The IPAD and the Development of Speaking and Writing in the Secondary EFL Classroom

Thesis

THE OPEN UNIVERSITY

Research School

The Centre for Research in Education and Educational Technology (CREET)

Doctorate in Education (EdD)

Valentina Morgana

THE IPAD AND THE DEVELOPMENT OF SPEAKING AND WRITING IN THE SECONDARY EFL CLASSROOM

October 2017

Abstract

Recent research (Kukulska-Hulme & Viberg, 2018) indicates that mobile technology can support second language learning and educational literacy. The iPad is a mobile device that is having a large distribution in schools and an important impact on second language formal and informal learning. However, studies focused on the use of the iPad to specifically enhance and support second language learning and teaching are still scarce. Against this backdrop, this study sought to investigate learners' and teachers' perceptions of mobile learning, the implementation of technology-mediated language tasks and the ~~potential~~ impact of the iPad in developing writing and speaking skills in an English as a foreign language classroom in a secondary school in Italy. The data was collected through classroom observations, interviews, recorded teacher meetings, students' written assignments, and lesson plans. The data collected has been analysed from a socio-cultural theory perspective. The analysis of written data was also informed by Hallidayan Systemic Functional Linguistics (SFL), and a Task-based language teaching (TBLT) framework was used to design writing and speaking tasks. Results show a positive influence on student motivation towards the performance of speaking tasks and improvements on technology-mediated second language writing tasks. In addition, the study found that the use of the iPad had a positive impact on the design of speaking and writing tasks for teachers. Moreover this action research study contributes to mobile assisted language learning by providing further understanding of how the iPad can enhance foreign language learning, especially teaching speaking and writing in the context of secondary education, and provides educators with recommendations on how to design specific language tasks.

Acknowledgements

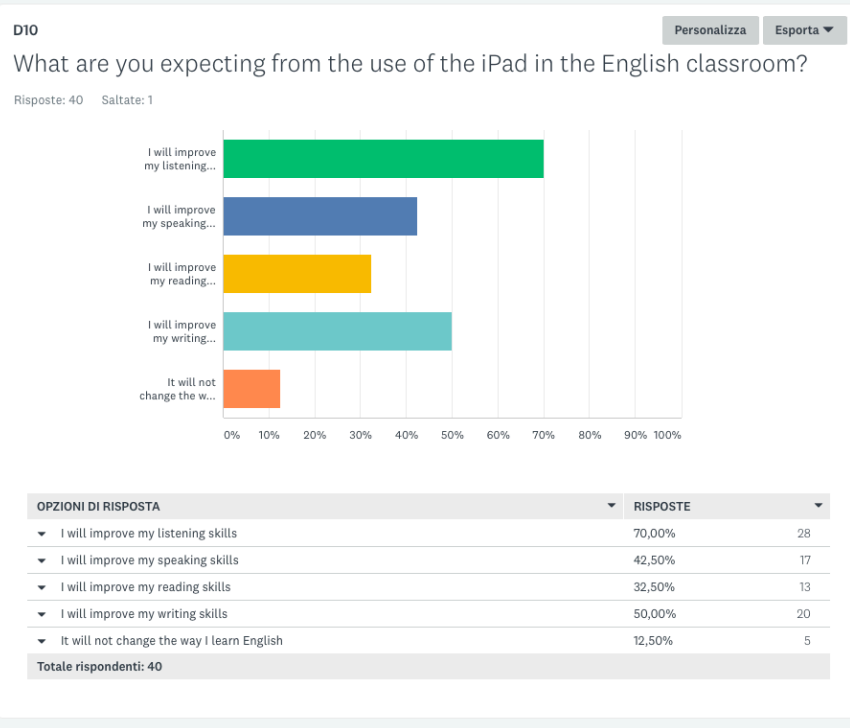
I would like to express my deep gratitude to Dr Prithvi Shrestha, my main supervisor and Dr Michael Courtney, my co-supervisor, for their patient guidance, enthusiastic encouragement and useful comments on this research work. They both have supported me from the very beginning of the project, and they were always there to support me when needed. Prithvi has played an important role in suggesting the use of a socio-cultural framework as underpinning theory of this work. His help was also crucial when he encouraged me to analyse written data using Systematic Functional Linguistics. It was challenging, but truly satisfying. Michael has given me invaluable support in the area of task-based learning and teaching, guiding me towards a better understanding of the TBLT dynamics.

I am very thankful to the Istituto Sacro Cuore in Milan for allowing me to access classes and courses for this research. In particular, I would like to thank all the students and families who agreed to participate in the project. A special thanks goes to the teachers, without their willingness to participate in the study and their hard work on professional development, the study would not have happened.

My EdD studies originated from a conversation with Professor Amanda Murphy of the University of Sacred Heart in Milan, Italy. I would like to express my deep gratitude to her for inspiring me to start this journey as a researcher. I would also like to extend my thanks to my sister, Stella, and my colleague and friend, Giovanna, who found time to read and comment on the thesis.

Finally, I wish to thank my family for their support and encouragement throughout my study. My heartfelt thanks to my husband, Angelo, our lovely kids, Giorgia and Niccolò, and my parents for the patience, encouragement and understanding in the last three and a half years.

Table of contents



OPZIONI DI RISPOSTA	RISPOSTE	
I will improve my listening skills	70,00%	28
I will improve my speaking skills	42,50%	17
I will improve my reading skills	32,50%	13
I will improve my writing skills	50,00%	20
It will not change the way I learn English	12,50%	5
Totale rispondenti: 40		

List of figures

List of tables

Chapter 4

Chapter 5

Chapter 6

Chapter 7

Chapter 8

List of key abbreviations

EFL – English as Foreign Language
ESL – English as Second Language
SFL – Systemic Functional Linguistics
CALL – Computer Assisted Language Learning
MALL – Mobile Assisted Language Learning
SCT – Socio Cultural Theory
TBLT - Task Based Language Teaching
FCE – First Certificate in English
SLA – Second Language Acquisition
IWB – Interactive White Board
ESP – English for Specific Purposes

Chapter 1: Introduction

This introductory chapter is intended to present the motivation and rationale for the current study. The research context of the study is explained briefly, and research questions are provided, followed by an outline of the thesis.

1.1 Motivation and rationale for the study

My initial motivation to conduct this study came from my own experience as an English as a Foreign Language (EFL) teacher. I had been teaching with tablets for three years, and I had been struggling with several issues. Increasingly teachers are invited to innovate their teaching using mobile devices without having a proper preparation for it, so they tend to just 'add' technological activities instead of 'integrate' them to their standard teaching. Above all, the lack of systematic professional development for teachers often appeared to lead to a very basic use of mobile devices for language learning. As a doctoral student, I have had the opportunity to look into these issues systematically and to deeply understand what the standard practices are in order to contribute to the research field of Mobile assisted language learning (MALL) and also to provide teachers and professionals with effective practices.

The present study is concerned with the use of mobile devices to assist foreign language learning. In particular, this study investigates if and how the iPad may have an impact on learners' development of English speaking and writing skills in a secondary school environment in Italy. Productive skills are particularly challenging to students since these skills require them to internalise their learning and manipulate it. The study also examines iPad-based second language activities designed and taught by teachers.

The main question that guided the this study is whether mobile technologies, and the iPad in particular, allow educators and students to do things in second language education settings that they could not otherwise do, from a language teaching and learning perspective.

According to Sharples, Taylor and Vavoula (2010), mobile language learning brings the online dimension of learning to the face-to-face setting. Thanks to

the easy access to Wi-Fi networks inside and outside the school, learners and teachers can have the Internet available when and where they need to. They can search for content, access teachers' and students' online notes, read books, share links and give their contribution to the on-going lesson (Kukulska-Hulme, 2012). They can also access content offline considering the increasing number of mobile apps that can provide this type of service. The use of tablets in the language classroom provides learners with technological support in addition to the standard teacher-learner support. As explained in Godwin-Jones (2011), thanks to online and offline learning tools, students can correct, modify and refine their work. The use of the spelling and grammar checker, for example, provides them with ~~an~~ immediate feedback. It is suggested that checking their language assignments helps to keep the learners engaged with the task (Gabarre et al., 2014). This study has been motivated by two factors. Firstly, the research literature on Mobile Assisted Language Learning (MALL) indicates that many studies focused on the descriptive analysis of specific language teaching applications, and in particular on those focusing on listening and reading skills (Chen & Chung, 2008; Chih-Kai & Hsu, 2011; Huang et al., 2012; Sandberg, et al., 2011). However, Chang and Hsu (2011) observed that in addition to improving reading comprehension, future studies should also consider investigating speaking, listening, and writing proficiency functions. Analysing the use of mobile devices for listening, speaking and writing tasks could do this. This study focuses on the development of speaking and writing skills supported by the use of the iPad, and it is intended to inform MALL practices into the secondary EFL classroom, considering also the limited research in this field in Italy.

A further motivation behind this study is the impact of finding out how mobile technologies can support foreign language learning in my personal professional practice because, as an EFL teacher, I use tablets in the classroom to provide learners with different tasks and tools to support their language learning. I have seen students having difficulties in using the device for language learning purposes, and I have personally encountered several issues such as collaborating on a document. Therefore, I believe that addressing these issues through systematic research could contribute to

~~selecting potential positive~~ sharing good practices that inform professionals, institutions and researchers in the field.

With these premises, I started this study with the aim of investigating the use of the iPad in the EFL classroom both from the teaching and learning perspective, and the potential contribution of this tool in enhancing students' writing and speaking skills in English.

1.1.1 The choice of mobile device: the iPad

The iPad has been chosen among other mobile devices, as it was distributed massively to lower and upper secondary schools in the north of Italy as a result of a 'technology for schools' project funded by Regione Lombardia in 2014. The aim of the project was to provide tablets to secondary schools in order to promote the integration of mobile learning in secondary education. The present study has been carried out in one of the schools that won an iPad set for their students as a result of a regional competition.

As outlined in Eichenlaub et al. (2011), an iPad has been promoted as a tool to bridge the gap between a smartphone and a laptop since its first appearance in 2010. Many people see the iPad as an add-on technology whose best use is to have easy access to any kind of media (newspapers, video, blogs, books etc.) compared to the less innovative standard production of work in schools. This study aimed at exploring the ideas of producing second language contents versus accessing second language materials by identifying how the iPad may become an integral tool that supports second language learning in secondary schools. As in Eichenlaub et al. (2011), one of the main ideas was to see how the iPad could narrow the gap between language learning production in daily life and everyday use with secondary school learners in terms of quality and quantity of second language learning.

1.2 Mobile assisted language learning in education

Recent studies show how the popularity of tablet devices, such as the iPad, is growing. For example, many schools worldwide (Kauffman, 2012; Keene, 2012; Richmond, 2011) are adopting them as educational technology. Starting from the view of Murray and Olcese (2011) that educational technology enthusiasts frequently claim that technology use in schools can transform teaching and learning, this study aimed at critically analysing the use of the iPad from the teacher's and the learner's point of view. Moreover, according to several studies, the reality of how technology is used in authentic learning situations is quite often more ordinary and less transformative than imagined (see for example, Cuban, Kirkpatrick, & Peck 2006). The fact that past efforts to transform education with technology could have had little effect (e.g., Tyack & Tobin, 1994) is an important aspect for the present study, whose main objective is to see what potential and possibly innovative practices to develop speaking and writing skills the iPad could bring into the second language classroom, considering the limited body of research in the field.

This research aimed to investigate effective language learning pedagogy to use mobile devices in classroom settings to develop foreign language skills specifically by performing speaking and writing tasks as reported in Chen (2013), Lys (2013) and (Wang, Teng, & Chen, 2015). Based on their experience with technology and young learners, the Neumanns (2014) as well as Kahn (2012) stressed the need to ground the technology-based language pedagogy within a theoretical framework. Therefore, the present study used concepts of the Vygotskyan sociocultural theory (SCT) from Lantolf and Thorne (2006), and Lantolf and Appel (1994) to explore the integration of the iPad into the second language classroom. In particular, this study focused on the concepts of mediation, and personalization. According to Vygotsky (1978), psychological or semiotic tools (e.g., language) mediate human activities while physical tools or artifacts (e.g., mobile devices) contribute to construct knowledge (see Chapter 3). Moreover, from a sociocultural perspective, through these tools second language learners have the chance to construct new meanings (personalization).

1.3 Research questions

The goal of this research was to explore the impact of iPad integration into English language learning activities and student perceptions of one-to-one learning with iPads in the secondary school classroom in Italy. This study was set up to investigate the following three research questions:

- RQ1 What are the characteristics of technological-mediated language speaking and writing tasks for mobile devices as used by EFL teachers and learners?

- RQ2 *How does the iPad as mediating tool support speaking skills?*

- RQ3 How does the iPad mediate the development of writing skills in the EFL classroom?

1.4 Research Context

In this section, I will briefly describe the research context in which this study was carried out. More details are in Chapter 5.

1.4.1 Secondary schools in Italy

Tablet devices such as the iPad are becoming popular and many schools in Italy and all over the world (Kauffman, 2012; Keene, 2012; Richmond, 2011) are integrating them in everyday classroom settings. As observed in Sekiguchi (2011), many educators have high expectations for the use of the device in the classroom as it may allow EFL learners and teachers to discover new methods of learning and teaching.

The administration and the English language teachers of the high school involved in this study became interested in the phenomenon and made the decision to trial iPads with their students as part of an action research project, which was also designed to increase their own knowledge as part of their professional development (Morgana, 2014). This study took place in a non-state publicly subsidised high school (scuola paritaria) – Liceo Scientifico Fondazione Sacro Cuore in Milan, Italy in which the school administration recently decided to implement a classroom set iPad project in two of its high school classes. A ‘scuola paritaria’ in Italy performs a public service and is

integrated into the national education system. For students, the regular attendance of a non-state publicly subsidised school constitutes the fulfilment of the obligation of education. The recognition of parity guarantees: the same rights and duties of the students, the same procedures for conducting state exams, the issue of qualifications with the same legal value of state schools (see also 5.3.1).

In the present study, the participants were 43 Italian 16 year-old secondary students who were taking part in general English language classes as a part of the Italian Ministry of Education requirements. Since 2014, the students had been provided with one iPad each for their self-regulated study within and outside the school. Students in state and non-state (paritarie) schools follow the same curriculum, and they receive the same amount of EFL lessons. However, since non-state schools request families to pay a tuition and they offer a very limited number of scholarships, most of the students have a high socioeconomic background, while state schools are free so generally students come from different socioeconomic situations. Therefore there was no difference between the two types of schools in this respect. Also in terms of technological literacy, the school did not have any extra laboratory or additional technology for students compared to state schools.

1.4.2 My role

I would like to explain my role in the context of this research because, although this study investigated my professional field and has an important influence on my own professional practices as an English teacher, I took the role of the researcher throughout the entire study.

As a secondary school EFL teacher, I had been collaborating with this school since 2012, particularly on curriculum design and teacher development projects. The two English teachers involved in the project asked me, as a researcher, to help and support them in the pedagogical implementation of the iPad. The action research approach was an appropriate choice in this study as it is usually applied to ‘‘issues of immediate concern to particular social groups or communities’’ and is conducted ‘‘by and with members of

the actual community'' (Burns, 2003). The subject of immediate attention in this study was the use of mobile learning as a foreign language educational tool for learners. As will be explained in Chapter 5, despite the fact that this is an action research project, my role was always that of a researcher and a teacher development facilitator.

1.4.3 Writing and speaking tasks

As mobile learning environments are becoming more common in second language educational settings, I chose a Technology-mediated task based (TBLT) approach for the design and implementation of speaking and writing tasks. TBLT has been implemented in different settings and with different methodologies around the world (Leaver & Willis, 2004). The main idea behind this approach is the focus on what people and learners in particular need to be able to *do* with the language, and therefore what kind of tasks should be introduced in an EFL curriculum. The TBLT approach has been chosen particularly for two key assumptions: 1) exposure to large amounts of high-quality input is necessary for language learning and 2) learning a language is enhanced by a meaningful, and purposeful use of the language (Solares, 2015). In his book on Task-based language teaching, Nunan (2003) identifies seven key principles behind the TBLT classroom design. They are:

1. Scaffolding: students need to have a supporting framework in order to activate learning.
2. Task dependency: each new task should be built upon the previous, so that students can learn step by step.
3. Recycling: to master a specific language function students need to use and re-use it in various situations.
4. Active learning: students should use the language actively to maximize their learning.
5. Integration: Tasks should be able to teach the link between communicative, grammatical and semantic meaning.
6. Reproduction to creation: students should be taught to move from rehearsal to creative production of a specific function.
7. Reflection: students should be aware of their learning process.

The speaking and writing tasks designed for this study were inspired by those principles. Moreover, the participants in the study were also preparing for the Cambridge First certificate examination, therefore the writing tasks analysed were adapted from the Cambridge ESOL general guidelines (see Chapter 5 for details). The Cambridge First is an external language examination at B2 level of the Common European Framework of Reference for Languages (CEFR). It is a test of the different areas of language ability, and it includes four papers (Reading and Use of English, Writing, Listening and Speaking). The exam could be computer or paper based. According to school management, learners follow a specific preparation course as extra school activity or it is included into the school English annual programme as in the school involved in this study. For the speaking paper learners perform a face-to-face interaction with another learner while two examiners act as facilitators. The writing paper requires learners to be able to write two pieces of writing belonging to different text types, such as reports, articles, reviews and essays. For this reason, teachers modelled the writing tasks in order to provide learners with practice of the text types required for the examination.

1.5 Organisation of the thesis

Following the introduction, this thesis is organised in eight further chapters as described below.

Chapter 2 reviews the literature relevant to this study, with a focus on research studies concerning the use of the iPad in education and for second language purposes. Since this study is concerned with the development of speaking and writing skills, the chapter provides also a non-exhaustive, but quite comprehensive analysis of the studies in the field.

The focus of Chapter 3 is on the theoretical framework used in this study. Chapter 3 describes the Vygotskian socio-cultural theory (SCT) of learning, which has been used to inform this study. The key concepts from SCT that are central to this research are explained, showing the link with the use of mobile technologies for language learning. In Chapter 4, the Task-based language teaching approach is briefly explained. Additionally, the chapter presents the framework of technology-mediated TBLT, as in Gonzales-Lloret

and Ortega (2014), and its role in the context of this study.

Chapter 5 explains the research design and methodology. I, first, provide additional information about the research context, then the data collection, data analysis methods, and tools employed in this study are further explained.

Chapters 6, 7 and 8 address the three research questions (RQs) stated above. Chapter 6 addresses RQ1 by presenting the design and tasks of a technological-mediated curriculum that proved to be relevant to the development of speaking and writing skills. It considers those tasks that contributed to the enhancement of learners' language ability and the development of soft skills (i.e. collaboration).

Chapter 7 investigates RQ2 by considering the use of the iPad in designing and performing speaking tasks by teachers and learners. In particular, the chapter examines the quality of the mediation of the tool by looking at the interaction between learners and the iPad in the second language context. In particular, the mediation of the tool in this study is examined in the light of the quality and the type of support it potentially offers during the task performance.

Chapter 8 explores RQ3, and focuses in detail on the learners' essay writing tasks. The main idea was to analyse the development of students' performance over time by comparing their assignments in three tasks. In particular, this chapter examines the learners' ability to produce a text (essay) following specific structures and to address specific purposes.

Finally, Chapter 9 addresses the three research questions, presents a summary of the key findings based on the previous chapters, and suggests implications of this study for practitioners, researchers and, policy makers and institutions. Another key purpose of this final chapter is to show the contributions this study has made to MALL research and to suggest future directions for further research.

Chapter 2: Mobile Assisted Language Learning (MALL)

2.1 Introduction

The main aim of this literature review is to critique the relevant theories and empirical studies in the area of the use of iPad in education, with a particular focus on the use of this device into the English as a Foreign Language (EFL) classroom to develop speaking and writing skills at the secondary level.

~~The present study is concerned with secondary school students and teachers' use of the iPad in the EFL classroom. For this reason,~~ This review will examine theories and studies, as published in English mainly in the last ten years that look at the use and effectiveness of mobile technologies (tablets and smartphones) and their potential in enhancing language teaching and learning, narrowing the focus on the use of the iPad. It will not consider the use of other technological devices such as mobile laptops, and early versions of smartphones (with no applications) and MP3 players (Godwin-Jones, 2011). Other mobile devices, such as old models of mobile devices and personal digital assistants (PDAs), the precursors of tablets, have been excluded because of the differences with the device chosen for this study and some limits they could present in the classroom (e.g., sound quality, small screen sizes, slow downloading speed). For example, in a study using mobile phones and PDAs, researchers found that students had difficulty in listening to sounds from both devices (Thornton & Houser, 2005).

Following the indications of Kukulska-Hulme (2009), that stress the relevance of innovative practices in the design for language learning activities and that teachers will need to re-think their role in the mobile classroom, I will focus of the investigation on the classroom activity types, innovative uses of language learning apps and the iPad in the language classroom, and ~~possible~~ issues raised by both teachers and learners. This review is broadly divided into four sections: an overview of Mobile Assisted Language Learning studies relevant to my research; recent studies on the use of the iPad in education; the iPad

in language learning contexts; and the review of the studies related to the development of oral and written skills in foreign language learning in the context of mobile learning. I will identify the gaps in those areas, beginning to respond to my research questions.

2.2 Mobile Assisted Language Learning (MALL)

In this section, I will review the relevant studies around MALL (Mobile Assisted Language Learning). Before proceeding, it is essential to clarify what MALL is and why it is important for this study.

Taylor (2006) has defined *mobile learning* as "learning mediated by mobile devices, or mobility of learners (regardless of their devices), or mobility of content/resources in the sense that it can be accessed from anywhere" (cited in Traxler 2009, p. 10). The term *mobile technologies* is already known in the field of CALL (Computer Assisted Language Learning) (Burston, 2013), but today it goes beyond portable computers such as mobile personal laptops. Following Godwin-Jones (2011), this ~~study~~ literature review will consider mobile technology devices – such as iPods, new smartphones (e.g., iPhone) and iPads – that have enhanced hardware and OS capacities (e.g., number of apps developed, built-in features of mobile devices such as the voice recorder etc.). CALL research began to explore the potentialities of these technologies for MALL to support second language learning and teaching (Traxler, 2013; Pegrum, 2014).

According to the Pegrum (2014) on the use of mobile devices for languages, literacies and cultures, it is possible to identify different kinds of MALL. In 2009, Garret (2009) had already applied three different categories to CALL: tutorial CALL, authentic materials-engagement CALL and communication CALL. Pegrum (2014) applied Garret's (2009) categories of CALL – tutorial, authentic materials-engagement and communication - to MALL reorganising them and adding a new one. Following 'a scale of rising (inter)-activity', Pegrum (2014 p.94) developed these four categories: MALL for content, MALL for tutorial, MALL for creation and MALL for communication. The direction of Pegrum's categories clearly moves from a behaviourist approach (content consumption) to a sociocultural approach (content creation and communication). It should be considered that the more mobile devices are

integrated in the language classroom the more 'socioculturally informed activities' are possible. In a classroom with a lower level of MALL content consumption activities (e.g. reading or listening texts) would be the easiest approach to technology enhanced learning and it would start to provide students with autonomous learning activities (e.g. students can listen or read at heir own pace). In the tutorial MALL classroom, learners can use different apps to perform a controlled or semi-controlled language task (e.g. podcasts with audio drilling or flashcards). Both MALL for content and MALL for tutorials offer the learners the chance to practise language competences in a low-stress mode since they do not require complex technological skills and the activities are often familiar and similar to those on language books. On the other hand, MALL for creation and MALL for communication require high interactivity of learners with other peers and with the mobile device itself. Moreover, teachers play a key role because they provide feedback and support learners in the construction of meaning and knowledge. In creation MALL students record their texts, take pictures and modify them according to the task, interact with the teachers through specific writing apps etc. They are actively involved in more sociocultural activities such as collaboration, negotiation of meaning and sharing.

The studies presented below reflect the wide varieties of MALL uses mainly in the language classroom, although mobile devices allow learners to practise also outside the formal settings. Content and tutorial activities, for example, could be moved outside the language classroom allowing the teacher to work on more interactive tasks where support and feedback are required in the classroom.

2.2.1 MALL in formal and informal settings

Over the last ten years, mobile technologies, the iPad in particular, have rapidly attracted new users, providing new abilities in and outside the classroom. The use of mobile devices has influenced and it is still influencing educational practices and, most importantly it is creating innovative settings for learning (Pachler et al., 2010). Recently, a group of studies on mobile learning in the fields of science (Lan & Huang, 2012), social science, but also

language courses (Hsu, Hwang, & Chang, 2013) suggest that students participate actively in their learning, develop strong collaborative skills, and are able to direct their own learning process (Al-Fahad, 2009; Mcconatha, Praul, & Lynch, 2008). Therefore, when mobile technologies are integrated effectively, they provide a valuable contribution to the learning approaches, also creating a collaborative learning environment (Sabah, 2016).

In their recent review of the developments and implications of MALL studies, Liu et al. (2014) found out that 'whenever a new mobile technology is introduced, its effect on language teaching and learning is a popular topic for researchers' (2014, p. 165), and in support of this they review studies published in the last five years (e.g., Frohberg et al., 2009; Hung & Zhang, 2012; Hwang et al., 2008; Hwang et al., 2012; Wu et al., 2012). Hung and Zhang (2012) have already observed the same growing interest in the field of mobile learning in language education in their review of mobile learning studies published between 2003 and 2008.

These studies indicate the large potential of informal language learning also to support formal language activities. Although in the context of this study learners' individual informal practices have not been investigated, there is a need to investigate the interconnection between formal and informal MALL. The next section considers the literature on MALL in formal settings.

2.2.2 MALL in formal settings

Mobile technologies have many advantages and positive aspects. They are flexible and low cost; they usually are quite small and easy-to-carry devices, easy to use, and immediate so researchers are exploring how mobile technologies affect and support second language learning (Huang et al., 2012). Language teachers need to understand how they can successfully use mobile technologies in the language classroom to support various kinds of learning so the integration of this type of technology has been more gradual (Kukulska-Hulme & Shield, 2008). Therefore, there is a clear need to investigate students' and teachers' perceptions and effective methods for MALL.

The educational use of mobile technologies could have many potential benefits. Mobile devices allow for more interactive meaningful learning. For instance, learners can easily interact with content that is relevant to them. Recent studies have looked at the use of the iPad for early literacy (Neumann & Neumann, 2014; Oladunjoye, 2013). They found that the use of technology with early readers is useful because effects such as animation and sound keep students' attention while scaffolding learning. According to Vygotsky's theory of sociocultural development, children use tools to create their 'meaning'. In today's world of cutting-edge technology, the iPad could potentially act as one such tool. Vygotsky (1978) also suggested that in order to maximise learning, materials need to be within students' zone of proximal development (ZPD). The ZPD represents the area where students need a little extra support to comprehend material; however, they cannot do this on their own. They need to be scaffolded. In terms of reading, the iPad serves as an excellent tool that scaffolds students' reading abilities. Further investigation is needed to find out if the iPad could potentially serve as a scaffolding tool also for other skills (e.g., listening, speaking etc.).

The literature on mobile technologies for language learning reports a number of case studies that investigate various aspects of mobile language learning (Abdous et al., 2009; Hsu, 2013; Kukulska-Hulme, 2012; Viberg & Grönlund, 2012). In their review of mobile learning, Viberg and Grönlund (2012) observe that the dominating research focus is on the attitudes of learners towards technologies, their intention to use them, and the various uses of mobile technology for authentic communication integrated in their second and foreign language learning. Moreover, most of the most recent studies in the field have sustained the idea that mobile technology can contribute significantly to learners' second and foreign language acquisition in terms of enhancing grammar and vocabulary (Çakmak & Erçetin, 2018), and also developing speaking, writing, listening and speaking skills (Chang & Hsu, 2011; Lin, 2014; Liu, 2016; Moreno & Vermeulen, 2015; Power & Shrestha, 2009). Moreover, a systematic review of MALL studies published from 2008 to 2013 (Liu et al, 2014) presents evidence of the distribution of learners and language skills. In particular, most of the studies reviewed were conducted

with elementary or higher education learners; while reading skills and vocabulary learning proved to be the most investigated areas in language learning.

Based on a study with 45 students from eight different regions and countries in an EFL curriculum with an activity-oriented design, Hsu (2013) found that learners with different cultural backgrounds had varying attitudes towards MALL in terms of technological affordances, applicability and constructivist aspects (e.g. collaborative tasks). However, it was not possible to establish the exact reasons due to their different experiences and expectations. According to the survey data, many students did not believe they could practice all language skills in a mobile learning setting, but they may not have had chances to see how it could be effectively done.

Moreover, one of the latest studies observed the attitudes of 345 higher education students in Sweden and China (Viberg & Gronlund, 2013). The researchers found that learners had particularly positive attitudes toward the chance to personalize their learning, the opportunity to have a valid learning experience, and the occasion to exchange information and collaborate with other students, and teachers. Viber & Gronlund (2013) also stress the importance on the possible implications of positive attitudes towards mobile devices in the language classroom. This implies that the context where the studies are carried out necessarily influences the design and implementation of m-learning in language settings. Similarly a study conducted by Hsu (2013) presents different attitudes of learners towards technology possibly due to their cultural background. Hsu (2013) investigated the perceptions of MALL of forty-five participants from seven different countries through cross-cultural analysis. However, the study does not provide clear evidence of learner perceptions and mobile language learning, but it does give an idea of learners' perceptions of mobile devices in the language classroom especially in terms of real communication, personalization of learning, and multimodality (Kukulska-Hulme, 2013).

