

## Διεθνές Συνέδριο για την Ανοικτή & εξ Αποστάσεως Εκπαίδευση

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Η παιδαγωγική χρήση του κινητού τηλεφώνου  
στη γλωσσική διδασκαλία: πρακτικές δασκάλων  
στη γλωσσική εκπαίδευση προσφύγων

*Δέσποινα Αρμπάτση, Αικατερίνη Ιωάννης Μακρή*

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**The pedagogical use of the mobile phone in language education: practices of  
teachers in refugee education**

**Δέσποινα Αρμπάτση**  
Φοιτήτρια  
Ελληνικό Ανοικτό Πανεπιστήμιο  
[std505414@ac.eap.gr](mailto:std505414@ac.eap.gr)

**Αικατερίνη Μακρή**  
Ερευνήτρια Μεταδιδάκτορας  
Ελληνικό Ανοικτό Πανεπιστήμιο  
[makri.aikaterini@ac.eap.gr](mailto:makri.aikaterini@ac.eap.gr)  
<https://orcid.org/0000-0001-5869-638>

**Abstract**

The centrality of mobile phone in refugees' daily lives, coupled with the pedagogical potential of this device in second language teaching and refugee education, constitute a promising educational recommendation which, though lacks significant research background. The purpose of this study is to explore the practices and perceptions of teachers on the mobile phone usefulness and integration as a language teaching tool within refugee and migrant learning environments in Greece, further emphasizing the implications for teachers' professional development. Based on a review of literature on Mobile Assisted Language Learning, teacher education and refugee studies, a qualitative phenomenological research was designed employing semi-structured interviews which were conducted online due to the Covid-19 pandemic limitations. Through purposeful sampling techniques eight participant teachers were selected to provide textual data, which were later analyzed based on their content. The results of this research indicate the mobile phone inclusion as a valuable solution responding to the learning context needs, such as language-impeded communication, learners' specified educational needs and contextual shortages or social circumstances. Under this perspective, mobile phone is pedagogically implemented as a complementary tool in face-to-face teaching, as a medium of instruction in online learning (synchronous/asynchronous), and as a medium of communication and online support. Lastly, concerning teachers' professional development, the findings demonstrate that mobile phone works as a knowledge resource for educators' training and information, as well as a teaching tool facilitating and upgrading instruction. On this basis, it is recommended that language teachers leverage this mobile device as an available resource towards professional growth and transformative, innovative pedagogy in refugee LT, driven by the refugee-centered teaching objectives and pedagogical approaches. Nonetheless, the limited sample size does not enable generalizable results, so further research is suggested to strengthen relevant endeavors and extend the current findings through long-term inquiries.

**Keywords:** *MALL, refugees, teaching practices, professional development*

**Περίληψη**

Η κεντρικότητα του κινητού τηλεφώνου στην καθημερινή ζωή των προσφύγων, μαζί με την παιδαγωγική δυναμική της συσκευής στη διδασκαλία της δεύτερης ξένης

