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Remote teaching during COVID-19: Implications from a national survey of language educators



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ABSTRACT

To mitigate transmission of COVID-19, rapid changes in instructional delivery moved from in-person to remote instruction. Although literature from before the crisis suggests that online language learners fare at least as well as their face-to-face counterparts, the abrupt shift from face-to-face contexts to remote learning is fundamentally different from planned online learning. Understanding the nature of this shift can inform future online and remote teaching. This national survey study was guided by research questions that explore any substantive change in the practices and perceptions of PreK-12 and post-secondary language teachers' instruction during COVID-19. It explores any change as related to classroom setting (PreK-12 vs post-secondary) and prior experience with distance education. Data suggest that few language educators reported experiences with or positive perceptions toward teaching online before COVID-19. However, they made numerous adjustments to their typical procedures/policies and expectations while engaged in remote teaching. Educators expressed concerns about student outcomes. PreK-12 teachers and those without prior experience with online teaching were least confident that instructional goals were met despite having reported well-designed courses. Implications for effective remote language teaching are presented for consideration.

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1. Introduction

The novel coronavirus (COVID-19) has directly impacted the education of learners all over the globe. To mitigate transmission of the virus, the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) urged individuals to engage in physical distancing (CDC, 2020; WHO, 2020)—resulting in a rapid change in instructional delivery from *traditional* (in person, on campus experiences) to *remote* contexts in spring 2020. UNESCO estimated that over 144 countries suspended in-person education affecting approximately 1.2 billion students from PreK through post-secondary learning (UNESCO, 2020). In the United States, 48 states ordered school closures disrupting education for at least 55.1 million K-12 students in over 124,000 public and private schools (Education Week, 2020). In addition, over 4200 colleges and universities serving nearly 26 million students were also forced to undergo a radical shift in teaching and learning (The

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Entangled Group, 2020). Among these students, as many as 1.4 million post-secondary learners (Looney & Lusin, 2019) and 20% of the K-12 school population (American Councils of International Education, 2017) were enrolled in a world/foreign (WL) language class. In sum, the deleterious effects of COVID-19 on academic continuity in spring 2020 were swift and widespread.

Though not always true, remote learning often relies on digital experiences (e.g., online education). The extant literature in WL education suggests that technology integration to augment existing learning opportunities prior to COVID-19 is not a new phenomenon (Blake, 2011, 2015; White, 2006). In addition, enrollment in stand-alone online WL courses continues to grow at both PreK-12 and post-secondary levels (Doughty, 2015; Holia, Alberg, Strahl, Burgette, & Cramer, 2014). Despite this growth, prior to spring 2020 most WL learning was still facilitated in face-to-face contexts. Moreover, transitioning traditional content to online modes of delivery during an emergency situation such as COVID-19 warranted unique approaches to teaching and learning.

While the literature overwhelmingly suggests that online learners fare at least as well as their face-to-face counterparts (Blake, Wilson, Cetto, & Pardo-Ballester, 2008; Chenoweth & Murday, 2003; Chenoweth, Ushida, & Murday, 2006; Enkin & Mejías-Bikandi, 2017; Goertler & Gacs, 2018), the participants of these studies *chose* to learn a language online by educators who *chose* to teach online. It is unknown how language educators enacted emergency remote language teaching as required in spring 2020. In addition, numerous factors might have affected the experiences of educators and learners—including access to technology and broadband internet, socio-economic status, training and experience, institutional or state-level mandates, and age/development of learners (issues that typically vary in various instructional contexts and classroom settings). In order to address this gap in the literature, this national study provides a one-time snapshot of the perceptions of PreK-12 and post-secondary WL educators who were teaching during spring 2020 when the world began to respond to the global health crisis. It was the goal of this study to understand if (and how) various factors such as classroom setting (PreK-12, post-secondary) and prior experience with online education affected remote language teaching and to identify considerations for remote instruction beyond the current pandemic.

2. Literature review

Hodges, Moore, Lockee, Trust, and Bond (2020) differentiated between online instruction and emergency remote teaching, suggesting that the former relies on deliberate and advanced design—often six to nine months of planning. Remote teaching, on the other hand, is a temporary and abrupt shift to instructional delivery due to crises such as weather, war, or health. Remote teaching is not, and cannot be, the same as planned online teaching. Given the rapid change in instructional delivery to remote teaching in spring 2020, Hodges et al. (2020) highlighted that:

The primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis. (n.p.)

In addition, remote teaching might manifest differently in divergent contexts. For example, instruction can be delivered online but might also be provided through take-home work packets for families with limited access to broadband internet or computers (Russell, 2020). Thus, while planned online teaching is characterized by different modalities (e.g., fully online; blended) and modes of communication (e.g., synchronous, asynchronous), remote teaching may actually rely on or avoid technology for instructional purposes. A commonality, however, is the distance between learners and others (educator and/or peers) through geographical space and/or time during the educational process. Most remote instruction in spring 2020 was offered in an online format. A recent survey (Educators of Excellence, 2020) of over 600 PreK-12 educators across the country revealed that only 5% of those engaged in remote teaching facilitated learning through work packets sent home to families.

2.1. Context: emergency remote teaching

Because planned online education and remote instruction are unique, the Online Learning Consortium (OLC) and Quality Matters (QM), two organizations devoted to advancing digital instruction, developed the *Continuity Planning and Emergency Preparedness* (OLC, 2020) and the *Emergency Remote Instruction Checklist* (QM, 2020) for educators making a transition to remote learning during the crisis. The K-12 and higher education checklists for remote instruction by QM emphasize three phases: (1) Getting started (including the need for teachers to clarify expectations, provide clear directions, offer information related to technological assistance, elucidate policy adjustments, and identify best mechanisms for communication between the students and the teacher); (2) Guiding students and their learning (connecting assignments to learning objectives and providing timely feedback); and (3) Teaching effectively in a new environment (focusing on course organization, using short multimedia files, and integrating content that supports a safe and equitable environment). Though these checklists are aligned with the pre-COVID existing QM standards (2018) and course design rubrics, the remote expectations emphasize a gradual process of acclimating learners to a new environment before adding more complex design features.

Simply offering emergency remote instruction is no guarantee that students have the resources and capacity to learn. Six percent of the American population lacks access to fixed broadband service at threshold speeds, and approximately 100 million Americans do not subscribe to an internet service provider (Federal Communications Commission, 2012). Beyond this digital inequality, over 12% of Americans live in poverty (UC Davis Center for Poverty Research, 2018), and approximately half of all public schools reported that a majority of their population depends on them for meals (NCES, 2020). Without in-person schools and the services (both educational and otherwise) they provide, systemic inequities might widen the gap between

those who can continue to learn or engage in enrichment and those who cannot. The academic continuity of learners in high poverty areas and rural schools was reported as most disrupted due to such inequities (Hamilton, Kaufman, & Diliberti, 2020). Reports also suggest that teachers in high poverty schools were most concerned about their students' social and emotional needs when compared to those in low poverty settings (Hamilton et al., 2020).

2.2. Planned online course design and outcomes

Due to the limited empirical literature that explores emergency remote language teaching, the research base related to planned online instruction can be applied to the time period being studied with caution. After all, recommendations for remote teaching are grounded in literature about effective planned online instruction. QM (2018) synthesized the best practices for planned online instruction through eight standards and sub-standards: (1) course overview and introduction, (2) learning objectives, (3) assessment and measurement, (4) instructional materials, (5) learning activities and learner interaction, (6) course technology, (7) learner support, and (8) accessibility and usability. The standards underscore the importance of course organization by connecting learning objectives through sequenced experiences. Well-designed courses clarify learner expectations with regard to technological tools and skills as well as assignments. In addition, they rely on multiple tools to foster student learning, opportunities for interaction, and resources to guide learners when they experience technological difficulties.