As stated above, many research studies have focused on the descriptive analysis of specific language teaching applications, and in particular on those

focusing on listening, speaking and reading skills (Chen & Chung, 2008; Chih-Kai and Hsu, 2011; Huang et al., 2012; Sandberg et al., 2011). For instance, Chang and Hsu (2011) analysed the use of mobile devices in an intensive reading course with intermediate EFL learners, including the attitudes and satisfaction levels of the users. One of the main ideas of the study was to integrate collaborative learning into reading activities on a mobile assisted language system by analysing the usage of the system by individual students and by group of learners. Perceptions and satisfaction around the use of mobile devices were measured using the Technology Acceptance Model (TAM) questionnaire that addresses usefulness and the perceived ease-of-use (Park, Nam & Cha, 2012). Their study found that the collaborative method gave a meaningful contribution to supporting EFL learners in reading comprehension. Interestingly, students grouped in twos, threes and fours performed better than individual students as well as groups of five learners. This implies that collaborative activities (i.e. pairs or groups of less than five learners) performed through mobile technologies can foster language learning. Moreover, learners liked the mobile device, and they thought it was useful and easy to use to read and annotate texts. Although this study shares the same approach to foster a collaborative learning environment supported by mobile technologies, and the ideas of measuring students' attitudes towards MALL, the TAM model has not been implemented as considered too technology-oriented rather than pedagogy-oriented. However, Chang and Hsu (2011) observed that in addition to enhancing reading comprehension, forthcoming studies should also consider investigating listening, speaking and writing proficiency functions.

As mentioned above, recent literature confirms and supports the usefulness of teaching with tablet computers (Çakmak & Erçetin, 2018; Chien & Tsou, 2012; Hargis et al., 2013; Hutchinson, Beschorner, & Schmidt-Crawford, 2012; Liu, 2016; Lys, 2013) although research in this area is still emergent. However, there are also a number of studies in the literature that reports negative attitudes of participants towards MALL (Kim & Lim, 2010; Nah, 2010; Nah, 2011). Many studies aim at investigating learners' perceptions of the use of the iPad in the secondary language classroom aiming at contributing to the research field. As Kukulska-Hulme and Traxler (2005, p.

1) observe, the distribution of mobile technologies in schools is “having an impact on teaching, learning, and on the connections between formal and informal learning, work and leisure”.

Moreover, in the last few years, the Italian Education System has experienced a significant increase of these technologies in schools, and further and higher education, particularly in secondary schools. However, as far as I am aware, the use of the iPad in secondary school language classroom in Italy has not been reported in the literature. Although Italy was one of the country partners of MoTiLL (Mobile Technologies in Lifelong Learning), a project funded by the European Commission aimed at collecting, organising and analysing pedagogical approaches that exploit mobile technologies for LLL (Life Long Learning) “in order to identify and spread good practices in this field” (The MoTiLL booklet, 2013). The project states the importance of each national context with respect to the use of mobile technologies for LLL. For example, Italy shows high diffusion of mobile devices but insufficient participation in learning activities. In one of the case studies that took place in Italy, in Palermo, a group of high school students were involved in a collaborative knowledge construction project using mobile devices. The study found that the use of mobile technologies increased the level of engagement of the learners, enabled students to manage and direct their own learning and it responded to their learning needs (such as collaboration). Although the studies presented in the MoTiLL booklet are not strictly related to language learning, the findings could be interesting for this study, serving as a general starting point for the research.

2.3 iPad in education

In this section, I will review the relevant theories and studies that are concerned with the use of the iPad in education, some of which are strictly related to the use of the iPad to enhance language acquisition. As stated above the choice of the tablet device in this study was driven by the important needs of foreign language teachers to provide learners with authentic tasks to enhance English language learning, considering the fact that ‘existing mobile applications often fail to exploit connections between life

and learning‘ (Kukulska-Hulme, 2013, p. 2). For this purpose, the use of the iPad in the language classroom and in education in general will be examined. I will consider the distinctive advantages and weaknesses respectively.

According to Kukulska-Hulme (2006), language learning is one of the disciplines that could derive many benefits from the use of mobile technologies. Tablets in the classroom, for example, allow learners to record themselves and to listen to audio at any point of the language lesson. Students can be invited to perform authentic interactions, collaborating and creating on their tablet devices. They are also easily exposed to a wide range of authentic materials, which strongly support the integration of language learning with everyday communication needs (Morgana, 2014). Tablets such as iPads provide educators with various working configurations (e.g. with the help of various apps they can provide immediate and personalized feedback to students during lessons or flip the class by projecting any student’s work on the screen) and enable learners to perform a wide variety of tasks (Gabarre, Gabarre, Din, Shah, & Karim, 2014).

2.3.1 The iPad as an inclusive m-learning tool

The use of the iPad has already been implemented in several primary and secondary institutions globally as an accessible and inclusive m-learning tool (Aronin & Floyd, 2013; Cumming, Strnadova, & Singh, 2014; Flewitt, Kucirkova, & Messer, 2014; Hayhoe, 2013; King et al., 2013; Parsons, 2014; Selner, 2011). A relevant study for this research is the one conducted by Cumming, Strnadova, and Singh (2014) at a private high school in Sydney. The study investigated the process and the outcomes of the introduction of the iPad as an inclusive learning tool, considering in particular the impact of iPad implementation on teachers and students. The action research project focused on four students with developmental disabilities attending classes in inclusive settings and five special education teachers. The team composed by teachers and researchers had bi-weekly meetings to reflect on the practice, they collected students’ written assignments, wrote articles on a shared webpage and recorded video interviews with teachers and students. Similarly to the present study, teachers were evaluating learners’ outcomes

following an inquiry and knowledge building cycle (Timperley et al., 2007 cited in Cumming et al. 2014). They were asked to select learners' and teachers' needs, and based on the results, design tasks for the classroom; at the end of the cycle teachers reflected on the impact of the tasks on learning. Data consisted of interviews, notes from teachers' meetings and classroom observation tables, and they were analysed using an inductive content analysis approach. The study concluded that both students and teachers found the iPads to be motivating and effective tools for learning. In the English classroom in particular, the iPads were used for reading texts, viewing movies and, in general to reduce the time students took to read texts or novels. Although findings were consistent with other studies (e.g., Campigotto, McEwen, and Demmans Epp, 2013), the study has the limitation of an unrepresentative sample: the sample was relatively small and specialized. Further investigation is needed with a larger sample representative of student profile in secondary schools in the context of EFL in a specific subject classroom (e.g., EFL).

2.3.2 iPad in English language learning

This section examines opportunities, challenges and gaps in recent studies of iPad integration in second language education. Although there was great promise, there were also many concerns about one-to-one learning implementation.

There are various studies focusing on the learners' perceptions of the use of the iPad in the language classroom (e.g., Gabarre et al., 2014; Meurant, 2010; Sekiguchi, 2011; Wang, Teng, & Chen, 2015). Whereas all of these studies express positive perceptions regarding the integration of the iPad in language learning, the results cannot be considered conclusive. They are mostly based on data taken from university students, or small-scale studies (e.g., one student). For example, Gabarre (2014), explored how iPads can be used in the language classroom to promote active learning opportunities as in Lys (2013) and Chen (2013). They implemented a qualitative research design in the form of a case study in order to have more detailed insights and understandings of the processes. The study involved one French learner in a

Malaysian university. Evidence shows that the learner felt comfortable using the iPad in the classroom; she mentioned many ways to use it for educational purposes (YouTube videos, dictionary, immediate search for accurate information on a topic etc.); she did not like to use it for writing activities. Similarly, Wang et al. (2015) observed the implementation of the iPad to support EFL vocabulary acquisition with 74 students in a Taiwanese university. The study was well-designed, as it provided quantitative and qualitative analysis comparing two data groups and a pre-test/post-test design. The participants were divided into two groups: the experimental group using the vocabulary app on the iPad, and the pen and paper group using the traditional semantic-map provided by the teacher to learn vocabulary. Findings show that the experimental group performed better in the post-test. Gabarre (2014) showed that the iPad promotes new and active language learning opportunities, further Wang et al. (2015), implemented a larger study, demonstrating how an iPad app contributed to significant progresses in learners' vocabulary acquisition. This implies that learners' attitudes towards mobile devices in the language classroom are positive, and teachers should be encouraged to implement a technological-mediated task design in their classroom. However, there is a lack of details and explanations of the tasks implemented in both studies.

Moreover, although the distribution of iPads in secondary schools is rapidly increasing, especially in the United States (as reported by Bloomberg Business in October 2013), large -scale studies on the iPad EFL classroom are still scarce. However, there are a few studies of this nature. For instance, Chou, Block and Jesness (2012) ran a four-month pilot project of one-to-one learning with iPads in four 9th grade Geography classrooms in a large K-12 school district in the United States. They collected the data using three data sources: teacher focus groups, student focus group and classroom observation. The researchers compared notes and collected the main themes emerged from the data collection (e.g., active engagement, increased time for projects, enhanced teaching with updated information). Their findings showed the positive impact of iPad integration especially in terms of motivation, time management, and digital literacy (digital literacy

here means those 'skills to effectively decode and encode meaning in digital channels' as in Pegrum 2014, p. 158). The study interestingly shows also the need of having well prepared teachers in the classroom, confirming one of the issues raised in the MoTiLL project that mobile learning activities are not effective if teachers are not comfortable with the technologies being used.

There are a number of studies focusing on the use of the iPad in the EFL secondary classroom (e.g., Greenfield, 2012; Lin, 2014; Simpson, Walsh, & Rowsell, 2013). Lin (2014), for example, investigated the effects of using iPads in an Extensive Reading Program on teenager English learners' online activities, reading ability and users' perceptions. Although the study is specifically focused only on reading skills, the methodology and results are relevant for this study. Two classes and an English teacher were selected in a senior high school in Taiwan; the study lasted ten weeks; one class was assigned to the mobile group reading on iPads and the other, the PC group, reading on PCs. A similar and relevant aspect to this study is the methodology used to collect and analyse the data. The researcher triangulated data from the user's learning records, the reading texts, and the Technology Acceptance Model questionnaire. Results showed how the mobile group outperformed the PC group, and provided empirical evidence for mobile integration in extensive reading programs in secondary EFL education.

Despite a large number of studies focusing on the use of the iPad for enhancing vocabulary (Chen & Chung, 2008; Chien & Tsou, 2012; Wang et al., 2015), reading (Greenfield, 2012; Lin, 2014; Simpson et al., 2013), and speaking skills (Lys, 2013), studies focusing on grammar learning, pronunciation and writing skills are less represented in the reviewed literature. No study aimed at investigating the four skills at the same time (listening, speaking, reading and writing) in the EFL classroom.

2.4. Developing writing and speaking skills in MALL

2.4.1 Writing

The present study is concerned with the analysis of the use of the iPad to perform writing and speaking skills in English language learning. In this section, I will review key studies regarding the use of mobile devices to develop those skills with second language learners.

There are different types of writing that could be explored in the language classroom and with technology: from the basic input of tracing letters or characters on a touchscreen, as in many apps available not only for English language learners (Pegrum, 2014) to extensive writing, synchronous and asynchronous written interaction and collaborative writing.

As observed above, mobile devices provide great opportunities for extensive and intensive reading (Lin, 2014). The same range of opportunities is provided in terms of writing. Starting from the most basic form of writing, studies on extensive reading on the iPad have also shown how annotation is an essential complement to reading input on smart devices (Pegrum, 2014). Chang and Hsu (2011) investigated the use of a translating and annotating system on mobile devices into a university EFL extensive reading course in Taiwan. The system analysed allowed learners to take notes and annotate documents simulating the annotation process with traditional pen and paper, although it did not require any additional tool such as digital pens. All the students involved read the articles and took notes on their devices, and then collaboratively shared their annotations. To understand and measure students' engagement and perceptions of the system, the researchers used the TAM (Technology Acceptance Model) questionnaire. They found that learners generally liked the system showing significant improvement on vocabulary proficiency and reading comprehension. The findings in Chang and Hsu (2011) demonstrated the value of writing with a tablet device and the positive response of learners. However, Gabarre (2014) showed the difficulties encountered by the learner while performing writing tasks on the iPad (such as dealing with the keyboard, cut and paste functions etc.). These difficulties were probably due to the lack of preparation and scaffolding activities provided at the beginning of the project. This implies that

technology-mediated learning often is more likely to occur when clear instructions and introduction to the use of the mobile devices are provided by educators and researchers, as argued in the present study.

A relevant piece of research to the current study is the one conducted in an elementary school in Taiwan, where 59 sixth grade students used a situational learning system to practise and improve their EFL writing skills (Hwang et al., 2012). Following the indications of their teachers, students were asked to perform writing tasks using the support of mobile devices in familiar situations (e.g., school playground, classroom, at lunch). The students were divided into two groups (experimental and pen and paper groups). Students in the experimental group used the proposed system on mobile devices, while students in the pen and paper group used the traditional paper-and-pen method. Based on the positive results of previous studies that stressed the importance of contextual learning to promote students' motivation (Dornyei, 2003), and the use of visual resources to help students to write (Vincent, 2001), learners had also the possibility to upload pictures with their writing. The data analysed was based on a 71-item survey questionnaire and on writing rubrics. The results showed how real-world setting and scaffolded writing activities could enhance writing skills. In a test about writing sentences to describe objects in context, students in the experimental group performed significantly better than the students in the pen and paper group.

As Pegrum (2014) states in his analysis of what language to teach with mobile devices, technology can serve as a positive means for synchronous and ansynchronous written interaction activities. Asynchronous conversation could work for some figures of speech, but it has a much slower pace, so that learners have time to use scaffolding tools like glossaries, to notice new language, and to prepare linguistic output (Pegrum, 2014). Various studies have used Twitter, a free social microblogging system, in the second language classroom to perform asynchronous writing tasks (Borau et al., 2009; Chen, 2013; Junco, Heiberger, & Loken, 2011; Lomicka & Lord, 2012). For example, Lomicka and Lord (2012) investigated the role of Twitter in an intermediate French class at university level where students tweeted weekly with each other and with French native speakers. The basic idea was to use

Twitter to build a communitiy between American and French students, and also to give possibilities to creative language tasks in and outside the classroom. Borau et al. (2009) also investigated similar competences. The participants of their study were 90 ESL university students enrolled in an online course for seven weeks. More than 5,000 tweets and a questionnaire were analysed for cultural and commuicative competence. Both studies showed that microblogging, Twitter in particular, is a suitable tool to develop written communicative competence. A relevant aspect of these studies is that they both successfully employed surveys as data sources and content analysis as a method to analyse qualitative data. Lomicka and Lord (2012) assigned categories and codes to the tweets in order to have a clear analysis of the data, and they also admistered the surveys at the beginning and at the end of the course, as I did for the present study. Pegrum (2014) argues that asynchronous conversation allow learners more time to use scaffolding strategies. However, Lomicka and Lord (2012) and Borau et al. (2009) demonstrated how synchronous microblogging writing proved to be a suitable tool for collaborative language learning. It implies that where learners feel the need to actively produce language in meaningful settings, they autonomously employ scaffolding and collaborative strategies.

As with many studies of newly emerging technological tools, the studies presented here have a number of limitations. The first and most important limitation is that generally they were conducted on a narrow sample of the overall student population within a short period of time. Furthermore, the framework employed in some studies (Lomicka & Lord, 2012) for coding and analyzing the data was new for studies on Twitter. It would be important to see other studies on microblogging to develop writing skills applying the same framework and compare the results.

2.4.2 Speaking

The Internet and mobile apps offer a variety of opportunities for language learning listening and speaking practice. Learners can listen to authentic materials (e.g., radio and TV channels, audiobooks), and they can also practice the language through chatting (e.g., Face Time, Skype) or recording

their voices (e.g., podcast). Some of these media have recently been investigated as supportive tools for second language learning (Abdous et al., 2009; Ducate & Lomicka, 2009; Gromik, 2012; Lord, 2008; Lys, 2013; Papadima-Sophocleous & Charalambous, 2015; Pegrum, 2014).

Lys (2013) conducted an interesting study in an advanced German class, investigating the integration of the iPad into the classroom and its influence on learners' oral language development. The author particularly focused on how an instructional setting that provides additional conversational opportunities in and outside the classroom with a mobile device (iPad) could impact the quality of students' oral language proficiency. The study was a one-to-one iPad implementation project, and it was part of a larger study at a private American university; it lasted nine weeks, involving 13 students. They were engaged in a variety of speaking, listening and recording tasks. Each week they worked on a scaffolded task, had a real time video chat using Face Time and they had to provide an open ended recorded speech. Results showed that real-time conversational activities could contribute to advanced learners' speaking proficiency. Students had more time to speak compared to a standard non-iPad class, and they reported to be enthusiastic about it. Different aspects of the study presented by Lys (2013) can be beneficial for this study (use of scaffolded activities), although we should also consider some important limitations: the lack of a pen and paper group, the difficulties of assessing speaking performance and the limited number of students involved.

Moreover, there are a number of studies that investigated the use of podcasting to improve students' pronunciation. Some of these found certain improvements (Lord, 2008), others did not (Ducate & Lomicka, 2009). In a recent study at the University of Cyprus learners used mobile devices (iPod Touch) to improve oral reading fluency (Papadima-Sophocleous & Charalambous, 2015). Students recorded themeselves reading a text, after having practised following a native speaker model on YouTube. After a content analysis of the data produced by the learners, the researchers found a general improvement in speed and word decoding accuracy. It was probably due to the considerable amount of time that learners spent rehearsing with the mobile device.

The iPad, and mobile devices, in general can also provide unlimited opportunities for fluency-focused speaking production (Pegrum, 2014). For instance, in a study conducted in a Japanese university, students were asked to record a 30-second video on a teacher-selected topic (Gromik, 2012). The author triangulated the video/audio data produced by the students with survey data. Results demonstrated an increasing number of words used by students task after task, and students felt the activities proposed enhanced their oral fluency.

Although the studies presented above show positive results, and generally follow a well-designed approach with a coherent data analysis process, we can argue that some aspects (limited number of students and teachers involved) could limit the reliability of their findings. Additionally, these studies do not provide innovative ideas that can support teachers on the use of mobile devices into the second language classroom. They provide a desciption of standard and general use of mobile devices. This shows the need of expertise from the field of language learning technologies.

2.5 Summary

In general, the literature reviewed here shows that there is a further need to explore how the use of the iPad can facilitate the development and acquisition of linguistic awareness and language skills, how instructors could engage learners equipped with iPads, and how to design second language tasks that would improve learners' experience (Garner 2011; Ifenthaler & Schweinbenz 2013; Mang & Wardley 2012; Mock 2004). Further research is needed in order to investigate in what ways the use of the iPad is impacting language learning with secondary school students. In particular, this research aims at addressing these gaps related to how the design of technology-mediated language learning tasks could enhance speaking and writing skills. Moreover, none of the studies reviewed here looked at the changes in learners' behaviours throughout the implementation of mobile technologies.

Chapter 3: Theoretical background

3.1 Introduction

The purpose of this study is to investigate the use of the iPad to perform speaking and writing tasks in the EFL secondary classroom. This requires examining attitudes and behaviours of learners and teachers towards the new device, together with language resources produced by participants in their meaning making. The previous chapter showed that, notwithstanding a number of studies conducted in the context of MALL, no study combined a learning theory with a linguistic theory to investigate the potentialities of mobile devices in language learning. The present study aimed to contribute to narrowing this gap. With this purpose, this study employed two theoretical frameworks: (1) Socio-cultural theory (SCT) for designing research and analysing data and (2) Systemic Functional Linguistics (SFL) for analysing data. It is important to clarify that SFL, in the present study, was used to analyse learners' written performances only. The first part of the chapter provides an overview of the key concepts of SCT, as the main framework used to design the research methodology of this study, and presents MALL studies that have implemented it. In the second part, key aspects of SFL relevant to this study are discussed together with a review of some implementation studies. The use of SFL to analyse students' writing development as mediated by a mobile device to evidence language development is innovative. SCT provides the theory of learning for the study and SFL provides the theory of language for the analysis of the written assignments of learners.

3.2 Underpinning theory of learning: Sociocultural Theory

In the context presented above, I have applied SCT as a fruitful theoretical guide considering its suitability to promote collaboration as well as experiential and social learning. Here I will define the principles behind this study, and review the relevant research in the field related to my study.

The theories and methods employed in the reviewed literature on MALL frequently derive from general theories of learning, including constructivism, and social constructivism. Activity Theory and Sociocultural Theory are examples often cited by studies on MALL/CALL (Aw-Yong, Anderson, & Chigeza, 2013; Burnside & Muilenburg, 2012; Neumann & Neumann, 2014; Vokatis, 2014; Motteram, 2013).

One of the key concepts of Sociocultural Theory is that the human mind is *mediated* (Lantolf & Thorne, 2006). Mediation is the process that links the individual to the social. Human behaviours are structured and controlled by symbolic and material artifacts (Swain & Kinnear, 2010). All higher mental processes, such as attending, predicting, monitoring, planning, and inferencing are mediated by symbolic (such as language) and material tools (such as tablets) (Lantolf & Appel, 1994; Lantolf & Thorne, 2006). Vygotsky (1978) distinguished between signs which mediate our actions through symbolic representations, and tools which mediate our actions through objects (such as technologies) (Swain & Kinnear, 2010). The use of a tool necessarily implies cultural mediation and the way people use it daily shows its constitution temporally and historically (Thorne, 2003). So, tool use shifts according to the content. For instance, an iPad may function primarily as a family information medium, or it can be used as a collaborative writing tool in the language classroom. Therefore, in a teaching and learning context, mediation indicates the interaction between a tutor (and/or a book, a mobile device) and their learner in relation to the issues encountered by the learner and the progressive support given by the tutor. This interaction has to be relevant for the learner. Since tools and signs are not neutral, we can expect that the use of different tools, such as mobile technologies (in this instance), can offer different possibilities for developing language skills including speaking and writing (Hampel & Hauck, 2006).

Many of the MALL research studies reviewed in the MALL section above use learning theories where mediation is an issue, including Situated Learning Theory (Hsieh et al., 2010; Hwang & Chen, 2013), collaborative learning (Chang & Hsu, 2011; Chih-Kai and Hsu, 2011; Lan & Huang, 2012), and self-paced learning (Oberg & Daniels, 2013). In this study, mediation refers to the

interaction between a learner and a teacher and their personal mobile device (the iPad) in relation to the problems and to positive language learning outcomes experienced by both the learners and the teachers, taking into account that individuals change artifacts (tools), which, in turn, change individuals (Vygotsky, 1978). Mobile technology use is a case in point which plays a leading role in the process of meaning-making related to the mediated nature of human mind (Viberg & Grönlund, 2012). SCT is particularly relevant to this study because the focus of the research is on the iPad EFL classroom which is viewed as a site of sociocultural practices (Curry & Lillis, 2003).

The Neumanns (2014) have recently investigated the use of touch screen tablets by young children in supporting early literacy development within a SCT framework. The results showed that tablets could potentially contribute to the development of children's literacy skills (e.g., alphabet knowledge, emergent writing etc.). However, they suggest that the ideal use of tablets for early literacy learning should consider the type of scaffolding (Wood, Bruner, & Ross, 1976) used by teachers at school or parents and the availability and quality of tablet applications. More practical studies, investigating different learners and contexts (e.g., age, gender, nationalities) are needed in order to identify positive aspects and issues of digital interactions through scaffolding by teachers, parents or peers.

Pellerin (2014) has recently published a study that is strongly related to this study, both theoretically and methodologically. She examined how the use of mobile devices (iPods and tablets) in language classrooms could support the redesign of task-based approaches for young language learners. The research informed by the sociocultural principles of ZPD, mediation and scaffolding provides evidence of how mobile technologies allow young language learners to create their own learning setting and meaningful language tasks with the help of cognitive tools. She followed a qualitative interpretative research design (Hinkel, 2011; Richards, 2003), and used collaborative action research (Burns, 2003). The study involved 16 primary teachers from Grade 1 to Grade 4. The findings provide evidence that the use of tablets contributes to the creation of authentic and meaningful

language tasks; because of the multimodal nature of the touch screen devices, learners were engaged and they developed greater autonomy (Pellerin, 2014). By mediating their learning, the devices helped learners to create their own learning situation through different modalities (e.g., touching, using video and audio tools).

Personalization is another key concept supported by socio-cultural theory (Vygotsky, 1978). Personalization focuses on learners' choice, their autonomy and agency. In particular, in a mobile learning environment, learners can enjoy a higher degree of agency. Activities are designed for different learners to meet their learning styles and learning methods and they can be modified at both tool and activity levels (Viberg & Grönlund, 2011). The current study has been designed to investigate how different learners with different learning styles regularly use the iPad and what the impact of this tool will be in the EFL classroom to develop writing and speaking skills.

There are also a number of classroom-studies based on Vygotskian sociocultural theories; these studies have 'focused on the tools learners use to control their own second language development' (Kahn, 2012, p. 91). The types of tasks informed by theoretical frameworks associated with Vygotsky's sociocultural theories can offer opportunities for students to help shape their own language learning setting and trajectories, and their own learning results (Pellerin, 2014). Communicative language teaching tasks performed with the iPad, in particular, are very much related to this idea of individual mastery, where learners get familiar with tasks and topics and internalise the use of such mediators (e.g., iPad) (Kozulin et al., 2003).

To sum up, the research on MALL has been mainly focused on mobile devices such as smartphones (Burston, 2013; Sotillo, Stockwell & Rosell-aguilar, 2013; Stockwell, 2010) and with adult learners (university and college students) who show intermediate or advanced levels of language proficiency in the second language. Although various recent studies focused on the use of mobile touch screen devices such as iPads in the field of language learning (Lys, 2013), such research still concentrates mainly on adult learners in English as a second language situations. Additionally, these

studies have been more concerned with vocabulary learning exercises (Stockwell, 2010) and grammar activities (Li & Hegelheimer, 2013). Most of the research in MALL concerning the use of iPads is still in the early stages, especially in the respect of secondary schools and teenage language learners. Moreover, the principle of mediation linked with the use of these mobile technologies in the secondary language classroom (teenagers 13-17) is very much underexplored. More studies are needed to further construct our knowledge and understanding about how iPads can support language learning and contribute to enhancing learners' experience in the secondary EFL classroom.

3.3 Underpinning theory of language: Systemic Functional Linguistics

In order to critically look at the data on learners' writing performances, a systematic theory of language compatible with writing is needed. However, the previous chapter has shown that the MALL studies discussed quite often did not provide a linguistic framework to measure learners' language development. In order to address this issue, the current study has used Systemic Functional Linguistics (SFL), a linguistic theory developed by Halliday and colleagues (e.g., Halliday & Matthiessen, 2004) to analyse the data on learners' writing development. In fact, SFL offers the key linguistic tools for analysing textual data so as to observe and measure the potential mediation of the iPad on students' written performance ~~in the context of this study~~. The following paragraphs explain the reasons why SFL was chosen as the underpinning theory of language, provide a description of the key SFL principles relevant to this study and review some studies where SFL has been used in the context of Computer Assisted Language Learning (CALL). How SFL was used as an analytical tool in the current study is presented in Chapter 7.

3.3.1 SFL: an overview

SFL is a functional approach to language and learning; it explains "how people use language to make meanings with each other as they carry out the activities of their social lives" (Christie & Unsworth, 2000, p. 3). Halliday (1977) claimed the need for a grammar that is oriented to the meaning of the

text, focused on semantics and flexible, and therefore, 'functional' in its nature, in contrast with traditional grammar that is usually rigid, formal and focused on rules and syntax.

According to Halliday and Martin (1993), SFL describes the language as a source of meaning, more than a set of grammatical rules; it focuses on what learners can mean instead of focusing on what learners can say. Moreover, the basic unit of analysis in SFL is the text and not the sentence, and grammar is seen as a realization of discourse semantic (for example, the function 'asking the name' is directly realised through the question *what's your name?*). In fact, SFL looks for the links between the texts and the social functions, rather than look for texts out of context. The core idea of SFL is to look at the design of language as it is used to realize everyday needs. In particular, Martin and Rose (2007) suggest that SFL interprets the language following three major components of meaning, defined as metafunctions – the ideational, the interpersonal and the textual metafunction. The ideational metafunction refers to how people construct experience (what is happening, who is involved, where it is happening etc.); the interpersonal metafunction instead, is concerned with social relations (how people interact, what they are sharing – feelings etc.); the textual metafunction refers to the information flow, that is how ideational and interpersonal metafunctions are realised in a text.

In SFL, there are also three general dimensions in a given context: field (what is happening), tenor (who is taking part), and mode (what part language is playing) (Martin & Rose, 2007). The tenor, the field and the mode constitute the register of a text. These three language register elements are interconnected with the three metafunctions of language described above: the ideational function, the interpersonal function, and the textual function.

