Experiences of Chinese-as-a-Foreign-Language Teachers in Implementation of Emergency Remote Teaching During the Covid-19 Pandemic

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Chinese-as-a-Foreign-Language (CFL) teachers worldwide experienced a variety of problems in their emergency remote teaching during the Covid-19 pandemic. The most common problems shared with teachers in other disciplines including stress, lack of student autonomy, change in interaction, inappropriate usage and delivery of online teaching curriculum, training, experience, pedagogy, comfort levels, and support in the use of relevant technologies, lack of time to learn new skills and to prepare teaching materials, and lack of professional development and training for teachers who would teach online. Other most common problems relatively unique to and experienced by teachers of CFL including incompatible technological tools usage outside of China, time zone differences between teachers and students, continuity of financial support, difficulty of teaching Chinese online in general (including Chinese characters), and decreasing Chinese students' enrolment. This article provides an overview of these problems, describes the solutions that have been found or recommended in certain cases, and identifies the problems for which no solutions currently exist. The silver lining is that in learning to use unfamiliar tools and teaching techniques, CFL teachers in particular may well find that they have access to new methods that they can use to good effect in face-to-face and hybrid settings.

Keywords: Chinese-as-a-Foreign-Language (CFL), Covid-19, emergency remote teaching, Technological Pedagogical Content Knowledge (TPACK), distance education

INTRODUCTION

The Covid-19 pandemic has changed everything worldwide. It has disrupted education for many countries from east to west globally. Since March 11, 2020 when it was categorized as a pandemic (World Health Organization, 2020; Pamintuan, 2021; Sarı & Keser, 2021), it has threatened lives and commanded people's attention throughout the world. As Gacs et al. (2020) have observed, at the onset of the pandemic the majority of colleges and universities as well as many school systems in many countries entered a full lockdown and switched abruptly to remote delivery of instruction in an effort to provide safety for students and accommodate the purpose of "suspending classes without suspending learning" (Lam, 2020, p. 18) as the pandemic spread. In some cases, faculty

were given just a few hours' notice; in others, a few days, or a few weeks. But the emergency remote delivery of instruction resulting from such a hasty and drastic change is very different from thoroughly designed and prepared online instruction. Teaching staff, many of whom lacked training and preparation for teaching at a distance, were forced to "make do" by simply doing their best to re-create a face-to-face classroom environment in an online setting, re-purposing their existing materials and activities in an effort to carry on in wildly different situations with little or no time to adapt. However, rehashing conventional classroom-based materials to fit into an online virtual setting does not mean the new online course will function like a conventional course. It's like trying to use a summer wardrobe in an Arctic winter – what works well in one setting may be totally dysfunctional in another. While many educators carried on heroically, the results were problematic at best, and their experiences make it clear that many issues need to be addressed if we want to be prepared for potential future crisis teaching situations.

LITERATURE REVIEW

The dilemma confronting public officials and educators at the beginning of the pandemic was one of how to reduce the spread of a virus at a time when it was largely unclear how that virus was most commonly spread in practice. Given this ambiguous situation, most of the available solutions had one thing in common: they attempted to keep individuals separated from one another, and ideally to isolate them. This is precisely what a traditional classroom setting does not do. While some efforts focused on improving classroom ventilation, providing protective gear for students and teachers, and enforcing physical distance between individuals, one widely employed approach was to remove the traditional classroom completely and shift to delivering instruction remotely, with teachers and students typically remaining in their home settings and using various types of technology as an intermediary. The result was something that has been variously referred to "remote learning" (Muñoz-Najar et al., 2021), "E-learning" (El-Ashry et al., 2922), "online teaching" (MacIntyre et al., 2020; Lam, 2020; Gacs et al., 2020; C. Zhang, 2020; Q. Zhang, 2020; Sarı & Keser, 2021; Qiu et al., 2022), and "emergency remote teaching" (Hodges et al., 2020; Wang & East, 2020; Chen, 2022). An important point about "emergency remote teaching" is that all of these arrangements were intended to be temporary; they were stop-gap measures employed in an effort to address an unanticipated crisis. They have little in common with teaching and learning that is planned and designed from the ground up to be conducted at a distance, and many of the negative experiences encountered by teachers and students during this period were the result of those differences (Hodges et al., 2020). The examples of negative experiences could include stress (Wang & East, 2020; MacIntyre et al., 2020), lack of student autonomy (Nguyen, 2022), change in interaction (Yüce, 2020), inappropriate usage and delivery of online teaching curriculum (C. Zhang, 2020), training, experience, pedagogy, comfort levels, and support in the use of relevant technologies (Muñoz-Najar et al., 2021), lack of time to learn new skills and to prepare teaching materials (C. Zhang, 2020), and lack of professional development and training for teachers who would teach online (Lam, 2020), and so on.

Being an advocator in the field of Chinese-as-a-Foreign-Language (CFL), the author has been very inquisitive to know the answer to the following question: Have all or most of the CFL teachers worldwide faced these problematic negative experiences in common while implementing their emergency remote teaching during the Covid-19 pandemic? The necessity to conduct a study to clarify this question is critical. This article seeks to explore and summarize the experiences of one particular group of teachers – those teaching CFL – during the pandemic, and to draw attention to those specific issues that need to be addressed if we wish to be prepared for similar educational crises in the future.

METHOD

The Covid-19 had been classified as a pandemic since March 11, 2020, as stated above. And as the U. S. President Joe Biden said surprisingly in a "60 Minutes" interview that aired on September 18, 2022 in CBS News, "We still have a problem with Covid. We're still doing a lot of work on it. But the pandemic is over." (Cancryn & Mahr, 2022). There is about 2 ½ years of Covid-19 pandemic from March 11, 2020 to September 18, 2022. During this pandemic period, a lot of ongoing or scheduled research studies relying on collecting experimental data from the face-to-face conventional methods were forced to pause, slowed down, or modified due to pandemic. It had dramatically interrupted the research progress which required collecting experimental data from the subjects presenting in the physical classroom, as well manuscript submission review and journal publication process. Very few of empirical publication could be found during this abrupt 2 ½ years of difficult period. While it is hard for research advocates to conduct empirical studies themselves, consequently it's harder to find empirical publications in the designated area such as remote teaching experienced only by the Chinese-as-a-Foreign-Language (CFL) teachers during the Covid-19 pandemic. Therefore, it's in need to expand the research scope to remote teaching experiences encountered by other teachers at large across many levels and disciplines worldwide.