Evidence-based practices for teaching languages online have been recommended. These include building and supporting a community of learners through learning tasks (Meskill & Anthony, 2015); facilitating student interaction with content, their peers, and the educator (Moore, 1989); and integration of synchronous and/or asynchronous oral and written experiences (Meskill & Anthony, 2015). Both oral and written communication provide affordances and constraints for the online educator and learners. Oral synchronous activities such as small group discussion in chat rooms, for example, may best emulate the face-to-face classroom experience (Meskill & Anthony, 2015). Some research suggests that synchronous modes are necessary for learners simply due to the social nature of language learning (Blake, 2011). In addition, interacting synchronously with peers or the educator may reduce feelings of isolation (González-Lloret, 2020), increase motivation (Gunes, 2019), and create spaces for community-building and support (González-Lloret, 2020; Knight, 2020; Russell, 2020). Asynchronous activities, however, are beneficial in that they afford learners with additional time to think, repeat, replay, and produce language while potentially reducing anxiety (Meskill & Anthony, 2015). Balancing synchronous and asynchronous experiences might aid in organizing and sequencing content to support learners in meeting instructional objectives (Payne, 2020).

When designed well, online courses are just as effective as face-to-face experiences. Much of the early empirical work comparing face-to-face and online learner outcomes has relied on beginner or intermediate level college students' performance on achievement tests (Adair-Hauck, Willingham-McLain, & Earnest-Youngs, 1999; Chenoweth & Murday, 2003; Chenoweth et al., 2006). Chenoweth and Murday (2003) and Chenoweth et al. (2006) found that hybrid learners scored as well on achievement tests as those in traditional classes and in some instances outperformed them. Beyond discrete-item tests, Blake et al. (2008) revealed that college Spanish learners enrolled in hybrid and traditional classes reached similar levels of oral proficiency.

More recently, scholars (Enkin & Mejías-Bikandi, 2017; Goertler & Gacs, 2018; Rubio, Thomas, & Li, 2018) have highlighted similar findings. These studies contribute to the literature in meaningful ways. First, though the outcomes of post-secondary learners were comparable, the range of performance for online learners was found to be greater than that of those in face-to-face classes (Goertler & Gacs, 2018). In addition, comparison studies have expanded to include advanced language classes, and the results mirror investigations involving beginning or intermediate students (Enkin & Mejías-Bikandi, 2017). These findings suggest that learners in online WL classes can perform as well as those in face-to-face classes independent of the level of college class. This might be explained in two ways. First, when online, learners may be more actively engaged with content (Rubio et al., 2018). Additionally, the instructional mode itself does not adversely affect learner outcomes (bib_Cavanaugh_and_lacquemin_2015:Cavanaugh & Jacquemin, 2015).

Fewer studies have explored online language instruction at the PreK-12 level; however, these investigations frequently highlight access (to content and resources) as a major advantage for schools (Holia et al., 2014; Schwirzke, Vashaw, & Watson, 2018; Slaughter, 2019). Online delivery can help extend learning options to remote and rural schools. The most recent report from the Digital Learning Collaborative (2019) articulated that almost half of all states have K-12 virtual schools. WL is one of the subject areas with the highest number of students, along with mathematics and English Language Arts. Online WL courses help to address WL teacher shortages and the lack of on-campus certified educators.

Specific to WL in K-12 online contexts, most studies explore high school learners' rather than K-8 students' experiences. This is the result of two major findings. First, fewer WL programs for K-8 students are reported by schools; most of those support language learning for learners in grades 7 and 8 (American Councils for American Councils of International Education, 2017). Additionally, because younger learners need much more support for interacting with content via technology, online experiences for K-5 learners are typically facilitated in the physical classroom with the teacher present (Digital Learning Collaborative, 2019). Regarding existing studies of high school WL learners, scholars have explored learners' perceptions of online learning (Oliver, Kellogg, & Patel, 2012; Zhang & Lin, 2020a) and motivational factors (Zhang & Lin, 2020b) and their relationships to course outcomes. Oliver et al. (2012) found that students were displeased with their online WL courses at higher rates than those taking other content courses. Though they reported that learners preferred more frequent

opportunities for interaction with peers and their teacher, the quality of content should not be discounted. Zhang and Lin (2020a), for example, argued that learners' satisfaction was most correlated with the level of interaction with content.

Learner satisfaction studies might be best understood by exploring motivational factors for enrolling in online WL classes. This is especially critical because K-12 learners in online courses have been identified as frequently seeking credit recovery (Queen & Lewis, 2011) which may "overlap with poorly motivated students" (Lin & Warschauer, 2015, p. 395). Though Zhang and Lin (2020b) reported that some highly motivated high school learners were seeking credit recovery, most had chosen to take WL as an elective. Learners who were categorized as highly motivated were most successful in their class. However, to date, there is scant research that compares outcomes for face-to-face and online learners in the K-12 setting. It is presumed that the same features of interaction and planning that make for effective post-secondary learning are helpful for K-12 learners

2.3. Classroom setting and considerations for remote language classes

One factor that may have impacted WL teachers' remote teaching is their education context. In spring 2020, both PreK-12 and post-secondary institutions quickly transitioned to remote instruction. Each of these settings created a unique context for the remote teaching of WL. Although educators were creating remote learning experiences for their learners, policy adjustments provide an additional context for understanding PreK-12 educator challenges. For example, all 50 states, D.C., and Puerto Rico received federal testing waivers for the 2019–2020 year. In light of these testing waivers and as a result of prevalent concerns for students who may not have adequate resources to support remote learning, some PreK-12 educators were constrained by mandates that disallowed them to introduce new content thereby forcing them to focus solely on optional remediation (Education Commission of the States, 2020). Although WL is a core subject area, it is not tested like mathematics or English Language Arts. Some district policies focused only on tested subjects—thereby minimizing the burden on students and their families. As a result, learners enrolled in PreK-12 schools may not have been required to complete any WL coursework at all. If they were expected to continue their studies, it is possible that not all subject areas were emphasized uniformly. In addition, grade level affected how educators interacted with their learners especially given concerns related to unsupervised students at home (Educators of Excellence, 2020). These realities contributed to these teachers' observations of lower student completion rates on work and reduced learner engagement.

The complexities of PreK-12 remote instruction were also directly influenced by teachers' unique circumstances. Only approximately half of educators had some experience with planned online learning prior to the pandemic (Educators of Excellence, 2020). As a result, teachers were engaged in continuous professional development while attempting to balance personal and professional roles. Articles in *Education Week* highlighted how teachers devoted additional time to learning new technologies (Rauf, 2020), spent considerable energy on planning (Gewertz, 2020), and missed seeing students on campus (Gewertz, 2020). In addition, one report suggested that the majority of PreK-12 educators was responsible for the care of their own children and/or elderly family members (Educators of Excellence, 2020).

College faculty also reported challenges shifting to remote instruction; however, they were not constrained by the same policy-related factors as PreK-12 educators such as testing waivers. Many post-secondary faculty were engaged in training to respond abruptly to the spring 2020 circumstances (Kelly, 2020). In addition, they reported challenges related to keeping learners' motivated and expressed concerns about their students' mental health and access to the internet (Kelly, 2020). Articles in *The Chronicle* revealed that educators were working to cope with burnout and depression (McMurtrie, 2020) and had difficulty remaining focused and productive (Pettit, 2020). Each of these factors influenced educators' ability to plan and deliver instruction during the initial stages of the pandemic. As a result, regardless of classroom setting, teachers most likely did not reach their pre-coronavirus instructional objectives in spring 2020.