As noted in the introduction, SFL also provides processes for systematically examining students' written texts. Given that the three register variables, also known as *metafunctions* in SFL, can inform student text analysis as a whole, in this study the textual metafunction has been used as a main lens to focus

on learners' written assignments. The rationale behind this is that the teachers involved in the study recognize issues in the concrete realization of the information flow. Further explanations on how SFL has been applied to part of this study will be presented in Chapter 8.

To sum up, even though they are analysed separately, the three metafunctions of the language contribute to the understanding of the composite meaning of the text as a whole. This SFL perspective not only gives the researcher the chance to analyse student texts but also provides teachers and students with elements to look at any classroom issues/variables that can occur with any of these meanings.

3.3.2 SFL and the research on technology in language learning

SFL theory of language has been successfully applied to teaching and researching writing in the EFL context, although there are not many studies applying this theory in technologically mediated language teaching and learning. In the attempt to combine second language acquisition theories and computer-assisted language learning practices, Chapelle (2009) states the possible implications of using SFL in a CALL context. On one hand, SFL provides a 'perspective on interpersonal communication as it is used to accomplish action in context' (Chapelle 2009, p. 747). On the other hand, researchers must consider the importance of technology as a medium that offers new ways of learning a language; it is, therefore, of particular relevance for researchers to combine language theories to those contexts. Given this perspective, this study aims at contributing to the field of research applying traditional second language acquisition theories to the new EFL technology-mediated contexts.

Some studies, although not recent, have tried to investigate the use of SFL in CALL in the context of academic discourse development. Mohan (1992) looked at the influence of the computer on conversation. He provided 16 learners with four different tasks on discourse: three computer tasks and one face-to-face task. He analysed the interaction using various measures (e.g., utterances per minute, words per utterance, repetitions etc.). Findings showed a striking difference between the face-to-face conversation task and

the tasks performed at the computer. The quality and quantity of talk was significantly higher in the conversation task. Rice (1995) investigated peer-tutoring use of computer-based resources to develop ESL discourse of ten students. He recorded and analysed the transcripts using Halliday's three metafunctions (ideational, interpersonal and textual). Interestingly, Rice concluded that, shifting from the traditional knowledge transmission model, the use of the computer could foster cooperative learning to construct knowledge. Mohan (1992) found that computers did not facilitate conversation development, while Rice (1995) started to shed light on possible positive uses of CALL. Although relevant, these studies are not recent; in the last two decades technologies have completely changed in terms of hardware, but also in terms of capabilities (what a software can do). It could be argued that giving different contexts and technologies, results could change significantly. Therefore, it would be beneficial to apply Halliday's principles to MALL contexts in order to gain detailed insights on how and to what extent mobile technologies can impact EFL discourse development.

3.4 Summary

This chapter presented the theoretical frameworks for language learning (Socio-cultural theory) and language use in context (Systemic functional linguistics). The main reason for adopting two different frameworks is that they both provide useful insights for this study. In particular, SCT is the lens that helps to gain understanding of the role of the learners, teachers and mobile technologies in the language classroom, how they interact and the changes that occurred in behaviours and perceptions throughout the project.

SFL provides theoretical tools to measure learners' performances by tracking writing development over time with and without the support of the iPad. As stated previously, despite the fact that mobile technologies have attracted and are still attracting several SLA researchers to investigate the potential uses and outcomes of MALL in the classroom, MALL studies have not yet included any systematic framework of language use in context as SFL provides. The use of a theory of language, such as SFL, to understand iPad-

mediated writing development in the EFL context is, thus, innovative and aims to address this deficiency.

Both theories have undoubtedly provided invaluable contributions to EFL educational research (e.g., Hyland, 2007), often used to compensate each other (Gibbons, 2003). However, there appears to have been little or no application of both theories to mobile assisted language learning research in EFL secondary school settings. In particular, the combination of SCT with SFL to investigate the MALL L2 classroom has not been researched. The next chapter explains the technological-mediated task based language teaching design behind classroom practices in this study.

Chapter 4: Technology-mediated Task Based Language Teaching framework

4.1 Introduction

In this chapter I will first present the key principles of a Task-based language teaching approach and its use in the mobile learning context. Secondly, the link between task-based concepts and socio-cultural concepts will be explained.

4.2 Communicative Language Teaching and Task-based approaches

For the last three decades, researchers of second language acquisition have recognized that the modality of learners' engagement in communicative classroom activities is important for their development (Kahn, 2012). In reading and assessing second language activities in the classroom, I will consider the recent changes in language teaching methodologies and their impact on the classroom teaching and learning contexts including the role of teachers and learners.

Language learning and teaching has experienced a series of important changes over the last forty years, mostly due to the need to find effective methods (Power & Shrestha, 2009). There was a clear move from a traditional teacher-centred method such as grammar-translation to more student-centred methods such as Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT). This study investigates the use of the iPad in the EFL classroom mainly through communicative language teaching and task-based approaches. In this section, I will give an overview of the two approaches and review the relevant studies on CLT and TBLT and its integration with technology.

A communicative approach to language teaching uses realistic life situations based on the lives of students as a means to foster language learning and develop their functional competence (Canale & Swain, 1979). A

communicative (or functional/notional) approach is organised on the basis of functions (e.g., describing, inviting, apologizing etc.) that learners need to know in order to perform real life situations. Communicative activities are interactive and clearly relate to students' experiences, thus motivating learners to communicate in meaningful ways about subjects of interest (Richards & Rodgers, 2001). The main objective of communicative language teaching is developing learners' communicative competence in a target language (Littlewood, 2007). In his analysis of CLT over 40 years, Littlewood (2014) identifies two different versions of CLT: a communicative perspective on Language and a communicative perspective on Learning (Littlewood 2014, p. 351). A communicative perspective on language is about what we learn, not specifically in terms of language structures, but in terms of communicative functions. Examples of classroom activities related to this approach are activities where learners are asked to 'do things with the language' (Wilkins, 1976) such as role-plays, pair work discussion, use of authentic materials etc. On the other hand, a communicative perspective on learning focused on how we learn a language in terms of natural acquisition with no or limited help by the teacher (Krashen & Terrell, 1983). For these reasons, the communicative perspective on Learning is identified as the strong version of CLT, while the communicative perspective on Language as the weaker version.

In 2000, The Italian Ministry of Education implemented a major foreign language education reform programme called *Progetto Lingue 2000*, whose main aim was to provide courses in two foreign languages from primary to high school levels to develop learners' communicative competence as defined by the *Council of Europe Framework of Reference for Languages* (2001). In the Progetto Lingue 2000 impact study, students were taught in small homogeneous groups, following CLT principles and using up-to-date technologies. The emphasis of the study was on introducing a communicative approach to learn languages as an alternative to the standard notional-functional method. Hawkey (2006) presented part of the impact study findings on teacher and learner perceptions in the communicative classroom. Results, based on qualitative and quantitative data sets, showed

how teachers' perceptions of some classroom language learning activities differ substantially from the perceptions of their students. The most important gaps were found on the perception of the importance of pair work and grammar exercises; out of 13 classroom activities students ranked grammar exercises as 5 while teachers as 11. On the other hand for teachers pair work had a strong prominence (rank 2/13) and less for students (rank 8/13). In the official Ministry specifications of the PL2000 the development of 'communicative competence in reading, written and oral interaction and production' was the key direction. Perhaps the teachers involved in the study felt they had to implement a strong communicative approach so they under-estimated the importance of grammar, or the students over-estimated the importance of grammar because of the traditional notional-functional approach popular in Italy till this project (Hawkey, 2006). A similar study conducted in Bangladesh in 2013 about the use of communicative language teaching activities in primary schools supports these findings (Shrestha, 2013) However, the study represented a first and significant input to introduce a focus on communication into the EFL Italian secondary classroom. Since then teachers generally implement the weaker version of CLT as they recognized it as a more familiar framework.

Stemming from some CLT concepts and techniques, the task-based language teaching approach (TBLT) is based on the idea of identifying and performing what learners need to be able to *do* in the new language. In this study, as in, for example, Littlewood (2012), Nunan (2004, p. 10) and Richards (2005, p. 29), TBLT is seen as a development within CLT, in which communicative 'tasks' play special roles. Tasks are the real world activities that people do in their daily life (e.g., answering the phone, preparing breakfast, doing sports etc.), some of them are simple, some are complex; some are related to language, some are not (Long, 2014). In the language classroom, tasks are selected to be part of a *task syllabus*, which consists of a series of *pedagogic tasks. Pedagogic tasks* are the activities that students and teachers work on in the language classroom (Long, 2014). It is important to underline that the EFL context of language education in secondary schools

in Italy can be described as “task-supported” rather than “task-based”. As Samuda and Bygate (2008) argue, in a task-supported environment tasks are “used to enrich the syllabus or to provide additional learning opportunities. However, tasks are not used for assessment purposes and the syllabus may be defined by categories other than tasks” (2008, p. 59). Most Italian teachers know the TBLT approach through short teacher development courses and handbooks where often standard communicative activities (e.g., interviewing someone) and exercises are relabelled as *tasks* without having any connections with students’ real life.

In this context, the communicative approach and the task-based (or task-supported) learning approach seem to be the most widely used approaches by English language teachers in Italy. These approaches appeal to many learning styles (linguistic, visual, kinaesthesic etc.) and they make large use of collaborative learning activities.

As Sung (2010) points out, the review of the current literature on TBLT and CLT shows that the teaching context is a crucial factor determining whether or not TBLT can be successfully implemented in the classroom (Sung, 2010). Some researchers (Bax, 2003; Holliday, 1997) take the position that CLT is not equally suited to all contexts while others (Hiep, 2007; Liao, 2004; Shrestha, 2013) claim that issues in particular contexts do not necessarily negate the usefulness of CLT. Considering the potentiality of CLT and TBLT to suit various classroom situations (including the iPad language classroom), and the fact that the common practice in Italy is to use these approaches, this study will only investigate TBLT classroom situations.

In order to further clarify the use of the terms CLT and TBLT, it is important to say that the two terms are often used under the same umbrella, in particular TBLT is viewed as a specific realization of the CLT framework (Hu, 2005; Littlewood, 2004; Nunan, 2004; Richards, 2005). However, this study considers TBLT as an approach with its own identity (as in Ellis, 2003; Estaire & Zanon, 1994; Nunan, 2004; Willis, 1996). Therefore, in the following chapters only the term TBLT will be used.

4.2.1 The key concepts of TBLT

At the basis of TBLT is the idea that students are given functional tasks that ask them to focus on meaning exchange and to use English to perform real-world situations, with no specific linguistic purposes. Many studies show how TBLT can promote language learning (Bygate et al., 2001, Ellis, 2003, Lee 2000, Nunan 2005). Although as explained in Van den Branden (2006) much of the research has been focusing on controlled settings more than on spontaneous settings. The key concepts of TBLT have been largely used in second language acquisition research (SLA); for example, tasks have been used to elicit language, to work on negotiation of meaning etc., but there is less empirical research on TBLT in the language classroom (Van den Branden, 2006). In this study, once goals are identified, the tasks planned and designed focus on the crucial question that Van den Braden poses (2006) 'How can teachers design and organize activities to stimulate and support learners reaching these language learning goals?'

In order to understand TBLT and its relation with this study it is important to clarify what a task is and the key concepts behind TBLT.

4.2.2 Characteristics of tasks

There is no single definition of a task in the area of EFL. For the purposes of this study the definition of Van den Branden (2006) seemed to be the most suitable:

> 'a task is an activity in which a person engages in order to attain an objective, and which necessitates the use of language' (2006, p. 4).

According to this definition, learners receive a language input and need to use the language to produce a successful output. Tasks should provide meaningful and motivating communication activities that learners can perceive as relevant also beyond the language classroom. Moreover, task features such as the relationship between speakers, the amount of information etc. can be manipulated in order to direct learner's attention at specific language chunks (Norris, 2009).

Tasks can be generally divided into two macro areas: input-based and output-based tasks. In input-based tasks, learners usually read and listen to

texts, but are not required to produce language (written or spoken), unless they would like to. On the other hand, output-based tasks require learners to produce language, written or spoken (Ellis, 2003). Due to the specific focus of the present study on the development of productive skills, the tasks considered for investigation are only output-based tasks.

Moreover, for the sake of this study it is crucial to further analyse this concept of task and its relation with CALL or MALL. Chapelle (2001) in a study about the Computer Assisted Language Learning (CALL) influence on tasks, identified five key qualities that are fundamental in the design of a relevant task. 1) Authenticity, the task should be similar to authentic tasks that the learners could meet outside the classroom. 2) Meaning focus, in the sense that the teacher or the task designer should invite students to focus on meaning more than on form. 3) Learner fit, each task should respond to learners' needs. 4) Language learning potential, defined by Chapelle as 'the degree of opportunity for beneficial focus on form' (2001, p. 55). 5) Positive impact, a task should provide learners with opportunities to learn and self-reflect on their own learning. In this respect, the iPad could have a great impact on the design of self-reflective tasks. In this study, for example, learners proved to be enthusiastic to receive immediate and personalized feedback from the teacher through the iPad, and they felt this contributed to their personal learning. The tasks designed for this study follows the indications in Chapelle (2001) and Gonzalez-Lloret and Ortega (2015).

4.2.3 Task-based designs

Although many task-based designs have been developed (e.g., Wilkins, 1996; Ellis, 2003), many of them include the following elements (Norris, 2009):

a) Needs Analysis – it is the 'first stage in the design of a TBLT program' (Long, 2007, p.124); in order to identify the tasks to be included in the curriculum, needs analysis should gather information about language necessities, learning needs, context etc.

b) Task selection and sequencing – based on the needs analysis, tasks are then organized into group types and articulated into a frame.

c) Materials and instructions development – once organized tasks are delivered to learners, materials should provide learners with 1) relevant input supported by authentic materials 2) activities that have manipulated in order to ensure sufficient focus on form 3) scaffolded, meaning-oriented, interactive activities 4) *target-task performances* (Norris, 2009, p. 4).

d) Teaching – in a TBLT environment the teacher plays a key role in organising and providing learners with communicative tasks, but also in monitoring and enhancing understanding of language use.

e) Assessment – through several modalities of assessment, students' task based learning is regularly evaluated (Norris, 2002)

f) Program evaluation – in task-based programs the evaluation of the experience is crucial in understanding and improving those aspects of the TBLT design that enable teachers to better implement classroom tasks.

As will be explained in Chapter 6, this study focuses on elements b, c and d, with some needs analysis aspects provided by the first phase of the action research. Moreover, given the different approaches to TBLT and the local context of this study, the TBLT approach used follows the indications in Ellis (2003), particularly regarding the focus on form in all phases of the TBLT and the integration with traditional approaches (see table below). The table shows the shift from the TBLT approaches of Skehan (1998) and Long (1985, 1991) to the latest of Ellis (2003). In particular it is important to note that Ellis (2003) opens to the possibility of integrating traditional approaches into TBLT, which could make TBLT easier for teachers to implement in their own curriculum.

Table 4.1 Differences in TBLT approaches. From Ellis (2003)

Characteristic	Long (1985, 1991)	Skehan (1998)	Ellis (2003)
Natural language use	Yes	Yes	Yes
Learner-centredness	Yes	Yes	Not necessarily
Focus on form	Yes – through the negotiation of meaning	Yes – mainly through pre-task	Yes – in all phases of a TBLT lesson
Tasks	Yes – unfocused and focused	Yes- unfocused	Yes – unfocused and focused
Rejection of traditional approaches	Yes	Yes	No

4.2.4 Task lesson cycle

The implementation of TBLT in an EFL classroom requires flexibility and attention on the contexts and learners, so there is no fixed structure of classroom work. However, it is possible to identify four main phases of the task classroom implementation (Norris, 2009).

1) A *task input phase* where the target task is introduced and learners are exposed to language in use in order to facilitate learning. This phase usually includes activities like reading/listening to a text, watching a video etc. in which the language is not manipulated. This helps learners to see language in context and activate their previous knowledge and motivation. During this phase, the teacher usually provides the language input without working on or modifying it.

2) Task input is followed by a *pedagogic task work* phase in which learners can start noticing and manipulating the target language forms and functions. According to Ellis (2003) by manipulating a task it is possible to make learners focus on different aspects of the language, therefore the role of the teacher here is to raise students' awareness of new forms and facilitate a first-production stage by using interactive activities where learners can collaborate, negotiate, solve problems and start using the language iteratively. At the end of this phase the teacher can provide learners with specific feedback or with general explanations on forms, functions etc. (see Chapter 8 for examples on this study).

3) After several uses of the language form and functions similar to the input phase, the following *target task performance* phase requires learners to produce what they have learned in the previous stages. Depending on the curriculum, this can be in the form of a short presentation of a specific topic, a long written text (e.g., an article, a review – see Chapter 8), an interview etc. In this phase, teachers should replicate real task context and situations as much as they can: providing an audience for the presentation, creating a newsletter for articles or reviews etc.

4) The last stage is usually a *follow-up* phase. Teachers and learners can decide to reflect on the performed tasks by looking at different aspects including form, planning, accuracy, fluency etc. The follow-up can serve as

language learning enhancement, but, as Norris (2009) points out, it can only work if there is a 'focus'. A list of errors cannot be the right way to reflect on language forms, whereas a list of common patterns emerged during the performance can better raise learners' awareness on language.

Figure 4.2 Task lesson cycle

The task design and lesson cycle presented here (Figure 4.2) can be complemented with specific use of technological tools such as mobile devices. This integration is supported by recent studies on TBLT and CALL/MALL and a technology-mediated TBLT framework to foster full integration of technology in second language curriculum has been proposed. The following paragraphs aim at presenting this framework and linking it to this study.

4.3 Technology-mediated TBLT: a new framework

In the last decade, language teaching and technology had an impact on each other not only inside the language classroom, but also outside. At the basis of this study there is the idea that from a pedagogical perspective, there is the risk that new technologies (e.g., tablets, smartphones etc.) can only serve as entertainment without a solid educational purpose to support them on the background. 'Technology and tasks should be carefully evaluated according to their social and pedagogical impact. In this context, the task-based language teaching (TBLT) approach to second language acquisition

seems particularly relevant, considering the range of new tasks in the real world that different technologies could provide' (Morgana, 2016, p. 130).

Recently, there has been a significant amount of research, which has focused on computer-assisted language learning (CALL) and teaching with a specific attention on task-related opportunities and issues (Thomas & Reinders, 2010). In their book on TBLT and technology, Thomas and Reinders (2010) provide a series of international studies focused on the link between second language TBLT and CALL in different contexts. Stemming from the work of Chapelle (2001, 2003) their work investigates how traditional theory on TBLT tasks can foster the understanding of technology-mediated tasks, but also how technology in TBLT can contribute to reshape theory and research on tasks. CALL research, specifically, has often responded to the changes of the use of technologies inside and outside the classroom, moving from a behaviourist to a more integrative approach (Thomas & Reinders, 2010; Warschauer, 1997). One of the key elements that emerged from their analysis is the 'less restrictive and diversified approach' to tasks very often present in CALL research as opposed to the traditional classroom based TBLT research. As a result, Gonzales-Lloret and Ortega (2015) have aimed to introduce a new framework for the mutual combination of technology and tasks, which they define as 'technology-mediated TBLT'. The framework opens up to a new practice based on the notion that 'the choice of technology used for language learning is not neutral' (Morgana, 2016, p. 130).

Although several studies showed various ways to enhance the quality of TBLT curriculum through the full integration of technology (Gonzales-Lloret, 2014; Solares, 2014; Oskoz & Elola, 2014; Canto et al. 2014; Sauro, 2014), the question of how to integrate language tasks and new technologies into a complete L2 secondary school curriculum remains largely under-researched. As Gonzales-Lloret points out, it is important to understand the distinction between the 'mere extensions of tasks to online environments' and a 'technology-mediated TBLT' (2014, p. 5) where technology and tasks are integrated. It means that planning, deployment and performance of pedagogic tasks should be fully supported by the technological tool chosen, and it should enhance the standard pen and paper activity, instead of simply

translate it to a new medium. Examples of technology integration for writing and speaking tasks will be presented in Chapter 6.

There are three key requirements to consider when researchers plan to implement this framework. First, teachers, researchers and educators should work with a definition of task based on TBLT principles. Then, they should be aware of the impact that technology integration is having on language learning and knowledge in general, inside and outside the classroom. Finally, as recommended by Gonzales and Lloret (2014) technology needs to play a key role in all the different stages of the TBLT curriculum including needs analysis and programme evaluation.

Moreover, as Warschauer (2004) points out, learning English is becoming a tool to access the Internet and use technology in general and also to communicate with others. It is no longer the opposite where technology was used as a tool to learn English. In a tech-mediated model language learning is not only an objective, but also a medium to help succeeding in the L2 technology task. In addition, it is crucial that research and theory on TBLT consider various mediating aspects of technologies in communication inside and outside the language classroom (Motteram & Thomas, 2010). In Chapter 6, a comparison between the traditional TBLT curriculum and the technology-mediated TBLT curriculum will be presented.

4.4 Task-based approaches within MALL

Researchers in the field of language learning and technology have provided evidence of the impact of different types of technological tools on language acquisition (e.g., Chapelle, 1997; Levy & Stockwell, 2006; Warschauer & Healey, 1998; Warschauer & Meskill, 2000). Many of them have explored new strategies for CALL and task-based language learning (e.g., Chapelle, 2001). As stated in the previous chapters, in the last decade the use of mobile technologies has massively impacted the second language classroom, often going beyond the borders of those classrooms. In particular, there are some studies that have explored the use of mobile technologies, such as iPods and tablets, to reconceptualise task-based language teaching and learning approaches (e.g., Pellerin, 2004; Canto et al., 2014; Solares, 2014; Lys, 2013).

Three studies proved to be particularly relevant for this research. Pellerin (2004) conducted a study into a second language young learner classroom of French students using mobile devices (iPods and tablets). The study, informed by Vygotskian's key sociocultural concepts of scaffolding and ZPD, aims at demonstrating how the use of such tools can support the design of language tasks. The choice of SCT supports the dynamic view of tasks as potentially modifiable by learners (Ellis, 2003). Pellerin states that one of the most positive aspects of using a mobile device is that 'learners can directly interact with the interface' (Pellerin 2004, p. 11), and this represents chances to 'create and design their own learning tasks'; supporting the idea that this factor "makes learning a creative, purposeful activity" (Kearsley & Shneiderman, 1999 cited in Pellerin, 2004). Another crucial aspect that informs this study is that 'the physical and functional affordances provided by the iPods and iPads contribute to greater learner engagement, which in turn increases learners' motivation to learn because they develop a sense of control and ownership over their learning' (Pellerin 2004, p. 11). Moreover, iPods seem to manage different learning style and therefore they can be very useful inside the young learners' foreign language classroom. Although the study investigates crucial aspects of the integration of mobile devices into the language classroom, very often the analysis of the data is not complete. The increase in motivation and engagement is a common and crucial aspect in MALL as it is clearly expressed in this study, however it would be beneficial to have detailed examples of the changes in engagement and motivation performed by learners. These two concepts of engagement and motivation will be further investigated in the results of the present study (see Chapters 6,7 and 8).

In their attempt to design a technology-mediated TBLT framework, Gonzales-Lloret and Ortega (2014) presented a series of studies in the field with a specific focus on key concepts of TBLT, from needs analysis to evaluation. Following the focus of the present study, the volume includes five empirical studies that explore task design, selection and sequencing which are the steps highlighted in this study. These investigations include learners from different countries and cultural backgrounds studying English or Spanish as a foreign language in higher education. Moreover, the studies

present a wide range of communicative tasks and goals that can be achieved by the learners. The studies in this section consist of a short introduction followed by sections on methodology, data collection and analysis, discussion and limitations. Some of them deal with the use of a technology-mediated TBLT approach to develop second language writing skills. For instance, Adams et al. (2014) examine the role of prior knowledge on EFL writing in text chat where learners used an interactive problem-solving task. They found that accuracy and the complexity of language production are affected by prior knowledge to only a limited extent. Moreover, an action research study conducted in Mexico with EFL learners proved to be important for this study. Solares (2014) investigated a multi-stage online writing task with three different groups engaged in three instructional designs with and without technology-mediated tasks. The three groups were interviewed about their perceptions of the usefulness of tasks and technology; a small group of students who benefited from the use of technology was also interviewed after a few months. Interestingly, the study provides information about implementing successful tasks in a textbook-bound context, and it encourages teachers who want to redesign existing tasks (Morgana, 2016). In particular learners seemed to have reached the same linguistic competence, but there was a quite relevant difference in their perception of task design and its link with technology. However, the study presents some limitations especially in the design, for instance, the lack of a survey on digital literacy at the beginning of the study, and also the choice of the students in each group was arbitrary, it would have been more supportive to have clear criteria behind it.

Similar to Solares, Oskoz and Elola (2014) present a classroom study on the design and integration of sub-tasks to develop genre knowledge using Web 2.0 tool (social media and wikis). A sociocultural theoretical background informs the study. Remarkably, the authors attempt to overcome the standard task and technology design by targeting also two writing genres (argumentative and expository essay). Oskoz and Elola found that writing collaboratively students felt more engaged in process writing, and they started to develop critical thinking skills. Despite the encouraging results of both studies, they have some methodological limitations, such as little

information regarding learners' digital literacy and the lack of a pen and paper group. Nevertheless, these studies will potentially inspire follow-up studies, which may provide further data and evidence (Morgana, 2016).

4.5 Task-based approaches and Socio-cultural theory

The communicative and the task-based approaches have been strongly influenced by sociocultural principles. In a sociocultural classroom, where Vygotskian ideas are applied, the teacher encourages learners to engage in dialogue with both the teacher and each other, and to think by asking questions of each other (Brooks & Brooks, 1999). Moreover, collaboration is seen as the most effective means by which sociocultural learning can be established (Lantolf & Appel, 1994; Woollard, 2010). In a student-centred language classroom context, mobile technologies can play a key strategic role, moving from simply presentation devices of a teacher-centred context to a more collaborative function, where learners are asked to use and identify cognitive strategies that facilitate their learning (e.g., cooperative, non-linguistic, problem solving strategies etc.). Furthermore, tasks themselves mediate action and interaction, and the way they are designed and presented could also influence how learners orient themselves (Lantolf & Appel, 1994). In a study conducted with first year university students in Taiwan, Sung (2010) examined the effects of three communicative language teaching-based projects including the use of technology (e.g., blog, video). The results showed that students had a positive reaction to communicative tasks, the projects reinforced authentic communication, and they fostered student autonomy, stimulated creativity and promoted independent language learning. Moreover, the use of technology helped them to work on all four language skills. Although the results were positive, the study did not include a needs analysis, so some students were not skilled to use technology (e.g., in the blog project). As Nunan (1992) suggests, it would be beneficial if instructors collect information about learner needs before designing the curriculum since both CLT-based and TBLT activities aim to cover what learners need and consider as important, and also the institutional and social needs.

4.5.1 The role of the teacher

Many studies on the integration of technology devices into the language classroom have pointed out a series of issues related to the role of the teacher. In the Futurelab literature review of languages, technology and learning, Milton observes that 'It is a very common feature of technology-based language teaching materials, that they are technology-led rather than pedagogy-led' (Milton, 2002, p. 11). Moreover, talking about the outcomes of language laboratories he states that they:

> "proved to be a useful tool, but only one tool, in the hands of a good teacher, and a huge waste of time and money in the hands of a bad teacher. There really is no evidence to suggest the use of language laboratories improved the efficiency of language learning overall." (Milton 2002, p 16)

Further research is needed in this area, analysing the same issue using different technological devices (e.g., iPad). The successful use of any tool in language learning needs reflective thinking (Chinnery, 2006). Colpaert (2004) suggests that the researcher should put more emphasis on the importance of developing the language learning setting rather than focusing on the role of mobile technologies as a first step, the focus should therefore be on the learner first, ahead of the technology.

4.6 Summary

The main aim of this chapter was to review the use of CLT and TBLT approaches into the EFL classroom. The Task-based language teaching concepts in relation with CALL or MALL were presented and analysed. Many studies suggest that the integration of technology and tasks help to reconceptualise TBLT and learning. The studies reviewed in this chapter explored students' and teachers' use of technology in relation to specific second language tasks. It should be noted that the results of the studies reviewed are encouraging in all the areas analysed. However, research in

this field is still limited, and often related to specific tasks rather than the design of a technology-mediated TBLT curriculum.

Chapter 5: Research design and methodology

5.1 Introduction

This chapter will report on the research design and methodology. I begin with my position as a researcher in this study and then present the type of research, the context and the data collection methods. In the final two sections, data analysis and ethical issues will be explained.

5.2 Theoretical position as a researcher

According to social constructivism human learning is strongly influenced by social factors and meaning is socially constructed. Therefore, the social sphere is usually influencing the individual sphere and not vice versa (Vygotsky, 1978). Learners are always at the centre of the learning process and the teacher should provide them with authentic activities that foster collaborative learning, negotiation of meaning and discussion (Healey and Klinghammer, 2002). As presented in the introductory chapter, the present study involved a group of teenagers living in one of the biggest cities in Italy in 2014. They are the first teens using the latest mobile devices such as tablets and smartphones and they are commonly defined as the generation 3.0 who is able to create online personal content in contrast with generation 1.0 and 2.0 who were just reading and interacting with online sources (Fuchs et al., 2010). Those factors have influenced their attitudes toward learning a second language. In addition, students' constant use of mobile devices represents a critical aspect also of text production, which is an area of investigation of this study. Recognizing these influences, qualitative (e.g. interviews, observation tables) and quantitative (e.g. survey) data collected during the study is seen as socially constructed.