γλώσσας και στην προσφυγική εκπαίδευση, αποτελούν μια εκπαιδευτική πρόταση που, παρ' όλα αυτά υπολείπεται σημαντικού ερευνητικού υποβάθρου. Σκοπός αυτής της μελέτης είναι η διερεύνηση των πρακτικών και των αντιλήψεων των δασκάλων για τη χρησιμότητα του κινητού τηλεφώνου και την ενσωμάτωσή του ως εργαλείο γλωσσικής διδασκαλίας μέσα σε προσφυγικά και μεταναστευτικά περιβάλλοντα μάθησης στην Ελλάδα, δίνοντας περαιτέρω έμφαση στην επαγγελματική ανάπτυξη των δασκάλων. Με βάση την ανασκόπηση της βιβλιογραφίας στη γλωσσική εκμάθηση μέσω κινητών συσκευών, στην εκπαίδευση δασκάλων και στις προσφυγικές σπουδές, σχεδιάστηκε μια ποιοτική φαινομενολογική έρευνα χρησιμοποιώντας ημι-δομημένες συνεντεύξεις, οι οποίες διεξήχθησαν διαδικτυακά λόγω των περιορισμών από την πανδημία της Covid-19. Με την τεχνική της σκόπιμης δειγματοληψίας επιλέχθηκαν οχτώ συμμετέχοντες δάσκαλοι για να παρέχουν κειμενικά δεδομένα, τα οποία αργότερα αναλύθηκαν με βάση το περιεχόμενό τους. Τα αποτελέσματα αυτής της έρευνας υποδεικνύουν την ενσωμάτωση του κινητού τηλεφώνου ως μια πολύτιμη λύση σε ανάγκες του μαθησιακού πλαισίου, όπως γλωσσικά εμπόδια στην επικοινωνία, συγκεκριμένες εκπαιδευτικές ανάγκες των μαθητών, παιδιαγωγικές ελλείψεις και κοινωνικές συνθήκες. Υπό αυτό το πρίσμα, το κινητό τηλέφωνο εφαρμόζεται παιδαγωγικά σαν συμπληρωματικό εργαλείο στη διαζώσης διδασκαλία, σαν μέσο διδασκαλίας (σύγχρονη/ασύγχρονη) στην διαδικτυακή μάθηση και σαν μέσο επικοινωνίας και διαδικτυακής υποστήριξης. Τέλος, αναφορικά με την επαγγελματική ανάπτυξη των δασκάλων, τα ευρήματα δείχνουν ότι το κινητό τηλέφωνο λειτουργεί σαν πηγή γνώσης για επιμόρφωση και ενημέρωση των εκπαιδευτικών, αλλά και σαν διδακτικό εργαλείο διευκολύνοντας και αναβαθμίζοντας τη διδασκαλία. Σ' αυτή τη βάση, προτείνεται οι δάσκαλοι γλώσσας να αξιοποιήσουν αυτήν την κινητή συσκευή σαν ένα διαθέσιμο πόρο προς την επαγγελματική ανέλιξη και τη μετασχηματιστική καινοτομία παιδαγωγική στη γλωσσική διδασκαλία προσφύγων, καθοδηγούμενοι από τους διδακτικούς στόχους και τις παιδαγωγικές προσεγγίσεις εστιασμένες στους πρόσφυγες. Εντούτοις, το περιορισμένο μέγεθος δείγματος δεν επιτρέπει γενικεύσιμα αποτελέσματα, επομένως συνίσταται περαιτέρω έρευνα για να ενισχύσει παρεμφερή εγχειρήματα και να διευρύνει τα τρέχοντα ευρήματα μέσα από μακροχρόνια έρευνα.

**Λέξεις-κλειδιά:** *Γλωσσική διδασκαλία προσφύγων, κινητό τηλέφωνο, πρακτικές, επαγγελματική ανάπτυξη*

## **Introduction**

Within the global context, mobility characterizes not only people and ideas, but also technology advancement. Mobile technologies are rapidly and constantly evolving, penetrating people's lives and effectively changing all aspects of the modern societies. A respectful transformation, due to mobile technology integration, has been noticed in the field of education, and specifically language education, giving rise to new discussions and approaches in both learning and teaching (Nazari & Xodabande, 2020). Simultaneously, the current spread of Covid-19 pandemic featured the blistering emergence of online learning and the forthcoming need for mobile learning that is applicable in distanced learning. Mobile learning initially emerged as a descendant of distance learning and e-learning, in order to be later specialized into the Mobile Assisted Language Learning (MALL) for the language domain. Grounded on the devices' multiple affordances, MALL entails several pedagogical benefits alongside the limitations and challenges that derive from the device's physical aspects

(e.g., small screen size, lack of actual handwriting experience, restricted energy, connectivity issues) (Burston, 2014).

Within the available mobile devices, mobile phones -and significantly smartphones- are the most widely used gadget, regarded as a necessary everyday partner or pocket-size PC, given that they include the practicalities of all mobile devices effectively replacing them (Duman et al., 2015). Accordingly, MALL has become synonymous to mobile phone implementation, due to mobile's tremendous impact on language education (Burston, 2014; Godwin-Jones, 2017). The major target group to bring inclusive changes in Second Language Teaching (SLT) are teachers frequently reported as "*digital immigrants*" or "*Generation X*" across literature describing the people who were not born into the digital revolution period, hence are in need of training to adjust to the learning and language pace of "*digital natives*", "*net generation*" or "*generation Y*" that fall within the information age and are highly competent in handling digital technologies (Boonmoh et al., 2021). Under the effects of MALL transformation, teacher education is rebuilt and reconstructed defining new standard skills for professionals in order to develop technology integration knowledge, accompanied by the relevant pedagogical and content knowledge, so as to better conceptualize the significance and potentials of MALL not only for their students but also for their teaching practice and, eventually their professional development (Seifert, 2015).