2.4. The role of experience with online instruction

One factor that might have impacted WL teachers' remote instruction is prior experience teaching online. Delivering online instruction effectively requires knowledge and skills related specifically to online language pedagogy (Meskill & Anthony, 2015). Ongoing training may be critical in supporting successful online educators (Baran & Correia, 2014); however, other studies highlight that prior online experience is a significant factor correlated with educator satisfaction during planned online instruction, even when training is provided. Brinkley-Etzkorn (2020) emphasized that despite ongoing training, novice online educators at the college level reported feeling inexperienced and dissatisfied with their classes. Evidence suggested that prior experience helps online language educators due to their enhanced skills to overcome challenges intrinsic to delivering instruction through technology (Codreanu & Celik, 2013). For example, teaching language online might be hindered due to time lags, the challenge of engaging learners in natural conversational turn-taking, and limitations in supporting comprehensible input through gestures or body movements (Wang, 2004). Those inexperienced with online delivery may not know how to cope with such obstacles and may become deterred from future online teaching. Beyond responding to technological difficulties, experience has also been correlated with stronger pedagogy. In a recent study of primary grades teachers in rural schools in Australia, Slaughter (2019) underscored that the teachers' interpretation and integration of technological tools was directly related to their prior experiences with technology. More experienced educators were innovative in their pedagogical approaches which led to more positive learner experiences.

3. Research questions

The purpose of this national survey was to explore any substantive changes to language teaching due to the rapid shift to remote delivery. The research questions guiding this investigation are:

- 1. How do language educators describe their practices and perceptions related to planned online courses and emergency remote classes?
- 2. Do language educators have significantly different practices and perceptions of remote instruction with regard to:
 - (a) prior online teaching experience; or
 - (b) classroom setting (PreK-12 v post-secondary)

4. Methodology

4.1. Participants and procedures

The survey described below was distributed electronically. WL-identifiable listservs; state, regional, and national associations; special interest groups (SIGs) and professional organizations (e.g., American Association of Teachers of French) as well as personal and relevant social media accounts (e.g., Facebook groups) received notification of the research study as well as requests to share with PreK-12 and/or post-secondary language (ESL and WL) educators. Language teachers were eligible to participate in the study if they were responsible for teaching a language (ESL and/or WL) class during spring 2020. In total, 377 language educators (85.7% female, n = 323) representing 45 U.S. states completed the survey. The majority reported teaching Spanish (n = 121, 32.1%), French (n = 54, 14.3%), English (n = 53, 14.1%), and German (n = 51, 13.5%). In addition, 11.1% (n = 42) of the participants taught more than one language. Regarding prior online teaching experience, only 15.2% (n = 62) of the participants reported having taught online prior to spring 2020. In addition, few participants (n = 154, 40.8%) had generally

Table 1 Demographic Information of Participants (N = 377).

Variable	n	%	Variable	n	%				
Gender			School Context						
Female	323	85.7	Urban	118	31.3				
Male	44	11.7	Rural	80	21.2				
Prefer not to disclose	6	1.6	Suburban	149	39.5				
Other	2	0.5	Other	14	3.7				
Missing	2	0.5	Missing	16	4.2				
Age			Grade of Teaching						
21-30	47	12.5	PreK-12	283	75.1				
31-40	92	24.4	Postsecondary	79	21.0				
41-50	124	32.9	Missing	15	4.0				
51-60	88	23.3	Region ^a						
61 or older	17	4.5	CSCTFL	65	17.2				
Prefer not to disclose	8	2.1	NECTFL	67	17.8				
Missing	1	0.3	PNCFL	26	6.9				
Language Taught			SCOLT	152	40.3				
Spanish	121	32.1	SWCOLT	59					
French	54	14.3	Missing	8	2.1				
English	53	14.1	Perceptions of Online Language Teaching Prior to Co						
German	51	13.5	Generally positive						
Multiple Languages	42	11.1	Yes	154	40.8				
Other	19	5.0	No	137	36.3				
Chinese	10	2.7	Other	52	13.8				
Classics	2	0.5	Missing	34	9.0				
Italian	1	0.3	Students could perform as	s well/better online					
Russian	1	0.3	Yes	48	12.7				
Missing	23	6.1	No	259	68.7				
Years of Teaching			Other	36	9.5				
1-5	61	16.2	Missing	34	9.0				
6-10	66	17.5	Online language teaching	would entail more wo	rk				
11-15	73	19.4	Yes 176		46.7				
16-20	51	13.5	No	No 135					
More than 20	110	29.2	Other	26	6.9				
Missing	16	4.2	Missing	Missing 40					

^a States were classified into regions according to the regional language associations under the National Council of State Supervisors for Languages. CSCTFL = Central States Conference on the Teaching of Foreign Languages; NECTFL = Northeast Conference on the Teaching of Foreign Languages; PNCFL = Pacific Northwest Council for Languages; SCOLT = Southern Conference on Language Teaching; SWCOLT = Southwest Conference on Language Teaching.

positive perceptions of online language learning prior to COVID-19, and only 12.7% (n = 48) believed that students could perform as well or better learning a language online than in a traditional, in-person setting. The majority of participants (n = 283, 75.1%) was teaching in PreK-12 classrooms. Other details related to the participants are presented in Table 1.

4.2. Survey

The survey instrument was designed using the literature in planned online language teaching as a guide and can be freely downloaded on the IRIS database [see https://www.iris-database.org/iris/app/home/detail?id=york:938803]. After asking demographic and contextual information (e.g., grade level, geo-spatial context, language(s) taught) (Section 1), participants responded to four items concerning their general perceptions of and experiences with planned online language education (Section 2). Those items were presented in binary format (*yes* or *no*). Sections 3 and Section 4 were both designed to explore language course features and teaching practices in order to ascertain experience with and use of strategies for effective online WL instruction (as described above). Questions also asked participants to reflect on their experiences while engaged in remote teaching as well as their perceptions of students' experiences during that time. Participants rated a set of statements on a 5-point Likert scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*) and were provided with opportunities to expand upon responses through qualitative commentary. Both of these sections were similar in design with Section 3 focusing on planned online teaching (i.e., prior to COVID-19), and Section 4 examining those similar statements in addition to adjustments made specifically during COVID-19. Finally, Section 5 included open-ended questions inviting participants to discuss pandemic-related language teaching and its effect on existing and future practices.

4.3. Analysis

To address the first research question regarding language educators' general descriptions of their courses, descriptive statistics of both Section 3 (prior to COVID-19 planned online teaching) and Section 4 (during COVID-19 remote teaching) statements/items were computed. By survey design, participants with prior online teaching experiences were asked to complete questions in both Sections 3 and 4, lending the quantitative data to within-subjects comparisons to explore the preand during-COVID-19 changes in language educators' perceptions and practices of language teaching. Due to the limited subsample sizes ($ns \approx 30$) with few valid responses to questions in both sections, we chose to perform repeated measures t tests at item level for preliminary results.

Prior to further analyses to address Research Questions 2a and 2b, exploratory factor analysis (EFA) was conducted to examine the dimensionality of the survey items. Due to the limited sample size for Section 3, EFA was performed on Section 4 (remote teaching) items only. The purpose of EFA was threefold: (a) conceptualization—to understand the underlying dimensions of our survey items; in other words, to explore different aspects of language educators' perceptions and practices of teaching languages online; (b) statistical parsimony—to facilitate quantitative analyses and interpretations of the results by reducing the number of variables for the outcome measures; and (c) psychometric evaluation—to obtain validity and reliability evidence of the survey instrument.

Upon establishing a simple structure based on EFA results, composite scores were computed for each factor/subscale by averaging the item-level scores. The authors then conducted a series of mixed-design analyses of variance (ANOVAs) to address Research Questions 2a and 2b regarding the role of these hypothesized factors (within-subjects factor = subscales; between-subjects factor = prior teaching experience and classroom setting, respectively). We chose to run two separate analyses of variance (ANOVAs) because there was no theoretical or empirical basis for investigating the two-way interactions between the aforesaid between-subjects factors. Bonferroni adjustment was applied to control for familywise error rate, adjusted $\alpha = 0.05/2 = 0.025$. Each two-way mixed-design ANOVA yielded: (a) the main effect of the subscale to indicate whether language educators overall had significantly different ratings across the subscales (b) the main effect of the factor (e.g., classroom setting), to indicate whether these educators rated all subscales differently as a function of their group membership (e.g., PreK-12 vs. postsecondary), and (c) the interaction effect to reveal whether the mean difference patterns were uniform across different groups.