I particularly explore the role that a 'social tool' (the iPad) has on language learning and teaching. Although I embrace a social constructivist approach to the research, I am aware that the qualitative interviews, largely used in this study, are often seen as 'multiparadigmatic in focus' (Denzin and Lincoln, 2008, p.6) according to their theoretical orientation. Questions selected for this research are socioculturally oriented with a specific focus on the role of mediation of the tools (e.g. mobile device, apps) in the learning process. As

noted by Hubbard and Levy (2016), when applying sociocultural theory to the field of CALL/MALL mediation easily becomes an integral part of the research since 'the technology in itself shapes the interaction in particular ways' (Levy & Hubbard, 2016, p.30). Moreover, technology facilitates new forms of social interaction, not necessarily online, but also in the language classroom.

In addition, considering the constructivist idea that learning and researching are active processes where participants construct knowledge based on their experience, this study follows a collaborative action research approach. It is important to notice that social constructivism and action research share some similarities in assumptions (Lincoln, 2001). In particular they are both committed to social investigation. As Kemmis and McTaggart (1988) pointed out participatory action research can be seen as an evolution of applied social research that investigates different social settings where participants play the role of researchers. In the same way, both action research and social constructivism focus on the action towards the participants. Based on these assumptions and being aware of the shift in the relationship between the researcher and the researched, I followed a collaborative action research approach in which I as a researcher and the EFL teachers involved, dynamically plan, discuss, reflect and adjust meaning in order to facilitate active learning in the EFL classroom.

5.3 Research design and methodology

The research design of the present study is mainly based on the ideas about Communicative Language Teaching and Task Based Language Teaching, such as the use of authentic life situations to foster language learning, presented in the previous chapter and their potential in the MALL classroom. Following recent trends in education that are integrating the latest mobile technologies into the EFL classroom (Al Fadda & Al Qasim, 2013; Burston, 2014, 2015; Hsu, 2013), the present study was conceived as a classroom-based study that might contribute to MALL research by investigating practices and potentially effective classroom activities to develop speaking and writing skills.

This study follows an action research approach. Action research has been chosen over other valid methods (e.g. ethnographic study, grounded theory) for the need to investigate my own professional practice and because of its focus on 'issues of immediate concern to particular social groups or communities' (Burns 1999, p. 24). The immediate concern in this case is the introduction of a one-to-one iPad project in a secondary school, and the subsequent need to analyse mobile learning as an educational tool for EFL students.

My role was that of an external consultant with EFL teaching experience as noted in Chapter 1. Regular meetings with teachers and support on lesson planning were some of the weekly responsibilities I had. Although I was not teaching the students involved in the research, this study followed mainly an action research cycle due to the collaborative and reflective nature of the project itself (Burns, 2003). The researcher was always considered as one of the participants in the cycle.

5.3.1 Action Research

Before proceeding, it is essential to clarify what the meaning of action research is. Burns (2009; 2003) describes action research through its relation to the ideas of 'reflective practice' and 'the teacher as researcher'.

> 'Action research involves taking a self-reflective, critical, and systematic approach to exploring your own teaching contexts. So, in AR, a teacher becomes an 'investigator' or 'explorer' of his or her personal teaching context, while at the same time being one of the participants in it (Burns 2009, p. 4).

According to some researchers, action research should not be considered as a research methodology but, instead a procedure for professional development (Brumfit and Mitchell, 1989; Jarvis 1991). However, other researchers support action research. Nunan (1992), for example, argues that action research fulfils basic research requirements such as systematic data collection, interpretative analysis, and it also follows established research questions. Moreover, the data collection methods can be triangulated in the sense that the data gathered from different sources can be combined to

increase validity and reliability of the research. Action research also parallels qualitative research approaches like 'grounded theory' (Glaser and Strauss, 1967). In grounded theory observed behaviours and the actual social situations are the basis of the theory of practice (Burns, 2009). In action research, the social situation is the teacher's own classroom.

Action research is often seen as a spiralling process of reflection and enquiry (e.g. Lewin, 1946). According to Kemmis and McTaggart (1988), action research typically involves four broad steps in a cycle of research each of which is explained below.

1. **Planning**: In this phase teachers identify a problem or issue and develop a plan of action in order to improve a specific area of the research context. This is a planning step where it is important to consider: i) what kind of investigation is possible in the teaching situation selected; and ii) what potential improvements are possible.

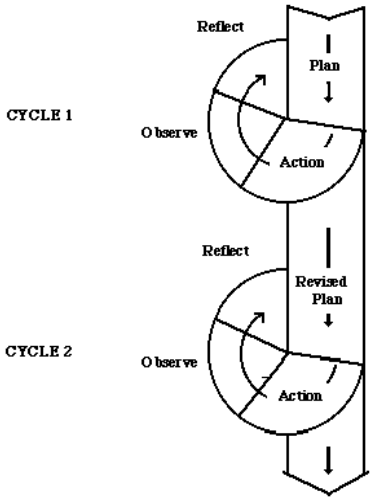
2. **Action**: Teachers start to involve some deliberate actions into their teaching setting following an agreed timetable. The teaching actions are 'critically informed' as teachers question their ideas about the current situation and plan new and alternative ways of doing things.

3. **Observation**: During this phase teachers/researchers observe systematically the effects of the action and document the context, actions and opinions of those involved. It is a data collection phase where it is possible to use various kinds of tools to collect information about what is happening in the classroom.

4. **Reflection**: During this phase, teachers/researchers reflect on, evaluate and describe the effects of the action in order to understand classroom dynamics and to investigate the issue they have explored more clearly. At the end of the reflection phase, teachers may decide to do further cycles of action research to improve the situation, or to share the results of the research with others as part of a bigger project or their ongoing professional development. (Adapted from Kemmis & McTaggart, 1988, pp 11-14)

Although the cycle of Kemmis and McTaggart (Figure 5.1) proved to be quite useful for the study, it is also not flexible, unlike the iPad teaching situation and it allows only one single direction (top-down) while the language classroom often offers multiple directions to be considered during a lesson. Flexibility here refers to the idea of easily modifying the action research plan or a classroom activity. A standard action research cycle moves from planning to reflection passing through action and observation. Sometimes the classroom situation requires, for example, the researcher to re-plan the action before observing and reflecting. In addition, more recent interpretations and uses of action research, including this study, have recognized action research as a highly flexible research process (Ebbutt 1985; Somekh, 1993). Somekh (1993), in particular, stresses the importance of unpredictability of the social situation where action research is used, and he proposes a list of useful key features of action research (e.g. the research is focused on a social situation). Following the considerations above, the cycle has been adapted during the study allowing flexibility of directions (for example moving from observation back to action etc.) and considering unpredictable factors.

Figure 5.1 Action Research Cycle from Kemmis and McTaggart 1988.



5.4 Research context

In this section, I will briefly describe the research context in which this study was carried out. The more significant part of the study partly continued the

research started in the first phase, narrowing the focus on productive skills in English language (speaking and writing).

5.4.1 EFL in the Italian secondary education system

The study took place in an upper secondary school (Scuola Paritaria) – Liceo Scientifico Fondazione Sacro Cuore in Milan, Italy.

> In Italy 'Education is compulsory for ten years between the ages of 6 and 16. This covers the whole of the first cycle of education, which lasts eight years (five years of primary school and three years of lower secondary school), and the first two years of the second cycle. After completion of the first cycle of education, the final two years of compulsory education (from 14 to 16 years of age) can be undertaken at a state upper secondary school (liceo, technical institute or vocational institute). In addition, everyone has a right and a duty (diritto/dovere) to receive education and training for at least 12 years within the education system or until they have obtained a three-year vocational qualification by the age of 18. Compulsory education refers to both enrolment and attendance. It can be undertaken at either a state school or a non-state, publicly subsidised school (scuola paritaria) or even, subject to certain conditions, through home education or private schools.'
>
> (from The Italian Education System, I quaderni di Eurydice, 30, 2014, pp. 7-8)

According to the official directions of the Ministry of Education, Italian learners start having EFL classes from the age of six.

5.4.2 Beginning of the project

The school administration in September 2014 decided to implement an iPad project in two of its high school classes. As a secondary school EFL teacher, I had collaborated with this school for a few years, particularly on curriculum design and teacher development projects. In particular, I gave teacher training seminars and workshops on the use of technology in language

learning. The two English teachers involved in the project asked me, as a researcher, to help and support them in the project. The English department includes all the English teachers of the school and operates under the Head of the department, who was also actively involved in the project. Since the school received fifty iPads as a prize not all the classes could participate in the project. The head of the English department chose the classes, and also the students and the teachers involved in the project at the beginning of the school year in 2014, following the criteria I provided (B1 English level, equal distribution of male and female students). In the school year 2014/2015, I carried out the initial exploration phase, while in the following school year 2015/2016 the second and more significant part of the study was conducted.

5.4.3 Participants

Teachers

The team consisted of a researcher (me) and three EFL teachers (participants). One teacher was an English native speaker teacher whose role was to prepare students for the Cambridge First Certificate of English (FCE) writing tasks. The others taught both General English and English Literature. At the beginning of the project, teachers were asked about their level of expertise with the iPad, both functionally and pedagogically. Teachers A and B were already familiar with the device due to the pilot project, Teacher C received the device on September 1st and needed about two weeks to get familiar with the basic functions of the iPad and to start using it within a pedagogical framework. This was not an issue for the planning of the project and it did not interfere with the research at any time. Although Teacher C agreed to be observed during lessons and participated in teachers' meetings, she did not agree to be interviewed. Therefore, only interview data from Teacher A and Teacher B were collected.

Students

Two classes (11th grade) were selected by the head of English department to participate in the project. I informed all the students about the research design, future actions and objectives. All students accepted to be part of the

study by signing up a consent form. There were 38 students involved: 14 girls, 24 boys. All these students participated in the pilot project. Their EFL teacher, regardless of their level of English, selected about one third of the students in each class to be part of the pen and paper group whose aim was to perform the same writing and speaking tasks of the rest of the class but without the use of the iPad. In order to avoid any possible ethical issues, and to ensure students were feeling comfortable in the project, they were allowed to choose the group they would like to be in so the choice of the group was totally voluntary.

At the time of this study, all of the students were 17 years old. Each student received a numbered iPad at the beginning of the school year. Unlike in the first phase of the project (see 5.2.3), students were allowed to bring the device home for the second phase of the study. I believe this is an important choice in terms of research validity, because learners can fully understand the possible advantages and disadvantages of the medium.

5.5 Technology-mediated Task based language teaching

It is widely accepted that language teaching and technology are influencing each other inside and outside the language classroom, and that technology is often a crucial aspect of language practice (Motteram, 2013). Technology and tasks should be carefully evaluated according to their social and pedagogical impact. In this context, a TBLT approach to second language acquisition seems particularly relevant, considering the range of new tasks in the real world that different technologies could afford. Following this notion, Gonzales-Lloret and Ortega (2014) introduced a new framework for the reciprocal integration of technology and tasks, which they define as 'technology-mediated TBLT'. It is a methodological framework for technology-mediated task design and implementation. The key idea behind the framework is that 'pedagogic tasks should take full advantage of a chosen technology' (p.8) and that the relationship between tasks and technology should be reciprocal. The team involved in this research (myself as a researcher and two EFL teachers) decided to implement this framework for the speaking and writing modules of the course.

As suggested by Gonzales Lloret and Ortega (2014), I considered technology, and the iPad in particular, as part of the full planning cycle of a TBLT curriculum, from needs analysis to assessment and evaluation. For example, the needs analysis of the tasks of the present research involving the use of the iPad had considered not only the language skills needed to perform the tasks in question, but also the learners' digital literacies, access to Wi-Fi connection, technological support needed etc. I also considered the teachers' attitudes towards the mobile device, and their motivation to introduce new technology-based tasks into their teaching, being aware that this aspect will potentially have an important impact on the view of a technology-mediated TBLT as an innovative practice (Hubbard, 2008).

The first step of technology-mediated TBLT planning is the needs analysis; this should gather information not only about the tasks, but also about the technological tools involved in the lesson (Gonzales-Lloret, 2014). Following these indications, to gather information about learners' digital literacies and their perceptions about the use of the iPad in the EFL classroom the team involved in this study used the data analysis and results of the first phase of the action research conducted with the same students in the school year 2014/2015.

The second step of the planning is about task selection and sequencing. The speaking and writing tasks used in this study have been adapted from the Cambridge First certificate standard tasks. Exam preparation courses in this school were not primarily task-based or technology-mediated, so this research, in a sense, allowed the learners an opportunity to prepare for the Cambridge exam with a different approach and the teachers to innovate their teaching. Well-designed tasks in a technology-mediated context may be particularly beneficial for L2 communication as they create a virtual space where participants (learners and teachers) can interact synchronously and asynchronously. For instance, in a MALL context learners can write an essay in class and the teacher could give feedback on it in real time (synchronous interaction), or they can perform a collaborative writing task, such as story writing, by completing it from different places at different times (asynchronous interaction). In any case, I and the teachers involved always tried to select, design and modify tasks making sure learners could use three

different modes: text, audio and video. Very often learners used interactive problem-solving tasks involving pair work and group work discussion. In some speaking tasks, for example, they were asked to role-play characters in a specific situation and they had a few minutes to discuss the topic and agree or disagree on something (e.g. the best recycling options in a big city). They were asked to record the conversation, or to look for specific information on their tablets. The teachers and the researcher had weekly meetings to discuss and evaluate how the planned tasks actually unfolded for learners as they participated.

The last step of the technology-mediated TBLT planning is assessment. Although assessment was not one of the main goals of the present study, I believed there was space for investigation and we designed a few tasks that were able to help the learners to self-monitor their oral development. Each student completed different speaking tasks using the iPad recorder or other similar apps (e.g. RecApps). They were allowed to record the tasks and listen to them as many times as they wanted before sending it to the teacher and receiving feedback. In the post-task sections, they were often asked to self-evaluate their speaking tasks according to criteria provided by the teachers as pronunciation, intonation, range of vocabulary etc. Unfortunately, in this study there was no statistical comparison between their self-feedback and performance, and the teachers' ones, but the study presents comments made by the teachers on students' speaking performances.

5.6. Procedure and schedule

5.6.1 First phase of the Action research cycle

Before embarking on the more significant part of the study, an initial exploration was conducted from September 2014 to April 2015, following the action research method described earlier, in order to investigate students' and teachers' perceptions of the use of the iPad into the EFL classroom and to run a needs analysis. For this purpose, two teachers and two third-year high school classes were invited, they signed an ethical agreement and agreed to participate in the study. The participants from the first phase of the study were the same as in the second part of the study. The analysis and

results of the first phase served as general directions for the following phaseof the study.

5.6.2 Second phase: the main study

The teachers, who had taught the classes in the past and were familiar with writing and speaking curricula at this level, proposed to focus the study on Cambridge First speaking and writing because the results of needs analyses confirmed their ideas that students needed help preparing for the exams and also to become more proficient in written and spoken English as a foreign language. It was also an opportunity for students to get educational benefits from participating in a doctoral research project.

At the beginning of the semester, based on the results of the first phase, the teachers provided learners with a short list of useful apps to download organized by skills and learning outcome. At any time of the project learners were allowed to select a new app or replace it with the one they were feeling more comfortable with. For example, they could start the semester taking notes with Notability and then, change it after trying TinyPdf and vice versa. Note taking apps were used to take notes on vocabulary items, structure of written texts, record useful information etc. Evernote in particular, was introduced as a vehicle for meaningful interactions in real time (Oskoz & Elola, 2015) and to get immediate feedback from teachers during work on the writing or speaking tasks, and for its capability on collaborative interaction among students. Showbie is a specific app that allows teachers to distribute and collect writing tasks in real time; it was used for written assignments and interactive feedback. Video and voice recording apps were used to prepare for and perform various speaking tasks.

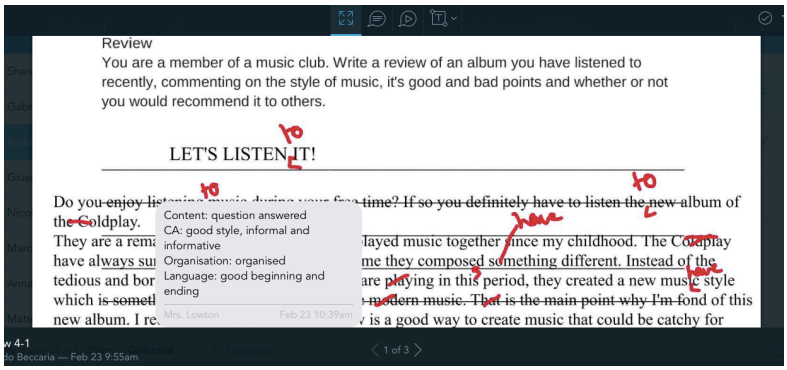
At the beginning of the semester in October the teachers trained the learners on the use of Showbie, largely because they did not use it during the initial exploration phase (first phase). During the first week of school after presenting the writing module, the teachers set up a quick Google survey for students in order to gather preferences to be in the pen and paper group or in the iPad group. The learners were free to choose to work on the FCE writing tasks with the iPad or using the standard pen and paper option as

long as they would respect the 1/3 pen and paper and 2/3 iPad ratio established for the research. The ratio reflected the results of an agreement with families and administration who were willing to have a larger group of students using the iPad as an instructional tool. The teachers used the first come, first served option regardless of learners' linguistic proficiency. There were 12 students in the pen and paper group overall and 24 in the iPad group. After a short period of familiarization with the FCE marking scheme in which learners worked on non-graded written and speaking assignments, the teachers planned to collect and evaluate the first writing tasks. The exam preparation focused lessons started in September and finished in April. Three lessons on written tasks and three lessons on speaking tasks were selected and observed as a convenient sample for this study. Each lesson was carefully planned using the Cambridge official guidelines about language level and written genres. All the FCE exam preparation lessons were delivered with the support of an English mother-tongue teacher from the UK who agreed to participate in the research.

5.6.3 The writing module

In order to get students familiar with the medium (iPad) and the tasks, each writing and speaking assignment was structured following a standard pre-tasks, during-tasks and post-tasks plan. All learners felt at ease following the task-as-work plan (Breen, 1987) the teachers defined. The writing module focused on different text analysis and production (essay, email, story, review). Learners followed defined steps through the different stages of each text type (e.g. focus on key vocabulary, use of formal/informal language etc.). Then, using the writing app they were more familiar with, students in the iPad group performed the planning, drafting, getting feedback, revising and publishing tasks. For marked assignments the teachers used Showbie (see Figure 5.2. as example). Teachers used the app to assign the task, distribute it to students, collect papers and mark them.

Figure 5.2 Example of marked assignment on Showbie



The learners in the iPad group were allowed to use the spelling checker, online dictionaries and resources while the ones in the pen and paper group could only perform the different tasks in the standard mode (no dictionary allowed: in this school students are normally invited to use the English they know during classwork; no use of the device). Although students in the pen and paper group were allowed to use the iPad during the other lessons, it was forbidden to switch it on or to look at the classmate's tablet during written assignments.

The planning stage of the writing and speaking modules was weekly organised by the teachers. The team agreed on a general plan in September, while specific task design and implementation had been left to the teachers' weekly meetings, mostly because of the feedback discussed during this phase. The writing module included 1 lesson on email writing, 4 on essays, 3 on reviews and 3 on stories. As a convenient sample for this research, 18 texts were selected: 3 sample texts from 6 students each (3 from the iPad group and 3 from the pen and paper group). The texts were produced by students at the beginning, in the middle and at the end of the writing module.

5.6.4 The speaking module

In the speaking module, learners performed different real-world speaking tasks which they often recorded on their mobile devices so that they could listen to them again. This created opportunities for self-correction and self-feedback. The mother tongue EFL teacher very often modelled the tasks by showing videos or by performing the tasks with another teacher. Learners could perform the speaking tasks in class or later; they usually had a few

days to hand in the tasks through Evernote. They would then receive specific and personalized feedback by the two teachers directly on their Evernote profile. Many learners performed the speaking tasks around three or four times after getting individual feedback from the teacher (For example answering interview questions about their work and study – from Cambridge First Speaking part 1).

5.7 Data collection methods

As stated above, in order to explore my research questions, I collected data from five meetings with the teachers and six lesson observations. Learner and teacher interviews, and students' writing tasks were additional data sets for data triangulation. In this study, I decided not to use the survey, which I tested in the first phase of the study, as the method was mainly used to give quantitative evidence of students' perceptions of the iPad, and this was not the focus of the second phase of the study. The methods used are explained below.

The data for analysis comes from six sources: forty-one responses to survey; six classroom observations; sixteen interviews with students and four with teachers; six lesson plans; five teachers' meetings and eighteen students' written assignments (9 from the iPad group and 9 from the pen and paper group).

Table 5.1: Summary of data collected

Data	Number	Phase
Online Survey	41	1st
Classroom Observations	6	1st and 2nd
Interviews	20	1st and 2nd (10 at the beginning, 10 at the end)
Teachers' meetings	5	1st and 2nd
Written assignments iPad group	9	2nd
Written assignments pen and paper group	9	2nd

5.7.1 Classroom observation

Having set up my role as a researcher the previous year during the first phase, I started to observe the lessons in October two weeks after the start of the school term. I observed six lessons in total: three focused on developing writing skills for the FCE preparation test and three developing speaking skills. In order to have a clear idea of the possible progress made by learners, I observed one lesson for each skill at the beginning of the project, one in the middle and one at the end. The teachers planned the lessons together; the idea was to observe different students using the iPad, performing specific language tasks, and looking at the way the tool could mediate the learning compared to the group that was not using it. Observation can be fascinating, but also time-consuming. In order not to lose the focus, following Richards (2003) and Berg (2004), I had prepared an observation structure to follow when taking notes during the lessons. I also took pictures and video recorded some key meaningful activities during the lessons.

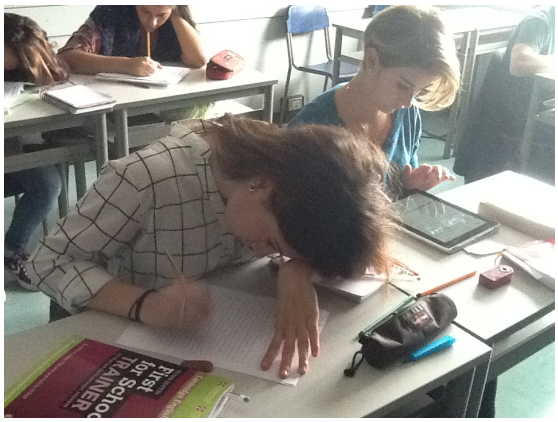
In particular, I looked at:

The setting: space, objects (e.g. iPad, notebook etc.)

People: number of students, role of the teacher, interactions (with people and with technology), visible feelings showed by participants, relationships.

Behaviours: what teachers did, what students did, ways to deal with issues.

Figure 5.3 Students from the pen and paper and iPad group working on a writing task

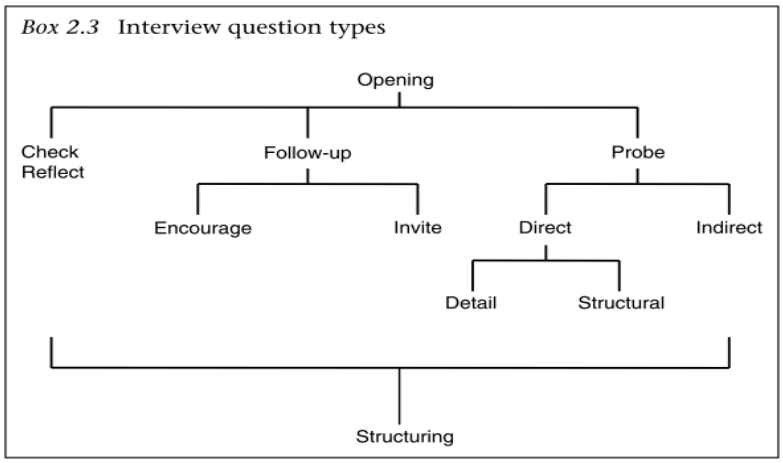


5.7.2 Learner and teacher interviews

In order to triangulate the data collected from the lessons, the learners and the two teachers were interviewed (16 learners and 2 teachers). The English mother tongue teacher did not participate, as she did not agree to be interviewed. They were interviewed at the end of the classroom observation period in order to gain an insight into what they experienced as they performed English writing and speaking tasks with or without an iPad. I conducted a semi-structured interview with both teachers and students in order to have more flexibility and make the participants more comfortable. Semi-structured interviews have been chosen among other techniques (e.g. surveys) due to their collaborative nature; the interviewer is a listener that encourages the speakers to provide detailed information. A convenient sample of eight students in each class, balanced in gender (4 boys, 4 girls) and English proficiency (B1-B2), was selected by the teachers in order to have a sample that could represent the main characteristics of the class.

To design and structure the interviews, I used the model by Richards (2003) as shown in Figure 5.4 below. The interviews were conducted in English, but I made clear to students that the use of L1 (Italian) was allowed to make questions clearer and to make them feel self-confident. All the interviews were audio recorded.

Figure 5.4 Interview question types (from Richards, 2003)



The following interview schedule was used to investigate students' and teachers' perceptions and the use of the iPad in the English classroom. The

interview questions were designed to provide the researcher with both positive and negative practices with the iPad, and to give participants the chance to provide the amount of information they prefer.

Interview questions for teachers and learners

1) Tell me briefly about your experience using the iPad to teach/study English.

2) How do you think the iPad is helping you/them develop your/their writing skills?

3) How do you/they use the iPad for your/their writing activities?

4) What differences did you notice between writing with and without the iPad?

5) What difficulties did you experience and how did you overcome them?

6) Is there any difference in your/their proficiency?

7) Do you feel you/they are improving your/their speaking skills using the iPad?

8) How do you use the iPad for speaking activities in class with your students/teachers?

9) What do you like most about using the iPad to teach/learn English?

5.7.3 Lesson plans and teachers' meetings

There are five teachers' recorded meetings (meeting notes). These meetings followed the same procedures as those in the first phase of the study. The purpose of the meetings was to analyse strengths and weaknesses of the lessons, find possible issues, reflect and plan future actions. The meetings were generally based on the action research cycle of Kemmis and McTaggart (1988) (see Figure 5.1), although some modifications were allowed due to the unpredictability of the classroom situation. I will explain the implementation in the next section.

Generally, the teachers reported about issues with technology, but also issues in students' performances. At first, they found reflecting on their

teaching quite challenging. During the first part of the project the team met weekly after each speaking or writing lesson. Teachers shared their lesson plans and modified them according to the feedback received from students through comments on Evernote, but also classroom conversation or issues occurred during the lessons. The last part of the meetings was always devoted to planning. Each meeting was audio recorded; all the notes and decision taken during the meeting were written and shared among the teachers using a shared notebook in Evernote.
In order to have additional information on the classroom situation, six lesson plans were selected for the purposes of this study and served as additional triangulation to explore the use of the iPad in the EFL secondary writing and speaking classroom.

5.8 Implementing the action research

After a face-to-face meeting with the teachers, I decided that in order to learn and reflect on the implementation of the iPad in their writing and speaking lessons, the teachers needed some time to plan the lessons and to work on their own professional development, in particular to learn how to use the devices to develop those skills and incorporate them into their lessons. The team developed a project timetable and split into months. I (researcher) was involved in the project since the beginning and, based on my experience as an EFL teacher using the iPad, helped teachers to start planning and implementing task-based language learning activities with the device.

Planning

At the beginning of September 2015, I had a planning session with the teachers, where we negotiated roles and responsibilities and the schedule itself. The school manager and the English teachers learned about the action research process during an initial professional development meeting that I had conducted the previous school year during the first phase of the study. Guardians were notified through an informed consent letter about the research project and all parents signed the forms for their child's participation, including permission to video record, photograph, and interview. During this month, the teachers and the researcher had weekly

one-hour meetings. Teachers used these meetings to examine issues they faced and solve problems, as well as sharing their best practices with iPad integration in their classrooms. Each teacher undertook the responsibility of researching apps that would be useful to develop writing or speaking skills.

Action

At the end of the month they introduced the project on writing and speaking to the students. Most students felt already comfortable in using the device due to the pilot project. At the end of the month all the students involved completed an online survey their teacher created on their preferences about the use of the iPad to perform writing skills. The survey was useful to allocate participants to the pen and paper group according to their preferences (they performed the writing tasks without the use of the iPad).

Observation/Reflection

In October, the team focused on targeting apps for writing and speaking tasks. We met weekly to share different apps (e.g. Evernote, Showbie etc.), carefully selecting the ones the participants needed on their devices. The teachers chose the apps based on the lesson planned, then they created new units of work that involved the use of the iPad. All of the students were able to use the iPad autonomously. Teachers reflected on the iPad integrated lessons and shared their reflections on a shared document on Evernote and at the weekly meetings. In early October, I had face-to-face interviews with teachers and students, and each interview lasted about ten minutes. Two teachers and eight students were involved.