The methodology of this research was literature-led. The research method used are journal articles published roughly during this 2 ½ year from March 11, 2020 to September 18, 2022. The topics were focused on "COVID-19, Covid-19, covid-19, and/or pandemic" and "remote delivery of instruction" such as "remote teaching and/or learning", "online teaching and/or learning", and "emergency remote teaching and/or learning". The contents were focused on journal articles that reported and/or discussed the teaching and/or learning experiences encountered by two major group of teachers: (1) the teachers at large worldwide across many levels and disciplines, and (2) particularly the teachers of CFL worldwide.

Approximately 60 journal articles were found primarily from ERIC (Education Resources Information Center, https://eric.ed.gov/), Google Scholar (https://scholar.google.com/), and the digital library of the author's university. Based on the articles' preliminary review, it's interesting in finding that there were common problems experienced by all teachers across many levels and disciplines worldwide (including CFL teachers) in their remote teaching during the Covid-19 pandemic. Would some of these common problems have been resolved? What did other common problem

still need to be resolved? The purpose of this study was to explore and summarize the experiences of CFL teachers in implementation their emergency remote teaching during the Covid-19 pandemic. However, there was not sufficient research reporting only on the CFL teachers. Since CFL teachers are a relatively small subset of the population of teachers at large, it's in need to expand and first to explore and summarize the experiences encountered by all teachers across levels and disciplines worldwide. To achieve this goal, the following three steps were to be implemented first. Step one is to explore and summarize the common problems experienced by all teachers across levels and disciplines worldwide (including CFL teachers) in their emergency remote teaching during the Covid-19 pandemic. Step two is to find and summarize some possible solutions with an intention to solve the common problems experienced by all teachers' emergency remote teaching due to the pandemic. And step three is to find and summarize some problems experienced by all teachers in their emergency remote teaching during the pandemic that still need to be resolved. By doing so, the experiences of CFL teachers in implementation of emergency remote teaching during the Covid-19 pandemic could be finally summarized and addressed.

In order to implement these three steps to achieve the purpose of the study, further review and exploration of these articles is necessary. From the focused review of literature, three research results were found: (1) While implementing the emergency remote teaching, there exists some common problems experienced by all teachers worldwide (including CFL teachers) made necessary by the Covid-19 pandemic conditions. (2) Fortunately, there exists some advocated researchers who had provided some possible solutions with an intention to solve the common problems experienced by all teachers due to the pandemic. (3) However, there still exists some problems experienced by all teachers during the pandemic that still need to be resolved. These findings were summarized in Table 1 and were elaborated in detail and discussed in the following three sections, namely "COMMONALITIES", "PROBLEMS FOR WHICH SOME POSSIBLE SOLUTIONS HAVE BEEN FOUND", and "ROBLEMS THAT STILL NEED TO BE RESOLVED", respectively. Meanwhile, it is interesting that the common problems found in this study and listed in Table 1, such as stress, autonomy, interaction, curriculum, technology, time, professional development, training, financial support, and so on, could be used as components to design survey questionnaires for the empirical study in the future.

Table 1

Experiences of teachers worldwide in implementation of emergency remote teaching during the Covid-19 pandemic

Commonalities	Problems for Which Some Possible Solutions Have Been Found	Problems That Still Need to Be Resolved
Commonalities Across Levels and Disciplines:		
Stress	YES[1]	
Lack of student autonomy	YES	
Change in interaction	YES	
Inappropriate usage and delivery of online teaching curriculum	YES	
Training, experience, pedagogy, comfort levels, and support in the use of relevant technologies		OK[2]
Lack of time to learn new skills and to prepare teaching materials		OK
Lack of professional development and training for teachers who would teach online	YES	
Commonalities Relatively Unique to Teachers of Chinese-as-a-Foreign-Language:		
Incompatible technological tools usage outside of China	YES	
Time zone differences between teachers and students		OK
Continuity of financial support		OK
Difficulty of teaching Chinese characters online	YES	
Difficulty of teaching Chinese online in general (in addition to teach Chinese characters online)		OK
Decreasing Chinese students' enrollment		OK

[1] "YES" denotes some possible solutions have been found and described in the text already.

[2] "OK" denotes problems that still need to be resolved and have been explained in the text already.

COMMONALITIES

Teachers of Chinese-as-a-Foreign-Language (CFL) are, first and foremost, teachers – and as such, they share a great deal with their colleagues who teach other foreign languages as well as those who teach other academic disciplines. As members of this larger group, they have much in common with their colleagues in terms of the experiences and problems they encountered during the pandemic. For this reason, the following section on commonalties is divided into two sections: experiences shared by teachers in most or all disciplines and experiences unique to CFL teachers.

Commonalities Across Levels and Disciplines

During the period of roughly 2 ½ years of Covid-19 pandemic from March 11, 2020 to September 18, 2022, when forced to switch their teaching from conventional face-to-

face classroom-based to online-based emergency remote teaching, teachers worldwide across many levels and disciplines experienced a variety of problems. These problems are numerous, and some of them are inter-related.

First, "stress" was an almost universal problem due to pandemic conditions. This is an emotional issue for teachers that also affected students, and is a pervasive issue that made everything harder for everybody. Wang & East (2020) describe a number of different sources for this stress, including economic precarity, family responsibilities to care for children and/or adults who had contracted Covid-19, and quarantine requirements resulting from the infection of students, family members, and faculty/staff. MacIntyre et al. (2020) enumerated 15 different stressors experienced by teachers during the pandemic: (1) workload, (2) family health, (3) loss of control over work, (4) no recreation, (5) blurred lines between home and work, (6) loss of control over personal decisions, (7) the stress of online teaching, (8) irregular hours, (9) finances, (10) no travel, (11) higher stress over family health than the teacher's own health, (12) isolation, (13) necessities, (14) caregiving, and (15) relationships (p. 7). Both emergency remote teaching and quarantine conditions produced physical and social isolation that affected teacher-to-student, teacher-to-colleague, and student-to-student interactions. This isolation exacerbated the effects of stress and made many learning activities more difficult and less effective.

