviations that we observed in the learner varieties (either in L1 or in L2), we relied on the types of relationships between letters and phonological units as described in Neef (2005) and Neef and Balestra (2011) who distinguish four types of correspondence rules. The simplest types are unambiguous context-free correspondence rules. An example is the letter <q>, which (with minor restrictions) always corresponds to [k]. If the phonological equivalent is known to the L2-reader, such characters should not cause major problems. Turkish seems to have almost only this type of correspondence rules. A second type of rules is underdetermined correspondence rules, which are typical of the German writing system. For example, the letter <o> corresponds to either tense [o] or lax [ɔ]. In some words, specific markings fix the correspondence to a single option. In *Sohn* ‘son’, there is a silent <h> (a lengthening marker) indicating that the preceding vowel is a tense vowel, while in *offen* ‘open’, the reduplicated consonant letter (a sharpening marker) indicates that the preceding vowel is a lax vowel. In other cases, however, there is no graphic marker, so a spelling such as *Ton* ‘tone’ is underdetermined in terms of the vowel quality and, thus, a potential problem.

Another fairly large group of characters displays the type of inherently ordered correspondence rules. Again, such a character has at least two options for corresponding phonological elements, but the phonological structure of German makes it clear which one to choose. Typical cases are letters for voiced obstruents such as <d>. This letter corresponds to [d] when the phonology allows it, otherwise to [t]. An example is *Bad* ‘bath’ [bɑt], which shows the phonological rule of final devoicing. Voiced obstruents are not allowed syllable-finally in the phonology of German. Finally, there are letters that show specific correspondences only in certain graphemic contexts, such as the letter <u>, which corresponds to the consonant [v] when preceded by the letter <q> and to vowels otherwise.
Other complexities of the German writing system concern letters that are more or less specific to this writing system, namely <ß> (always corresponding to [s]) and the umlaut letters <ä, ö, ü>, which correspond to front vowels. In addition, the German writing system has a number of 'fixed letter combinations' that behave like single letters in that they have their own correspondence rules. Examples include <sch>, which corresponds to [ʃ], and <ch>, which corresponds to either [ç] or [x] (with phonological conditioning).

A typical deviation of L1-Turkish learners of German is that they constantly pronounce <ch> as [x] (e.g. the pronoun *sich* [zıç] as [zıx]), which can be regarded as a deviation on the graphemic level. As mentioned, this fixed letter combination has an underdetermined correspondence rule and corresponds either to [ç] or to [x]. However, both sounds are non-existent in Turkish (Zimmer and Orgun 1999), therefore, the correspondence rule <ch> to [x] is not further specified. For participants with L1 Kurdish as a subgroup of L1 Turkish participants, we could observe that they regularly pronounced the letter <ğ> as [x] instead of [ɣ] in Turkish texts, presumably because the latter sound does not exist in Kurdish (cf. an example from a reading protocol below; the first highlighted deviation is a case of freely inserted additional material).

Turkish original version	*Output of the participant (L1 Kurdish)*
Berlin'deki birçok insan bu yıl kızamığa yakalandı.	Berlin'deki birçok insan **<u>ve isan</u>** bu yıl kızamı**[x]**a yakalandı.

In Farsi-Dari which possesses the sound [x] but not the sound [ç], the correspondence rule for the digraph <ch> is more elaborated. In the word *Nachrichten* pronounced by the participants as