From November to March I continued to collect data by observing six lessons, three lessons per teacher. I also took pictures and videos of students working with the iPad in order to have clear examples of effective tasks. Teachers continued to follow the action learning cycle, using also students' feedback for the decision-making phase. The team had biweekly meetings focused on lesson reviews, identification and solving of any issues raised inside and outside the English classroom.

In the final part of the project (April-June 2016), I started collating and analysing the data to answer the research questions and assess the achievement of the expected outcomes. In addition to the data collected during the study, students and teachers were interviewed at the end of April to determine their perceptions and feelings about using the iPad in the language classroom to develop writing and speaking skills. I had a second interview with participants in order to collect their perceptions at the end of the project and compare them with their expectations at the beginning.

In May, a team meeting was planned in order to discuss the possibility to share the first results with the school administration board since the head-teacher was planning to distribute the iPad to the rest of the classes.

5.8.1 Learners' written assignments

During the FCE preparation writing module, learners were asked to produce different types of texts (reviews, essays, articles and stories). In order to compare the written production of the iPad group with the pen and paper group, 18 written assignments of the same genre were selected for the analysis. A genre is a type of spoke or written discourse with typical features. In this context genre and text types are used interchangeably. In particular, I collected three essays from three learners of each group. Essays 1 were produced in the first part of the module, essays 2 in the second and essays 3 were the last marked assignments that students produced at the end of the module. The idea was to look at differences and/or similarities in the use of vocabulary, layout, accuracy and syntactic complexity in order to start answering RQ3.

5.9 Data analysis

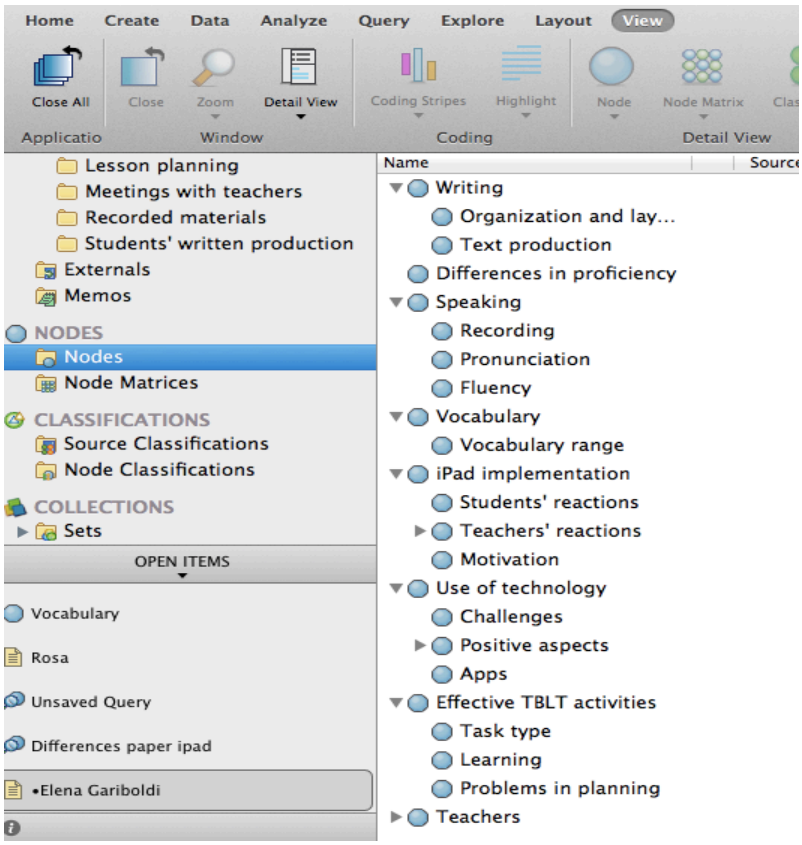
5.9.1 Qualitative content analysis approach

Each data set was analysed using a qualitative content analysis approach called inductive content analysis (Elo & Kyngas, 2008). Inductive content analysis is a systematic research method, which aims to provide objective resources to describe phenomena by analysing content via creating content-related categories (Elo & Kyngas, 2008). As in the initial exploration phase, I

conducted an open coding of the teachers' meetings, the students' and teachers' interviews, lesson plans, and the classroom observation notes, photos and videos. 'Open coding is a process of organizing data, during which researchers make notes and headings in the text' (Elo & Kyngas, 2008). In accordance with Graneheim and Lundman (2004), a coding unit consists of words, sentences, or paragraphs 'containing aspects related to each other through their content and context' (2004, p. 106). As I was already familiar with the tool and it proved to be extremely useful in the first phase of the study, all the coding units selected were analysed using a qualitative analysis software called Nvivo (version 10.8).
As stated above, the data was analysed using a content analysis of emergent themes approach. This analytical approach evolved over two phases.

In the first phase, I conducted a content analysis of the interviews and the notes from classroom observations and teachers' meetings. Before looking at the data I created two macro themes (called Nodes in Nvivo) (*writing and speaking*) in order to divide data according to the main aims of this research study. I also created a journal in Nvivo in order to record any daily progress and ideas together with a memo of the research questions to be able to quickly relate any nodes to them not to lose the focus of the study. Then, in a first reading through the written data, I reviewed learners and teachers' comments and identified emergent categories. For example, I made annotations on the transcripts such as *involvement, engagement, improvement, pronunciation, fluency, vocabulary, issues with the device,* and so on. Then, I tried to group the annotations into more generalized themes and I created new nodes in Nvivo. In the second phase, I reviewed the data again to allow new categories to emerge and to check annotations and themes of the content analysis. Finally, I re-organised the nodes again, grouping similar themes into parent nodes. The picture below shows the last structure of the main nodes with parent nodes.

Figure 5.5 Example of themes organization using Nvivo 10



As shown, following the research questions, there are 5 macro nodes: speaking, writing, vocabulary, iPad implementation, use of technology and effective TBLT activities. The 'use of technology' node includes all the effective uses of the iPad in the classroom, with challenges and positive aspects. Under the 'iPad implementation' node, I have grouped all the perceptions, opinions and reactions that students and teachers felt throughout the project. In the last revision, as many references emerged, I also decided to keep all the occurrences about the differences in learner proficiency with and without the help of the iPad, as a separate node.

All interviews, the notes as well as the classroom observation table were aligned with the research methodology as they would allow possible multiple meanings and interpretations (Graneheim & Lundman, 2004).

5.9.2 Challenges in using a content analysis approach

I am fully aware of the difficulties and challenges that a content analysis approach could present. First, content analysis is not linear and is more

complex and difficult than quantitative analysis because it is less homogenous (Polit & Beck, 2004). For a less experienced researcher, the guidelines for data analysis can be difficult to understand: each inquiry is unique, and the results depend on the 'skills, insights, analytic abilities and style of the investigator' (Hoskins & Mariano, 2004). One challenge of content analysis is the fact that it is very flexible and there is no simple, 'right' way of doing it (Elo & Kyngas, 2008). Moreover, a vast amount of work is required during the process (Polit & Beck, 2004), and the amount of data can easily become very large. In the present study, for example, twenty interviews generated more than 25 written pages to analyse.

Reporting the study and presenting its results is also challenging, as the results come after a number of phases difficult to describe. As stated by Elo & Kyngas (2008)

> 'researchers often wish for more detailed instructions on how to carry out content analysis, but those who have already gone through the process know that describing the analysis is often one of the most challenging phases of the study'.

It can be easy to describe some parts of the process in great detail, but the researcher's actions, timing, and observations may be difficult to explain (Backman & Kyngäs, 1998). Nvivo is a qualitative data analysis software that I used to make content analysis more manageable and ordered, and facilitated the creation of new nodes or categories.

5.10 Ethical Issues

As this research involved human participation, I followed the OU's policy of ethical practice, and the British Association of Applied Linguistics' guidelines for research in applied linguistics. I also followed the indications in the Italian Code of conduct and professional practice applying to the processing of personal data for statistical and scientific research purposes. I obtained permission from the school administration panel, Student Research Project Panel and Human Participants and Materials Ethics Committee to conduct the study. Also, since students were below 18, all the parents of the students

involved signed in an informed consent letter. I made every effort to maintain confidentiality, keep data stored only on my computer and follow the university data protection regulations.

5.11 Summary

This chapter explained the research design and methodology used in this study. It linked a collaborative action research design with qualitative data analysis tools. The choice to conduct action research was supported by the particular context of this study, and the need to investigate the classroom situation from an active point of view including the changes which occurred throughout the implementation of the study. Additionally, the collaborative approach allowed the researcher to interact with the teachers about the development of the plan and its possible modifications.

Chapter 6: Characteristics of technological-mediated tasks for the language classroom

6.1 Introduction

In secondary EFL education settings, written and oral communication tasks in the foreign language usually take place in a non-native speaker environment between classmates that share the same mother tongue (Italian, in this study). Therefore, the design of tasks is crucial to make learners focus on key and authentic language aspects.
Specifically, this chapter explores RQ1:

> What are the characteristics of technological-mediated language speaking and writing tasks for mobile devices as used by EFL teachers and learners?

In particular, this chapter will investigate RQ 1 by analysing the types of tasks used in the study. It will give a detailed description of how the technology-mediated language learning tasks targeted communicative competence (written and spoken) in order to tease out key features for good practice. The study used qualitative and quantitative data and focused on the potential effects of technology-mediated TBLT in secondary EFL environments. In the first part, I will introduce the context and the rationale behind the design of the tasks. In the second part of the chapter, I will present and analyse two tasks used in the study that proved to be successful according to learners' and teachers' perceptions and outcomes.

6.2 The context: the speaking and writing module

As presented in Chapter 5, the teachers involved in this study agreed to participate in the design of a speaking and writing module that would involve the integration of the iPad. During the speaking module, all students performed the same tasks, sharing the same tasks design and output. In the writing module, learners in the iPad group followed a technology mediated

task-based design while learners in the pen and paper group followed a standard pedagogic language tasks design as explained in Chapter 4.
The principles behind the design of spoken and written tasks are explained in the following paragraph.

6.3 Design principles for spoken and written tasks

In Chapter 4, the general principles behind TBLT and different types of tasks were explained. Since there are many definitions of a language learning task, the present study follows Van den Branden's (2006) idea that 'A task is an activity in which a person engages in order to attain an objective, and which necessitates the use of language' (2006, p. 4). Among the different components of tasks, I would consider essential for this study goal-orientation and real-world relationship (Ellis, 2003). As already expressed in Chapter 4, Norris (2009) suggests six key common elements in TBLT approaches (see 4.2.3). After just a brief introduction to needs analysis, informed by the initial exploration of perceptions and practices (first phase), in this chapter I will mainly focus on task selection and sequencing, materials and instruction development, and teaching both from learners' and teachers' perspectives.
My goal as a researcher and the teachers involved was to design tasks following the TBLT principles that would also integrate the use of the iPad as an enhancing tool, more than a simply supporting tool within the context of second language speaking and writing development.
Following the TBLT design principles for a lesson cycle presented in Norris (2009) and in Chapter 4 (this thesis), our objective was to design tasks that would follow those key indications. In particular, the tasks designed or modified for this study had to: 1) offer a substantial task input phase, that is, for example, always providing learners with authentic and contextualized texts, video, audio recordings etc. While performing the tasks, learners were allowed to interact with each other, negotiate meaning and start elaborating the input; 2) secondly, provide analytical work on language form and functions. Tasks should include, for instance, activities where learners are asked to listen to the recording many times looking for key words or known/

unknown expressions. In this phase, they could also start performing a short production tasks (e.g. listen and record a similar text). These activities are aimed at promoting the acquisition of useful chunks (Doughty & Long, 2003); 3) foster collaborative learning (Doughty & Long, 2003) by promoting role plays, information gap activities (e.g. discuss and reflect on different opinions, give reasons).

As a result of the will to integrate mobile devices into a well-designed TBLT curriculum, during the planning meetings with teachers three technology-mediated tasks (two targeting speaking skills and one for writing) were designed and implemented for pilot testing. The three tasks developed were the following. In *The Globe Theatre* (Task A - speaking) students listened to a podcast on the theatre with some information for tourists, they then had to reflect and discuss about a voice-over presentation (performance) they needed to create about the theatre. *After school activities* (Task B - speaking) consisted of discussing and planning possible after school activities. Finally, *Indoor and Outdoor sports* (Task C –writing, see Figure 6.1) was a lesson on developing the ability to write an essay in the target language. Students read an essay, discussed and found common structures and expressions. They then used them in their own essay writing.

Figure 6.1 Sample writing task – Indoor and outdoor sports


In your English class you have been talking about sport. Now your English teacher has asked you to write an essay for homework.

Write your essay using **all** the notes and giving reasons for your point of view.

Doing sports outside is better than doing sports inside.

What do you think?

Notes

Write about:

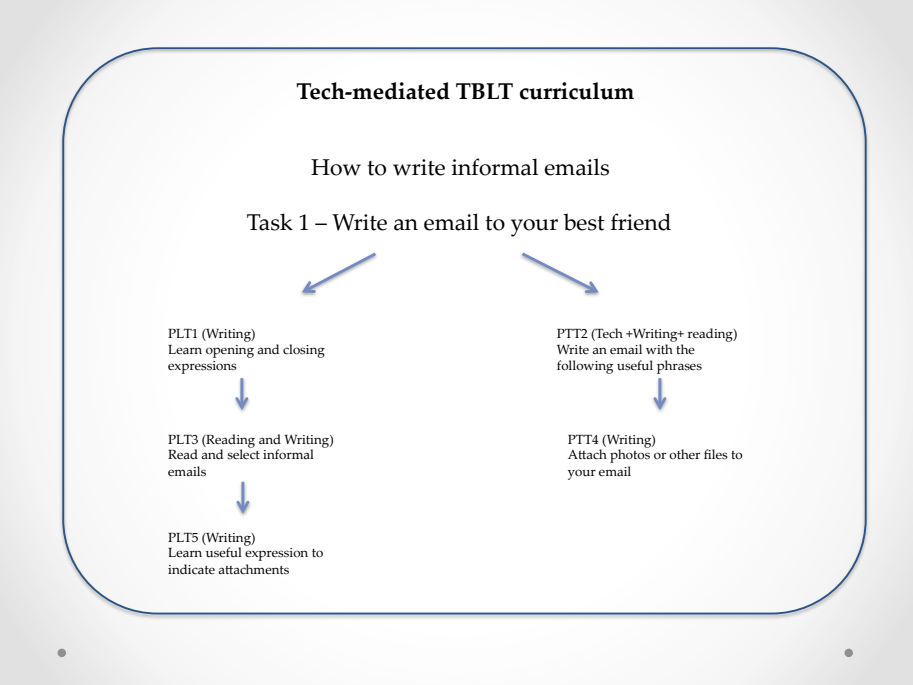
1. which is more enjoyable
2. which is cheaper
3. ..... (your own idea)

Tip! Remember that you can give your own opinion – you don't have to agree with the statement.

6.4 Pedagogic language tasks and pedagogic technology tasks

Before proceeding it is essential to clarify what the differences are between pedagogic language tasks (PLT) and pedagogic technology tasks (PTT). In a technology mediated TBLT classroom, language and technology are always interacting with each other (Gonzales-Lloret, 2014), therefore a curriculum based on these principles has to include both task types organized and sequenced according to complexity (see Chapter 4). For example, in the Globe Theatre lesson plan PLTs would include listening comprehension activities such as identifying key information for tourists, lexical activities related to the context of art and theatre etc. At the same time, PTTs would be using the browser to gain more information about the topic, explore the location through a 3D map, create a voice-over interactive presentation for tourists etc. As already stated before, it is crucial to provide learners with technological tasks that would enhance their knowledge, allowing them to 'do things' that would not be possible or would be strongly different with pen and paper. Clearly, it is the pedagogic language task that usually drives pedagogic technology tasks. For example, students in this study needed to learn 'how to write an informal email'; one of the PLTs was 'write an email to your friend about your last weekend'. We need to consider the task (write the email), but also the language involved (e.g. texts about past events, vocabulary for free-time activities), the technological tool needed to write the text (email), and their digital literacy (how good they are and feel about using an email software). Teachers must be aware that different PLTs and PTTs are necessary to meet learners' needs. The figure below (6.2) shows examples of a Technology-mediated TBLT planning. Students had to perform a standard PLT first (read and learn opening and closing expressions of standard informal email), followed by a PTT in which they were required to write, use a software (Mail) read and cross-check their writing. The built-in checking function of the software was also supporting them in the self-evaluation of their written performances.

Figure 6.2 Example of Technology-mediated TBLT curriculum

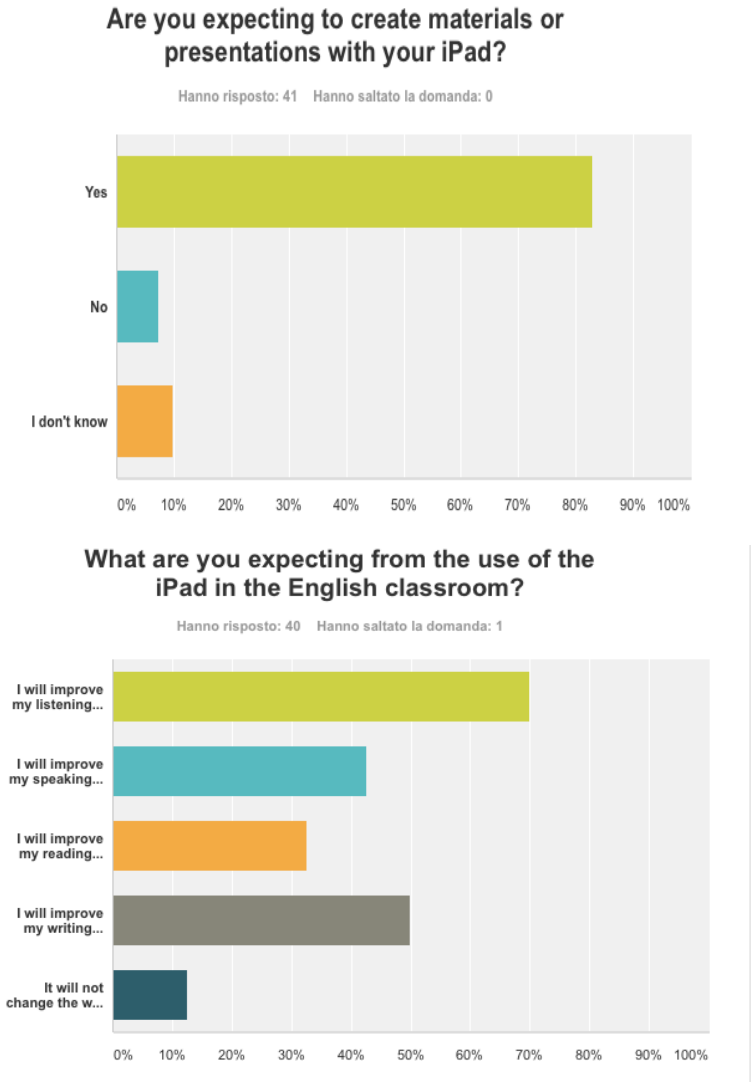


6.5 Needs Analysis: perspectives from the first phase of the study

As already presented in the introductory chapter, an initial phase of the study was conducted the school year before the more significant phase of the study took place. The main aims of the first phase of the study were to find out detailed information about teachers and learners' perceptions of the iPad in the EFL classroom, in particular some interview questions focused on their digital literacies and also their preferences regarding the language skills to improve with technology.

The survey conducted at the beginning of the project served as general indication for the future planning. Data from the questionnaire, in particular showed students' and teachers' expectations towards the use of the iPad in the EFL classroom. As shown in Figure 6.3, most of the students were enthusiastic about the use of the iPads for learning English, more than 80% of them were expecting to create materials and presentations with the device. Regarding the four skills, 70% of the students were confident about the fact that the iPad could help them improve their listening skills. Figure 6.3 below shows results from the survey.

Figure 6.3: Students expectations of the use of the iPad in the English classroom



The second question in the study explored students' and teachers' perceptions of the iPad for listening, speaking and writing activities. A preliminary analysis of the initial survey showed that both teachers and students had positive attitudes towards the use of the iPad for listening tasks. There were some concerns regarding the use of the iPad to improve speaking and writing skills (see Table 6.1 below).

Table 6.1: Survey results on teachers' and students' perceptions of the use of the iPad for listening, writing and speaking skills.

iPad is useful to…	A lot	Yes	Maybe	Not at all
improve speaking	20%	41%	32%	7%
improve listening	44%	46%	10%	0,00%
improve writing	24%	51%	10%	15%

Students themselves acknowledged the impact of iPads on their listening, speaking and writing skills. They also felt more independent in their school work inside and outside the classroom. TN, a student, reported:

> *'Yes, I think iPads are very useful because I can listen to my voice, I can record it, and then I can listen to it. It's also useful in writing because it can automatically correct me when I write.'*

Students expected to become better English learners thanks to the use of the iPad, in particular they would like to work on listening and speaking activities. CG summed it up:

> 'I think it's a good idea to talk with Evernote, because in the afternoon the teacher can listen to your voice and correct you if there are any mistakes. I would really love to work more on listening and speaking activities.'

The analysis of the data has also shown that there has been a clear change of practice both for teachers and students.

These results are in agreement with other studies, which found significant differences in student performance when students were exposed to listening, speaking and writing tasks performed on mobile devices (Al Fadda & Al Qasim, 2013; Lin, 2014; Lys, 2013).

What digital literacies do learners need to develop to take full advantage of learning a language in the classroom with the iPad?

According to Hutchinson (Hutchinson et al., 2012)

> 'as teachers begin exploring the possibilities of using mobile devices such as the iPad in their classrooms, it will be important to examine how this technology, with its affordances and constraints, can influence student learning'. In particular, this means investigations on how such mobile devices can foster those literacies that help students find and manage information, collaborate, and participate in a mobile language classroom. One way the iPad provides potentially useful opportunities for literacy classrooms is through digital, interactive books (Hutchinson et al. 2012, p. 15-16).

Classroom observation notes show that apps that appear useful for digital literacy purposes are those that allow learners to type or write on top of printed text or other backgrounds, to record audio for a response, to add pictures from the photo library, to insert symbols and stamps and to graphically organize notes and answers.

According to the results of the first phase, I identified three main needs: 1) introduce more production oriented tasks, 2) work on personalization of output and feedback 3) focus on productive skills in the target language – writing and speaking. In the following paragraphs spoken and written tasks will be explained.

6.6 New ways of interacting: the spoken tasks

All the tasks selected for this study were based on general English competence, since the students involved come from a type of high school were no ESP is required. In the first spoken tasks, *The Globe Theatre*, learners were required to listen to a podcast, focus on some language features and then produce a similar presentation for tourists. Each learner worked with a single iPad, although they were allowed to share the device for collaborative tasks.

6.6.1 Procedure

As to scaffolding the activity, the teacher had previously introduced the

Elizabethan drama to students. As a first step (A) they were required to watch and listen to a podcast on YouTube, the link to the podcast was already distributed to students on the online sharing platform, allowing learners to listen to it before the lesson and make it more comprehensible. The podcast was 8 minutes long so learners had about 10 minutes to complete the task; many of them moved quickly from one part of the recording to another one, showing that they had already listened to it before the lesson.

The following pedagogic language learning task (B), after the substantial input phase, asked learners to revise the structure of the globe theatre. It was an open class discussion, while teachers and leaners were taking notes of key vocabulary and ideas. Often the teacher shared their screen with the class or projected students' notes on the IWB using Apple TV. For the *focus on form* phase (C), learners were asked to watch a video on the Globe theatre individually and then focus on comprehension questions provided by the teacher. After the first listening, they worked in pairs to discuss and negotiate answers and possible questions from the teacher. During the collaborative tasks, learners shared the device; they often watched the video together on one device and then took notes on another. Notes from the video were then recorded using Tinypdf or Evernote (D). At this stage, the teacher circulated and provided personalized feedback either online, by correcting some answers directly on Evernote in real time, or face-to-face by talking to students. As for the *target task performance* phase (E), students were required to create a voice-over presentation using Bookcreator, an ebook creator app they had previously downloaded. They were required to include pictures, prepare the text based on the authentic contextualised input they received in the input phase, use their notes to contribute to the performance, record their voice and add any elements they prefer in order to make their output as personalized as possible. The table below shows a summary of the technology-mediated TBLT classroom cycle presented above.

Table 6.2: Tech-mediated TBLT classroom cycle for The Globe Theatre

TBLT classroom cycle	Type of task (Tech-mediated – Pedagogic)	Technology used
Substantial input	Tech task – podcast listening Pedagogic task – Revise questions on theatre	YouTube TinyPdf Evernote
Focus on form	Tech task – watch a video on You Tube Pedagogic task – Answer comprehension questions, focus on key vocabulary	YouTube TinyPdf Evernote
Target task performance	Tech task – create an interactive ebook, add voice-over, visuals and internal/external link Pedagogic task – You are a tourist guide: produce a text on the Globe Theatre	eBook creator voice recorder search engines Evernote

6.7 Learning to write: the argumentative essay

All the written tasks in the study were FCE oriented (see also 1.4.3.), since learners would have had the exam at the end of the semester. One of the text types required for the Cambridge FCE exam is the argumentative essay so the teachers planned various lessons around this text type in order to provide students with an overview of the structures and common patterns of the genre, together with authentic examples to use as a model for writing. The lesson designed for piloting is about the difference in sports practices. Students were required to read an argumentative essay on a similar topic, infer meanings and features, and then produce their own essay following the structure provided (for details on argumentative essay functional features see Chapter 8 on writing). As described in Chapter 5, for research purposes, in the writing module the students were divided into two groups: the iPad group where students used the mobile device all the time, and the pen and paper group where students were not allowed to use the iPad throughout the entire

module; they were using the standard pen and paper modality. This obviously influenced the TBLT design, in fact the teachers planned a technology-mediated TBLT task design only with the iPad group; the pen and paper group performed very similar tasks, but with no access to technology.

6.7.1 Procedure

In order to activate previous knowledge, and to expose students to authentic language input, a recent essay on sport was carefully selected by the teachers from the BBC website. The iPad group could access the website, look for the text, see the context (e.g. pictures, similar titles, etc.) download it and save it on their note taking app. The teacher distributed a Pdf printed version to the students in the pen and paper group. For the focus on form phase the technology-mediated task required learners to collaboratively look at the text and select, colour code, cut and paste meaningful parts of the text in order to find common features and the structure of the genre. Interestingly, in the iPad group learners shared their notes between different devices, mirrored them on the IWB, voice-recorded key ideas to save them quickly etc. While learners in the pen and paper group followed the standard procedure of underlining, talking about the topic etc. They did not develop any additional scaffolding strategies, and from what I observed their interaction seemed reduced compare to the iPad group. Also the role of the teacher was different for the two groups. According to what teachers said the iPad group people asked fewer questions compared to the pen and paper group, this was probably due to the fact that they did not have access to online resources. The production phase lasted 45 minutes for both groups. There were no time management issues reported. The tables below show the TBLT classroom cycle for the iPad and the pen and paper group.

Table 6.3: Technology-mediated TBLT classroom cycle for argumentative essay Sports

TBLT classroom cycle	Type of task (Tech-mediated – Pedagogic)	Technology used
Substantial input	Tech task – download and read an essay from BBC	Safari TinyPdf

	website Pedagogic task – Revise general structure of the genre	Evernote
Focus on form	Tech task – read, select, colour code meaningful parts of the text Pedagogic task – Answer comprehension questions, focus on key textual features	TinyPdf, camera, Word Evernote
Target task performance	Tech task – download the instructions on Showbie, write the text using the app Pedagogic task – Compose an argumentative essay on sport	Showbie search engines Evernote

Table 6.4: TBLT classroom cycle for argumentative essay Sports

TBLT classroom cycle	Type of task (Pedagogic)
Substantial input	Pedagogic task – Read the essay (printed) Revise general structure of the genre
Focus on form	Pegagogic task – read and select, meaningful parts of the text Pedagogic task – Answer comprehension questions, focus on key textual features
Target task performance	Pedagogic task – Compose an argumentative essay on sport

The students' written assignments were analysed for accuracy, fluency and complexity in order to investigate the impact of the iPad on learners' writing proficiency. The results of this analysis are described in Chapter 8.

6.8 Findings & discussion

6.8.1 Features of technology-mediated tasks

Already in 2001, Chapelle (2001, 2003) recognised a possible and productive interconnection between CALL and TBLT. She theorized the design of technology-mediated tasks by examining the interface between second language task-based research and technology in language learning in order to understand how the use of technologies in the classroom can contribute to the advance of TBLT research. More than ten years later, Gonzales and Lloret (2014) developed a similar framework informed by the key features selected by Chapelle (2001). The framework provides a sequence of key points to consider when planning a TBLT lesson with technology. Based on both studies (Chapelle, 2001; Gonzales-Lloret, 2014) it is possible to identify the general features of technology mediated tasks. They are:

- authenticity (the task should be linked to real life purposes);
- focus on meaning (the main focus of the task should be on meaning);
- learner centred (the task should respond to learner's needs);
- reflective (the task should foster self-reflection on language learning);
- goal-oriented (the task should be designed based on the learning goal);

The table below presents correspondences between the two frameworks and shows evidence of the efforts made for this study to design and implement technology-mediated tasks that could contribute to identifying key features towards an effective technology-mediated TBLT curriculum.