A second common problem was a lack of student autonomy. Traditional K-12 classroom settings do not emphasize student autonomy; however, online learning requires a substantial degree of student autonomy in order to be successful. Specifically, for online foreign language learners, it requires a great deal of support via providing scaffolding materials in supporting them to shift toward greater learner autonomy. As Nguyen (2022) indicated, scaffolding is critical in supporting foreign language learners' autonomy in Internet-based English language teaching classrooms. This is an age-related issue. As students age, and especially as they move from primary to secondary education, and then into post-secondary and graduate education, they tend to acquire increased autonomy. This is manifest in areas like self-discipline and time management.

A third common problem was the change in interaction made necessary by pandemic conditions. The physical and social isolation mentioned above created abrupt and dramatic changes in social interaction. The resulting inability of teachers and students to have face-to-face conversations, as they had so frequently done before, was problematic. Peer and social interactions were dramatically reduced (Yüce, 2020). Face-to-face communication and instant feedback are powerfully effective in a classroom setting, but these conditions can be extremely difficult to reproduce at a distance, especially for teachers and students who had little or no prior experience with teaching and learning in an online environment. This change in interaction affected students' motivation in learning online.

A fourth common problem was the inappropriate usage and delivery of online teaching curriculum made necessary by pandemic conditions. The problem of not knowing how to adapt a face-to-face curriculum to an online setting was shared by all teachers across disciplines. By switching suddenly from traditional face-to-face to online teaching with

lack of guidance and training, most teachers were learning how to teach online via trial and error. Teachers typically did their best to use the same materials, learning activities, and assessments that they had used face-to-face, and then deliver them directly online for instruction. C. Zhang (2020) described this as an abrupt shift from "face-to-face" to "screen-to-screen" teaching, noting that neither teachers nor educational institutions had anticipated the need for such a shift, and that it resulted in the adoption of syllabi and curricula "unfit for online teaching".

A fifth common problem area is that of technology. This is a broad area that encompasses training, experience, pedagogy, comfort levels, and support in the use of relevant technologies by both teachers and students during the Covid-19 pandemic outbreak. The relevant technologies could range from paper-based take-home packages to radio, TV, phone, and Internet-based solutions (Muñoz-Najar et al., 2021). Wang & East (2020) described a dawning awareness on the part of educators that the available technological resources were woefully inadequate to provide effective support for working from home, pointing to specific issues such as hardware compatibility, lack of training with relevant software, and concern over safety and privacy when using the Internet. The list of technology-related problems could also include lack of robust Internet access, network connectivity and bandwidth for both teachers and students that left many potential participants in the learning process struggling to be seen or heard – and often giving up the fight without significantly engaging the intended content of lessons and classes. Based on a mixed research design method and data collected from both qualitative interview (by 94 Turkish college students) and quantitative survey (by 813 Turkish prospective teachers), Peker Ünal (2021) found that, in students who were lack of appropriate digital tools (computer, smartphone, etc.) used in distance education at home, their study habits had negatively changed dramatically.

A sixth common problem was the lack of time to learn new skills and to prepare teaching materials. With a study from 7 participants in teaching Chinese as a foreign language in a higher education in Denmark, C. Zhang (2020) reported that teacher expressed two main concerns in this area. The first was the lack of time to learn how to use the new digital tools they found themselves needing to teach online; the second was that actually using these new tools to prepare for classes increased the amount of time they needed for good class preparation. Especially in a pandemic setting, additional time was exactly what they did not have. Even for experienced teachers who were already familiar with the needed technologies, preparing for online course delivery demanded additional time beyond their usual scheduling and teacher preparation time.

Finally, a seventh common problem area was the lack of professional development and training for teachers who would teach online. Teaching online is different from teaching face-to-face, and even extensive experience in a face-to-face classroom is not in and of itself adequate preparation for teaching at a distance. Lam (2020) reported first-hand on this issue: "having tried such large-scale online teaching for four months for the first time in over three decades of teaching, the author has also gone through the unprecedented challenges, caused by her lack of experience and skills in online teaching". Many teachers were totally lacking in prior training and experience with

online teaching at the beginning of the pandemic. Sari & Keser (2021) found that classroom teachers of many different subjects had problems with actually using technology for pedagogical purposes when they examined Turkish classroom teachers' ability to implement the more demanding aspects of the TPACK (Technological Pedagogical Content Knowledge) model into their online teaching. Many if not most teachers lacked prior professional development in the technological knowledge and skills that turned out to be needed in coping with the pandemic. Indeed, during the emergency remote teaching, the design of online technological teaching platform was problematic. Many teachers across disciplines had problem that they were not trained in using the technologies needed for online teaching, thus, they were incapable to use technology well for pedagogical purposes in teaching online. While integrating TPACK model into emergency remote teaching may solve this problem. Nevertheless, how to do that is a problem to teachers due to lack of professional development and training in this area.

Commonalities Relatively Unique to Teachers of Chinese-as-a-Foreign-Language (CFL)

Chinese-as-a-Foreign-Language (CFL) teachers are a relatively small subset of the population of teachers at large. As part of that larger population, they experienced all of the problems described in the previous section, but also encountered problems that were relatively unique to their discipline during the Covid-19 pandemic. It doesn't matter where in the world the CFL teachers were located when the pandemic hit --- if they were teaching Chinese, they faced similar problems and usually tried out similar tactics to address those problems. Their professional experiences tended to be more like those of their CFL colleagues around the globe than not. Listed below are a number of problems relatively unique to CFL teachers.