Nachrischten, the first instance of <ch> was realised correctly while the second was exchanged into [ʃ]. The latter indicates that the learners are aware of two possible realisations of <ch>. For the Turkish group, we also observed deviations in the pronunciation of the letters <z> and <v> in the German texts for which we assume different explanations. All these letters exist in the Turkish alphabet. However, the letter <z> was not pronounced correctly by the Turkish speakers because the affricate [ts] does not exist in Turkish (here, <z> regularly corresponds with [z]). A typical case is *Zahl* being pronounced as *Tahl*. Moreover, the letter <v> is problematic due to its underdetermined character in German. We find that the Turkish participants preferred a constant articulation of this letter, leading to a misreading of the preposition *vom* [fɔm] as [vɔm]. For Farsi-Dari, a noteworthy case was the realisation of the letter <s> which has an inherently ordered correspondence rule in German, with [z], [s] and [ʃ] (in this order) being its possible pronunciations. Since the phonology of Farsi-Dari lacks the phoneme [z], it is not a surprise that participants pronounced <s> as [s] in contexts where [z] would have been appropriate like in *Sonne* pronounced as [sɔnə] instead of [zɔnə].

Another interesting case are umlaut letters. Umlaut letters <ü> and <ö> are familiar to the Turkish spelling system. German additionally has the letter <ä>. Therefore, it is not surprising that in several cases the Turkish participants misread <ä> as <a> like in *wäre* read as *ware*. We also observed cases where <ü> is misread as <u>, e.g., in *Schüler* 'pupil' pronounced as *Schuler* (a non-existing word) and *größte* misread as *großte*. That means that the same letters were differently recognized in L1 and L2 and a separate strategy was utilised for their realisation in L2 German. A similar pattern was observed in Farsi-Dari where umlaut letters do not exist at all (cf. Amirpour 1989). The respective letters <ä, ö, ü> were pronounced as the related letters <a, o, u>, leading to deviations like in *mussen* instead of *müssen* and *großte* instead of *größte*. Since consonant clusters are typical for German, but not for Turkish or Farsi-Dari, it is likely that L2 learners develop specific simplification or modification strategies to adjust those sound combinations to L1 phonotactics. We find cases like the following in the reading protocols obtained in the current study where the sequence of the three consonants [ʃtr] is resolved by the insertion of a vowel:

German original version	*Output of the participant (L1 Turkish)*
Streit über Impfungen	**[ʃ]i**treit über Impfungen

The learners with L1 Farsi-Dari showed a different strategy to overcome difficulties regarding consonant clusters in syllable onsets. They inserted the vowel [e] at the very beginning of a word like in *Estreit* instead of *Streit*.

The last case to mention here is the obvious influence of the L1 in the reading products of German in that German words that share morphemes with the respective Turkish words were read partly or completely in Turkish. Examples are the geographic name *Japan* which is written the same in both languages. Our participants tended to mispronounce this in the Turkish way as [tʃapon] instead of [jɑpɑn]. The L1 influence is also evident in the word o*lympiyat* with Turkish morphology instead of the German word o*lympischen*.

Discussion

In the current contribution, we discussed two potential approaches to take account of L1 literacy skills in multilingual learners. For isolated word recognition, we considered language-

specific properties that one needs to be mindful of when selecting competitor images for the target. For reading fluency, we developed parallel texts in L2 German and the respective L1s of the learners. We compiled reading protocols that allowed an insight into the deviations that systematically occurred in the learner varieties. Finally, we also showcased the role of multilingual control group scores as a benchmark for the assessment of reading fluency in adult emergent L2 readers. Our results generally capture the difference in the participants' performance in L1 compared to L2, between two different L1 groups (Turkish vs. Farsi-Dari), or between the relativised and the raw reading fluency scores. Still, both the tasks that we used were originally developed to suit the cognitive demands of children. Since adults typically possess well-developed cognitive functions (Trueswell et al., 1999), pure deterministic response measures (e.g., accuracy scores) might not be sensitive enough to pick up delayed or multiple lexical activation when an adult participant is required to choose the target item among several competitors in case of isolated word recognition.