Table 6.5 Correspondences between the features of the CALL tasks developed by Chapelle (2001) and those of the technology-mediated TBLT framework presented in Gonzales-Lloret (2014) with examples from this study.

Chapelle (2001)	Gonzales-Lloret (2014)	Example of tasks from this study	
		Writing	Speaking
Authenticity	Holism	Reading of an essay from the BBC website	Listening to the presentation of the Globe Theatre on YouTube
Meaning Focus	Primary Focus on meaning	Focus on key structures to convey meaning (use of comparatives to evaluate references)	Focus on key expressions for public presentation
Learner fit	Learner centeredness	FCE modelled writing task + Use of Word for iPad (experimental group only)	Focus on intonation, pronunciation and fluency
Language Learning potential	Reflective learning	Use of collaborative writing activities.	Interactive tasks: e.g. discuss with your partner about key features to include in the presentation.
Positive impact	Reflective Learning		
Practicality	X		
x	Goal-orientation	Essay production	Production of a video recorded presentation of the Globe Theatre

Moreover, based on the tasks used in this study, it is possible to recognize common characteristics of the task types employed (Table 6.4). In particular, technology-mediated tasks were generally mixed, in the sense that they

required the use of single or multiple skills (speaking/reading and writing); tasks were also balanced, and the plan carefully included both individual and interactive tasks. These characteristics confirm the importance and popularity of task variety for learners and teachers (Müller-Hartmann & Ditfurth, 2010). Similar task types were also found in the study of Hampel (2010).

Table 6.6 Common Task types implemented in the study

Goal	Development of speaking and writing skills
Task types	• Mixed - simple skills (e.g. listening for gist) as well as multiple skills (e.g. reading, inferring meaning from context) • Individual tasks (e.g. information gathering via web searches) • Interactive tasks (e.g. sharing of information via Evernote, discussions, interviews) • Interactive tasks (e.g. sharing comments with peers and teachers, recording a discussion, negotiating meaning)

6.8.2 Students and teachers' perceptions

The implementation of the technology-mediated TBLT design has been analysed in terms of perceptions triangulating the interview data from teachers and students (N=18) and the classroom observation notes I took during the planning and the deployment of the lessons (N=3). Generally, students and teachers reacted positively to the integration of technology-mediated tasks into the EFL curriculum, although both had some doubts about the technological competence required by the teachers, as the following quotes show:

> *I don't know much about integrating the iPad, but I'd like to start implementing some new and useful tasks because I feel students need it, and there's the risk that they*

use the iPad better than we do (Teacher B)

I'm not sure the teachers are ready for this. They know English very well, but maybe they do not know how to work with it. I'm really enthusiastic about using the iPad during the English lessons. (L. student)

Among the positive and negative reactions to the new TBLT design, I found three common patterns. First, teachers and students acknowledged the value of personalization in different aspects, as evidenced in the following excerpts from the interviews:

I can work at my own rhythm, if I don't understand something I can listen to it more times compare to my classmates. (S. student – second phase of the study)

I can provide students with personal feedback even during task performance without interrupting their work. I just need to share it on Evernote. (Teacher A – second phase of the study)

I found the iPad useful to speed up the activation of previous knowledge, and to scaffold the following activities, thanks to the access to pictures, examples, short audio clips etc. (Teacher B – second phase of the study)

Secondly, collaboration seemed to be an aspect where learners felt to have significantly progressed. For example, T. a student, talking about how she collaborated with the other students mentioned that during a lesson she was not able to recognize some organizational features of the argumentative essay because she lost her notes. So she messaged her friend, and they basically performed the tasks by sharing opinions through the iPad built-in message chat. She was surprised to recognize that she was using the chat 'only' for classwork.

Third, learners were truly engaged in the spoken and written tasks; they often mentioned it in the interviews:

I felt motivated. I wanted to finish it, even if it was not very good. (R. Student)

All the students completed all the tasks required not only throughout this project, but I would say since when we started implementing the iPad in our lessons. (Teacher

B)

I agree with Pellerin (2014) about the role of engagement in performing language tasks. Since the iPad allows learners to feel directly involved in what they are doing, for example they can revisit it and have concrete samples of the learning provided, they are constantly engaged in a reflection on the outcome of the task (self-regulation). The findings confirm this theory, and help develop a new understanding of the technology-mediated TBLT.

6.9 Summary

In this chapter I have presented the characteristics of tech-mediated TBLT speaking and writing tasks following the framework proposed by Ortega and Lloret (2014). Students and teachers perceived the changes in the development of the lesson positively. Learners did not have issues with the performance of the tasks. However, they were not familiar with a technology-mediated TBLT approach. They would need time to adjust to the new design in order to gain larger benefits from the integration of mobile devices into their foreign language learning. From a research perspective, there was a clear change in the quality of the input provided, and therefore it could potentially be a change in the quality of the output as perceived also by students and teachers as well, especially for the speaking tasks. However, the different TBLT designs implemented for the writing module, created an imbalance in the groups, at least at the level of classroom participation and involvement.

Chapter 7: Using the iPad to support speaking skills

7.1 Introduction

As explained in Chapter 2, research on the use of mobile devices in the EFL classroom has tended to focus on perceptions or receptive skills like listening and reading more than on speaking and writing skills. This study aimed to examine possible uses of the iPad to develop productive skills rather than receptive skills. This chapter presents the analyses of the iPad as mediating tool as used by the students and the teachers to support speaking skills by the students through the student-iPad-teacher interaction (mediation) and key findings regarding the support of the iPad for speaking skills as described in Chapter 5. The purpose of this chapter is to contribute to the body of research within MALL regarding the value of mediation, particularly, in the development of speaking skills in secondary EFL learners, which is under-researched. It particularly looks at what behavioural changes occurred in students and teachers as a result of the iPad as a tool. For this study, I decided not to track student spoken development following a linguistic framework. The rationale behind this choice was that I did not collect the learner's performance data since the beginning because the idea was to observe the changes in leaners' and teachers' perceptions and behaviours over a period of time in light of the mediating tool.

Specifically, this chapter explores RQ2:

How does the iPad as mediating tool support speaking skills?

First, I will describe the data sample chosen for discussion in this chapter, and then I will further describe the analytical tools used in the study. Next, I will briefly explain the purpose of mediation in this study (see 3.1), followed by a description of the main challenges and positive practices that reflect the mediating role of the iPad throughout the study. After this, I will present and discuss the key findings based on the classroom data.

7.2 Data Selection

The data selected for the analysis are classroom observation notes from three lessons, student and teacher interviews (N:18, only questions on speaking), lesson plans on speaking tasks (N:3), comments on speaking focused lessons from teachers' meetings (3 meetings in total), and survey and interview data from the first phase of the study, as explained in the table below. As the focus of the investigation was not on tracking students' performances in order to measure any development, but on how well they managed to use the tool in speaking activities, I did not collect actual instances of speaking activities through audio or video recordings.

Table 7.1: Data overview

Data	Quantity
Classroom Observation Notes	3 lessons (50 mins each)
Students and teachers interviews	18 (10 to 15 mins each, on average)
Lesson plans on speaking	3 (50 mins each)
Teachers' meetings	3 (60 mins each)
From the first phase of the study	
Survey data	Results from 43 online surveys
Students and teachers interviews	Results from 18 interviews

7.3 Data Analysis

7.3.1 Analytical tools

This study is concerned with the use of the iPad in the secondary EFL classroom. In Chapters 3 and 5, I stated that this study is based on two key concepts of SCT: mediation and personalization, and it follows an action research cycle. In classroom action research, the researcher is interested in

concrete and practical issues of immediate concern to teachers and learners. It is conducted during regular lessons, primarily using methods such as observations that are common to qualitative research (Nunan, 1992; McKernan 2013; Burns 1999).

Following this method, the data was examined to track the teachers' and the learners' use of the iPad in relation to the performance of speaking tasks in a relatively short period of time (six months) and to the perceptions and behaviours of students and teachers over 18 months. Perceptions and behaviours were tracked for a period of 18 months starting from the first phase of the project (first survey at the beginning of the iPad implementation). In the second phase (main study) I kept working on perceptions and I also focused on speaking and writing for six months.

During the first phase of the action research cycle, I observed learners' early engagement with the iPad-as-tool to learn English; as they mastered it – that is, when they were able to perform simple language learning tasks (e.g. listening to a recording, playing it back etc.), I was able to observe their use of the iPad as a tool to develop EFL skills and to do things with the language. In particular, the different performances of the tool (iPad), the strategies employed by the teachers and the learners' responsiveness to such mediation in relation to the speaking tasks such as collaboration and self-evaluation as described in 5.5.1, were examined. The results were then triangulated with the survey and interview data conducted during the first phase, in order to compare students' and teachers' perceptions and behaviours towards the technological tool over two school years. I identified a series of behaviours related to the use of the iPad throughout the project and, I have then associated the data observed with these behaviours as in Bird & Edwards (2015), in order to record useful information regarding the implementation of MALL practices in the EFL classroom.

To summarize, the selected data was analysed to consider the recurring use of the tool made by both the teachers and the students during the mediation over a period of time. Therefore, the focus of the analysis was on considering the amount and the type of the mediation provided during the speaking tasks assignment and performance, and the perceptions and behaviours of

students and teachers about self-reported increased language competence. In all the data, I found elements that proved to be related mainly to the themes of 'task type', 'writing' and 'speaking', 'challenges', 'positive aspects', 'collaboration' and 'personalization'. The 'use of technology' was also mentioned in all the observation tables and interviews.

7.3.2 Analytical Issues

The iPad-student interactions were analysed by concentrating on several areas as described above: task type (speaking, pedagogic or technological), collaboration and personalization with and through the use of the iPad, challenges, positive aspects, etc. Although it was generally clear that a learner or teacher experience was coded under a specific theme, there were occasions when the same ideas or experience was double coded. For example, the learner experience on 'immediate feedback' appeared to function as *students' reaction* and *positive practice* as well. When this happened, the same interaction was double coded. However, this did not happen frequently.

7.3.3 Classroom observation notes and speaking lessons

Three lessons on speaking were observed and analysed. In order to get a clear picture of the progresses the lessons were observed three times during the school year: one at the beginning of the project, one in the middle and one towards the end of the main study. Classroom observation notes included comments on timing, different uses of the mobile device during tasks, issues for teachers and learners, comments on mediation of the teacher/tool and the students. Notes were also compared with the lesson plans previously prepared by the teachers in order to notice any variations and adjustments, and students and teachers' reactions to them. The three observation tables on speaking and lesson plans were analysed using nVivo following the standard qualitative coding method. Due to time restrictions during lessons and in order to complement data additional comments were regularly added after lessons using the annotating tool in nVivo (see picture below) including also short video and audio recordings of key passages of the lessons. In particular data from the observation notes showed that most

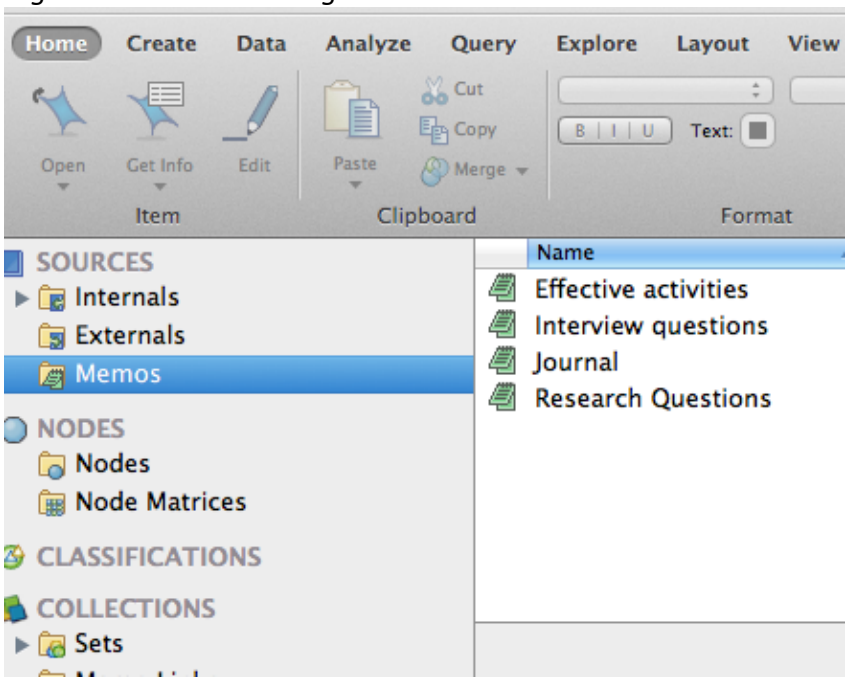
of the students were engaged in the task and were easily following the instructions for the speaking tasks.

Example from classroom observation notes:
Students perform an FCE speaking task and record their voices, they then listen again to their recordings to evaluate each other about the task on a variety of vocabulary and expressions, conviction, extended answers interaction.
No questions asked after instructions given > all students on task (this mean instructions were clear)

When they asked about evaluating each other students often go back to the recordings, iPad mediating their self-evaluation process? They can check the results again in group, collaboration and self-consciousness.
(from Observation notes – Speaking lesson 2)

In all the lessons both teacher-student-task mediation and student-mobile device mediation were observed. The iPad was used to perform and record speaking tasks, but also as an instrument of self-evaluation and self-awareness as shown in the example above.

Figure 7.1: Annotating tool in nVivo



The theme of issues linked to technology appeared several times in the observer comments. Main issues were general technological problems related with wi-fi connection or with the connection of the iPad with the Apple TV, which was used to project individual devices to the class on the shared main screen, as shown from the extract below.

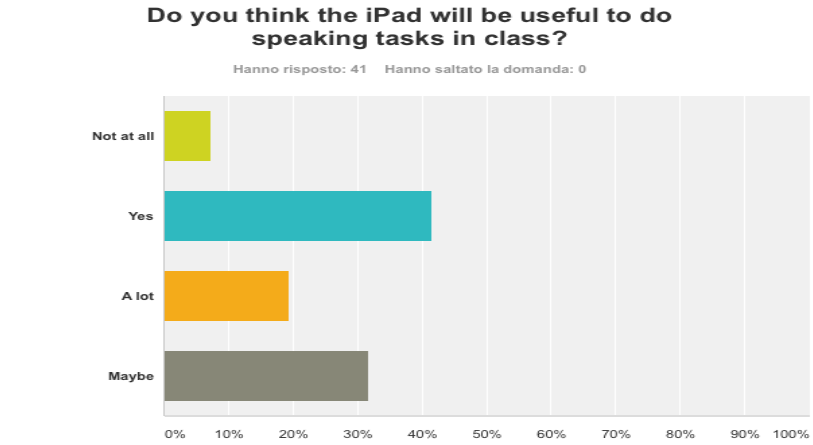
Other issues were not strictly technological, but more related to the choices made by students and teachers in using the device. For example, the researcher observed that the board was not easy to read, and this was probably due to the font size, or colour as evidenced in the figure below (7.2).

Figure 7.2: Example of iPad mirroring on board.

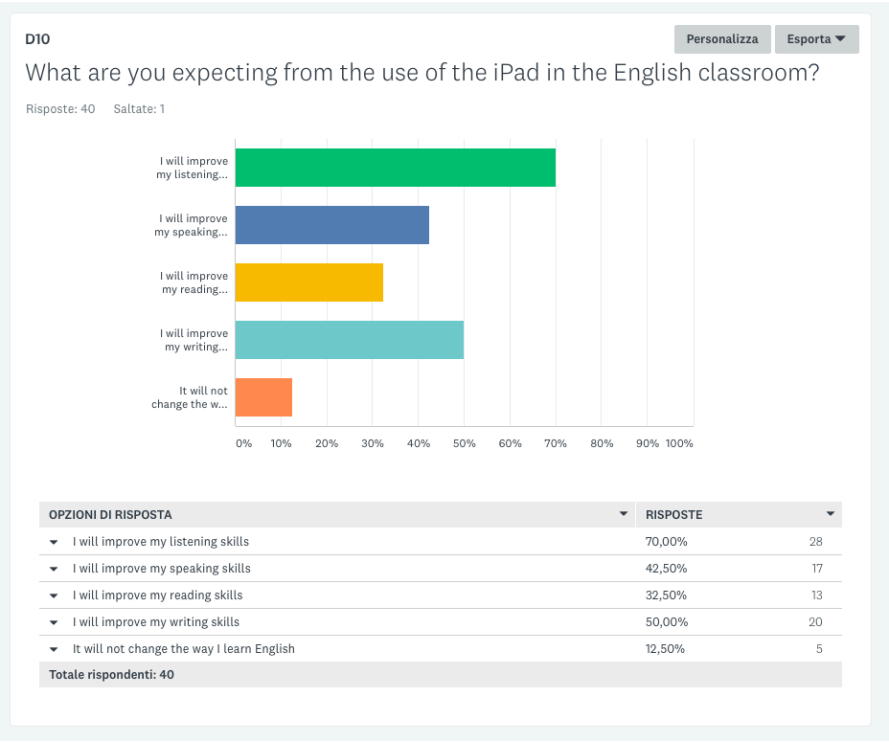
7.3.4 Survey and interviews

The survey conducted in the first phase of the study provided quantitative data on students and teachers perceptions of the development of speaking skills in the iPad classroom. Only questions on speaking were analysed for this part of the study (see chapter 5). In particular at the beginning of the project students seemed not convinced about the use of the mobile device to improve their speaking performance. When asked about expectations on skills development, over 38% of the students were doubtful about its value to develop speaking skills, and only 42% of them thought they could improve speaking skills at the end of the project.

Figure 7.3 Data from the survey.



Opzioni di risposta	Risposte	
Not at all	7,32%	3
Yes	41,46%	17
A lot	19,51%	8
Maybe	31,71%	13
Totale		41



OPZIONI DI RISPOSTA	RISPOSTE	
I will improve my listening skills	70,00%	28
I will improve my speaking skills	42,50%	17
I will improve my reading skills	32,50%	13
I will improve my writing skills	50,00%	20
It will not change the way I learn English	12,50%	5
Totale rispondenti: 40		

The interviews for students and teachers included open questions on speaking and on specific tasks. All the interviews were transcribed and coded in nVivo, the data used for this part of the study are mainly recorded under the broad theme 'speaking'. Each interview was then individually

analysed and coded. The main themes under the speaking umbrella were 'motivation', 'mediation' and 'positive practices'.

7.4 Key findings

7.4.1 Positive practices

Teachers recognised the importance of developing speaking skills, and very often they mentioned it in the interviews as an aspect to be investigated.

> *I am focusing a lot on speaking activities such as interaction and presentations/making speeches, which is what they lack.*
> (Teacher B – interview)

> *I read there are many things you can do with tablets also for listening and speaking…I hope I will have more chances to work on those skills.*
> (Teacher A – interview from the first phase)

Although teachers were fully aware of the possible opportunities of the use of the iPad to develop speaking skills, a quite large group of students were sceptical about it, as confirmed by data from the initial survey.

Therefore, teachers carefully planned speaking tasks to ensure that the device always had a supporting role in the learning process following the indications to implement a technology-mediated TBLT curriculum (Gonzales Lloret, 2014 – see also Chapter 4). All the tasks were technologically oriented: students had to listen for gist and for details, take notes, repeat and record a real world speaking task (e.g. send a voice message, record specific instructions, describe a picture to provide information etc.). The main language goals were improving pronunciation, fluency and enlarge vocabulary. As evidence of this, teachers mentioned these several times in the interviews:

> *Certainly. You can easily access you-tube videos, Tedtalks, thus improving listening skills and widening your vocabulary. Sts can record their voices and speeches and the teacher, me, can silently tune in and check their oral production. This especially works with weak students.*
> *(Teacher A – interview- Phase 2)*

Also, students felt the work on fluency and pronunciation was relevant. In an interview at the end of the second phase of the study, M. a student says:

> *I feel we worked a lot on pronunciation, I think this is why we recorded our voice many times, also last year. I think this was good.*
> *(M. Student – interview – Phase 2)*

The teachers chose the apps based on the lesson planned, then they created new activities that incorporated the iPads (technology-mediated tasks). Table 7.2 provides a description of apps selected. All of the students were able to use the iPad independently. As mentioned in Chapter 5, teachers reflected on the iPad enhanced lessons and shared their reflections on a shared document on Evernote and at the weekly meetings. Those used to perform speaking tasks are highlighted.

Table 7.2 Apps used in the project and the corresponding skills. Apps frequently used in the project are highlighted.

Skill	*App*
Collaborate	*Google Drive* *Messages* *Evernote*
Annotate	*Notability* *TinyPdf*
Watch and Listen	*YouTube* *Vimeo* *TEDTalk*
Present	*HaikuDeck* *BookCreator*

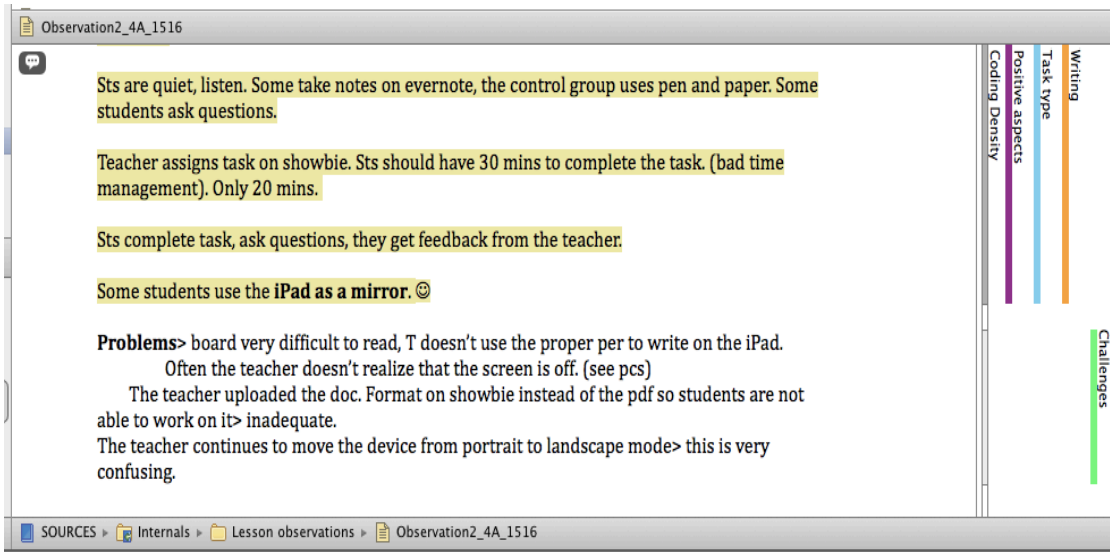
Organise ideas	*MindMapping*
Search	*Google* *Safari*
Vocabulary	*Dictionaries (MacMillan, MirriamWebster)* *WordReference*

Under the 'positive aspects' theme, students' behaviours and attitudes towards technology are regularly mentioned. For example, they easily used the mirroring function of the iPad, which projects one screen to the shared main screen, to show the class part of their personal work. As evidence, in the lesson about the Globe Theatre, during the reflection phase, the teacher projected students' notes on the IWB. Students were also quite good at moving from one app to the other while recording their voice (for example, to look at pictures), and at selecting only parts of the recordings to be part of the summary in their own presentation.

Figure 7.4 Student while selecting part of a video recording.

The picture below shows an example of classroom observation notes with coding stripes.

Figure 7.5 Example of data coding from nVivo.



The data showed quite clearly the impact of the medium on the motivation of the students related to the independence from time and space. iPads allowed them not to limit their learning to the boundaries of the standard school day, and this was reflected in their performances and interviews. The shift from synchronous to asynchronous oral interaction has often been mentioned.

For example, under the broad category of 'motivation' there were several references by students to the easy and asynchronous access to authentic audio resources:

> *Of course we can watch, videos or listen to interviews and all of the audio and video things that cannot be done at school.*
>
> (M. – Student)
>
> *You can read text on the iPad, you can record your voice during your reading and improve your pronunciation. You can watch videos and movies. You can listen to the voice of the teacher and other things that have been recorded before.*
>
> (L. – Student)

Under the 'positive aspects' theme there was a high frequency of references to 'immediate feedback on speaking performance' both from teachers and learners.

For example T., a student, said:

> *'Writing, Listening, speaking, watching films to improve language and vocabulary, and…communicate with teachers, because from home I can do exercises and my teacher can see (listen to) immediately what I'm doing and correct me.'*

Although this study does not measure the impact of immediate and personalized feedback on students' performances, data showed evidence that learners recognized some improvement in pronunciation and fluency, and in those soft skills – like giving a public presentation - often mentioned by the teachers.

> *Or searching different books when we are at home, of course iPads can be used to record our speeches, so we can notice our grammar or pronunciation mistakes and try to fix them.*
> *(S. Student)*

From the answers to the questions about speaking and ~~writing~~ skills, the learners seemed to perceive they have benefited the most from speaking tasks performed with the iPad.

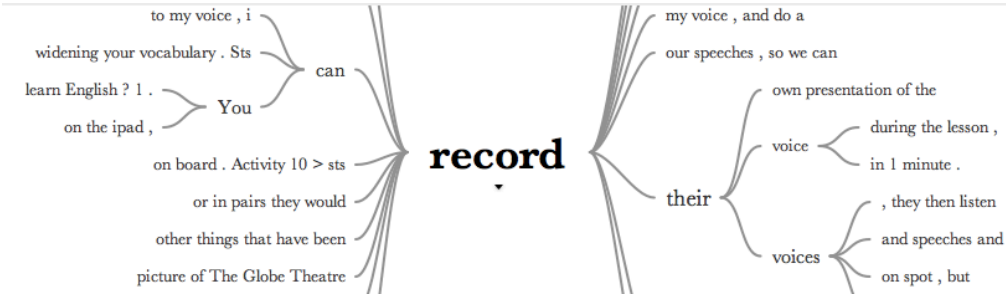
For example, A. (student) reported her ideas on the usefulness of the iPad to develop speaking ~~and writing skills:~~

> *'Yes, I think iPads are very useful because I can listen to my voice, I can record it, and then I can listen to it.'*

Also, the teachers mentioned to be very satisfied of the use of the iPad to develop speaking skills and those related to it (listening, improving vocabulary etc.) (See quote on p.117)

Regarding the development of speaking skills both teachers and students appeared enthusiastic about the use of the recording function. The word frequency query in Nvivo, demonstrated that 'record' was the most frequent word used when asked for speaking benefits and activities, as shown in the word tree below.

Figure 7.6 Example from nVivo – word tree.



As evidenced in teachers' observation notes, students used the recording function autonomously following their own learning pace.

> *'Instructions: students have 20 minutes to rehearse and record their speaking task…Some students recorded 4 times, some 3, some only two…'*
>
> From classroom observation notes (speaking lesson 2)

The verbs *listen to* and *record* proved to be very frequent in students' comments on the iPad performance level. This indicates their growing independence in learning the new language. Recording and rehearsal are not easily performed in a standard teacher-class lesson. Throughout the entire study teachers mentioned the importance of developing those soft skills useful to create positive and productive learning habits. As mentioned by teacher A and teacher B at the end of the projects: students 'felt autonomous and independent, and this contributed to create a positive classroom atmosphere'.

The three lesson plans analysed are aligned to the focus of the research and show some technology-mediated speaking language tasks that proved to be successful in this study. In order to fully integrate the technological tool into the TBLT curriculum (see Chapter 4), teachers, and consequently learners, changed their daily practice.
As an example, the following lesson plan shows how the iPad was integrated into a standard speaking lesson plan on the Globe Theatre (see Chapter 6 for more details on the specific tasks).