One common problem was "incompatible technological tools usage outside of China" for CFL teachers due to pandemic situations. Software used to teach Chinese within the borders of China is sometimes unavailable outside China. The result is that CFL teachers in other countries were often faced with the necessity of using unfamiliar software to teach at a distance. Wang & East (2020) acknowledged that technologies used in China for massive remote teaching such as Tencent Meeting and DingTalk do not exist in overseas app stores. Instead, the videoconferencing software adopted by Chinese teaching professionals outside Mainland China during the emergency teaching included a variety of tools, many of which had originally been intended for use in a business context: Zoom, Google Meet, Microsoft Teams, GlobalMeet, Sisco Webex, Jitsi Meet, Skype Meet Now, BigBlueButton, LINE and Facebook Live, with the most widely used being Zoom, Google Meet and Microsoft Teams (p. 6). In addition, regarding student beliefs about technology and online learning, they also found a small minority of students were very reluctant to use technology for human interaction, either because they were suspicious of the effects of technology at large (e.g., to avoid the Internet impacting on their lives) or because they had concerns about personal privacy.

A second problem that may be relatively unique to CFL teachers during the pandemic is one of "time zone differences between teachers and students". While this applies to any

teachers teaching outside their own time zones, CFL may be relatively unique in employing quite a few teachers under these conditions. When delivering a synchronous online instruction, if the teacher's time zone is different from the student's time zone (e.g., daytime, and nighttime difference), this indeed affects CFL teachers' teaching scheduling. It could also affect assignment submission due dates' setting-up when planning emergency remote teaching for CFL teachers.

A third common problem was "continuity of financial support" for CFL teachers due to pandemic situations. This took many forms, including reduced support for schools to have free guest CFL teachers from China or a variety of free teacher exchange programs; to have free teaching materials from China or via online; to have projects or research fund in supporting collaboration with Chinese universities or institutions, to have free student field trips and other study abroad academic programs to China; and to have free social activities such as Chinese festival celebrations, and so on. These problems could reduce the effectiveness of supporting CFL programs as well as reducing the function of providing practice and enrichment for CFL students.

A fourth common problem was the "difficulty of teaching Chinese characters online". Teaching Chinese to alphabetical non-native learners is difficult at the best of times due to its pictographic origin and the logographic nature of the Chinese. It was even more difficult during the Covid-19 pandemic when CFL teachers were forced to switch suddenly to an online teaching environment. Regarding teaching Chinese characters online, Q. Zhang (2020) pointed out that "it is…challenging to teach Chinese characters to CFL beginners online, where handwriting [of Chinese characters] is unlikely to happen" (p. 23). When teaching Chinese characters in a face-to-face environment, teachers were able to demonstrate the strokes used to create Chinese characters by hand and provide instant corrections of students' mistakes. While many of the programs used for emergency remote teaching include a whiteboard function, it is at best extremely difficult to use a mouse to "write" Chinese characters, just as it is difficult to use a mouse to sign one's name in Western characters.

Finally, "decreasing Chinese students' enrollment" was a problem for CFL teachers due to pandemic situations. Among others, the reasons could be correlated to (1) lack of or reducing of continuity of financial support due to pandemic, as described above. Therefore, a lot of schools and institutions had replaced the Chinese programs with other foreign languages or closed the Chinese programs, not to mention being reluctant to offer new Chinese programs as in previous decade in the world; (2) the nature of the difficulty of teaching Chinese online in general (in addition to teach Chinese characters online as mentioned above) due to its complicity in teaching Chinese listening, speaking, reading, and writing online, it decreases CFL teachers' enthusiasm for teaching online and simultaneously decreases students' motivation in learning Chinese online, it consequently decreases CFL students' enrollment; (3) the travel restrictions or quarantine requirement by different countries due to pandemic, therefore (a) less CFL students overseas could travel to Chinese-speaking countries to practice Chinese culture and language via fulfilling field trip or other academic activities; meanwhile (b) more CFL guest teachers located in different countries (e.g., in the U.S.) other than in China

wanted to or were required to return to China prior to international airport being shut down; in addition, (c) less native Chinese speakers travel overseas (e.g., from China or Taiwan to the U.S.) to study abroad in becoming a qualified local CFL teacher. Consequently, there is a decreasing availability of native Chinese speakers to teach CFL in local institutions in other countries worldwide. In a word, decreasing Chinese students' enrollment could result from lack of financial support, and difficult to teach Chinese online by its language nature. Thus, these two factors could cause decreasing need of CFL teachers. On the other hand, travel restrictions could cause less availability for qualified local CFL teachers. The two factors between "decreasing Chinese students' enrollment" and "less availability for qualified local CFL teachers" could be correlated to each other in decreasing Chinese students' enrollment.

PROBLEMS FOR WHICH SOME POSSIBLE SOLUTIONS HAVE BEEN FOUND

While there is no one size that fits all. That is, there is no one single solution that could resolve all teachers' problems. However, if we can provide some possible solutions from the literature, it would be helpful to other CFL teachers, other foreign language teachers, and teachers in other disciplines and levels. For the problems encountered by teachers as listed above, some possible solutions had been found or recommended in certain cases as the following, including possible solutions to resolve (1) teachers' stress, (2) student's autonomy problems, (3) teacher-student interaction problems, (4) inappropriate usage and delivery of online teaching curriculum, (5) technology and professional development problems, (6) digital tools usage's problems, and (7) problems in online teaching of Chinese characters.

Possible Solutions to Teachers' Stress Problems

While teachers have stress due to a variety of problems (as examples listed above) during the online emergency remote teaching, how to cope with those problems is critical. What are the coping strategies that could help to possibly solve these problems? After investigating 634 language teachers in April 2020 from Europe (51.4%), North America (23.5%), Asia (8.8%), South America (6.9%), and the Middle East (5.2%), and elsewhere in the world (4.2%), MacIntyre et al. (2020) found that, during the Covid-19 pandemic, a variety of coping strategies had been used by language teachers. They summarized example of these coping strategies (derived from Charles Carver's Brief-COPE, 1997) including (1) acceptance, (2) emotional support, (3) positive reframing, (4) active coping, (5) instrumental support, (6) planning (these six strategies were categorized as helpful "approach coping strategies" in this study), (7) behavioral disengagement, (8) denial, (9) self-distraction, (10) self-blaming, (11) substance use, (12) venting (these 6 later strategies were categorized as not-helpful "avoidant coping strategies"), (13) humor, and (14) religion (these were categorized as neither "approach coping strategies" nor "avoidant coping strategies". They found that there were positive psychological outcomes correlated with "approach coping strategies" and negative ones with "avoidant coping strategies". They advised language teachers to avoid using "avoidant coping strategies" during the pandemic due to its unhelpfulness.