5. Results

5.1. Perceptions of planned online and remote language classes

Table 2 summarizes the descriptive statistics of Section 3 and 4 items and results of repeated-measures *t* tests. A skip pattern was set in the survey so that participants were only asked to complete Section 3 items if they confirmed that they had taught a fully online language class prior to spring 2020, resulting in relatively smaller valid sample sizes for Section 3 items (*n* ranging from 40 to 42; see Table 2).

Descriptive data for planned online teaching suggests that language educators generally relied on principles of design that support learning. For example, educators reported agreement with statements related to course organization (S3.1, S3.2), teacher presence (S3.4, S3.12), asynchronous interaction (S3.8), and engagement with authentic content (S3.10). However, they reported less agreement with items related to synchronous interaction between learners (S3.5) and opportunities to collaborate with native speakers (S3.11).

Table 2Descriptive Statistics of Quantitative Items and Results of Repeated-Measures t Tests.

Item ^a		ior to OVID-1	19	Dur COV	ing /ID-1	9	Repeat Measur Test Re	res t	
	N	M	SD	n	M	SD	t	df	r
S3·1/S4.3 My online course was very detailed. [For example, it may have included modules with instructions for learners and common objectives.]	41	4.07	1.21	278	3.10	1.28	2.26*	32	.37
S3·2/S4.4 My content was shared with students through a learning management system (e.g., Canvas, Blackboard, Moodle, Google Classroom, etc.)							2.78**		
S3-3/S4.5 I reached out to students frequently (3—5 times per week) through email and/or announcements S3-4/S4.6 My students were aware of when/how frequently I was online to assist them and/or provide feedback	42	4.29	1.09	275	4.19	0.99	0.84	33	.15
S3·5/S4.7 My course included opportunities for students to interact with one another synchronously (at the same time)									
S3·6/S4.8 My course included opportunities for students to interact with one another asynchronously (but not at the same time)									
S3·7/S4.9 My course included opportunities for students to interact with me (the educator) synchronously (at the same time)									
S3·8/S4.10 My course included opportunities for students to interact with me (the educator) asynchronously (not at the same time)							0.00		.00
S3·9/S4.11 My course included opportunities to build rapport with students and between students (e.g., a community of learners)									
S3·10/S4.12 My course included authentic examples of language and/or culture S3·11/S4.13 My course was designed to afford learners with opportunities to collaborate with native speakers		4.14 2.67					-0.50		.00 .09
S3·12/S4.14 I provided written or verbal feedback at least once per week		4.17				1.05	0.00	31	.00
S3.13 My online students typically did as well (or better) than face-to-face students S3.14 I have made few minor changes/no change to my former online course to deliver to learners during COVID-19		3.14 3.08			_	_	_	_	_
S3.15 I have had issues with student academic dishonesty (plagiarism, cheating)	42	3.45	1.23			_	_	_	_
S4.15 My students did/are doing as well (or better) regarding class work than prior to COVID-19	_	_	_			1.10		_	_
S4.16 My language learners appear(ed) more anxious than prior to COVID-19 S4.17 I have altered my grading policies or procedures during COVID-19	_	_	_			1.19 0.85		_	_
54.18 I made accommodations due to differences in student access to tools and/or technology during COVID-19	_	_	_			0.85		_	_
S4.19 I made accommodations due to differences in my students' ability to balance school and other responsibilities during COVID-19	-	-	-	278	4.34	0.86	-	-	-
S4.20 I learned new things about my students during COVID-19	_	_	_	277	3.90	1.01	_	_	_
S4.21 I reduced the amount of work during COVID-19 that my students might normally complete in a typical semester	-	-	-	276	4.38	0.99	-	-	_
S4.22 My language learners seem(ed) less motivated or less engaged during COVID-19	_	_	_			1.13		_	_
S4.23 I would be interested in teaching online again in the future	_	_	_			1.34		_	_
S4.24 Teaching online during COVID-19 is/would likely be different than online teaching during a typical academic semester	-	-	_			0.84		-	-
S4.25 I accomplished all of my main objectives related to my class	_	_	_			1.25		_	_
S4.26 My instruction was guided or influenced by institutional mandates related to teaching (e.g., I was or was not allowed to do certain things)	. –	_	_	277	3.61	1.35	_	_	_

a S3 = Section 3, S4 = Section 4. Twelve items are present in both Sections 3 and 4. *p < .05. **p < .01.

During COVID-19 remote teaching, language educators were generally less inclined to adhere to such principles. As seen in Table 2, 12 items are present in both Sections 3 and 4 as well as the results of repeated-measures t tests. Though not always significant, means scores were lower for half of the statements when teaching remotely $(S3 \cdot 1/S4.3, S3 \cdot 2/S4.4, S3 \cdot 4/S4.6, S3 \cdot 6/S4.8, S3 \cdot 11/S4.13, S3 \cdot 12/S4.14)$ with significant changes in participants' responses to four of those items when teaching remotely rather than in planned online classes $(S3 \cdot 1/S4.3, S3 \cdot 2/S4.4, S3 \cdot 3/S4.5, and <math>S3 \cdot 5/S4.7)$. Language educators perceived their remote courses as being significantly less detailed (Remote: M = 3.10, SD = 1.28; Online: M = 4.07, SD = 1.21) and less supported by learning management systems (Remote: M = 4.29, SD = 1.19; Online: M = 4.52, SD = 0.99). However, they also reported having made significantly more adjustments to their courses by reaching out to students more frequently (Remote: M = 3.91, SD = 1.16; Online: M = 3.73, SD = 1.29) and including more opportunities for students to interact with one another synchronously (Remote: M = 3.33, SD = 1.19; Online: M = 3.02, SD = 1.64). These adjustments did not necessarily lead to their perception of positive student outcomes, however. Descriptive data suggest that language educators with previous online teaching experience reported concerns related to their students' success when taught remotely in Spring 2020 (S.4.15). In addition, experienced online educators reported reducing the work required of their learners (S4.21) and not meeting their original instructional objectives during Spring 2020 remote teaching (S4.25).

The differing directions of changes as detected by the *t* tests further justified the use of exploratory factor analysis (EFA) to explore the dimensionality of the survey questions. A maximum likelihood EFA was conducted on the 24 items with oblique rotation (promax), and four factors were extracted after assessing eigenvalues (Kaiser, 1960), the content validity of each

question, and salient factor loadings. This 4-factor simple structure explained 46.23% of the variance and used 17 (71%) of the original 24 items. The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis, KMO = 0.79, and all KMO values for individual items were greater than the acceptable limit of 0.50 (Field, 2017). Table 3 presents factor loadings after rotation, as well as the initial eigenvalues, percent of variance explained, and internal consistency reliability (Cronbach's alpha) of each factor.

The EFA results indicate four correlated yet separable dimensions underlying language educators' perceptions and practices of remote teaching, which we named Design (7 items), Interaction (3 items), Outcomes (4 items), and Adjustments (3 items). Upon establishing the 4-factor simple structure, a composite score for each factor was computed by averaging all item level scores. One negative worded question was reverse coded so that a higher composite score indicates a higher level of overall agreement with statements regarding Design, Interaction, Outcomes, and Adjustments. Table 4 presents the bivariate correlations (Pearson) between the composite scores. The four subscales appear to moderately correlate with each other, except for Outcomes and Adjustments (r = -0.06, p = .36). This suggests that educators' temporary adjustments when teaching remotely such as accommodating students' needs or altering grading policies did not necessarily lead to their perceptions of improved outcomes.

Educators' comments provided additional clarity related to their assumptions of lower student outcomes. For example, they reported difficulty "keeping students accountable," and sustaining their "motivat[ion] and interest." In addition, they highlighted "students' difficulty with technology." This suggests that even when teachers were responsive by adjusting expectations when delivering instruction remotely, the pandemic presented unique circumstances that potentially reduced student engagement and impacted outcomes.