A more ecological way to gain an insight into the learners' implicit phono-graphemic knowledge is through the inspection of their eye movements while they are engaging with the task. Since the classical study of Altmann and Kamide (1999), eye movements have been repeatedly shown to be modulated by linguistic input and are, thus, sensitive to linguistic processing. In the picture selection activity as mentioned above, eye movements may be informative with regard to the extent to which intended competitors interfere with the target as well as how word recognition takes place with emergent adult readers. It would be intuitive to suggest that initial distribution of looks between the target and the competitor with the same onset would indicate that the printed word is not processed as a whole at once, but incrementally, which is in line with existing models of bilingual word recognition (Dijkstra & Van Heuven, 2002). Incremental word decoding may gradually transition into the ability to recognize the printed word as a whole. Especially at initial stages of reading development, graphemic representation may not be stable enough which will bring about the interference from possible phono-graphemic neighbours. The more automatised low-level recognition processes are, the more resources are freed up for higher level processes such as the access to word semantics (LaBerge & Samuels, 1974; Geva & Weiner, 2015; Rosebrock & Nix, 2017; Hayes, 2012). In accordance with this, ultimate and timely allocation of looks towards the semantic competitor would indicate that lexical access has taken place appropriately.

Respective research studies also demonstrate that an overlap in the phonological form of the words between the languages of a multilingual speaker may lead to between-language activation of lexical items in the language which is not actively involved in the accomplishment of the task, which may be considered another specific realisation of multilingualism. Marian and Spivey (2003) investigated Russian-speaking university students who have been living in the US for at least seven years at the point of investigation and, thus, displayed a high level of proficiency both in English and in Russian. They presented the participants with four objects. Besides the target 'shark', there were two competitors that overlap with the target in word onset either in English 'shovel' or in Russian *sharik* 'balloon'. Eye movements were recorded while the participants were inspecting the visual scene to reach out for the target object. Though the experiment was run entirely in English and Russian was not involved in the task, the participants allocated approximately equal proportions of looks towards the within- and the between-language competitor during the search phase. As such, this finding lends support to the idea that bilingual lexical access is non-selective. Yet, concurrent co-activation of lexical items that overlap in phonological form across languages may be modulated by the learners' proficiency in

the respective language. The authors tentatively hypothesise that the lower the learners' proficiency, the weaker the link between the lexical item and the concept behind it in the weaker language and, therefore, the lower the degree of between-language co-activation. Since such a paradigm appears susceptible to linguistic abilities in both the learners' languages, a version of the task with printed rather than spoken words might be co-revealing with regard to the learners' basic literacy skills in both the languages (cf. Freeman & Marian, 2021 for a recent study with balanced bilinguals). The better literacy skills in either language are developed, the stronger the activation effect will be. Obviously, the strength of parallel co-activation will bear an influence of other factors, such as the difference in script type (Liversedge et al., 2016), transparency of orthography (Katz & Frost, 1992; Ktori & Pitchford, 2008) as well as word frequency (Brysbaert et al., 2018), which have an attested effect on reading efficiency.

Conclusion

For multilingual learners, literacy acquisition is a process involving more than one language and, therefore, more than one writing system, which requires a systematic account of bilingual abilities in the domain of literacy skills. As we have seen in the current contribution, adaptations of common experimental tasks related to visual word recognition and reading fluency might be potentially informative with regard to such bilingual phenomena as, for example, instances of cross-linguistic influence. They may also reveal common strategies that bilinguals develop to negotiate the regularities of the writing system of their less dominant language. Finally, L2 learners' degree of literacy in their respective languages is concomitant with the strength of interference from within-language phono-graphemic competitors and co-activation of between-language ones during isolated word recognition. Using skilled L2 readers as a reference point might yield more adequate estimation of reading fluency in adult emergent L2 readers. Considerations of this type are becoming increasingly important for an integrated approach to testing and assessment as well as curriculum and course design for literacy instruction in multilingual classrooms.