Possible Solutions to Student's Autonomy Problems

In a conventional classroom, a student could choose to be a passive learner. However, in an online emergency remote learning, it would be very challenging if a student chooses not to be engaged actively in any online learning activities. A student's autonomy and self-disciplined are critical components to ensure a successful online emergency remote teaching. Is there any way to solve this problem? El-Ashry et al. (2022) pointed out that the philosophy of advantages in distance learning or E-Learning by its nature could provide positive learning attitudes for highly self-regulated Egyptian learners in general, while low self-regulated learners might continue to have negative attitudes. In order to help foreign language teachers in designing online lectures to enhance their learners' autonomy and self-disciplined, after conducting a qualitative study from 20 Turkish EFL learners regarding online foreign language learning during the pandemic, Yüce (2022) suggested that "lecturers may design weekly detailed study programs for learners to follow, and in this way, they may help learners to become more self-disciplined and autonomous" (p. 12). This provided solution in designing detailed weekly study programs to be used by EFL teachers could be applied to the CFL teachers and other teachers as well. If necessary, taking CFL students' online attendance or arranging students to take turn to serve as a-day or a half-day in the life of a teacher, or serve as a section leader for online discussion. In addition, for those students who were lack of autonomy and self-disciplined, teachers may solve this problem by inviting their parents to be involved in students' online learning. Separately, after gathering data through surveys (116 teachers responded to the surveys) and interview (from 20 out of 116) from Chinese language teachers in California regarding their experiences on teaching Chinese during the pandemic, Ren (2020) found that involving parents in their kids' online learning is very important as to have an effective remote teaching, teachers should communicate with parents more often and more intensively and to assist parents in helping their children to access the online curriculum and turn in their homework on time. Also, Muñoz-Najar et al. (2021) provided further solutions by engaging parents as partners in the teaching and learning process which is key for remote learning interventions because parents are important allies in ensuring take-up and effectiveness of remote learning (p. 40). These suggested example solutions were used with intention to encourage students' extrinsically motivation. Therefore, students' autonomy may be stimulated and thus be increased indirectly.

Possible Solutions to Teacher-Student Interaction Problems

We're all human beings. We are used to having face-to-face instant interaction, feedback, or communication when we encounter problems. The interaction between student and teacher in the conventional classroom is much easier than in the virtual classroom. For example, using body language in the conventional classroom sometimes could make a mutual communication effectively; however, using body language which is not feasible in the virtual classroom. The change in interaction is problematic for emergency remote teaching. What are the possible solutions? After conducting a six-month (May to November 2020) qualitative study across 17 countries, Muñoz-Najar et

al. (2021) provided a possible solution by establishing meaningful two-way interactions. It's very important to provide chances for students and teachers to interact with each other with appropriate delivery of the online learning content via most suitable technology. Wang & East (2020) provided possible solution to show empathy by using highly empathetic word choice, heart-warming slogans, and multimodal symbols in order to make students feel warm and close (p. 14). Gacs et al. (2020) further provided a possible solution by establishing a learning community in which teachers-students as well as students-students can learn from each other via a variety of online interactions. They explained that "the role of online language education is to provide and facilitate access to a multilingual community, which offers opportunities for sufficient input, output, and interaction in multiple modalities and settings with feedback from peers, the teacher, and technology with the possibility for individualization" (p. 382). Q. Zhang (2020) agreed with this solution by building a learning community so that a sense of trust within the community could enhance student-teacher and student-student interactivity and communication which is key to successful language learning (p. 30). Similarly, a "co-learning community" solution provided by Wang & East in 2020 could also help to build a less stressful mutual learning community, specifically for the first-time online learners and "novice" online teachers. By building this co-learning mutual community, it could enhance in developing student engagement via three ways of interactions: (1) teacher to students; (2) teacher to one individual student; and (3) student to student.

Possible Solutions to Inappropriate Usage and Delivery of Online Teaching Curriculum Problems

During emergency remote teaching, depending on the teaching needs, teachers may need to deliver the emergency curriculum to many students (e.g., lectures to a large group of whole class), to a small group of students (e.g., lectures, practices, or discussions to a small focus group of students), or to an individual student (e.g., to individuals who need special attention or enrichment). To make this happen, it requires teachers to spend more time (though, this is what teachers usually do not have) in delivering the emergency curriculum. Is there any possible solution for these delivery problems? Wang & East (2020) suggested adopting a hybrid online delivery mode that combined both synchronous learning (e.g., using Zoom) and asynchronous learning (e.g., using a Learning Management System such as Canvas) as means to increase the flexibility of the curriculum delivery while maintaining the key component of the course. In a recent study in Singapore toward CFL teaching between offline face-to-face teaching and online remote teaching, while each mode of delivery has its own advantage and disadvantage, Chan (2021) provided a blended learning (BL) solution to solve teaching Chinese characters and vocabulary as well as teaching or reviewing Chinese essay writing, in which, for teaching Chinese characters and vocabulary, online (group and instant feedbacks) delivery is more effective than face-to-face while face-to-face (personalized, delayed feedback and discussion) would be more effective for Chinese essay writing (p. 7). El-Ashry et al. (2022) also noted that blended learning helped Egyptian government to overcome some conventional education problems and maintain the designed educational quality during the Covid-19 pandemic crisis.