Figure 7.7 Example of lesson plan for speaking

OBSERVED SPEAKING CLASS – Monday, April 4th CLASSES: 4 A / B
PRIOR TO SPEAKING CLASS:

- Students have been briefly introduced to Elizabethan drama;
- Students have already watched the following podcast: https://www.youtube.com/watch?v=FpetRURVAwk&feature=relmfu
- Students have recorded a short summary of the video on Evernote (Note titled "Globe")

ACTIVITY	DESCRIPTION AND APP	MINUTES
WARM UP	CLASS ACTIVITY – revise structure of theatre through quick class questions (e.g. What shape was an Elizabethan theatre? Where	2 minutes

	would audience watch the performance from?)	
WATCHING	CLASS ACTIVITY – VIDEO PROJECTION (TINY PDF or equivalent) • Watch the video and say xy PAIRWORK: feedback CLASS ACTIVITY – VIDEO PROJECTION (TINY PDF or equivalent) • Watch the video again and answer the following questions xy CLASS FEEDBACK	5 minutes (video) 1 minute 5 minutes (video) 2 – 3 minutes
PRODUCTION	INDIVIDUAL ACTIVITY – Create a presentation on the Globe Theatre using BOOKCREATOR Open your Book Creator App and create a 2 – page – presentation on the Globe Theatre following these instructions: • Include a picture of The Globe Theatre • RECORD YOUR OWN VOICE – present the theatre using the acquired information (all your notes, recordings…) • CUSTOMISE IT – add any element of your choice to make it your own!	25 – 30 MINUTES

7.4.2 Challenges

Although learners were quite often struggling with tasks, the main issues mentioned in the data was related to the 'use of technology' theme. Being aware that the introduction of a new technological device into the classroom may be a challenge both for students and teachers, I conducted an initial study (first phase) the previous school year (2014/2015). One of its main aims was, in fact, to provide participants with a smooth adjustment to the tool before proceeding with the second phase of the study and observe their behaviours toward the tool. Although some issues were solved during the first phase (e.g. learning to use the apple keyboard), many of the challenges were faced also in the second phase of the research. In particular, they related to the instability of the wi-fi connection or the connection between the iPad and the Apple TV (used to project the device to the class). In some lessons, this aspect strongly influenced time management. Teachers and students often mentioned this aspect as one of the main challenges in using the device for learning purposes:

> *The problems I had were mostly related to technology, so nothing related to the use of the iPad for teaching purposes. Not all problems are still overcome, for example I have a lack on internet connection…*
> *(Teacher A – interview)*

> *ISSUE > the teacher couldn't project the video with the iPad so he has to use the computer and show the video through YouTube website.*
> *(From Observation notes 3)*

Poor Wi-Fi connection also influenced students' speaking performance. In the case of the YouTube video, for example, learners were asked to listen to the video as many times as they needed and then record their own task using the device. Unfortunately, they were only able to listen to the sample a couple of times and only in teacher/class mode. No one could work at their own pace. As a general challenge, teachers mentioned the difficulty to manage the class when technological issues happened.
Under the challenges node, it was also mentioned the distraction of some students when there were technical problems.

7.5 Discussion

In this section I will describe the findings related to the development of the speaking skills and subskills, and discuss them based on the SCT concepts of mediation and personalization. I will also show a series of behaviours observed throughout the project and their changes related to the task performed.

7.5.1 The role of the iPad in mediating speaking tasks

Mediation serves as a key word in a significant number of studies based on Vygotsky's ideas. It involves either symbols - semiotic mediation- and/or artefacts (objects) like the iPad. However, the human aspect has an impact on the use of the iPad in the classroom, this study tries to answer the question both on the symbolic and physical face: what changes in the learner's performance can be brought by the introduction of the symbolic and physical tools-mediators (iPads)?

As described in Chapter 3, according to Vygotskian SCT (Daniels, Cole & Wertsch, 2007), all human activities are mediated through physical tools

(e.g., tablets, smartphones) or signs (e.g., language). In the context of developing speaking skills through the use of the iPad, one of the main topics of the current study, both symbolic tools, particularly language, and physical tools (iPad, computer, Apple TV) played a central role. In fact, the interaction between the tutor and the learner was enabled predominantly by the use of different apps on the tablet followed by instant messaging and asynchronous comments. The study argues that the affordances of different ICT tools (e.g., synchronous versus asynchronous) influenced the nature of the interaction between the tutor and the student. This study specifically focuses on the technological aspect, trying to understand what is the impact of such tools in mediating the learning. Many studies have focused on the impact of ICT tools on student learning, for example Coffin and Hewings (2005), Warschauer and Ware (2008) and Wertsch (2003). Some of them have analysed the concept of mediation through technology, where the computer has been used as a mediation tool between the language learner and the L2.

In a similar way, the present study analyses how the iPad has been used as a mediation tool between the language learner and the L2. In particular, data showed that: 1) the fact that speaking performances can be recorded many times and saved on the device allows learners to revise and improve it, and teachers to retrieve that task and reflect about it. Usually, the learners repeated the language tasks as many times as they needed; thanks to this they developed greater autonomy in performing the task and enhanced their competency. The evidence of these findings is shown in the following example taken from lesson observation notes and interview data. A student who was facing some issues in using the correct intonation of questions revealed a lack of interest in practicing questions out loud during the EFL lessons. He became gradually engaged in language learning tasks when he started using the iPad, which allowed him to work at his own pace on his own weaknesses. He became very motivated in the listening and practising activities, and he completed all the recording tasks; he also listened to the recording sharing it with his teacher who provided personalized feedback.

> *"…I didn't really like repeating questions and intonation, also the teacher was asking me to do it every lesson. When I started using the iPad, I thought it was a useful exercise. The thing is that no one can listen to me, so I do the activity and I don't care what the others think…I feel my pronunciation has improved a lot".*
> *(G. student – interview data)*

2) Based on what has been observed, this dynamic creates a collaborative habit in which teachers and learners work together to develop the learning of L2. For example, during the reflection on form phase of the TBLT lesson plan, the teacher acted as facilitator, but also provided students with correct explanations supported by the use of the iPad. The collaborative aspects is often mentioned by students (see quote on page 119). Many studies demonstrated evidence of self-reflection and collaborative engagement (Pellerin, 2014; Lys, 2013) during language tasks. This study confirmed such findings that self-reflection is supported by the use of mobile devices that allow for the "digital documentation or tangible and visible evidence of learning" (Pellerin 2012a, p. 14). As evidence of students' learning awareness and self-regulation, this study provides examples of the use of the iPad to record and listen individual performances. Several times students mentioned the fact that using the recording function they were able to listen, recognize and change different aspects (e.g. pronunciation of a specific word, linking devices to foster fluency etc.). They always perceived the experience of reflecting on their performance as a highly positive practice (see quotes from interview data on page 120).

It is possible to identify two distinguishing features of the mediation of the tablets in the classroom: they encourage interaction and facilitate scaffolding. 1) They allow a way of task-based speaking interaction (mainly asynchronous), one to one or one to many, modifiable, and learning oriented. This supports the idea of Warshauer (1997) that a task-based and computer mediated interaction can become a 'cognitive amplifier', in the sense that it provides learners with a new dimension and stimulates learning. The learners involved in this study, used the iPad mainly to construct an asynchronous interaction with the teacher. For instance, they asked for and

got personalized feedback (written or voice recorded) through the use of specific apps like Evernote. The tool mediated this interaction by providing them the opportunity to speed up the process of creating a good speaking performance. Certainly, the time and amount of mediation required differed from one learner to the other, but generally, according to the teachers' feedback, students were able to perform high quality speaking tasks in a relatively short time. The fast work on revision offered by the tool, for example, had an impact on learners' pronunciation.

2) Tablets support and provide important scaffolding functions (e.g. providing a modelling sample, motivating, stimulating interests on a specific topic, simplifying the task). Through the scaffolding created in the interaction with the medium a learner may be able to perform beyond his zone of proximal development (ZPD). Vygotsky (1978, p. 86) defines ZPD as "the distance between the actual development level as determined by independent problem solving, and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers". As evidence of this, while doing classroom observation, I was able to see learners redoing their recordings more than once. Very often they were using the recording function as a scaffolding technique to support their performance. Students were explaining this behaviour as a positive aspect to improve their accuracy. It is also crucial to observe how students' behaviour regarding the scaffolding function changed over time. During the first speaking task observation, learners were performing the tasks strictly following teachers' instructions with no modifications. Detailed teachers' instructions were, for example: *listen to the recording then record your opinion about it using the following key words* (from lesson plan on speaking). Teachers also invited participants to record their voice more than once as reported in observation notes (e.g. *after giving instructions teacher circulates and tell sts to rehearse their performance – observation notes speaking lesson 2*). Moreover, when required to record the tasks twice most of them did no extra recordings although they finished earlier. A. (student) felt he was missing a chance to learn, when interviewed at the end of the project he said:

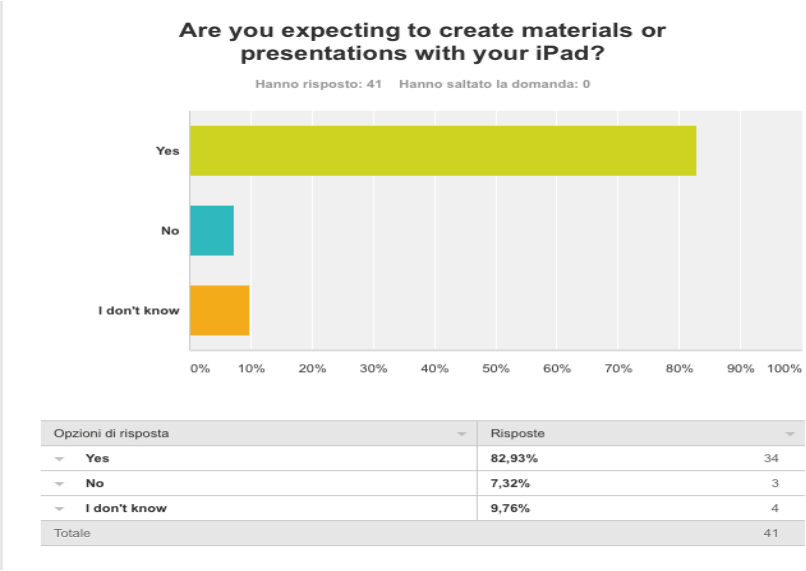
> *I think at the beginning I didn't understand I could use the iPad as I preferred to do the activities. Once I recorded my voice twice, but my pronunciation and my grammar were bad, I could have done it more times.*

Only from the second and the third observation (second part of the second school year – April 2016), learners started to master their independence in using the iPad as a scaffolding tool. Learners had access to many authentic speaking samples; the tool mediated their understanding of the content and of the task instructions in several ways. First, as mentioned by many students involved, it allowed them to listen to the sample as many times as they wanted according to their proficiency in L2. For example, L. (one of the weakest students) watched the video on the Globe theatre more than 4 times, and he recorded his tasks more than 5 times before handing it in to the teacher. The iPad in this case served as a motivator, scaffolding tool and task simplifier. At the end the learner was able to perform the task in the time required, regardless the quality of his performance in the foreign language. As explained in Lantolf and Thorne (2006), in fact, the performance in itself might not change significantly from one lesson to another, but the frequency and quality of assistance and mediation needed to perform a task in the new language can vary over a relatively short period of time (Aljaafreh & Lantolf, 1994). The learners involved in the present study, for example, needed time to respond positively to the learning mediation of the new tool, probably because they were used to seeing the teacher as the only mediator in the language classroom. Therefore, in terms of development, as supported by Lantolf and Thorne (2006, p. 208) "while nothing has ostensibly changed in the learner's actual performance, development has taken place because the quality of mediation needed to prompt the performance has changed." As evidence of this, for example, some of the scaffolding activities required at the beginning of the project, such as following instructions from a pdf document produced by teachers or listening to the full recording to search for key information instead of selecting a part of it, were not needed in the last lessons.

7.5.2 Personalization and the role of the teacher

The third key feature of iPads is that they allow learners to create personalised language products by performing real-world tasks in collaboration. This idea supports the findings of the first phase of the study that I conducted the previous school year. In particular, one of the questions of the survey asked students about what they were expecting to do with the new mobile device. More than 80% of them were expecting to create personalised materials. In this study, learners created different voice-over presentations using various apps or webtools (e.g. ThingLinks, Evernote, PowerPoint).

Figure 7.8: Data survey from the first phase.



Opzioni di risposta	Risposte	
Yes	82,93%	34
No	7,32%	3
I don't know	9,76%	4
Totale		41

'Cognitive development and learning, according to Vygotsky, essentially depends on the child's mastery of symbolic/ physical mediators, their appropriation and internalization in the form of inner psychological tools.' (Kozulin, 2003) The key concept of internalization can be seen as a process of personalization. The learner, in fact, can personalize any mediational means by creating new ways of externalizing them, and this can have a social impact. From a sociocultural point of view, Dunn and Lantolf (1998, p. 227) argue that '*second* language learners have a *second* chance to create new tools and new ways of meaning…'

Moreover, symbols may remain useless unless their meaning as cognitive

tools is properly mediated to the learner. The mere availability of a mobile device does not necessarily imply that the student recognizes it as a useful psychological/physical tool. This fact is clear in the results of this study and supports also the outcome of other studies in the same field (e.g. Bird and Edwards, 2015; Pellerin, 2014 etc.). The learners in this study were aware of the existence of the tool in itself, they were using it in their everyday life and they knew the key features of the medium. What they lacked at the beginning of the study was the awareness that the iPad could be a second language learning tool. To reach that level of awareness they needed to be guided by their language teachers. Only after they performed specific speaking tasks, learners started to understand that in a way the tool was having an impact on the process of learning and on their specific speaking performance. This shift of perspective was not immediate and needed to be explicitly clarified by the teachers. In addition, this resulted to be more difficult due to the different expectations of most of the students involved. The survey, in fact, showed that most of the students did not believe that the iPad could help them develop speaking skills. The table below shows the series of behaviours identified from the initial survey of the first phase of the research to the end of the study, each behaviour is associated with a change in the ability/ task performance.

Table 7.3 Observed behaviours and task performance (adapted from Bird and Edwards, 2015).

Timing	Observed Behaviours	iPad Use
Year 1 Phase 1(initial exploration and needs analysis)	Exploration	Downloading apps for EFL learning purposes Note taking Use of the recording, listening functions
	Collaboration	Use of the saving and sharing

		functions. Share the screen, play recordings on IWB. Listen and provide online asynchronous comments to peers.
	Problem-solving	Negotiate the meaning by working on the same task on multiple devices. Use of search engines and online dictionaries for pronunciation etc.
Year 2 Phase 2 (main investigation on skills)	Independence	Use of different apps simultaneously and independently (recording, writing, sharing, multiple listening) Search and selection of authentic texts useful for tasks.
	Skill acquisition	Use of the recording function to improve fluency, pronunciation, intonation, scaffolding of vocabulary use. Record of useful chunks etc.
	Innovative practices	Create interactive video presentations.

As observed, learners moved from a random use of the tool to an awareness of the different functions useful to enhance their experience in the EFL speaking classroom. In the second year of the study, they started 'mastering' the tool from a Vygotskian point of view, that is intentionally use the tool to achieve a goal.

As mentioned above, the outcomes of this study also strongly support the concept expressed by Kozulin (2003) that the teaching of tools must be deliberate. The teacher-mediator has to intentionally teach the use of the tools to learners, or the learners could perceive it just as content teaching

rather than a tool. That is why it is crucial to work on teachers' development and their appropriate methodological literacy.

7.6 Summary

This chapter presented results from the analysis of the data on the speaking skills in relation to the mediation role of the iPad and addressed RQ2. The main focus was on the learners' reactions to the use of the tool, teachers' strategies and the amount and quality of mediation required.

The results showed that an analysis of students' different uses and their reactions towards tasks and performances enable us to observe possible features of the tool in the process of developing L2 speaking skills and the changes of behaviours of the participants. It was also noted that, in order to get changes in the development of learning, it is crucial to support motivation, and have a clear and explicit introduction to the iPad as a tool for mediating learning. As shown by this study, if the teacher is able to identify the key mediational features of the tool, and to present it to the class, the learners are likely to benefit from the use of the tool for specific language tasks. Therefore, it might be argued that even if the teacher explicitly elicits the features of the iPad as learning facilitator, students could not take it as such, and refuse to undertake new opportunities. However, as noted in this chapter, especially weaker or unmotivated students seemed to feel more involved in such practices. This is probably due to the fact that weaker students find it beneficial to work individually and at their own pace before performing a task in front of the class. Moreover, mobile devices and apps facilitate one-to-one and one-to-few feedback from the teacher who can provide detailed and personalized comments on students' performance fostering motivation.

The analysis of students' and teachers' uses of the tool for speaking purposes took place in a relatively short period of time (5 months). I am aware that the development of such skills requires a quite long period of time, and it would also be beneficial to analyse all the beginning and end recorded products by students; unfortunately, the present study does not include a reliable set of recordings to be compared and analysed. However,

the results obtained from the data collected contributed to the overall picture about the role of the iPad in the development of productive skills.

To further complement the investigation of the possible impact of the iPad into the secondary language classroom, the next chapter will look at the use of the iPad to develop writing skills. In particular, I will analyse data from the interviews and also students' written assignments produced over six months.

Chapter 8: iPads and developing writing skills

8.1 Introduction

A purpose of this study was to investigate the potential impact of the iPad on learners' writing development. This logically requires examining written language products of students using the tool, and comparing them to the same assignment produced following the standard pen and paper procedure. This study used a combination of analytical tools. As explained in Polio and Shea (2014), also supporting the study of Verspoor et al.'s (2012) measuring accuracy alone cannot be sufficient. In order to have a reliable picture of learner's written developmental patterns it is important to look at the relationship among different subsystems (such as fluency, accuracy, and complexity) supported by a comprehensive theory of language.

Therefore, data was analysed for accuracy, complexity and fluency using t-unit measures. As such, a systematic theory of language related to Vygotksy's SCT is needed.

However, in the previous chapter I presented the potential impact of the iPad on speaking tasks based on classroom observations and interviews of students and teachers, and on the observed changes of behaviours throughout the project, with no explicit explanation of language use and structures. As an attempt to complement that part of the study, for the current work on written development I have used a linguistic theory known as Systemic Functional Linguistics (SFL), developed by Halliday and colleagues (e.g., Halliday & Matthiessen, 2014). SFL and T-unit provide the linguistic tools of written data analysis to track students' performance with and without the iPad in the context of this study.

Before proceeding with the analysis of the data, it is important to clarify why SFL was chosen as the underpinning theory of language, and T-unit as

measure tool, describe the key SFL principles relevant to this study and present how both SFL and T-Unit are used as analytical tools in the current study.

8.2 Systemic Functional Linguistics: a theory of language

Halliday's SFL assumptions on language acquisition focus on the way learners use language to make meanings in a social context. The key concepts about language in SFL are that language has (1) functional purposes; (2) it is specific to a context; (3) it is used for making meaning; and (4) follows a semiotic process which involves making choices (Eggins, 2004, p. 3). Halliday's SFL systematic framework is a tool to study language uses (i.e., function) in context. The main aim is to view social interactions as situations where language is used to make meanings, rather than to focus on grammar rules and formal structures. In particular, for this study, it is relevant the idea that SFL sees grammar as 'lexico-grammar' to emphasize that it is words and their combination that make sentences.

8.2.1 Key principles: metafunctions, register and genre

From an SFL perspective, *texts* rather than sentences, are the basic units of analysis for research because they 'make' meaning. Language is the medium through which people reach goals in a specific situation or interaction (spoken or written). According to Eggins (2004), people belonging to similar culture or group usually use similar types of spoken or written texts to serve a specific purpose. Logically the situations the texts are used for have a strong influence on the text itself. In particular, Halliday (1994) identified three contextual register variables also called *metafunctions* that influence texts: *ideational metafunction* (what a person uses language for), *interpersonal metafunction* (what is the relationship between the reader and the writer) and *textual metafunction* (what medium of communication is used and how the language is organised to make the text) (Eggins, 2004). Therefore, depending on its purpose the language structures in each text are different. Moreover, Halliday (1985) observes that contexts of situation vary according to three general dimensions that he defines as field (what is happening), tenor (who is taking part) and mode (what part language is

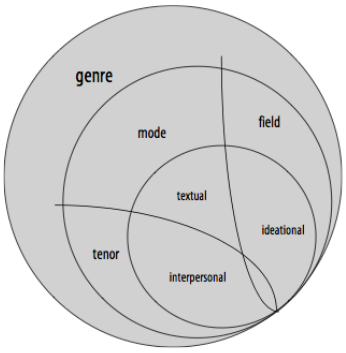
playing). The tenor, mode and field of a situation constitute the register of a text (Martin & Rose, 2007).

Table 8.1 Register variables and language metafunctions (from Martin & Rose, 2007)

Register	Metafunction
Tenor **'kind of role relationship'**	**Interpersonal** 'enacting'
Field **'the social action that is taking place'**	**Ideational** 'constructing'
	Textual 'organising'
Mode **'what part language is playing'**	

When he started to look at text types, Halliday (1977) treated genre as an aspect of mode, although many variables of field, tenor and mode occur in different texts. However, Martin and Rose (2007) developed a model where genre is viewed as an additional layer of analysis beyond tenor, field and mode. This allows a 'multi-functional perspective on genres' (Martin and Rose 2007, p. 16) without necessarily being linked to a register. The figure below represents this model.

Figure 8.1 SFL view of genre (from Martin & Rose 2007, p. 297)



It is this functional view of language that informs this study about how students produce specifically structured texts (e.g. FCE writing tasks) for particular social purposes (e.g. essay writing) in a particular community (e.g. EFL secondary classroom) (see Martin, 1997). This shows why SFL is an important means for examining students' written texts. This study looked in particular at the *textual and ideational metafunctions*, in order to meet learners' needs, considering the issues they were encountering while composing a text.

8.3 T-Unit analysis

T-unit analysis was developed by Hunt (1965). It has been used broadly to measure the syntactic complexity of written and spoken texts (Gaies, 1980). The T-unit usually consists of a main clause and all the subordinate clauses and the structures that are attached to or embedded in it (Hunt, 1965). According to Hunt the length of a T-unit corresponds to the cognitive development in a child and consequently the T-unit analysis provides reliable information on people's language development. The T-unit analysis method has been used quite largely from researchers from different parts of the world. This is probably due to the fact that it is an overall measure of linguistic development not necessarily linked to a specific group of data and, it also accepts relevant comparison between first and second language learning.

Larsen-Freeman and Strom (1977) and Perkins (1980) have largely used T-unit analysis as a valid measure to evaluate the quality of EFL student written texts. Also, more recent studies used it to measure fluency in EFL writing (Sasaki and Hirose, 1996; Spelman Miller, 2000; Victori, 1999) or in relation to syntactic complexity and accuracy in TBLT (Housen & Kuiken, 2009). T-unit measures used in this study include the analysis of number of words per text, number of sentences per text, T-units per text, error-free T-units per text.

Since teenage EFL learners tend to connect short main clauses with '*and, but, or* and *because*' they tend to use quite a few words for each single T-unit, that is each main clause usually has only one short subordinate clause attached to it. But as they enhance their L2 competence, they begin to use a

range of language structures such as prepositional phrases, and subordinate clauses that increase the number of words/T-unit. Later in his studies, Hunt (1977) argued that there is a progressive order in which students acquire the ability to perform types of embedding. This study aimed at using the T-unit ratio to analyse written texts produced with and without the iPad over a period of six months, and compare them in order to see whether there are any relevant differences in discourse influenced by the mobile device.

8.4 Data Selection

The data consists of 18 learner written assignments, produced by six students from two groups: the iPad (3) and the pen and paper group (3). Three assignments per student were selected; they were produced over a period of six months. The assignments were all based on the Cambridge First Certificate written task models. Students practiced different genres (essay, review, email, story, article), to reduce variables and ensure reliability of results this study focused on essay writing. Texts were analysed for textual meaning as well as for fluency, accuracy and lexical complexity using the T-unit measures. The results consider also associated iPad-based interactions (mediation), complemented by students and teachers' interviews and classroom observation comments.

Table 8.2 Distribution of essays

		Number of Essays
iPad group (Showbie)	Teresa	3
	Marco	3
	Luca	3
Pen and paper group	Elena	3
	Maddalena	3
	Giovanni	3

8.5 Rationale for using SFL and T-Unit measures

As stated earlier, T-unit analysis in itself could provide a clearer picture of learners' developments in writing when supported by a systematic theory of language. I am aware that different theories of language see accuracy, fluency and complexity in different ways. In order to address this problem, the current study tried to find a language theory compatible with T-unit analysis and the main sociocultural concepts of mediation and personalization. Since this study considers the classroom as a social place where different types of interactions and mediations take place SFL was chosen as a complementary language theory due to its focus on language use in social context (the EFL classroom). In fact, different studies (Gibbons, 2006; Hasan, 1995; Wells, 1994) supported the ideas that in the sociocultural EFL classroom teachers and learners very often make use of SFL concepts (e.g. grammar as 'lexico-grammar'). Gibbons (2006) recognizing the complexity of the EFL classroom, argues that Vygotskian SCT and SFL are perfectly complementary. Furthermore, a traditional structural analysis of language in itself would not have provided insights into how second language learners work on written tasks, and what is the potential impact of a mobile device in this process, which SFL does. Additionally, the teachers involved in the study in designing the tasks have always used the SFL view of grammar as a system of functions (e.g. analyse a text exploring language features to reach a goal). In this study, SFL served primarily as a method for complementing the analysis of learners' FCE written tasks made through T-unit measures, in order to find evidence of language development through the mediation of a mobile tool.

8.6 FCE Assessment criteria

Before proceeding with the analysis of the learner texts it is important to provide a view of the Cambridge First certificate assessment criteria. In particular, this study looked at the general pedagogical considerations behind the criteria.

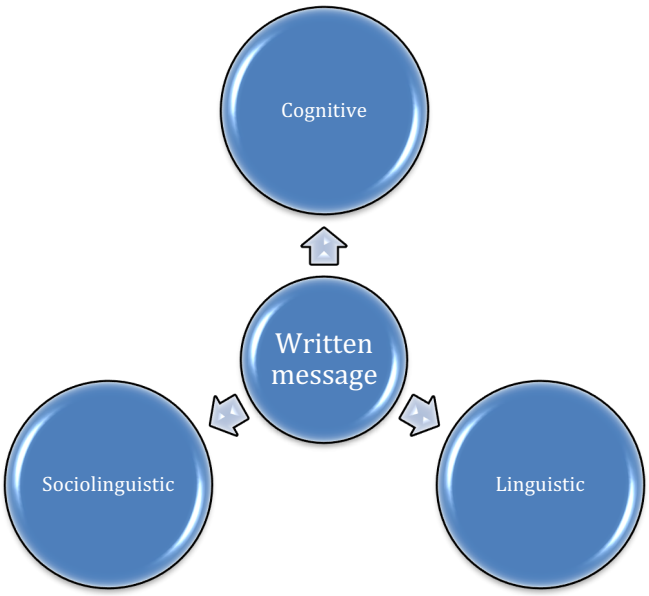
According to the research and validation group of Cambridge ESOL (Lim,

2012), 'the primary attention for any exam is how well it covers the knowledge, skill, or ability it seeks to measure' (Lim, 2012, p. 7). In this case, the teachers used a mark scheme that was intended to measure learners' writing ability.

In order to make sure learners are evaluated using the latest research findings on language acquisition, Cambridge ESOL assessment criteria changes overtime according to a review of the literature on the nature of language ability. A relevant aspect for this study is that the results of the last review showed that:

> 'while learners differ somewhat in their models' specifics (e.g. Bachman 1990, Canale and Swain 1980, Grabe and Kaplan 1996), they generally agree on two things: (1) they all see language ability in communicative terms as ability for use, and (2) they all see language ability as involving multiple components, which are related to and/or interact with each other. Of components, one can discern three elements: a cognitive element, a language element, and a socio-linguistic element. Writers use these abilities in combination to produce a piece of written text' (Lim, 2012, p. 7).

Figure 8.2 Components of language ability (from Lim, 2012)



The scales analysed in order to produce the assessment criteria used in this

study, usually had a criterion (in the case of analytic scales) or descriptor (in the case of holistic scales) that had to do with organisation, sometimes under the headings of coherence and cohesion. Interestingly, learners mentioned these descriptors very often in their interviews and during their self-regulated learning tasks (see Chapter 4). The Cambridge ESOL research team found out that these were indirect measures of the cognitive element, which means how candidates decided to organize and select the material to create a valid written text. The scales used by Cambridge ESOL all analysed the linguistic elements, sometimes dividing vocabulary and grammar into two separate criteria. For the t-unit analysis of this study, grammar and vocabulary were not separated following the SFL theory of language.

8.7 Analytical tools

8.7.1 SFL as an analytical tool

SFL was employed for the analysis of students' FCE written tasks in this study. Their written language developments were examined through an SFL analysis of their FCE essay writing tasks. In particular, this study used the textual and ideational metafunctions as framework for analysis, because organising information in the text was a big issue for learners. These metafunctions in learners' tasks were also analysed because one of the main focuses of the study was to see how second language learners develop their written competence with and without the mediation of a mobile device. For these reasons, they were targeted during mediation in each essay writing lesson. For example, the quality and type of prompts on vocabulary, grammar and organization provided by the iPad were observed. Therefore, an analysis of the textual and ideational metafunctions enabled me to track any changes or developments in the six students' FCE essay writing over a period of six months. The following paragraph will explain how the textual and ideational metafunctions were used in the study.

Textual and ideational metafunctions

A quite important challenge faced by learners in the study, regardless the use of the iPad to perform the task, was how to organise the information into

a coherent text, that is to create textual meaning. Textual meaning reflects the students' ability to manage information in a text, including selection of materials, organization and layout, use of specific lexis. In order to have a text easy to understand, the writer has to help the reader following specific patterns that serve as guidance for the reader. In particular, in this study the essay writing structures were explained and provided to learners. They were asked to produce essays on different topics by using textual devices such as introductions, key words, references and conjunctions in a text. An effective organisation of the text through such devices allows the student to make the context clear and to give a social impact to his text. As explained by teachers in the first lesson on FCE writing tasks, each task has recognised textual features (e.g. organization of a story: orientation, record, remarkable event etc.) recognized overall from speakers of different languages. According to SFL there are patterns of meaning that characterise each genre and its structure (Martin & Rose, 2007). As such, an essay is organised in a certain way in general English. On the basis of the classroom activities of this study, in fact, there is the idea that learners that are able to use specific textual features, driven by the FCE specification and the social context, in their essays are likely to perform better in FCE written tasks than those who are not. How the iPad could help or speed up this process is part of the following steps. This study focused on essay writing; the general purpose of an argumentative essay is to persuade the reader about an idea or a statement. This text type is organized in three stages according to the principles of the genre: thesis, argument and conclusion. The term genre refers to 'different types of texts that enact various types of social contexts', as defined by Martin and Rose (2007, p. 8). Each stage may have different discourse moves (e.g. Information: present past events to introduce the topic).