5.2. Factors influencing perceptions of remote language teaching

Two separate mixed-design ANOVAs were conducted, and the results were summarized in Table 5 and illustrated in Fig. 1, where non-overlapping error bars (95% CI) indicate significance differences.

Post hoc tests (Bonferroni) found that all language educators, regardless of their prior online teaching experience and classroom setting, rated the subscales significantly different, with *Adjustments* receiving the highest ratings, followed by *Design, Interaction*, and *Outcomes*. Despite the more positive responses (i.e., >3.0 on a 1–5 Likert scale) in their course

Table 3Factor loadings for exploratory factor analysis with promax rotation.

Control of the contro				Rotated Factor Loadings				
	1	2	3	4				
Factor 1: Design								
S4.6 My students were/are aware of when/how frequently I am online to assist them and/or provide feedback	.73	.00	10	06				
S4.14 I provide(d) written or verbal feedback at least once per week.	.59	03	.12	03				
S4.4 My content was/is shared with students through a learning management system (e.g., Canvas, Blackboard, Moodle, Google Classroom, etc.)	.58	02	01	.03				
S4.3 My online course was/is very detailed. [For example, it may include modules with instructions for learners and common objectives.]	.55	11	.25	09				
S4.10 My course included/includes opportunities for students to interact with me (the educator) asynchronously (not at the same time)	.53	.11	27	.05				
S4.12 My course included/includes authentic examples of language and/or culture	.52	.05	.05	.08				
S4.5 I reach(ed) out to students frequently (3–5 times per week) through email and/or announcements	.47	.04	.04	.06				
Factor 2: Interaction								
S4.7 My course included/includes opportunities for students to interact with one another synchronously (at the same time)	15	1.01	.02	02				
S4.9 My course included/includes opportunities for students to interact with me (the educator) synchronously (at the same time)	.18	.75	10	02				
S4.11 My course included/includes opportunities to build a rapport with students and between students (e.g., a community of learners)	.15	.49	.17	.04				
Factor 3: Outcomes								
S4.15 My students did/are doing as well (or better) regarding class work than prior to COVID-19.	.06	.06	.73	.00				
S4.25 I accomplished all of my main objectives related to my class.	.17	.00	.62	02				
S4.22 My language learners seem(ed) less motivated or less engaged during COVID-19. (R)	.19	11	62	.05				
S4.23 I would be interested in teaching online again in the future.	.00	11	.55	.08				
Factor 4: Adjustments								
S4.19 I made accommodations due to differences in my students' ability to balance school and other responsibilities during COVID-19.	.01	.04	.01	.84				
S4.18 I made accommodations due to differences in student access to tools and/or technology during COVID-19.	03	02	.11	.80				
S4.17 I have altered my grading policies or procedures during COVID-19.	.04	05	13	.51				
Initial Eigenvalues	4.31	2.53	1.59	1.32				
% of Variance	17.78	12.99	9.74	5.72				
Cronbach's Alpha	.76	.81	.72	.73				

Note. Factor loadings over 0.40 are in bold. Reverse-scored items are denoted with (R).

Table 4Pearson correlations of subscale scores.

	1	2	3	4
1. Design 2. Interaction	_			
2. Interaction	.43**	_		
3. Outcomes	.21**	.24**	_	
4. Adjustments	.35**	.13*	06	_

^{*}p < .05. **p < .01.

elements including *Adjustments* (M = 4.35, SD = 0.70), *Design* (M = 3.99, SD = 0.71), and *Interaction* (M = 3.55, SD = 1.10), language educators were not as positive about *Outcomes* (M = 2.60, SD = 0.92).

5.2.1. Prior experience with planned online classes

While language educators with and without prior planned online teaching experience did not differ significantly in their overall perceptions and practices, the significant interaction effect led to further examination of the mean difference patterns of the two groups. Planned contrasts (simple; reference category = Design) found the partial interaction to be significant when *Outcome* is compared against *Design*, F(1, 275) = 10.50, p = .001, $\eta_p^2 = 0.04$. That is, while educators with and without planned online teaching experience did not differ significantly in how they rated their course Design (see Fig. 1), those without experience rated their Outcomes particularly low (M = 2.53, SD = 0.90) when compared to their more experienced counterparts (M = 3.03, SD = 0.92). In other words, participants generally reported making adaptations during remote instruction consistent with elements of effective design for online instruction, but educators without prior online teaching experience were less confident about their students' learning. Educators with prior experience, though few in quantity, fell into two distinct categories: (1) those who distinguished between planned online and remote teaching, and (2) those who reported continuing online instruction as planned prior to COVID-19. Differentiating between planned online and remote teaching, one teacher asserted, "My real online class is much different from my emergency remote class." More frequently, however, those who were teaching online during spring 2020 before the health crisis began commented that they were "comfortable" with various technological tools, and that remote instruction did not result in significant adjustments to their courses. Teachers shared, "My classes were already online. It was not a big adjustment for me or my students," and "I was already teaching in a hybrid setting so my language students are not overwhelmed."

5.3. Classroom setting

Regarding classroom setting, postsecondary teachers gave significantly higher ratings for their course *Design* as compared to those teaching PreK-12 learners, and the gap widened for *Interaction* and *Outcomes*, though closed in *Adjustments*. Therefore, all educators regardless of classroom setting made comparable adjustments when engaged in remote instruction. However, PreK-12 educators in particular reported poorer perceptions of design, interaction, and outcomes.

This finding was reflected in teachers' comments as well. PreK-12 educators frequently referenced factors that influenced their ability to redesign their remote WL classes including needing "more training," "not feeling prepared to use new technology," and "not being comfortable with online learning platforms." In addition, teachers discussed challenges related to depending on family/guardians. For example, those responsible for educating younger children felt constrained because "so much of what we need to do in PreK-3 requires parent interaction and support." Others referenced how "not seeing students" and "not knowing if students are okay" contributed to decisions to reach out frequently via "calls to families." When unable to reach families, teachers stressed being worried about the social and emotional wellbeing of their learners.

These concerns were often exacerbated in certain contexts—teachers referenced issues that disenfranchised some students in comparison to others such as access to technology and internet. These inequities were predominant concerns of PreK-12 educators, rather than post-secondary faculty. In response to these realities, teachers at all levels reported that their institutions (districts, institutions of higher learning) supplied technology and hotspots to learners as needed. PreK-12 teachers, however, often described the process as "not easy" or "impossible." One teacher shared, "Our district is full of brilliant children who lack the technological access that should be considered a basic human right at this point in time. We are doing everything we can ... but it is a slow process." Consequently, almost all PreK-12 teachers reported "provid[ing] paper work packets." In addition, though in fewer instances, teachers also "met one-one-one with students," and "hand-delivered work packets to students." Finally, PreK-12 teachers frequently cited challenges related to not being a core content area. One teacher shared, "We were instructed not to provide written work but to allow students to focus on core content." Another explained, "Students received paper work packets from the district that only included core course content and not electives like world language."

6. Discussion

The findings of this study are useful for educators and various stakeholders as they work toward understanding and improving both planned online and remote education for language educators and their students. These data revealed that

Table 5Means, standard deviations, and mixed-design ANOVA statistics for study variables.