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[4] https://www.dafdaz.uni-jena.de/elikasa

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Engaging LESLLA Learners During Covid-19: The Nexus of Reading Strategies and Digital Tools

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Abstract

For LESLLA instruction to be successful, it should include creating an engaging learning environment that relates instruction to learners' lives, designing separate learning stations for individualized projects and more independent learning, and choosing adult-appropriate materials. Pivoting on a dime to cope with Covid-19 has illustrated the need for incorporating training in language skills alongside digital tools not only for second language (L2) learners but most importantly for LESLLA learners. This paper describes the professional experiences of a LESLLA teacher attempting to identify the relationship between reading strategies and new technology-rich instructional practices to support LESLLA learners during the pandemic. It highlights a promising technology integration framework known as the Substitution, Augmentation, Modification, Redefinition (SAMR) model (Puentedura, 2006, 2013) in an attempt to find the nexus of reading strategies and digital technology tools in an online LESLLA class in Western Canada.

Keywords: reading strategies, digital tools, SAMR, pandemic pedagogies

Introduction

In March 2020, Covid-19 imposed a lockdown of many educational facilities in Canada, including Language Instruction for Newcomers (LINC) and its two programing streams: Canadian Language Benchmarks (CLBs) and Foundations Literacy, which caters to the needs of Adult ESL Literacy Learners (ALL) or Literacy Education and Second Language Learning for Adults (LESLLA) learners, leaving teachers with only the online delivery option of their classes. The change happened rapidly and altered how we teach in dramatic ways, requiring the incorporation of "Pandemic Pedagogies" (CASAE, 2020) to cope with the status quo. According to Symthe et al. (2021), LINC teachers developed a range of inventive and dynamic pedagogies oriented to social solidarity. For example, establishing WhatsApp networks to translate and contextualize information, dropping off customized learning packages on families' doorsteps and conducting telephone tutorials to walk them through the materials, and exerting efforts to bring classes online using Microsoft Teams, among other platforms. Teachers gradually started to incorporate training in digital literacy skills and, in the course of time, gained comfort aligning instruction to technology integration frameworks that guide balanced and technology-rich skill-based learning and instruction (Vanek & Harris, 2020).

Setting

I teach in a Foundations literacy LINC program in Western Canada. LINC programs are federally funded to support adult newcomers, whether immigrants or refugees, by providing English language instruction for resettlement purposes. My students are mainly refugees who have a range of 0-9 years of education in their first languages (L1s). It sometimes feels that my classroom mirrors Canada's multiculturalism (Multiculturalism Act, 1988) where the linguistic and cultural mosaic feeds daily interactions for 4.5 hours between representatives from different parts of the world, such as Somalia, Syria, Sudan, Ethiopia, Eretria, Thailand, Nepal, and Rwanda. Despite the differences in students' cultural backgrounds, beliefs, gender identities, and familial responsibilities, students have one goal in common and that is the desire to learn reading and writing in English so they can fit in the highly literate society they live in by accessing government services, such as going to the doctor's office and reading a prescription without having to ask for L1 support. Since reading is hard, as my students like to vent, and takes a long time to develop for ESL literacy learners (Bigelow & Vinogradov, 2011), pivoting to remote teaching and resorting to pandemic pedagogies were necessary measures for students' learning to continue.

This paper describes my professional experiences working to identify the relationship between reading strategies and new technology-rich instructional practices to support ALL/LESLLA learners during the pandemic. It offers a review of ALL/LESLLA learners' evidence-based needs in relation to reading research and digital literacy, which is defined as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills" (Digital Literacy, 2021, p. 1). It also highlights a promising technology integration framework known as the Substitution, Augmentation, Modification, Redefinition (SAMR) model (Puentedura, 2006, 2013) in an attempt to find the nexus of reading strategies and digital technology tools in an online ALL/LESLLA class. I share my journey moving from addressing the immediate needs imposed by the pandemic to aligning my instruction to the SAMR model to adapt to the "new normal"

during the year 2020-2021 to help Foundations LINC Literacy teachers find connections to their own instruction. The paper concludes with suggestions for future digital programming for ALL/LESLLA instruction to envision on building more sustainable programming for learners and instructors.