In view of the current refugee crisis in the Greek context, the need for migrants' and refugees' social inclusion imposes the provision of language and cultural education, as a necessary support mechanism. Mobile phone constitutes a survival tool of common use among refugee and migrant populations, for purposes of communication, information and individualized learning providing access to education, which would be otherwise not available (Kukulka-Hulme, 2019). In light of this, the educational option of MALL is considered to be valuable for these mobile populations generating an international dialogue towards MALL integration in refugee language education with new approaches and directions. However, there is lack of research background on the pedagogical implementation of the mobile phone as a language teaching tool enabling educators' professional development, specified to the Greek context (Hockly, 2013; Chasikou & Ypsilandis, 2020).

This study aims to enlighten this under-researched issue by bringing new insights into research literature, educational policy and practice enhancing the quality of language education among the underprivileged refugee groups. The purpose of this qualitative phenomenological inquiry is to explore refugee teachers' practices in terms of mobile phone pedagogical integration as a language teaching tool within refugee language learning contexts. Data from semi-structured interviews are collected from both formal and non-formal contexts in Greece to reveal phenomenological meanings on the pedagogical usefulness of this device within these settings, as well as its complementary implications for teachers' professional development.

## **Literature Review**

### **Mobile Assisted Language Learning (MALL) and Teacher Education**

The application of mobile technologies in language education has led to the emergence of MALL as an innovative LL approach that is rapidly capturing research attention. Palalas suggests a reconciled definition of MALL combining both aspects of mobility, where language learning (LL) is "*enabled by the mobility of the learner and portability of handheld devices*" (p. 76-77, 2011 in Burston, 2014). In line with the advances in mobile learning, increased research interest has been noticed in the

emerging field of teacher education as an issue of wider attention, yet quite debatable within MALL research (Hall & Connolly, 2019). The stimulus for this growing interest resides in the transformation of the existing classroom configuration due to technology integration into education, thus, designating the decisive and pivotal role of teachers in effectively designing mobile instruction, as a number of studies point out (Hockly, 2013; Kukulska-Hulme et al., 2015). In light of this, it is significant to outline educators' perceptions, stances and uses of MALL in classes according to recent literature (Nazari & Xodabande, 2020). Research shows limited and conflicting results among teachers (pre-service, in-service) who are either adopting a positive attitude and interest towards mobile learning and its usefulness for classroom use, or prohibiting and reluctantly tolerating the devices' use within the educational context (Van Praag & Sanchez, 2015). In the first case, teachers argue for the positive adoption of mobile devices drawing on the possibilities provided for real-world linkages and authentic learning, facilitating teacher-student communication. In the case of banning phones' use in the classroom, mobiles were considered as an intruder or "offender" threatening teachers' traditional authority but, in the opinion of Godwin-Jones (2017), this phones' preclusion from school essentially constitutes cutting schools off real life. Lastly, the act of tolerance is justified on the devices' demonstrated pedagogical merits and centrality in daily lives. With regard to teachers' practices and approaches in the context of mobile LT, task-based activities have been widely employed for content access facilitating surface knowledge and rule-connected learning. This narrowed MLL implementation -in terms of pedagogical transformation- may reflect teachers' tendency to support pedagogical approaches that they themselves have experienced or the lack of specified knowledge, difficulty in devices' deployment and restricted access (Baran, 2014). Educators' practices and attitudes towards technology integration are highly affected by their conceptions and interpretations and originated beliefs in terms of perceived pedagogical usefulness of technology. Interwoven with teachers' perceptions and belief system is their self-efficacy, defined as a subjective evaluation of their skills' potential that also decisively influences the classroom integration of mobile devices (Hall & Connolly, 2019). Sufficient technological experience together with background knowledge and qualification are extensively reported by educational research as key factors affecting teachers' willingness and preparedness towards mobile instruction (Boonmoh et al., 2021).