Possible Solutions to Technology and Professional Development Problems

During the Covid-19 crisis, most teachers were not well-prepared and were not comfortable with their ability to use technology to teach online well for pedagogical purposes, which would have implications if they had to switch abruptly to emergency remote online teaching because they are short in time, in professional development, and in training to learn new skills and technology to either appropriately prepare for online teaching materials, to adequately move traditional curricula to virtual classrooms, and to delivery an effective instruction in a remote setting. While we need to ensure the technology should be fit for the purpose of emergency remote teaching, is there any model that may help in providing some possible solutions for these problems? In 2020, Wang & East (2020) stated that there was a need to integrate "technological pedagogical content knowledge (TPACK)" into Chinese language teacher education programs because "the remote emergency teaching has pushed teachers to integrate their knowledge of technology, pedagogy, and content simultaneously in the online course they teach. Thus, there is an urgent need for sustained inquiry into technology and Chinese language teacher education, materials development, and teaching practices (p. 14). TPACK is thought to be an area where more professional development and training seem to be indicated and it is a model that is potentially applicable to addressing many of these problems (Ariyani et al., 2023). It is interestingly enough that there is an actual recent study about TPACK conducted by Qiu et al. in 2022. In investigating 286 preservice online teachers from at least 20 provinces in China, they emphasized that teachers are in need of designing TPACK-enriched curricula for foreign language classrooms, and found possible solutions by integrating TPACK into CFL teachers' professional and training programs "so that they can gain a deeper understanding of how to teach [online] with specific technologies (such as web conferencing, social media, whiteboards, and blogs" (p. 6384), and how to effectively prepare teaching materials for online teaching with new skills learned from the TPACK model, and thus to appropriately move face-to-face curricula to virtual environment for online emergency remote teaching. C. Zhang (2020) also recommended integrating TPACK into CFL teacher development. She provided a "3 A's" solution that includes elements of ability, awareness, and attitude. CFL teachers should focus on ability and skills of combining technology, content, pedagogy, and context into emergency remote teaching, be aware of the difference between face-to-face and emergency remote teaching while integrating TPACK online, and have an open attitude in viewing emergency remote teaching as a new mode of teaching implementation.

Possible Solutions to Problems of Digital Tools Usage

For CFL teachers, while integrating TPACK into their curricula, usually they were very puzzled on choosing and using appropriate technological digital tools for online instruction and wondered how to use those tools for what kind of tasks. Especially for guest CFL teachers who traveled from China overseas to teach CFL students in other countries, they usually realized that there existed an incompatible technological tools usage outside of China. So, what kind of technological digital tools that CFL teachers widely used and for what tasks they used during the pandemic crisis? C. Zhang (2020)

provided a possible solution to addressing these problems by finding the frequency of digital tools used by this group of participants as following: Microsoft Office software (Word, PPT, etc.) 39%, audio/video recordings 22%, online learning tools (e.g., Kahoot, Quizlet) 11%, other websites containing Chinese teaching/learning materials 11%, resource sharing (e.g., Google doc, Dropbox) 6%, communication websites (e.g., Skype, Zoom, WeChat, Facebook) 6%, and online dictionary (e.g., Pleco, Skritter) 5%; furthermore, regarding tasks of using digital tools for TCFL including the following: managing classroom teaching 25%, collecting and correcting assignments 21%, preparing for teaching 21%, creating teaching plan 21%, and designing extracurricular exercises 12%.

Possible Solutions to Problems in Online Teaching of Chinese Characters

For CFL teachers, teaching of writing Chinese characters online is very challenging. Especially, teaching a character' strokes via handwriting online is even more difficult. Is there any feasible way that could help to solve this problem? After conducting a study from 5 CFL teachers (three based in Ireland and two based in the UK) regarding their online teaching experience of Chinese characters, Q. Zhang (2020) provided some possible solutions by using animation programs and technology to teach a character's stroke order for CFL teachers to teach online. She also suggested a structured approach to possibly solve problem in teaching Chinese characters online. Based on her interpretation, the approach could include designing a structured class with organized tasks and activities, extending existing knowledge of Chinese script, and learning strategies that students had learned previously to teach new characters online for CFL students, and conducting a structured classroom management such as setting up a protocol for CFL students in taking turn to present or talk online, or follow Internet usage netiquette, vice versa. She further provided possible solutions by incorporating knowledge of Chinese characters into online teaching, specifically for those novice students who have no pre-existing knowledge of the Chinese language. For example, by introducing the new script to CFL novice online learners from both the analytic (stroke-by-stroke) and the holistic (character knowledge) perspective.

PROBLEMS THAT STILL NEED TO BE RESOLVED

While some common problems had been identified and some possible solutions had been found, as described above, there are still some problems need to be resolved.

First problem area that needs to be resolved is related to technology. There is a lack of appropriate, suitable technology that can be used by teachers to teach comfortably for the emergency remote teaching. Consequently, it may affect CFL teachers' role in the eye of students, namely, CFL teachers' professional identity could be downgraded by students. Why? During emergency remote teaching, most CFL teachers think their role as knowledge facilitators is valued in their online teaching (C. Zhang, 2020), and most students respect CFL teachers' role as hero because students think their teachers are expert in teaching Chinese online. Although, as discussed above, some possible solutions had been recommended to solve some technology, professional development, and digital tools usage's problems; however, it happens often that technology provided

by institutions used for emergency remote teaching is such that teachers had no or inappropriate training on how to use it; teachers are not familiar with or like to use it; or teachers had no choice to change the technology's usage online. Therefore, these factors hindered teachers in their fully developing their potential in teaching Chinese online by using the provided technology. Thus, the role of teachers' professional identity could be discounted by students from hero to pariah. As Wang & East (2020) indicated that, "for Chinese language teachers experiencing emergency teaching, the functionality of the technology used for emergency online teaching activities can affect the roles and engagement in the learning process" (p. 14). The identity change resulted from the surrounding objective environment (such as from school districts' unified management) that is beyond either schools' or teachers' control, and not due to the fact that schools do not want to provide appropriate technology for teachers to use or not due to teachers' unwillingness in learning the provided technology for an effective teaching online. Therefore, the teachers' professional identity changed to lower level of expectation by students resulting from using inappropriate technology to teach online. How to increase schools' financial and administrative supports in complying with teachers' needs? How to adjust teachers' needs to fit schools technology usage policy for emergency remote teaching? How to balance out these two dilemmas in a quick way? These problems that happened in schools and to teachers are not easy to fix. It still needs to be resolved.