Demands of Reading Instruction for ALL/LESLLA Learners

Although learning the oral second language (L2) and written L2 language while functioning in the new L2 context is considered to be a "superhuman task" (Ontario Literacy Coalition, 2007, p.10), it can be achieved through targeted instruction (Bigelow & Vinogradov, 2011). Given that there are three contributing factors to L2 learners' reading comprehension ability (Bernhardt, 2011) – i.e., 20% L1 literacy, 30% L2 language knowledge, and 50% universal variance, e.g., motivation, trauma, and age— Johnson (2018) advised that ESL literacy teachers are most effective by selecting evidence-based literacy methodologies and scaffolding authentic as well as level-appropriate teaching materials for learning to become autonomous.

Delving into the recommended methodology to equip ALL/LESLLA learners with basic literacy skills, a few recommendations indicate invaluable lessons that can be learned from the K-12 system. For example, Vinogradov (2013) encouraged LESLLA teachers to explore early literacy learning experiences in K-12 classrooms to enhance their own literacy instruction practices. Second, Johnson (2018) found that LESLLA teachers can benefit from using a multisensory, systematic, and direct approach to reading similar to those used with L1 children with dyslexia. Additionally, Ghanem (2020) adapted Wren's (2000) reading framework originally developed for K-12 learners to meet ALL/LESLLA learners' needs. Finally, Ghanem (2021) used the Response to Intervention (RTI) approach to introduce evidence-based assessment tools to identify the needs of ALL/LESLLA students who deviated from the literacy level profile of ability and developed Individualized Program Plans (IPPs) to adapt to the students' needs in order for them to successfully catch up with their classroom peers.

Such targeted attention is very much needed to cater to the unique characteristics integral to ALL/LESLLA learners and distinct from L2 learners. For example, Finn (2010) explained that trauma is a barrier to learning because ALL/LESLLA learners are often distracted, suffer from a lower level of concentration, and possibly experience memory loss. Wilbur (2016) recommended incorporating trauma-informed strategies, e.g., space out the instruction, repeat the information, and spiral instruction to accommodate students' needs. Similarly, Mercer and Dörnyei (2020) explained that learners' *engagement* consists of active participation and involvement in the learning activities, provided that the activities are related to students' sense of purpose and their ability to perform the activities with a level of autonomy and mastery. Finally, Kurvers, Stockmann, and van de Craats (2010) recommended increasing the amount of exposure to the target language to achieve the basic literacy levels by working on the computer, individually or in small groups, continuously attending classes and doing homework, stimulating all possibilities of contact with speakers of the target language, and using a portfolio to keep the teacher and learner attentive to the achieved skills and areas of improvement.

With regards to instruction, Vinogradov (2004) recommends the use of ubiquitous authentic materials introduced incrementally to match students' literacy development. Additionally, Vinogradov and Bigelow (2010) recommend incorporating LESLLA learners' skills and strengths as a resource in the classroom to enhance their self-confidence which eventually leads to autonomous learning.

In the LINC context, cognizance of the ALL/LESLLA learners' exigent needs meant that attention was deemed necessary to the selection of appropriate strategies to support them during the pandemic's unparalleled circumstances.

Pandemic Pedagogies and Digital Skills

March 2020 marked the lockdown of all the LINC schools in Canada, among many other educational facilities, thus leaving teachers with only one modality for offering their classes: online. Instantly pivoting to distance learning led to various attempts to continue to use strategies to meet the needs of ALL/LESLLA learners AND training for digital skills, a practice that many called "Pandemic Pedagogies":

> Adult educators across Canada are doing extraordinary things to deal with a multitude of issues associated with Covid-19: home/social isolation, (health) literacy, trauma, and stress, poverty, and unemployment, racism, changing means of communication, and work, just to name a few. With what we do, we are revitalizing adult learning and education as a field of pedagogies, praxis, activism, methodologies, and scholarship (CASAE, 2020, as cited in Smythe et al., 2021, p.15).