Given these points, educators are inadequately informed and equipped calling for support and lifelong training to successfully design MALL teaching, familiarizing with the notion of Continuing Professional Development (CPD) (Hockly, 2013). For this reason, some frameworks have emerged outlining either the extent of teachers' acceptance of technology (*Technology Acceptance Model*) and the level of technology-embedded instruction depending on the teaching objectives (Puentedura's model of *Substitution-Augmentation-Modification-Redefinition*) or describing teachers' specified knowledge and qualifications (*Technological Pedagogical Content Knowledge -TPACK-* model) (Nazari & Xodabande, 2020). Lastly, the *Mobile Pedagogy* framework for MALL has arisen in the field of English Language Teaching (ELT) enhancing teachers' thinking about how to design innovative MALL task/course and mobile approaches including four core spheres that interconnect and interact in each activity design: teacher wisdom, device characteristics, learner mobilities and language dynamics (Kukulska-Hulme et al., 2015).

### **MALL within refugee and migrant education**

Refugees and migrants constitute a rather heterogeneous group of disadvantaged learners facing several impediments in their access and progress in education (Dryden-Peterson et al., 2017). Particularly, learners' poor living conditions, legal status and constantly changing residence location negatively affect dropout rates, school performance and learning progress. Due to exile and continuous movement, there is a whole "lost generation" including refugee children that have dispersed or non-educational background (Miao et al., 2018; Tsagdi et al., 2020). Under these circumstances, the absence of language and literacy skills is a common phenomenon among refugee/migrant learners limiting access to formal education, social interaction and services in the host country. At the same time, refugee students have different levels and types of education alongside multilingual repertoires, which challenge their labor market involvement, while they have to deal with mental confusion in the new contexts. Equally important are the learners' emotional needs embedding safety fears and traumatic experiences that lead to loss of their family-social network and sense of belonging, compounding their already severe mental health and psychological situation. Lastly, isolation, racism, marginalization and stress account as refugees' additional issues owing to language and cultural barriers, unawareness of law and urban lifestyle, resulting in degradation of their well-being.

In order to enable inclusion and foster the quality of education responding to refugees' and migrants' needs, sustainable integration of mobile technology into learning environments has been proposed by the European Commission in 2016 (Drolia et al., 2020). Technology-supported refugee education entails leveraging innovative models and technology's affordances, alongside available resources in refugee settings, as a complementary aspect of educational solutions (Dryden-Peterson, Dahya, & Douhaibi, 2017). Mobile technology can further advocate for the mobility of learning, which constitutes a substantial concern for refugees and migrants (Kukulska-Hulme, 2019). The pedagogical use of mobile devices constitutes a new research area yet highly controversial within the specific field of refugee studies in terms of its impact. That is to say, disputants argue for the insignificant efficiency or inadequate evidence of MALL in refugee education compared to traditional LT, while on the other hand, advocates of MALL draw on mobile devices' several functionalities and learning potential to designate mobile phones' educational value for strategic deployment in emergency times and situations, as the refugee crisis. However, Drolia (2020) points out that mobile tools are not "*panacea*" since they can produce the reverse results, if not contextually designed, organized and suitably supported aiming to tackle real-life linguistic needs.

The criticality of teacher's role becomes even more evident within the marginalized and underserved groups of refugee and migrant learners, holding the promise to endorse social justice. Particularly, refugee teachers are attentive to learners' physical, psychosocial and cognitive needs contributing to community normalcy, while instilling openness and hope by providing quality education. Drawing on the availability of mobile phones as an existing resource in the migrant educational environments, mobile teacher training becomes an essential prerequisite yet the research landscape is vague on refugee teachers' training due to shortage of reported evidence (Miao et al., 2018; Kukulska-Hulme, 2019). Various action research projects and MLL initiatives have been carried out to improve educational practice and enhance teachers' development through mobile-based learning opportunities including both onsite in-person communication and mobile mentoring/coaching through online communities. This blended teachers' support and professional

development advances their pedagogical competencies and approaches through ideas' exchange and reflection, while provides educational resources to geographically isolated colleagues and inspires innovative venues of teaching and learning that were otherwise unavailable (Miao et al., 2018).