Group n		Design		Interaction		Outcomes		Adjustments		Mixed-Design ANOVA			
		M	SD	M	SD	M	SD	M	SD	Effect	F ratio	df	η_p^2
Prior Online Teac	ching Exp	erience											
With	43	3.95	0.86	3.73	1.00	3.03	0.92	4.30	0.79	G	2.65	1, 275	.01
Without	234	4.00	0.69	3.52	1.11	2.53	0.9	4.36	0.69	$G\timesS$	4.17**	3, 825	.02
										S	106.39***	3, 825	.28
Grade													
PreK-12	215	3.92	0.75	3.38	1.08	2.42	0.85	4.36	0.73	G	37.23***	1, 275	.12
Postsecondary	62	4.22	0.51	4.15	0.96	3.24	0.89	4.31	0.60	$G\timesS$	13.89***	3, 825	.05
-										S	142.06***	3, 825	.34
Overall ^a	277	3.99	0.71	3.55	1.10	2.60	0.92	4.35	0.70				

Note. ANOVA = analysis of variance; G = Group; S = Subscale.

regardless of classroom setting, few WL educators had prior experience with planned online teaching before being uprooted and forced into their new roles as remote instructors. Their first experiences with online instruction took place during a time and context that could not replicate planned online learning. It is noteworthy that prior experience did not lead to significant changes in course design or adjustments. One would assume that prior experience would have been influential in how easily and effectively language educators might modify existing courses to new remote (online) contexts. The absence of notable differences suggests that all educators were novice remote instructors. Consequently, prior experience with planned online teaching likely did not prepare them specifically for the contexts of teaching during a health emergency.

All language educators abruptly (re)-envisioned teaching without meeting in person with their learners. Though they reported relying on principles of effective online language pedagogy and making adjustments due to COVID-19, it is not surprising that they perceived lower outcomes. This does not mean, however, that students did not learn or were not supported. It is clear that regardless of classroom setting, all educators were concerned about the educational, social, and emotional welfare of their learners. During the pandemic, basic needs took precedence over academic gains.

The differences between PreK-12 and post-secondary educators are alarming. PreK-12 teachers' lower perceptions of class design including interactions and resultant outcomes are not due to factors within their control. They highlighted needing training and support and in many cases were mandated not to engage learners in language study. Certainly, the hidden message to teachers, students, and their families is that second language study is less important than other subject areas. This disturbing finding reinforces a historical trend—one that devalues the work of WL educators and their goals to support a well-educated citizenry grounded in linguistic and cultural diversity. For those who were allowed to work with students on language, PreK-12 teachers reported pervasive issues in educational equity—lack of technology, unsupervised children who could not rely on family support—and simply verifying that their learners were okay. PreK-12 educators sacrificed time and energy by delivering paper work packets directly to their students and meeting one-on-one when mandated. In sum, all educators were affected by the global health crisis, and PreK-12 educators expressed more constraints that adversely affected their ability to teach and reach learners.

The immediate crisis required swift changes to remote instruction for all learners, however, the impact continues. Educators, students, and families continue to learn how to coexist with COVID-19. Though some learners have returned to face-to-face instruction, many have not, and institutions continue to provide remote instruction in many places. The need to understand the impact of remote teaching and support educators in this endeavor is critical. In addition, though it is hoped that a global crisis of this sort is never seen again, schools often need to close for weather related reasons (e.g., snow days) and natural and other disasters. Though contextually different, these events may close school buildings thereby disrupting academic continuity. In these cases, remote instruction may allow learning to continue. Schools and post-secondary institutions are increasingly planning for the possibility of remote instruction in times of crisis.

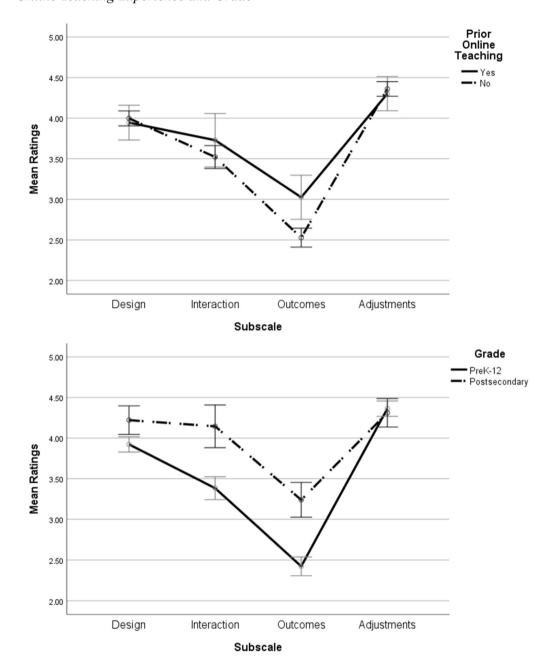
In addition, the changes that were and continue to be made to support instruction though online education may reshape the ways we work, teach, and learn. Students, families, schools, and colleges are all witnessing how planned online and remote instruction might benefit both learners and educators. Anecdotally, for example, educators have shared affordances related to additional scheduling flexibility, more time with family, opportunities to focus on nonwork-related projects, benefits of previously unfamiliar tools to advance learning, and possibilities to enroll in online courses not otherwise available. Conversely, these benefits of online teaching do not imply that teaching remotely during a health crisis was easy or enjoyable. Certainly, many educators (and their learners) struggled, and many teachers are concerned about how school budgets might impact their future employment status. All of these changes will have a long-lasting impact (Brenner, 2020 in press).

The following might be considered to reflect and improve upon both planned online and remote instruction of WL.

^{**}p < .01. ***p < .001.

^a The marginal means are slightly different from each mixed-design ANOVA due to listwise deletion; overall means presented in this row were computed separately.

Mean Ratings of Four Subscales (Design, Interaction, Outcomes, and Adjustments) by Prior Online Teaching Experience and Grade



Note. Error bars = 95% confidence intervals.

Fig. 1. Mean ratings of four subscales (design, interaction, outcomes, and adjustments) by prior online teaching experience and grade.

6.1. Training and experience for educators

Although our findings showed that there were not significant differences in design or adjustments made between educators with and without prior experience teaching online, those who had prior experience felt more confident about the

positive outcome for students. Additional training in technology and online teaching methods may help educators to prepare for the eventuality of remote teaching. Additionally, it may be helpful for educators to gain experience creating online- and technology-enhanced instruction even when they teach face-to-face. When educators integrate a learning management system or use online and other tools from the beginning, they may be more prepared for a sudden shift to remote instruction.

While general best practices in technology-enhanced (or technology-dependent) teaching are useful, it is also vital that language educators have opportunities designed specifically for them. Much of the existing pandemic-related professional development has been limited with regard to language teaching. This disconcerting reality makes it more difficult for language educators to adapt instruction and find quality relevant resources in comparison to other disciplines. Without viewing examples of lessons, tools, and assessments developed to support the language proficiency of students who are online or in emergency contexts, educators are less likely to rely on best practices. As a result, language teachers may revert to low-quality drills, reduce learners' exposure to and use of the target language, and rely on easy-to-find activities devoid of meaning (Doughty, 2015; Guillén, Sawin, & Avineri, 2020).

6.2. Pre-service education: preparing Tomorrow's teachers

Because so few language educators had prior experiences with or positive attitudes toward planned online learning, an implication of this study is that educator preparation programs should commit additional resource to prepare teachers to plan and teach online. All WL educators, particularly those who will work with PreK-12 learners, must explore the benefits and constraints of technology-enhanced lessons as well as those learning experiences that might rely solely on technology for delivery. The QM guidelines, referenced above, may provide guidance for the design of teacher education (and professional development for post-secondary faculty). These opportunities might focus on the tools and resources needed to support planned online WL instruction, assess students in an online environment, develop appropriate learning and interaction activities, provide WL instruction in ways that is accessible for all students, and support learners. Modeling and integrating online and technology-supported learning in post-secondary WL and teacher education courses will support the shift to planned online and, when necessary, remote teaching and learning in both contexts.

6.3. Partnerships between PreK-12 and post-secondary

Though many professional organizations across the country began cataloguing resources and sharing strategies to support educators in the early days of the pandemic (see for example https://www.actfl.org/resources/teaching-and-learning-remotely; https://nadsfl.org/wp-content/uploads/2020/03/NADSFL-COVID-19-Update-3-17-20.pdf), it is possible that selecting appropriate tools (and learning simultaneously how to use them) was overwhelming. This may be especially true for PreK-12 educators who might be less familiar than post-secondary educators with learning management systems or technology-based teaching. In addition, training oneself when potentially responsible for learners in as many as six classes each day, five days per week places considerable demands on educators who are struggling to balance their personal and professional lives. Though post-secondary educators also faced obstacles, the university/college teaching schedule typically provides for more flexibility for such abrupt curricular changes and learning new tools.