In my early pandemic teaching, pandemic pedagogies resulted in these instructional strategies designed to support ALL/LESLLA learners despite the digital divide and internet connectivity:

1- Establishing connections with students through phone calls and WhatsApp,
2- Mailing educational packages (*ESL Story Bank,* Minnesota Literacy Council, 2013),
3- Training students to use virtual conferencing tools, e.g., BigBlueButton and Jitisi,
4- Focusing on teaching more interactively by using picture books for adult learners, e.g., (http://www.eyeonliteracy.com/), so they can get the "optimal input" to be able to acquire and produce the language (Krashen, 2020, p.29),
5- Incorporating social-emotional learning strategies (Weissberg, 2015) to help regulate their feelings and cope with the new reality that restricted physical activity. Exercises e.g., Qigong (https://livinglifeinjoy.com/) were helpful.

Those steps allowed establishing and maintaining a connection with the students, and continuity of distance learning delivery. Nonetheless, a more comprehensive review of digital literacy tools and distance education models was necessary to choose the most appropriate one for my ALL/LESLLA learners.

Technology Integration Framework

As I gained comfort with online instruction and my students developed confidence in themselves using many digital skills needed to engage in learning, I became more strategic in designing and attending to the specific learning needs of my ALL/ LESLLA learners. I also started learning about integrating technology frameworks following Vanek and Harris's (2020) recommendation to adopt an evidence-based framework for technology integration, such as

Technological, Pedagogical and Content Knowledge (TPACK)[1] (Mishra & Koehler, 2006) , Engage in, Enhance, Extend Learning Goals (Triple E)[2] (Kolb, 2017), and Substitution, Augmentation, Modification, and Redefinition (SAMR)[3] (Puentedura, 2006, 2013) models. Since Vanek and Harris (2020) emphasize that technology integration should aim for creating opportunities for students to learn content and simultaneously develop their new digital literacy skills, I chose the SAMR Model, which allows incremental adoption of educational technology while maintaining students' engagement. Moving along the continuum of enhancement to transformation, digital technology becomes increasingly important and indistinctly woven into the demands of good teaching and learning.

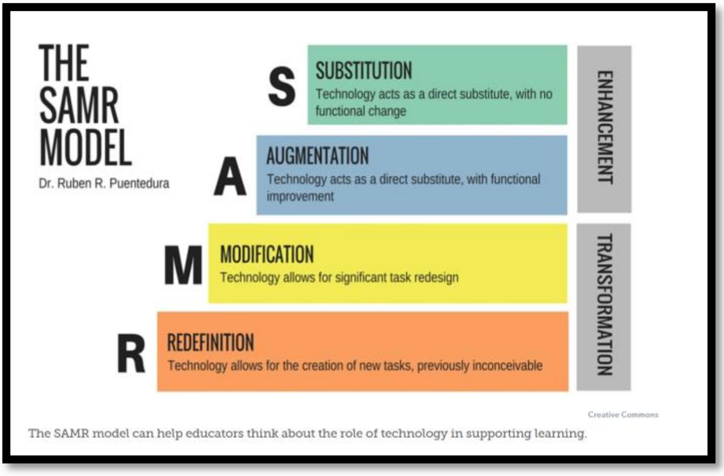

Figure 1: The SAMR Model (Creative Commons)

Ruben R. Puentedura developed the SAMR model as part of his work with the Maine Learning Technologies Initiative (Puentedura, 2006). The objective of the model was to encourage educators to significantly enhance the quality of education provided via technology in the state of Maine. The SAMR model is a set of two hierarchical levels (enhancement, transformation) that represent four tiers of online learning in order of cognitive enhancement and transformative power: substitution, augmentation, modification, and redefinition (Puentedura, 2013). This is a closer look at each level in the model and sample lesson, Canada Day, from my Canadian Language Benchmarks (CLB) 3L Foundations Literacy LINC online class.