## **Research Methodology**

### **Research context and participants**

The research sample consists of 8 teachers who have -either voluntarily or not-offered or currently offering language lessons to refugees and migrants of various age groups (children, adolescents, adults) in both formal and non-formal learning environments. Within the formal school settings, some reception classes -named *DYEP* (infrastructures for refugee children's reception and education) and *ZEP* (Zone of Educational Priority)- cater for refugee and migrant children's linguistic needs. Non-formal LL is carried out within refugee camps, NGOs and other refugee collectivities (Table 1). The majority of the participants are female, while only one is male. They all acquire a bachelor's degree relevant to pedagogical and linguistic studies, since half of them have graduated the Department of Primary Education while the rest the Department of Greek Philology. They all have an intercultural training (seminar) or specialization (master's degree). Participants' ages vary significantly ranging from 24 to 47 years old, as well as their relevant teaching experience in refugee/migrant contexts extending between 2 months and 8 years. The target language of the refugee lessons is mainly Greek and, secondly, English. Among the learners' age groups, adolescents are the vast majority followed by adults and, then, children. With regard to the refugee teaching practice, 4 of them have a little voluntary experience in the same non-formal LL environment in Greece (a refugee collectivity in Patras), while one of them has a long-standing presence working on the field both in Greece (Athens) and abroad (Argentina). The rest of the teachers have a diversified teaching background in terms of voluntary work, years of experience and learning contexts around Greece.

### **Research questions and design**

In this qualitative study, information is derived from educators' subjective beliefs and meanings to explore and explain in depth the under-investigated social and human issue of pedagogical mobile phone utilization, focusing on the manifold perspectives that participants bring to research. The intentional detection of teachers who have worked with refugee/migrant populations and, simultaneously, integrated mobile phones in their language teaching indicated the adoption of a purposeful sampling strategy to provide for richer and more focused findings. Semi-structured interviews were employed based on a predetermined but modifiable interview guide, which consisted of the core themes and the open-ended sub-questions designed by the researcher according to the research questions. Along with flexibility and adjustability, detailed results and convenience were reached through the implementation of one-on-one interviews by probing and recording one individual at a time. The circumstantial Covid-19 pandemic dictated the conduction of interviews online, owing to the lockdown measures imposed on all educational settings and the consequent restricted access to teachers' natural environments.

The following research questions informed this study:

- How do refugee teachers perceive the pedagogical usefulness of mobile phones?

- How do refugee teachers integrate the pedagogical use of mobile phones in their language teaching?
- How can mobile phones' pedagogical use affect refugee teachers' professional development?

### **Data collection and analysis**

Prior to the interview process an online consent form was created through the Google forms and sent to the participants informing them about the research purposes and procedure clarifying the duration, the study's practical significance and the data storage and sharing. Alongside the inquiry context, participants' rights were explained including withdrawal, anonymity and voluntary participation. Since the interviews were conducted online, sensitive information involved in online profiles or environments could be unintentionally disclosed (Salmons, 2012). For this reason, no camera was used throughout the procedure, while the recordings were directly and anonymously coded, concealing and protecting private information. After permission was granted, online interviews were arranged at the time and on the communicational platform most convenient to the participants, i.e., Viber, Facebook Messenger and Skype. During the process, the interviewer was taking notes, while at the end of it the interviewees were asked to take screenshots of the online learning communities (social media messages). This visual method is particularly helpful and facilitates researcher's difficulty to directly conduct observations, where participants take photos or videos of their activities representative of their contextual awareness (Nimehchisalem, 2018). Out of the eight participants, only four of them obtained available visual material from the online educationally-oriented communications with their learners, which was delivered to the interviewer through the selected platform. However, this visual material was not analyzed due to time limits, but was strategically collected enhancing data triangulation and research credibility.

The qualitative interview data were, firstly, transcribed through a transcription protocol and, later, codified by subdividing them to smaller chunks (*text segments*) and assigning meaning and labels to each of them (codes), based on their content (*content analysis*) (Creswell, 2012). A set of summarized and comprehensive themes were identified and categorized based on the research questions, in order to get a deeper understanding of the data collected and, thus, produce a descriptive analysis of the themes arisen.

### **Findings**

#### **Pedagogical usefulness of the mobile phone**

With regards to the first research question, the pedagogical functionality of the mobile device arose as a need from the refugee context, commonly reported by all teachers and characterized as *"a very useful traveling companion in this"* (Kostas).