Next problem area that needed to be resolved is also related to technology, that is, lack of appropriate technology to be used by students at home to join at the required emergency remote learning. Due to this unresolved problem, students' CFL learning outcomes from advantaged and disadvantaged families may differ dramatically. Why? Digital divide exists for decades in education. It becomes more visible than before in all the countries around the world during the Covid-19 pandemic (Muñoz-Najar et al., 2021; Rofiah et al., 2022). For those disadvantaged students who have none or lack of appropriate technology, digital equipment, or Internet connection to attend emergency remote learning, they will be deeply affected in their online learning compared to their counterparts who are from advantaged family. The unexpected and inequal students learning outcomes could result from pre-existing socioeconomic inequalities, from parents who have income losses due to the pandemic and thus have not been able to support their children's home schooling and remote learning during Covid-19 in equal measure (Muñoz-Najar et al., 2021). These problems could not be quickly fixed and resolved overnight. Therefore, these problems are still outstanding.

Finally, the problem area that needed to be resolved is related to the difficulty on teaching Chinese online. Examples includes (1) it's difficult in teaching Chinese pronunciation online, (2) it's difficult in teaching Chinese conversation online, (3) it's difficult in teaching group work on traditional Chinese paper-cutting online, (4) it's difficult to have field trips in authentic L2 contexts because they were cancelled due to self-quarantine at home, (5) as for classroom management, it was inconvenient for participants to monitor a class through a video camera and give immediate feedback on students' class participation online, (6) it's difficult in teaching Chinese characters online, and (7) it's difficult in assessing students' performance online. For CFL teachers, it is challenging to teach individual students to pronounce difficult, unfamiliar sounds

while being closely watched and listen to the instructors in conventional face-to-face instruction. It is even harder in remote distance teaching. In addition, to teach individual students to use an unfamiliar Chinese language in real time for conversation is challenging during the face-to-face instruction. That's also very hard in remote distance teaching. Moreover, Chen (2022) indicated that "group work on traditional Chinese papercutting was hard to conduct online", and "field trips in authentic L2 contexts were cancelled due to self-quarantine at home", and "as for classroom management, it was inconvenient for participants to monitor a class through a video camera and give immediate feedback on students' class participation" (p. 7). For CFL teachers, teaching Chinese characters online is also challenging. In order to help teachers to teach Chinese characters online, Q. Zhang (2020) urged that there were two issues that need to be resolved: (a) developing the basic skills and competence needed to fully explore the potential of an online teaching platform for specifically teaching Chinese characters, and (b) exploiting the potential of software to get familiar with and to design and then adjust CFL teachers' pedagogy for teaching Chinese script online and to enhance online Chinese character acquisition. To achieve these two prerequisites, it requires ton of time and efforts that teachers do not have in reality beyond their already busy daily schedule. Finally, for CFL teachers' teaching online, to receive students' authentic performance assessment is challenging because sometimes teachers could not identify who are actually answering the non-real-time tests, who are actually writing the take-home essays, or doing the homework. It is also hard for teachers to recognize if students complied with copyright issues either online or offline. Although, as Gacs et al. (2022) are concerned that, due to the time constraints of rapidly transitioned online teaching, there are some key areas where compromises will likely have to be made such as test security, performance assessment, copyright issues, and so on (p. 383). These seven difficulties related to teaching Chinese online require CFL teachers additional time and effort to have appropriate training and practice, as well as their commitment and self-efficacy to achieve. Combining these factors together, it's indeed not a small task to accomplish in a short period without sufficient support from schools, students, parents, among others. In reality, it's hard to plan and design an effective CFL online teaching specifically for a crisis prompted online CFL teaching due to "limited capacity for training, minimal, if any, access to appropriate technological resources for instructors and teaching assistants, no access to campus facilities" (Gacs et al., 2020, p. 381). Therefore, these problems still need to be resolved.

None of these problems that need to be resolved, as addressed above, are impossible, but all of them require training and practice to do well for CFL teachers as well as require solid supports from all the actors involved including students, parents, school administrators, school leaders, school media/technology specialists, school/community liaison, school/community policy-makers, and school/community translators during emergency remote teaching (not to mention things like adequate bandwidth and connectivity). To make this happen and successful for the emergency remote teaching, it requires, in reality, a teamwork which indeed is not easy to accomplish in a short period.

DISCUSSION

In the future, if the similar Covid-19 pandemic happens again (hope not), or other uncontrolled disasters threaten human beings locally or internationally, emergency remote teaching may be one of the best choices in order to keep teaching and learning running for many institutions worldwide. Emergency remote teaching could play a critical role in the new normal in education. As Gacs et al. stated in 2020 "…in times of pandemic, war, crisis, natural disaster, or extreme weather, online education may be the only option to continue education, especially when taking into account lessons learned from early 2020" (p. 382). Hodges et al. (2020) also stated "Hopefully the COVID-19 threat will soon be a memory. When it is, we should not simply return to our teaching and learning practices prior to the virus, forgetting about ERT (Emergency Remote Teaching). There likely will be future public health and safety concerns, and in recent years, campuses have been closed due to natural disasters such as wildfires, hurricanes, and the polar vortex.20. Thus, the possible need for ERT must become part of a faculty member's skill set, as well as professional development programming for any personnel involved in the instructional mission of colleges and universities" (pp. 9-10). Huertas-Abril et al. (2021) pointed out that, when training foreign language teachers to develop skills and competences to face the continuous changes in our globalized society, we should also include emergencies and crises competences that may disrupt the normal functioning of a community or a society such as involving the development of a series of skills and competences (i.e., teacher digital competence, intercultural awareness, (tele)collaboration, social responsibility, creativity, flexibility) and be ready for emergency remote teaching (p. 14), and more specifically for Emergency Remote Language Teaching (p. 2), or Emergency Remote Chinese Teaching (ERCT) in the future.

During this roughly 2 ½ years of pandemic, it has interrupted a lot of businesses (including education in general) in our society and in our human beings' history, and we have learned a lot form this pandemic. While nobody is reluctant to claim that a new pandemic would occur soon in the near future, however, the lessons we have learned from this Covid-19 pandemic could be a good resource for preventing or preparation for the future pandemic if it's unexpected to be happen again in our life.