1- Substitution: This level means replacing traditional activities and materials, e.g., in-class presentations or paper worksheets, with digital versions. While there is no substantial change to the content, there is a change to the way it is delivered. Synchronous and asynchronous versions of the content presentations were made available to keep things simple for the learners. The following links provide examples of asynchronous content presentation:

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[1] http://tpack.org/
[2] https://www.tripleeframework.com/
[3] http://www.hippasus.com/

1. **Canada day worksheet part 1:** https://youtu.be/BFzX_BXBuV4
2. **Canada day worksheet part 2:** https://youtu.be/7SSA0U4qN1w
3. **Canada day worksheet part 3:** https://youtu.be/oLhxdoHmc-U

2- Augmentation: This level involves incorporating interactive digital tools and features like hyperlinks. Although the content remains unchanged, teachers enhance the learning experience and gamify the quizzes using Quizlet, as per this example (https://quizlet.com/_8h25vo?x=1jqt&i=2sh8r6)
3- Modification: At this level, teachers are encouraged to use technology to transform their task design by using learning management systems, such as Canvas, Google Classroom, or Moodle to handle the logistical aspects of running a classroom, like tracking grades, messaging students, creating a calendar, and posting assignments. I started by developing a Google site and linked a few apps to it, e.g., Google Classroom, Quizlet, YouTube, and Edpuzzle. As students became increasingly comfortable with digital technology tools, they transitioned into Avenue[4], a Moodle platform, where the SAMR model was used to develop activities.
4- Redefinition: At this level, the technology is used to fundamentally transform and redefine the learning experience and create *new* tasks that were unthinkable in the classroom. For example, The Royal Tyrrell Museum's virtual tour (n.d.) (https://bit.ly/3v01w9k).

Implementing the SAMR model with ALL/LESLLA learners in mind allowed me the opportunity to find the nexus of L2 reading skills and technological tools because my learners seem to have benefited from three trends in technology of learning (Liaw & English, 2017).

First, reading is ubiquitous because we are surrounded by reading materials and our mobile devices allow numerous means of communication. For example, my ALL/LESLLA students were trained to watch the instructional videos, record themselves reading, send to the teacher for feedback or Veedback, audio-visual feedback (Sabbaghan, 2017). My ALL/LESLLA students were also trained to take theme-related pictures and record themselves reading them, for example, reading a store sale flyer and using Google Translate App to decipher new words.

Second, reading can be adaptive since the LINC CLBs and Foundations literacy classes are learner-centered (CLBs, 2012), thus making students' needs and choices the focal points of activity design and technology tool selection to develop learner-fit instructional materials. To illustrate, in my LINC Foundations Literacy class, Edpuzzle activities were developed to pace the instructional materials and were phased out to accommodate my ALL/LESLLA learners' reading progress.

Third, reading becomes autonomous when learners "read a lot" (Grabe, 2002, p. 280) and participate in activities that foster learner autonomy, e.g., project-based tasks. For example, unlimited access to the instructional videos and reading activities on my class's Learning Management System (LMS) helped to enhance my students' reading fluency because listening to audio recordings of texts helps building fluency, especially when they keep listening and reading along until they can read the text independently (Hasbrouck & Glaser, 2019). Additionally, my students' autonomy has improved through their frequent use of digital tools while participating in online project-based tasks. For example, my students participated in a project that highlighted

[4]The Avenue (https://avenue.ca/) – LearnIT2teach Project is supported by Immigration, Refugees and Citizenship Canada (IRCC) to offer LINC teachers and managers in IRCC-funded programs the tools and training to integrate Technology-enhanced language learning (TELL) into language training programs.

the importance of mental health during the pandemic. It included an individualized written recipe of manageable exercise, eating well, hours of sleep and communication with loved ones as well as a recorded video of each ALL/LESLLA leaner demonstrating their recipe (Egan, 2020).