One approach to reduce this potential source of anxiety for all educators is through partnerships between PreK-12 and post-secondary institutions. Centers such as the National Foreign Language Resource Center at the University of Hawaii (http://www.nflrc.hawaii.edu/) and the Center for Advanced Research on Language Acquisition at the University of Minnesota (https://carla.umn.edu/) are two such examples of how post-secondary institutions have successfully supported all K-16 language educators through the dissemination of resources and professional tutorials. The unit described below based on trauma-informed pedagogy, for example, was born through collaboration. If faculty in post-secondary institutions create basic language units grounded in such principles and share these via public databases (or through state departments of education), PreK-12 educators might be able to use and/or modify them without spending considerable time on planning. Candidates in teacher preparation programs might also be able to modify these units based on the age and development of the learners with whom they plan to work. Because PreK-12 learners may require additional support and supervision when learning remotely, candidates might develop resources for families as they work toward supporting their children in learning another language. For English learners, creating videos and written documents in various languages to guide families might be especially useful. In this way, families might not only learn how to support their child academically, but they also may become aware of resources in the community to obtain food, shelter, medicine, or clothing. Working jointly with in-service educators and post-secondary faculty provides an invaluable lesson to candidates and a much-needed service to the community.

6.4. Trauma-informed pedagogy

This study underscored the intersection of online instruction, remote teaching, and trauma. The focus on responsive trauma-informed approaches are critical given reports about the potential mental health outcomes of the virus on learners, educators, and families. A recent poll by the American Psychiatric Association (APA, 2020) of over 1000 adults revealed that almost half of Americans are worried about contracting coronavirus, and even more are concerned about a family member or

loved one's health. Anxiety is related to other factors as well: fears related to access to food and medicine and concerns of the virus' impact on personal finances.

Specifically related to children and adolescents, the CDC (2020b) underscored that pandemic-induced trauma may have long-term consequences. As a result, a toolkit for parents with suggestions to support the social, emotional, cognitive, and physical health of children was developed. Resources are age-based as the developmental needs of children and adolescents differ. Educators at all levels might familiarize themselves with these recommendations as they focus on reducing their learners' potential trauma while away from school, their peers, and others.

Additionally, teacher preparation and in-service training might proactively explore how trauma-informed pedagogy could lead to modifications in curricula. Future teacher candidates might be taught principles of trauma-informed pedagogy in order to focus on their learners' individual safety, minimize risk, and recognize how certain experiences shape the lives of the self and others (Carello & Butler, 2014). Teaching Tolerance (2020) called for educators to engage in trauma-informed approaches during the pandemic by focusing on safety, feelings of connectedness, and hope. Recently, Salidívar García and Manuel (2020) used this framework to design a unit for middle school learners of Spanish. Students watched a Mexican campaign video for physical distancing in Spanish and created their own sidekick to the main character, *Susana Distancia*, to encourage the safety practice. They developed their own video describing their life in quarantine and were able to connect to others in their class, In addition, learners created posters depicting feelings of hope for the future.

Though not specific to the WL classroom, others have offered suggestions for focusing on students' emotional and physical health. Imad (2020) recommends using some instructional time to check in with students and share about the personal effects of the health crisis—thus humanizing the instructor and creating a trusting relationship. In addition, empowering learners by including them in instructional decisions may be beneficial.

6.5. Limitations and future research

Like most survey research, this study relied on self-reported data, which may not accurately reflect the realities of language educators' perceptions and practices or may inadvertently encourage participants to conform to the researchers' expectations. Additionally, though we attempted to keep the survey as short as possible, the length of the survey could have contributed to participant fatigue. Though multiple means were used to reach as many language educators as possible, few teachers responsible for teaching only ESL completed the survey—making it impossible to accurately compare their responses with WL educators. It is expected that teaching ELs would present unique challenges, and additional research is needed to provide those educators with strategies for supporting learners when engaged in remote instruction. Finally, follow-up studies should take advantage of qualitative methods of inquiry, including interviews with language educators, learners, and their families.

7. Conclusion

Teaching online and engaging in abrupt remote teaching during COVID-19 are unique and present divergent challenges to learners, their families, and teachers. Although all language educators engaged in practices that would typically support online language learning, their perceived outcomes related to remote teaching during COVID-19 were less than desirable. All educators, but particularly PreK-12 educators, may need additional supports to enact online teaching practices. As the nation continues to consider learners' and educators' needs, it is vital to understand how remote teaching affected all stakeholders. Educators worked to adapt instruction, create opportunities for interaction, and to provide learning experiences in an online environment, but worried about outcomes for students—no matter where they taught. Educators are likely to continue to need to provide remote instruction in the coming months and years—and they will need resources and support in order to do so in ways that truly ensure positive outcomes for students.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.system.2020.102431.

References

Adair—Hauck, B., Willingham—McLain, L., & Earnest—Youngs, B. (1999). Evaluating the integration of technology and second language learning. *CALICO Journal*, 17, 269–306.

American Councils of International Education. (2017). The national K-12 foreign language enrollment survey report. Retrieved from https://www.americancouncils.org/sites/default/files/FLE-report-June17.pdf.

American Psychiatry Association (ADA). (2020). New poll: COVID-19 impacting American well-being. Retrieved from https://www.psychiatry.org/newsroom/news-releases/new-poll-covid-19-impacting-mental-well-being-americans-feeling-anxious-especially-for-loved-ones-older-adults-are-less-anxious Author 3.

Baran, E., & Correia, A. P. (2014). A professional development framework for online teaching. TechTrends, 58(4), 96-102.

Blake, R. (2011). Current trends in online language learning. Annual Review Of Applied Linguistics, 31, 19-35.

Blake, R. (2015). The messy task of evaluating proficiency in online language courses. The Modern Language Journal, 99(2), 408-412.

Blake, R., Wilson, N., Cetto, M., & Pardo-Ballester, C. (2008). Measuring oral proficiency in distance, face-to-face, and blended classrooms. *Language, Learning and Technology*, 12(3), 114–127.

Brenner, D. (2020). Toward a Rural Critical Policy Analysis. In A. P. Azano, K Eppley, & C Biddle (Eds.), *The Bloomsbury Handbook of Rural Education in the USA*. Bloomsbury. In press.