Among all the problems mentioned, communication was the most fundamental and representative indicating the lack of a shared language or a translator to facilitate understanding, alongside the linguistically super-diverse groups of refugee/migrant learners. These circumstances dictated the need for direct *translation* which can be mobile-enabled, and through which meaning and understanding can be achieved, in order for the students *"to participate more in the lesson"* as Georgia points out as critical.

*"I personally think it's a saving medium since many times we couldn't communicate; they had difficulty in understanding oral speech and sometimes we didn't have the intermediate medium of communication which would be English [...] It was either me*

*or them who couldn't understand, so there was a language barrier and it needed to be solved" (Panayiota)*

However, even when there was a translator or a language-bridge (e.g., English, French) identified between the students and the teacher, linguistic confusion was still existent tackled immediately through the mobile-allowed images.

*"when the translator translates the language lesson itself, it brings confusion [...] when I was entering alone in classes, where there was no shared language, I had to use the mobile phone" (Christine)*

*"sometimes I may not be able to explain it precisely even in English, so I show it directly, for example an internal part of the body" (Dafne)*

Furthermore, the mobile phone was pedagogically utilized as a response to students' specified educational needs based on their learning styles, profiles and interests. In particular, teachers argued for the advancement of learners' language needs reinforcing understanding, memory retention and oral/written expression due to the mobile phone's embedded multimodality.

*"we have an alternation, not just the traditional lesson with the whiteboard [...] it can be multimodal [...] more pleasant; is stamped on student's memory and I think it's the best way [...] for technology to be integrated in second language education in general, not just Greek (language education)" (Dafne)*

*"it can create the need to tell or write something more by seeing an image or a photograph; I believe in this kind of interaction where, instead of theoretically describing something, you can show it" (Maria)*

Grounded on refugees' psychologically oriented needs relevant to social integration anxiety and cultural discrimination, most teachers encouraged the employment of mobile phone for communication and support through social networks providing information and feedback, along with guidance and advice on issues of refugees' concern, such as performance at school, new job entry, filling in documents etc.

As Maria explains, *"most of them are completely alone here, I want them to feel that, if they need something on an issue of their concern and they can't communicate at that moment, there is someone that will see their message and will answer"*.

*"these kids bring many stories, traumas and experiences, so first we had to support them and have a good psychological condition and, then, move to the educational part" (Irene)*

*"to get to know each other and keep in touch, which they also need" (Christine)*

Moreover, the mobile phone was used to compensate for contextual deficiencies in technological supplies and equipment (e.g., photocopier, PCs, Tablets), slow internet connection, as well as lack of refugee-specialized educational material in both formal (ZEP, DYEP classrooms) and non-formal LL environments (NGOs, collectivities). Especially throughout the Covid-19 pandemic, the social circumstances provoked inevitably influenced the teaching and learning circumstances imposing the reality of online/distanced learning where the mobile phone was leveraged as an available resource offering continuous access to students' education. Alongside the mobile's usefulness though, teachers pointed out the challenges of mobile online learning, raising the issue of educational exclusions involved in refugee MALL due to connectivity problems, small-screen difficulties and unaffordable internet data for synchronous lessons.

### **Ways of mobile phone integration**

The second research question referred to the ways the mobile phone is pedagogically integrated, considering the teaching objectives, strategies and approaches adopted.

Three types of integration arose, closely connected to the learning context: a) complementary pedagogical tool, b) medium of instruction and c) medium of communication and support.

The mobile phone was incorporated as a complementary pedagogical tool in face-to-face teaching including translation, projection of audiovisual (images, songs, videos, recorded information) and textual material from Internet resources, as well as further implementation of e-books, reference frameworks and Web 2.0 tools.

The second type of smartphone integration involved its use as a medium of conducting online synchronous instruction, through communication tools such as WhatsApp, Zoom, Viber and Webex. The case of mobile phone integration in asynchronous online teaching was implemented by only one of the teachers in a structured way embedding reading, writing and listening tasks, while enhancing learners' independent study and consequent teachers' feedback on a synchronous mode.