As such, learning to read can be made ubiquitous, adaptive and autonomous, using different digital tools such as YouTube Videos, Quizlet, Edpuzzle, an LMS, and virtual tours, all linked to one website developed to help LESLLA learners access digital materials outside of class. In my context, as the site was made available as an open-source platform for learners to access, I noticed that their learning and level of engagement improved. It is also worth mentioning that those aspects of L2 learning in the context of reading and learning online are essential, not just to cope with the realities faced during the early months of Covid-19, but also to maximize the lessons learned during the pandemic. For instance, ALL/ LESLLA teachers are encouraged to continue finding connections between digital tools and teaching L2 reading in their ALL/LESLLA classes while focusing on learning to precede technology. Hence, ALL/ LESLLA teachers might find these suggestions helpful:

1. Plan instruction: objectives, videos, class slides, asynchronous work drawing on a technology integration framework (e.g., SAMR) to select technology tools,
2. Utilize the digital tools to help make the learning engaging, ubiquitous, autonomous, and adaptive for learners,
3. Provide means of support: "how-to" videos and 1-on-1 meetings for intervention purposes, and
4. Allow time for learning to happen because digital literacy skills progress throughout three developmental categories that can take time to fully evolve: developing familiarity with digital technologies, understanding information with digital technologies, and creating digital technologies (CCLB, 2015).

Suggestions for Distance Learning

Distance learning is a modality of instruction that promises direction and development for educational institutions, including adult basic education, to not only enhance learning experiences but also to meet the needs and demands of our reality. This paper illustrates that the adoption and implementation of technology for ALL/LESLLA learners might be nascent, possibly because ALL/LESLLA teachers used to focus on literacy skills in their instruction without necessarily including digital literacy training into the mix (Reder et al., 2011). What can we do to accelerate the adoption of distance learning to this underserved population? Such question bears asking because whether teachers are experimenting with technology tools or are becoming experts at incorporating them in their classes, their practice can be enhanced in different ways. Firstly, learning by example from the global community of practice can boost teachers' knowledge and empower their classes and organizations with the necessary skills to thrive. For example, Vanek et al. (2021) led a national six-month scan study to identify and describe the pandemic pedagogies that proved promising and helpful for adult remote ESOL programs, practitioners, and learners. The pedagogies that rose to the top were those that came about as a result of administrators and practitioners reflecting on student recruitment and orientation; various instructional platforms, materials, and approaches; student persistence strategies; student access to digital skills, devices, and internet; support for students' basic needs; and professional development as well as support for staff.

Secondly, teachers can bridge the gap between enthusiasm and effective implementation of learning by going back to the basics, since the basics play an essential role in establishing and implementing distance education. To illustrate, Vanek, Simpson and Goumas (2020) discuss distance learning in seven elaborative chapters, in addition to appendices, covering: setting the stage, recruitment, screening, orientation, instruction, assessment, and administrative issues and how to address them. In order to enhance practitioners' practical knowledge, the Transforming Distance Education Course developed by EdTech Center @ World Education (2021) offers a learner-friendly four-module course for providers and practitioners of adult basic education to equip them with essential strategies for planning and implementing distance education or teaching with a blended approach.

Conclusion

While Covid-19 disrupted educational programming in 2020, it also meant that practitioners had to employ some form of online instruction (e.g., remote live instruction or asynchronous distance instruction). Pandemic Pedagogies for ESL teachers in general and ALL/LESLLA teachers, in particular, emerged to help and support learners during such unprecedented times. The experiences and examples discussed above illustrate my journey as a LESLLA teacher in a Foundations Literacy LINC program in western Canada, evolving from addressing the pandemic needs right there and then to aligning instruction to the SAMR model to adapt to the "new normal". The experiences illustrate a helpful nexus between reading skills and digital tools that emphasize reading as a ubiquitous, adaptive, and autonomous activity. Scaffolding the components of reading to meet the learners where they are at by developing YouTube videos, Quizlet activities, learner-friendly LMSs and project based tasks seems to have engaged my ALL/LESLLA learners and enhanced their reading autonomy. Finally, suggestions were put forward regarding setting up and implementing distance learning to envision building more sustainable programming for learners and instructors.

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