However, a crisis could bring some creativity and growing opportunity. For example, a variety of new advanced Covid-19 vaccines have been recently created and developed. As of Fall 2022, the four new major Covid-19 vaccines that were approved and authorized by the United States are Pfizer-BioNTech, Moderna, Novavax, and Janssen Covid-19 vaccines. It's a blessing since these advanced vaccines have reduced the spread, saved a lot of human beings. And it's most likely that the pandemic has being calmed down in Fall 2022 as the U.S. President Joe Biden said "We still have a problem with Covid. We're still doing a lot of work on it. But the pandemic is over" as described previously, above. However, we still need to have and maintain robust health systems to facilitate detection of pandemic outbreaks and support distribution of vaccines and other medical activities. Robust structures are needed for coordination across sectors for prevention and preparedness for future pandemic crisis. In addition, there is a need for

decent-functioning supply-chains as well as sufficient stockpiles of essential commodities and equipment if unexpected future pandemic happens again.

Regarding a new normal for teaching CFL in the future, C. Zhang (2020) stated that "The Covid-19 pandemic has changed the way language is taught and learned as well as our beliefs and perceptions toward language teaching. These changes to the basis of language teaching call for new definitions in the field of language education" (p. 48). One example is that our beliefs and perceptions toward online collaboration writing proficiency could be changed. Regarding to the effectiveness between online collaborative writing and individual writing, Chen (2022) cited that "the accuracy of online collaborative writing was not significantly better than that of individual writing, but they were more superior in terms of content selection and organization. What learners felt gaining from online collaboration was the exchange of thoughts instead of their L2 writing proficiency" (p. 17). The other example is that in addition to the fundamental teaching components (e.g., contents, curriculum, skills, technology, competences, and pedagogy) in the conventional online Chinese teaching, the new materials good for coping with emergency or crisis circumstances should be added into these conventional components and make them ready for emergency remote teaching anytime, anywhere, for any CFL teachers in the whole world. By doing so, one of the tasks we need to do is that we may need to produce or translate all or most of the Chinese materials to be able to be accessed in students' language they use daily to reflect a report by Muñoz-Najar et al. (2021) that "remote learning materials produced during COVID-19 are often in the most commonly-spoken national or international languages, leaving out around 40 percent of students worldwide who are unable to access education in the language they speak or understand" (p. 35). Therefore, in the CFL field remote online teaching, the new definition or interpretation could be changed into Emergency Remote Chinese Teaching (ERCT). Consequently, in the future, while we need to conduct more research than now on the impact and effectiveness of emergency remote teaching for unexpected future pandemic, we could be more focus on the Emergency Remote Chinese Teaching in the CFL field.

Meanwhile, some opportunities await. As Chan (2021) explained "in the eye of traditional Chinese philosophy, the word 'crisis' consists of two Chinese characters (危 and 机 [simplified Chinese or 機 traditional Chinese]), which literally means 'danger' (危) and 'opportunities' (机 [or 機]). As such, the COVID-19 pandemic may not be all negative as there is optimism within crisis" (p. 7). More CFL teachers learn more technological skills, knowledge, and competences and experience more while trying to solve urgent problems popping up during the Emergency Remote Chinese Teaching (ERCT).

CONCLUSIONS

Muñoz-Najar et al. (2021) reported that "for remote learning to be effective it requires three complementary, critical components: effective teachers, suitable technology, and engaged learners" (p. 4). In reality, these three effective components for an effective and

efficient emergency remote teaching could not happen overnight all together. It requires a lot of time and efforts as well as tons of trainings, practice, and education to reach this stage. In this article, how to have effective CFL teachers for effective emergency remote teaching was focused.

The common difficulties CFL teachers faced during the Covid-19 pandemic were varied, as described above. Nevertheless, the most common problems include suddenness of the transition from classroom-based face-to-face instruction to online emergency remote teaching, Internet access and bandwidth problems, computer problem for their students' access, CFL teachers' ability to cope with technical difficulties – both controllable and uncontrollable factors, lack of professional development and training for CFL teachers, school policies and the ways in which schools support CFL teachers, and assessment problems (it's harder at a distance for both formative and summative assessments).

Most of the problems experienced by CFL teachers were universal to other teachers across disciplines and levels including foreign language teachers. Teachers everywhere learn that other teachers had similar problems. The thought of "I'm not alone" could at least provide some sort of psychological comfort for teachers worldwide. Furthermore, the thought of "self-efficacy (e.g., 'I can do it')" could provide other kind of psychological confidence for teachers to move forward in having efficient emergency remote teaching during pandemic. Based on delivering Chinese lessons from China online to students in Greece, Bao, Zhang, & Dixon (2021) provided an obvious finding that self-efficacy on the part of a teacher helps classes go better, rather than studying the online teaching experience itself.

However, how do we avoid having these problems and negative experiences happen again in the event of another pandemic, or other circumstances that preclude having school meet in person? An important point here is that there is no cheap, easy, quick "silver bullet" solution. The only way to prepare thoroughly for a fire is to train and practice fire drills regularly. The only way to prepare thoroughly for a pandemic-type educational dilemma is to provide a great deal of training and practice for teachers before the situation occurs, so that their time and energy at the time of the crisis can be focused on supporting and educating their students rather than finding and learning to use unfamiliar new software and teaching techniques. In effect, "dress rehearsals" are needed. This is not quick, inexpensive, or easy, and many teachers are unlikely to welcome it. (Of course, I don't know many teachers who welcome fire drills, either.)

We're all human beings who need social interaction and emotional comfort. To have and maintain a positive school learning environment, social and emotional health for all people involved is critical and vital. It's the people (not the school programs) that makes differences for building a positive learning environment and students success. Stakeholders in the learning community were recommended to pay attention to and involve ahead in equipping teachers and students by building a positive learning environment that is socially and emotionally healthy. Consequently, we could prepare well ahead if a pandemic-like crisis happens again in the future.

In a time of crisis, the stress component will inevitably still be present for both teachers and students. But the interaction and technology components have the potential to be addressed ahead of time, so that maximum interaction can be maintained even during a crisis, and appropriate technological tools can be used in ways that represent a continuation of familiar learning activities rather than a daunting new challenge.

The potential silver lining is that in learning to use some of these unfamiliar tools and teaching techniques, teachers in general (and Chinese-as-a-Foreign-Language teachers in particular) may well find that they have access to new methods that they can use to good effect in face-to-face and hybrid settings to help their learners learn both more effectively and more efficiently.

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