*"the WhatsApp teams consisted of both teachers and students, and we were sending multimodal material on a weekly basis [...] audiovisual material [...] images, sketches, activities, texts, voice material [...] a text in the form of an image and below one of the teachers reading it (the text,) in order for them to hear it as well [...] then the learners had to answer through a voice message, complete and write the homework activities"* (Christine)

The educator clarified that these asynchronous lessons lasted for approximately 5 months (during the two lockdown periods in Greece) and functioned in a planned and structured way to enhance learning continuity throughout quarantine at students' own pace and time.

The last type of mobile phone inclusion was as a medium of online communication either individual (teacher-learner) or collective (communities) through the social media platforms.

*"they actively participate [...] messages regarding the lessons or other issues they requested for help [...] for communicative issues [...] that our lessons can be applied in their life"* (Maria)

*"in the group of Messenger, we were doing a material circulation and communication [...] it was functioning as a point of reference"* (Christine)

*"I also use the mobile besides instruction, if I want to send him something or tell him something; for communication regarding the lesson or send him a word accompanied by the translation [...] in a friendly level I've asked about his new job [...] he frequently asks me about some phrases he heard from work or from the supermarket"* (Dafne)

Though this type, both knowledge sharing (learning communities) and psychosocial support on daily issues was provided, eventually reinforcing not only interaction but also second LL through students' motivation and target language use.

Overall, all teachers employed the mobile phone as a complementary LT tool in face-to-face instruction grounded on the enhancement of the learning process, whereas not all of them implemented online teaching and online communication/support based on the challenges and ethical issues embedded in each context.

Concerning the varied and overlapping teaching objectives, they were mainly linguistic, broad educational and psychosocial, corresponding to the students' above-mentioned needs. Particularly, the teacher-established language objectives involved students' effective real-life communication focusing on spoken understanding and production (listening and speaking) and, secondly, written understanding and production (reading and writing). The broad educational goals encompass technological skills for learners' autonomous MLL application, motivation and

interest in Greek LL, along with reinforcement of presence reducing drop-out rates, especially throughout (a) synchronous learning. Ultimately, psychosocial support through mobile-enabled online communication comprised a humanistic goal of some teachers to create a sense of safety, confidence and open dialogue.

In reference to the pedagogical strategies and approaches adopted, teachers underlined the significance of establishing clear boundaries and framework for the mobile phone's classroom use contextualized within certain time limits.

*"a discussion needs to be done previously, that now we're having a lesson and later we're going to see the images or video [...] to somehow delimit it in a context; we'll use this as a helpful tool; it depends on why you're using it but it definitely needs boundaries"* (Maria)

*"boundaries and rules should be determined from the beginning concerning the mobile phone [...] to be used only for educational purposes, not to take photos or videos or show irrelevant things"* (Irene)

Some educators supported the spontaneous and "natural" integration of mobile phone responding to the emerging contextual needs, while others advocated for a more structured lesson plan prior organized providing a clear orientation.

*"to integrate it naturally, which means that if there is need for communication, we can use it as a tool; if there is need for a material reproduction; I think they rather emerge at that moment than organized"* (Kostas)

*"it was pre-planned; there was a schedule, a compass to guide us and the kids through the language lesson"* (Katerina)

A few teachers reported employing collaborative learning, mostly in the physical classroom, and expressed a preference for more simplified tasks over the implementation of complex tools and applications, grounded on the refugees' perceived difficulty, especially the illiterate ones.

### **Use of the mobile phone for teachers' professional development**

With respect to the third research question, the smartphone's use provided educators with immediate and easy access to information relevant to the field of SLT and refugee education, in order to handle the ethical and cultural-sensitive issues connected with these vulnerable student populations. Specifically, varied mobile-supplied knowledge derived from international journals, websites and communities of practice via social media platforms offering online reflective interactions, relevant material and focused feedback on refugee teaching topics and difficulties. In addition, the mobile phone is used for searching and downloading educational material in the context of instruction preparation, as well as a supportive medium during instruction implementation giving alternative solutions to unexpected issues or arising problems (e.g., reproduction of the enriched educational material). However, educators favored the use of computers over mobile phones for the careful scheduling and preparation of their teaching. Additionally, mobile phones were linked to the issue of teachers' training, working as a notification channel rather than the medium of the training's realization.