- Brinkley-Etzkorn, K. E. (2020). The effects of training on instructor beliefs and attitudes toward online teaching. *American Journal of Distance Education*, 34(1), 19–35.
- Carello, J., & Butler, L. D. (2014). Potentially perilous pedagogies: Teaching trauma is not the same as trauma-informed teaching. *Journal of Trauma & Dissociation*, 15(2), 153–168.
- Cavanaugh, J. K., & Jacquemin, S. J. (2015). A large sample comparison of grade based student learning outcomes in online vs. face-to-face courses. *Online Learning*, 19(2). Retrieved from https://files.eric.ed.gov/fulltext/E|1062940.pdf.
- Centers for Disease Control and Prevention (CDC). (2020). Social distancing. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html.
- Chenoweth, N. A., & Murday, K. (2003). Measuring student learning in an online French course. CALICO Journal, 20(2), 285-314.
- Chenoweth, N. A., Ushida, E., & Murday, K. (2006). Student learning in hybrid French and Spanish courses: An overview of language online. *CALICO Journal*, 24(1), 115–145.
- Codreanu, T., & Celik, C. C. (2013). Effects of webcams on multimodal interactive learning. ReCALL, 25, 30-47.
- Digital Learning Collaborative. (2019). Snapshot 2019: A review of K-12 online, blended, and digital learning. Retrieved on September 29, 2020 from HYPERLINK "https://static1.squarespace.com/static/5a98496696d4556b01f86662/t/5df14341d5d15f7ed7bf8c93/1576092485377/DLC-KP-Snapshot2019.pdf.
- Doughty, C. (2015). Accountability of foreign language programs. The Modern Language Journal, 99(2), 412-415.
- Education Commission of the States. (2020). State education policy tracking. Retrieved on October 1, 2020 from https://www.ecs.org/state-education-policy-tracking/.
- Education Week. (2020). Retrieved from https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html.
- Educators of Excellence. (2020). Voices from the virtual classroom: A survey of America's teachers on COVID-19-related education issues. Retrieved from https://e4e.org/sites/default/files/voices.from_the_virtual_classroom_2020.pdf.
- Enkin, E., & Mejías-Bikandi, E. (2017). The effectiveness of online teaching in an advanced Spanish language course. *International Journal of Applied Linguistics*, 27(1), 176–197.
- Federal Communications Commission. (2012). Eighth broadband progress report. Retrieved from https://www.fcc.gov/reports-research/reports/broadband-progress-reports/eighth- broadband-progress-report.
- Gewertz, C. (2020). Exhausted and grieving: Teaching during the coronavirus crisis. Retrieved from https://www.edweek.org/ew/articles/2020/04/16/exhausted-and-grieving-teaching-during-the-coronavirus.html?cmp=eml-eb-sub-coronavirus-0422020&M=59519051& U=293380&UUID=3de32c9278b9159c6a0d1805e4eeffcb.
- Goertler, S., & Gacs, A. (2018). Assessment in online German: Assessment methods and results. *Die Unterrichtspraxis/Teaching German*, 51(2), 156–174. González-Lloret, M. (2020). Collaborative tasks for online language teaching. *Foreign Language Annals*, 53, 260–269.
- Guillén, G, Sawin, T., & Avineri, N. (2020). Zooming out of the Crisis: Language and Human Collaboration. Foreign Language Annals, 53(2), 320–328.
- Gunes, S. (2019). What are the perceptions of the students about synchronous distance learning and blended learning? World Journal on Educational Technology: Current Issues, 11(4), 230–237.
- Hamilton, L., Kaufman, J., & Diliberti, M. (2020). Teaching and learning through a pandemic: Key findings from the American educator panels spring 2020 COVID surveys. Retrieved on September 30, 2020 from HYPERLINK https://www.rand.org/pubs/research_reports/RRA168-2.html.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Retrieved from HYPERLINK "https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning."
- Holia, L., Alberg, M., Strahl, J. D., Burgette, J., & Cramer, E. (2014). Online and distance learning in southwest Tennessee: Implementation and challenges. Institute of Education Sciences.
- https://www.insidehighered.com/advice/2020/06/03/seven-recommendations-helping-students-thrive-times-trauma, (2020–. (Accessed 2 November 2020).
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. Educational and Psychological Measurement, 20, 141-151.
- Kelly, K. (2020). Results from Top Hat's COVID-19 faculty survey about online teaching. Retrieved on September 28, 2020 from https://philonedtech.com/results-from-top-hats-covid-19-faculty-survey-about-online-teaching/.
- Knight, S. W. P. (2020). Establishing professional online communities for world language educators. Foreign Language Annals, 53, 298–305.
- Lin, C. H., & Warschauer, M. (2015). Online foreign language education: What are the proficiency outcomes? *The Modern Language Journal*, 99(2), 394–397. Looney, D., & Lusin, N. (2019). Enrollments in languages other than English in United States institutions of higher education, summer 2016 and fall 2016:
- Final report. Retrieved from HYPERLINK "https://www.mla.org/content/download/110154/2406932/2016-Enrollments-Final-Report.pdf . McMurtrie, B. (2020). How to cope with Covid-19 burnout. Retrieved from https://www.chronicle.com/article/How-to-Cope-With-Covid-19/248814.
- Meskill, C., & Anthony, N. (2015). Teaching language online. Buffalo, NY: Multilingual Matters.
- Moore, M. (1989). Three types of interaction. American Journal of Distance Education, 3(2), 1-6.
- NCES. (2020). The condition of education: Concentration of public schools eligible for free and reduced price lunch. Retrieved from https://nces.ed.gov/programs/coe/indicator_clb.asp.
- Oliver, K., Kellogg, S., & Patel, R. (2012). An investigation into reported differences between online foreign language instruction and other subject areas in a virtual school. *CALICO Journal*, 29(2), 269–296.
- Online Learning Consortium (OLC). (2020). Continuity planning and emergency preparedness. Retrieved on September 18, 2020 from https://onlinelearningconsortium.org/about/continuity-planning-emergency-preparedness-resources/.
- Payne, J. S. (2020). Developing L2 productive language skills online and the strategic use of instructional tools. Foreign Language Annals, 53, 243–249.
- Pettit, E. (2020). A side effect of the Covid-19 pandemic? Reading got a lot harder. Retrieved from https://www.chronicle.com/article/A-Side-Effect-of-the-Covid-19/248568.
- Quality Matters (QM). (2018). Rubric standards. Retrieved from HYPERLINK "https://www.qualitymatters.org/qa-resources/rubric-standards.
- Quality Matters (QM). (2020). Emergency remote instruction checklist. Retrieved on September 18, 2020 from https://www.qualitymatters.org/qaresources/resource-center/articles-resources/ERI-Checklist.
- Queen, B., & Lewis, L. (2011). Distance education courses for public elementary and secondary school students: 2009–10. First look. NCES 2012–008. Washington, DC: National Center for Education Statistics.
- Rauf, D. S. (2020). How districts are helping teachers get better at tech under coronavirus. Retrieved from https://www.edweek.org/ew/articles/2020/04/22/how-districts-are-helping-teachers-get-better.html?cmp=eml-enl-eu-news1rm&M=59534644&U=293380& UUID=3de32c9278b9159c6a0d1805e4eeffcb.
- Rubio, F., Thomas, J. M., & Li, Q. (2018). The role of teaching presence and student participation in Spanish blended courses. *Computer Assisted Language Learning*, 31(3), 226–250.
- Russell, V. (2020). Language anxiety and the online learner. Foreign Language Annals, 53, 338-352.
- Salidívar García, E., & Manuel, M. (2020). Implementing trauma-informed principles in the remote Spanish classroom during the coronavirus pandemic. Language and Education, 15(3), 16–22.
- Schwirzke, K., Vashaw, L., & Watson, J. (2018). A history of K-12 online and blended instruction in the United States. In K. Kennedy, & R. E. Ferdig (Eds.), Handbook of research on K-12 online and blended learning (2nd ed., pp. 7–20). Pittsburgh, PA: ETC Press.
- Slaughter, Y. (2019). Videoconferencing and the networked provision of language programs in regional and rural schools. ReCALL, 31(2), 204-217.

Teaching Tolerance. (2020). A trauma-informed approach to teaching through the coronavirus. Retrieved from https://www.tolerance.org/magazine/a-trauma-informed-approach-to-teaching-through-coronavirus.

The Entangled Group. (2020). COVID-19 higher education resource Center. Retrieved from https://www.entangled.solutions/coronavirus-he/.

UC Davis Center for Poverty Research. (2018). What is current poverty rate in the United States?. Retrieved from https://poverty.ucdavis.edu/faq/what-current-poverty-rate-united-states.

UNESCO. (2020). Education: From disruption to recovery. Retrieved from https://en.unesco.org/covid19/educationresponse.

Wang, Y. (2004). Supporting synchronous distance language learning with desktop videoconferencing. *Language, Learning and Technology*, 8(3), 90–121. White, C. (2006). Distance learning of foreign languages. *Language Teaching*, 39, 247–264.

World Health Organization (WHO). (2020). Coronavirus disease (COVID-19) advice for the public. Retrieved from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public.

Zhang, Y., & Lin, C. H. (2020a). Student interaction and the role of the teacher in a state virtual high school: What predicts online learner satisfaction? *Technology, Pedagogy and Education*, 29(1), 57–71.

Zhang, Y., & Lin, C. H. (2020b). Motivational profiles and their correlates among students in virtual school foreign language courses. British Journal of Educational Technology, 51(2), 515–530.