### **Conclusions**

The current inquiry concludes that the pedagogical use of the mobile phone emerged as a need from the refugee/migrant context aiming to tackle issues of language-inhibited communication, students' specified educational needs and other contextual shortages or social circumstances. To this end, educators integrated the mobile device: a) to complement and enhance their face-to-face language teaching, b) to conduct

their online (synchronous/asynchronous) teaching and, c) to communicate and support their students through the online social networks. Therefore, three types of integration arose dictated by the teaching objectives and contextualized by relevant refugee-centered approaches. Lastly, concerning teachers' professional development, the findings demonstrate that the mobile phone worked as a knowledge resource for teachers' training and information, as well as a language teaching tool facilitating and upgrading instruction.

All educators highlighted the contribution of the mobile phone as a saving medium to overcome emerging language and communication difficulties. Research supports the use of mobile phones for purposes of intercultural communication in the host society, and especially for teacher-student interaction given the learners intervening contextual language barriers and the lack of an interpreter (Van Praag & Sanchez, 2015; Miao et al., 2018; Chasikou & Ypsilandis, 2020).

Moving to the general pedagogical needs, the findings imply that the mobile phone helped the students engage in the learning process cultivating their motivation and concentration which, eventually, prevented their school failure. Most teachers encouraged the employment of mobile phone for communication and support through social networks providing information and feedback, along with guidance and advice on issues of refugees' concern. In line with the research of Kukulska-Hulme & Shield (2007) the mobile phone's communicative function provides for social networking spaces that can also benefit language learning in the form of online LL communities.

Consistent with the Greek literature in refugee education, the findings indicate similar contextual deficiencies in upgraded technological supplies and equipment (e.g., photocopier, PCs, Tablets), internet connection, as well as refugee-specialized educational material in both formal and non-formal LL environments Chasikou & Ypsilandis, 2020).

The dominant way of mobile integration was as a complementary pedagogical tool in face-to-face teaching. This supplementary and enhancing use of mobile technology in pedagogy in general, and refugee education in particular, is in accord with the findings of Kukulska-Hulme (2019). Additionally, the mobile phone was largely employed as a medium of conducting online synchronous instruction. In this case, it was utilized mainly by students to enable their participation in online classes and, consequently, continuation of their LL lessons. This finding is in alignment with the principles and foundations of mobile learning as a descendant of distance learning and e-learning, leveraging online exercise materials and resources for learning outside the classroom (Thomas, 2006). The last pedagogical use of the mobile phone was as a medium of online communication either individual (teacher-learner) or collective (communities) through the social media platforms. These online social spaces have a twofold role providing for both knowledge sharing (learning communities) and psychosocial support on daily issues, eventually reinforcing not only interaction but also SLL through students' motivation and target language use. The social and learning aspect of online communication finally benefits students embedding real-life connections. A similar conclusion was reached by Kukulska-Hulme and Traxler (2005 in Thomas, 2006) who gave prominence to the discursive learning achieved through these online mobile communities.

As regards teachers' professional development, varied mobile-supplied knowledge derived from international journals, websites and accounts providing orientation and useful assistance for practice, which has been supported by previous observations (Dryden-Peterson, Dahya, & Douhaibi, 2017). Furthermore, mobile phone constituted the database for searching and downloading educational material in the context of

instruction preparation (Nedungadi et al., 2018). This finding correlates well with the conclusions of Dahya and her partners (2019) as well as with Deriquito and Domingo (2012) wherein additional teachers' preparation is synonymous to extensive learning outside the classroom, thus signifying teachers' development. Additionally, mobile phones were linked to the issue of teachers' training, working as a notification channel rather than the medium of the training's realization. This finding is contrary to previous studies and projects which have suggested that mobile technologies enhance mentoring, monitoring and training (Dykes & Renfrew, 2012; Teachers for Teachers, 2015).

Based on these conclusions, rich insights can be produced on the applications of mobile phone for educational purposes and professional development. In particular, language practitioners should embrace the transforming effects of this device not only as an educationally productive tool in refugee language instruction, but also as a support mechanism in teacher education offering lifelong training opportunities. In the first case, however, issues of smartphone's proper integration are raised urging teachers to carefully design creative MALL lessons taking into consideration the learners' groups, the possible device's challenges and the context-relevant approaches and strategies. Regarding the second case, educators' specialized training is recommended on m-learning affordances in language teaching, to reinforce their expertise and further inspire the application of mobile-assisted pedagogical initiatives.

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