As textual meaning was analysed in different steps, I have selected three essays as samples of the process over the entire study (first essay at the beginning, second produced in the middle and the third produced at the end of the study). I checked whether any changes in writing development occurred during these three steps. The focus of the analysis was on (1) generic structure of the text, (2) specific features (i.e., closing sentences,

vocabulary, references). The analysis of these aspects of textual meaning was informed by Martin (1993a) and Martin and Rose (2007). The specific aspects of textual meaning examined in this study are further elaborated below (see 8.8.1).

8.7.2 T-unit as analytical tool

Essays 1, 2 and 3 were coded for *fluency* (measured by number of words and number of T-units used), *accuracy* (the percentage of error-free T-units) and *complexity* (the percentage of words per T-unit and subordinate clauses per T-unit). As largely explained in Housen and Kouiken (2009), *complexity, accuracy and fluency* (CAF) in the history of Second Language Acquisition (SLA) have been identified as the key notions to measure language proficiency, mainly because they reflect the variables and the multimodality of language acquisition (see, for example, Skehan 1998; Ellis 2003, 2005). As stated above, T-units consist of one main clause plus a subordinate clause attached to or embedded in it (Hunt, 1965). The T-unit has been adopted as a measure in previous research on writing (Arnold et al., 2005; Polio, 1997; Spelman Miller, 2006), and it was considered to be the most appropriate way to code and record changes regarding fluency, accuracy and complexity in written texts.

8.8 Analysis

8.8.1 Essays

Essays were analysed to investigate any changes overtime in writing proficiency from the first essay produced for the course to the last, and also to track any differences between the iPad group and the pen and paper group in order to search potential uses and impacts of mobile devices for EFL writing.

T-unit analysis of essays

The 18 essays produced by learners both from the iPad group and the pen and paper group were coded for accuracy, complexity and fluency, criteria used also for the Cambridge First Certificate assessment. Fluency was

assessed for word/time ratio. It is a measure commonly used in L2 writing to analyse learners' ability to write texts in a second language (Sasaki & Hirose 1996; Spelman Miller 2000; Oskoz & Elola 2014). The tasks selected were performed in class, students had about 45 minutes to complete each essay.

Table 8.3 Comparisons between experimental and pen and paper group for accuracy and complexity. (N=18)

	Pen and Paper group	iPad group	Difference
Accuracy: Percentage correct T-unit	87.5 (14/16)	81.25 (13/16)	6.25
Complexity: Words per T-unit	13	18	2.5
Complexity: Subordination per T-unit	1.03	1.5	0.47

The analysis showed little differences in accuracy and complexity Learners in the iPad group were less accurate than the learners in the pen and paper group. Probably because the pen and paper group included the most proficient students of the class, as Teacher A noticed when asked about students written proficiency:

> *As I mentioned above students using the iPad were particularly independent, they had access to a lot for materials and resources, first of all vocabulary and synonyms, I actually witnessed each of them becoming faster and faster which actually helped. On the other hand paper based people didn't have this access and probably that was the aspect, which affected them the most. However I HAVE TO SAY THAT PROBABLY BY CHANCE THE paper based people were actually excellent students, they really got high marks, whereas the iPad students not necessarily got very high marks, they got reasonably right marks, but still the paper based ones achieved best results, but this I don't think depends on the tools they were using. it actually depends on the students.*

Importantly, the teacher recognised the difference on average marks between the two groups, but she tended to identify this difference with the characteristics of the students rather than of the tool.

On the other hand, learners from the iPad group produced longer and more

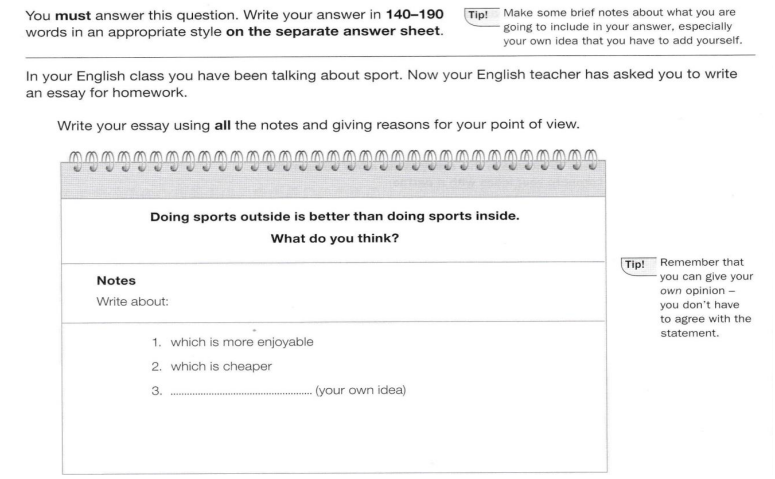
complex sentences. As evidenced in the following examples:

> *1) If you want to learn a language the best way to boost it is surely to travel in the country that language is spoken, because you can speak but also listen to people talking. (Student A – iPad group)*

> *2) Firstly, you can boost your language skills because somehow it forces you to listen. (Student C – pen and paper group)*

The iPad group generally showed a quite large range of vocabulary used in the essays (see Figure 8.3 below), this is due to the fact that they could access online resources including dictionaries and thesaurus. Evidence of this is in the feedback received by the teacher after each essay. Comments include expressions like: *excellent variety of language, good expressions used, good range of vocabulary, very good style and use of lexis* (from essays' feedback – iPad group).

Figure 8.3 Sample of essay writing on Showbie.



You **must** answer this question. Write your answer in **140–190** words in an appropriate style **on the separate answer sheet**.

Tip! Make some brief notes about what you are going to include in your answer, especially your own idea that you have to add yourself.

In your English class you have been talking about sport. Now your English teacher has asked you to write an essay for homework.

Write your essay using **all** the notes and giving reasons for your point of view.

Doing sports outside is better than doing sports inside.
What do you think?

Notes
Write about:

1. which is more enjoyable
2. which is cheaper
3. ..... (your own idea)

Tip! Remember that you can give your *own* opinion – you don't have to agree with the statement.

Lots of people everyday play sports both inside and outside to enjoy themselves. Let's discover what are the more enjoyable ones.

Even though, the most enjoyable sports are the ones which are played outside, they are probably the cheaper one. For example, i love going out ~~running and it needs only few things. On the other side i spending time~~ playing football with my friends and team mates and it needs only a ball, a field and a coach so is also cheap.

However there are lots of enjoyable sport such as gym or tennis, which i ~~love particularly, that are played always inside. Furthermore, they can be~~ comfortable even though the whether isn't sunny.

~~If this sports can help you improving your physical skills more than team~~ ones, the lasts can help you relate with other people and learn how to collaborate.

Not surprisingly, the main difference in proficiency is linked to text organization and layout. The people who were using the iPad and the Showbie app were able to even write separate paragraphs, but then organizing them according to what seems more sensible without presenting a disruptive layout so they could actually benefit from this flexible organization tool. To illustrate this, the picture above shows a screenshot from the Showbie app.

The official Cambridge FCE results confirm these trends: learners in the pen and paper group received slightly higher scores compared to learners in the iPad group in the writing paper. Interestingly, all the students involved in the study scored high in the speaking paper (between 172-190/190).

Table 8.4 Comparison of Cambridge FCE official results on writing paper

iPad group	**FCE score Writing paper**	**Pen and Paper group**	**FCE score Writing paper**
Student 1	172/190	Student A	180/190
Student 2	160/190	Student B	160/190
Student 3	172/190	Student C	180/190

Finally, it is important to notice that most students from the iPad group asked to have some practice using pen and paper because they knew the exam would have been paper based and they realized that by using the iPad they had access to an enormous quantity of information, vocabulary, spell checker etc. As already noted for the speaking skills in the previous chapter, this was also a demonstration of independence and self-regulated learning (see also Chapters 4 and 6).

SFL Textual analysis of essays

While the analysis of the T-unit data provided information about the developing proficiency of the learners throughout the FCE writing module, it

did not give sufficient insight into learners' progress potentially resulting from iPad mediation. Therefore, FCE students' essays were analysed in order to complement the T-unit data analysis and to address RQ 2. For this analysis, SFL was used as the main analytical tool. In particular, the study looked at how learners plan, organise and produce a text (textual and ideational metafunctions), an area that showed to be quite challenging for EFL learners of this age as revealed by teachers' experience. Textual and ideational meanings, therefore, were the main objectives during the FCE writing lessons and hence were examined for any evidence of essay writing development in learner texts.

As explained above, SFL allowed the researcher to scan the texts in order to find evidence about how a student wrote the text (e.g. essay) to achieve its purpose. I organised data into categories based on relevant parts of the texts that reflected the objective of the research (Merriam, 1998). I read all the essays and marked elements of textual and ideational meanings (e.g. information flow, connectives) that revealed meaningful information for the study and wrote comments. I then listed all the aspects related to essay writing (mainly organization and structure). Finally, the essay writing aspects were quantified and percentages were calculated to compare how the learners approached the writing and how they worked with the iPad to support their writing.

The following excerpt shows evidence of the analysis of the essays. Learners were required to produce an argumentative essay on indoor/ outdoor sports. Analysing the text the learner seems to respect the structure of this specific argumentative essay (statement, argument against, argument for, summary/conclusion) as described in Knapp and Watskins (2005). There are also many grammatical features of argument, in this study, learners have been introduced to the use of connectives (e.g. because) and mental verbs (e.g. think, believe etc.). The use of tracking systems, such as references and repetitions, was also part of the analysis. The use of all these features has been analysed overtime in the essays.

Figure 8.4 Analysis - Sample 1: from Essay 1 (iPad group) – Indoor and outdoor sports

Statement of argument - Thesis	*Nowadays doing sports is the best way we have to improve our behaviour and our physical strength. Which one is better, to train outside or inside?*
Arguments for and against *(Points + elaboration)*	*Of course, doing sport outside is more enjoyable because you are in a direct contact with nature. What's fascinating in doing sport outside is the feeling of freedom which invades our body. Even though you can't face the force of the nature and when it rains you have nothing to do, to train in the open air could be more interesting.* *Moreover, doing sports outside is cheaper than inside: it's totally inexpensive! You can choose the place which attracts you and play there with your friends! You only need determination and suitable clothes. Own every second the day could give you!*
Summary/conclusion	*So, let yourself be conquered by the world around you. Take on this new challenge!* *(142 words)*

The essay produced by Teresa (iPad group) showed a good balance of all the aspects analysed. For the first reading, I used a colour code to have an immediate and visual overview of the different aspects. For example, use of generic features of introductions and conclusions are in red. Information is in yellow and description/evaluation in green. To organise meanings, conjunctions are used: which, because, etc.

As stated above, key ideational and textual meta-functions were investigated. The main categories found and colour-coded are listed in the table below.

Table 8.5 Main ideational and textual meta-function categories found in the analysis.

Repetition – to track meaning (ideation > ideational meta-function) (e.g. Sports, practise sports)
Pronouns – use of personal pronoun to track reference (identification > textual meta-function) (e.g., Doing sport…it)
Comparing – use of comparatives and superlatives to compare and contrast things, people, ideas (ideation > ideational meta-function) (e.g., Much more enjoyable)
Adverbs and expressions – use of adverbs and expressions to indicate activity sequence (ideation > ideational meta-function) (e.g., In fact, another point to consider is)
Evaluation – use of adjectives and adverbs to evaluate references (identification > textual meta-function) (e.g., Important, individual)

The following tables show a comparison between Essay 1 and Essay 3 of students from the Pen and paper and the iPad group. The analysis shows evidence of the improvement on the use of textual features and the complexity of the writing, as demonstrated by the higher number of references, such lexical strings to compare, contrast and evaluate. The student from the iPad group, in particular, showed to be able to manage references and evaluation features (e.g. important, individual, use of the pronoun it) better than the student from the pen and paper group. However, there is no significant difference in text production between the iPad and the pen and paper group.

Table 8.6 Analysis of essay 1 - Comparison between Pen and Paper and iPad group

Pen and Paper group – Essay 1 **Indoor and outdoor sports**	**iPad group – Essay 1** **Indoor and outdoor sports**
Firstly, playing sport inside is much more easier especially for people who live in cities. In fact they offer lots of gyms and	Doing sports, in particular for teenagers is important because it helps your physical health and thorough sports you could

pools for all necessities. However playing sports outside is much more enjoyable because the open air helps one to relax and stay away from the noise and hurry of the city. Moreover is healthier being in contact with nature in spite of being closed in a gym. Another point to consider is that playing sport outside is cheaper because people don't have to join a gym or a club. In addition people could go on their own and whenever they want; the only drawback is that these sports depend on weather. Despite cities offering lots of advantages for playing inside sport, from my point of view outdoor sports offer you the possibility to admire heart-breaking views and do something different from things we usually have around. You can also enjoy yourself.	make some friends or you can raise the bar in your abilities. There are definitely two ways to do sports, inside or outside. Practice sport inside helps you when outside is really cold and you cannot stay there in particular for sports where you have to play with team mates is important (to) practice them in a gym because it is easier to join the group and follow the coach's instructions. Practice sports outside is better for individual sports where you only have to be concentrate on your opponent and on winning, which is important but not the only thing you have to think about when you are playing. It is better than play inside because you can breathe fresh air. Playing inside is cheaper than play outside because it has more comforts (facilities), you pay for light and air conditioning. You pay also for game uniform, in fact many sports inside are with team mates. I play basketball and I would rather play inside than outside because I hate when the coach is speaking and I don't understand what he is saying so I play in the wrong way. In any case I think it is enjoyable play sports everywhere with your time, you fight for the same goal and you do it together.

Table 8.7 Analysis of essay 3 - Comparison between Pen and Paper and iPad group

Pen and Paper group – Essay 3 **Learning a foreign language**	**iPad group – Essay 3** **Learning a foreign language**
Nowadays knowing a foreign language is considered to be one of the most essential thing to approach. In order to afford it there are a number of different ways, some better than others, like attending a summer course, using internet or visiting a country. The first thing to consider is that using	Nowadays, learning a foreign language is something necessary in order to find a job, or to have the opportunity of studying abroad. There are some ways to learn a foreign language, a few of them are attending a summer course, using internet or visiting the country. Firstly, if you had to learn a new language, you would definitely consider how quickly

internet seems to be a more quickly way to learn a language than attending a course, which requires a number of hours in summer time. However it doesn't help to approach it in the better way. In fact visiting a country, people can know it better. Another point to consider is that internet is free and always available, so it is very convenient. Moreover, attending or not a much expensive course could be useful. Furthermore, while using internet is free, visiting a country could be very expensive and is needed to save a big amount of money to afford it. Hence, it isn't the cheapest way to learn a language, but it provide you a good pronunciation and fluency. To conclude learning a language by visiting another country is the most useful in order to approach your English skills, however it is not cheaper. Hence attending a summer course could (be) a good substitute.	you boost your language skills. Therefore, I reckon that visiting the country is the best way to improve in the shortest time that language: you could have the opportunity of hanging out with different people who speak that language and so the opportunity of learning it in an engaging way. Furthermore, you have also to consider which way is more convenient. In spite of what usually people think, I reckon that using Internet is one of the most convenient way to learn a foreign language. Indeed, you can just watch a film on a website to learn new words and new expression you didn't know before. Finally, you also have to find an engrossing way to learn it. From my point of view, the most attractive way to study a language is going abroad and visiting the country where the language you want to learn (is spoken).

The analysis showed no relevant differences between the iPad group and the pen and paper group although students in the pen and paper group used a larger number of evaluation terms (e.g. engrossing, individual, important, necessary etc.). Learners in the pen and paper group seemed to better manage the use of fixed expressions to organise the text and indicate a sequence of events or opinions (e.g. the first thing to consider is; another point to consider is…; however, to conclude etc.). The table below shows the percentages of correct use of connectives, mental verbs and organization of essay writing over a period of six months.

Table 8.8 Percentages of correct use of writing aspects overtime overall

Essay **Aspects**	**Essay 1**	**Essay 2**	**Essay 3**
Lexicogrammar – feature 1 (use of conjunctions)	38%	58%	70%
Organisation	50%	50%	76%
Lexicogrammar feature 2 (use of mental verbs)	30%	35%	41%

As the results showed, learners seemed to have improved on different textual aspects and organization features of the essay writing (use of conjunctions, organisation, evaluation terms etc.). The two essays below show evidence of these improvements from essay one to the final.

Figure 8.5 Sample essays

ESSAY_final

You must answer this question. Write your answer in 140-190 words in an appropriate style on the separate answer sheet.

In your English class you have been talking about the best ways of learning a foreign language. Now, your English teacher has asked to write an essay for the school magazine.

Write an essay using all the notes and giving reasons for your point of view.

Is it better to learn a foreign language by attending a summer course, using the internet or visiting the country for tourism? Write about: 1) how quickly you boost your language skills 2) which way is more convenient 3) ..... (your own idea)

Nowadays languages are very important, essential for example for work or more simply if you want to travel around the world. There are a lot of different methods to learn foreign languages such as summer co... Internet or you can learn a new language just travelling.
Th... ity to learn and improve a language depends on your skills your memory your willpower but also on th... culty of the languages you are learning. Moreover using different method means different veloc...
If yo... bit a language the best way to boost it is surely to travel in the country that language is spoken because you can speak it but also listen to people talking. Also Internet has its advantages for example you can study wherever and whenever you want even if you are alone and there is none which can correct you.
Above all the best way to learn a foreign language is to start studying it very young maybe at five or six year old and continue study it at school and doing activity like work experience or stage during which you are in contact with mother tongue people.
In conclusion I think that if you have the possibility to travel this is the best thing because you improve your skills but you can also visit the country and learn the culture

It's always better to chat with friends and family face to face rather than online.

Do you agree?

Notes

Write about:

1. what time of day it is → during the day with family/usually in the evening with friends.
2. what the conversation is about → family: what are you going to do in the day
   it is important to know friends: homeworks, chat about random things, organise to go out.
3. the person you are chatting with.
   ..... (your own idea)

Over the last few years there has been a wide diffusion of the well known device called Smartphone. Almost everybody owns one and nowadays it has become for many people the best way to communicate both with telephone calls and online chatting. But is it a good innovation or should we return to talk to people face to face?

Firstly, it depends a lot on when and how long people use this method to keep in contact. Usually an average teenager chats online during the day with closest friends and family and during free time or in the evening with friends who does not meet often and that maybe live far from where he or she stays. Online chatting becomes a wrong way to communicate when is used in other moments, such as at school and during the night when everybody is supposed to sleep and rest.

Secondly, online chatting could be considered useful when it is a way for the parents to

Nevertheless, the improvement overtime of the organization features seemed to have more relevant increase compared to other aspects. Moreover, using proper lexico-grammar features, related to a specific topic or situation seemed to be a challenge for L2 learners. The text excerpt below shows evidence of those challenges. For example, there is no attempt to give proper clarification of ideas (e.g. for several reasons – not explicit description of those reasons); some of the students had problems with expressing a sequence of activities and using references to deal with the potential complexity of a text. They usually preferred to use repetition rather than other types of references (see also Table 8.6 above).

Excerpt 2

Everybody thinks that practicing a sport is very important, in everyday life for several reasons. There is a huge variety of sports and possibilities, but is it better to do them in open air or in a close place?

Firstly, it depends on where you are and on all those things dealing with weather and temperature. I'm sure that going for jogging in a park will be enjoyable during a sunny day that in a cold day…

8.8.2 Interviews

The study also analysed the responses about how teachers and learners perceived their work when performing writing tasks with and without the iPad. Teachers proved to be enthusiastic:

> *As I said before probably the most useful activity was the Fce writing activity, so the mother tongue teacher would upload the task and lines to complete the task on and the kids would have like 45 mins to complete the task, of course the pen and paper group would have simply doing the task the traditional way. That was the main outcome using the iPad and then note writing using possibly Evernote or maybe other apps like inote or something like that. (Teacher A)*

Some learners on the other hand, did not feel comfortable in performing writing task with a mobile device. However, basically all of them recognized the greater improvement in the organization and layout compared to the writing on standard notebooks. The following interview quotes show evidence of this.

> *'I think that taking notes on the iPad is more slowly and I would like to continue to take notes on the paper because when the teacher speaks it's more difficult to write on the iPad, but it's still more neat than a folder of paper.' (S. Student – iPad group)*

> *First of all I would say in terms of organization. This year we use this tool and in particular the app Showbie to develop, to practice over FCE writing skills. and I have to say that the people who were using the iPad and the showbie app were actually able to even write separate paragraphs but then organizing them according to what seems more sensible… (M. Student – iPad group)*

8.9 Discussion

The present study supports the approach of Larsen-Freeman (2009) that emphasizes variability within individuals and variation between learners, as well as the relationship among different subsystems (such as fluency, accuracy, and complexity) (Polio and Shea, 2014). This research also shows the influence of a new relationship in the classroom: the interaction of teachers and learners with the mobile device. Two key findings seem to be relevant to this study and for classroom practices. First, although there was a general consensus about the positive use of the mobile device among teachers and learners, the data did not show relevant differences. For example, teachers were expecting learners from the iPad group to be more accurate due to the easy access to online grammar reference, but this did not happen. This confirms again Kozulin's (2003) assertion that the teaching of tools must be deliberate and scaffolded, otherwise learners do not take advantage of it for learning purposes. Moreover, learning may digress or progress because it is not linear but dynamic. Second, the iPad as a writing tool helped learners in the organization of text, ideas and layout. The evidence obtained supports the SCT view that the technological tool acts as a mediator in the writing tasks. For example, learners often used the cut and

paste function to easily reorganize the text and their ideas. Moreover, it can be seen as a tool that facilitates and shapes learning. It encourages peer collaboration and knowledge sharing, for example, by prompting the students with vocabulary or with certain functional grammar features (e.g. the use of the personal pronoun). The results of this study support the view of mediation as the process where higher mental activities are developed through social interaction involving the use of tools (e.g. the iPad) (Thomas & Reinders, 2010).

8.10 Summary

This chapter reported on the analysis of 18 students' essay writing tasks and the interview data in relation to RQ3: how does the iPad mediate the development of writing skills in the EFL classroom?

The findings suggest that the mediation of the tool has the potential to enhance learners' writing development, although the teacher needs to guide students towards these potentialities and scaffold some of the activities. It was also found that while learners in the iPad group produced longer texts/ sentences, these sentences showed to be less accurate than their peers' in the pen and paper group. Overall the groups showed progress regarding their ability to manage argumentative essay writing stages, and some functional-grammar features, none of them refused to follow instructions regarding structure and features. The students in the iPad group (experimental) showed an increasing use of different functional-grammar features (e.g. variety of adverbs to introduce a section) compared to the pen and paper group. On the other hand, although students showed no relevant progress in the complexity of texts (use of subordinates per t-unit), it can be observed a tentative in the experimental group to increase the number of words per unit; this was often related to the increase of errors per sentence.

Overall, in this study, it appeared that an SFL approach to technology-mediated writing tasks might have helped secondary EFL learners improve their writing skills and their awareness of the influence of the technological tool on their learning. It is important to clarify that SFL in this study was used

more as an analytical tool than as a teaching tool. It could be interesting to further investigate this aspect by applying SFL principles to the planning and teaching of a technology-mediated second language lesson. Moreover, in order to further explore these potentialities and the positive changes in these students' writing, it would be necessary to consider their performances in a larger scale, and with different writing assignments. Moreover, it would be beneficial to investigate the texts considering also the interpersonal metafunction.

Chapter 9: Conclusion and implication for practice and further research

9.1 Introduction

One of my motivations for the current study, as stated in Chapter 1, was that I am an EFL teacher with a longstanding interest in the integration of technologies into the language classroom. As a teacher and researcher, I have had the chance to talk and work with teachers to understand the challenges they face in their everyday work with tablets, from the planning to the delivery of the lesson. In order to explore these challenges more systematically and contribute to knowledge and understanding of how EFL secondary school students can benefit from the use of the iPad for language learning, I embarked on this research project. The study was concerned with the use of the iPad to develop speaking and writing skills. In particular, it explored challenges and opportunities provided to secondary students and teachers while performing speaking and writing tasks, an area which is still under-researched from a sociocultural perspective (Viberg & Grönlund, 2012). The theoretical framework that underpinned this study is the Vygotskian socio-cultural theory (SCT) of learning. For the analysis of writing assignments, it was also informed by principles of Systemic Functional Linguistics (SFL) (see Chapter 8). Following an action research approach, the study investigated the use of the iPad as a language instructional tool by examining students' strategies and performances of speaking and writing language tasks.

This study was set up to investigate the following three research questions:

- RQ1 What are the characteristics of technological-mediated language speaking and writing tasks for mobile devices as used by EFL teachers and learners?

  RQ2 How does the iPad as mediating tool support speaking skills?

  RQ3 How does the iPad mediate the development of writing skills in the EFL classroom?

In this concluding chapter, first, I will present a summary of the key findings in light of the research questions in this study. Then, I will describe the implications of this study for EFL teachers, education practitioners, especially those involved in the development and management of mobile devices for language learning, and researchers in the field of second language acquisition. Limitations of the current study will be presented. To conclude, I will suggest areas that would benefit from further research.

9.2 Summary of key findings

This study focused on a group of 38 secondary semi-private school students and three EFL teachers at the Liceo Scientifico Sacro Cuore in Milan over a period of six months, exploring the integration of the iPad into the EFL classroom.

The focus of the study was the Vygotskian notion of mediation (i.e., physical tools such as tablets, computers and other forms of information communication technology (ICT)) in relation to the students' performance of speaking and writing tasks. To examine their development, I considered the types of use of the tool in the mediated performance. The students' speaking tasks and performances were examined in relation to teachers' and learners' uses and perceptions of the iPad in the language classroom. The students' writing was examined in relation to their textual meanings and overall proficiency as evidenced through their written assignments.

As explained in Chapter 5, this study followed an action research approach, involving regular teachers' meetings and lesson planning. The lessons were planned using a technology-mediated TBLT framework, as in Gonzalez-Lloret and Ortega (2014). The 38 students selected were part of two high-school classes, and they received the device as a piloting project the previous school year. This study had two main parts: the writing module and the speaking module. Both modules took place during the first six months of the school year. While during the speaking modules students were all allowed to use the iPad to perform the tasks, for the writing module they were divided into two groups. During the writing module and for the purposes of

this study there was a pen and paper group in each class that used only pen and paper to perform their written assignments (see Chapter 5). Since they were preparing for the Cambridge First certificate examination, the teachers agreed to adapt the Cambridge language speaking and writing tasks to the purpose of the study. In particular, based on the FCE task they wanted to focus on, a technology-mediated TBLT lesson plan was developed in order to provide practice for learners and reach that goal. I observed six lessons in total, three for the speaking module and three for the writing module. In order to observe the development of the practice overtime, the observation took place at the beginning, in the middle and at the end of each module. The same procedure had been followed for the selection of students' written assignments: three assignments from each of the six students (3 pen and paper group and 3 iPad group) (see Chapter 5 for further details).

All the speaking tasks required the students to practice a particular meaningful task (e.g., making a reservation, comparing ideas, giving opinions on recent news events etc.) and to produce a recording as described in Chapter 7. This procedure is consistent with the study of Leis et al. (2015) on the use of smartphones to develop language learning autonomy. Following the technology-mediated TBLT approach combined with the two key concepts of mediation and personalization of SCT (Lantolf & Appel, 1994), I, as a researcher, observed and recorded students' practices with the iPad. The teachers analysed all students' performances providing them with synchronous feedback. Their overall comments on students speaking performances also informed my analysis as a researcher. All the writing tasks focused on different text types (e.g., email, review, article, essay etc.) and were adapted from FCE writing tasks. Each task required students to produce a specific text type with specific features and purposes. I, as a researcher, selected and analysed 18 written argumentative essays as a convenient sample for this study. Written texts were initially analysed for accuracy and fluency, and then for their holistic textual meaning, following Halliday's SFL, this also took accuracy into consideration.

Overall, my results suggest that iPads are appropriate tools to develop speaking and writing proficiency at intermediate levels with secondary

students. The technology-mediated TBLT approach with iPads proved to be a valid alternative as learners were engaged in meaningful, purposeful, and goal-directed tasks. The concept of putting the learner at the centre of the tasks facilitated interactions with the teachers, peers and with the tool. It also provided more opportunities for scaffolding. This also confirms the results in Lys (2013).

In order to provide valid answers to RQ2 and RQ3, qualitative and quantitative analysis methods were used. The qualitative methods involved (1) investigating the type and quality of physical tool mediation during speaking and writing performances and (2) analysing students' written texts, the comments from teachers' meetings, classroom observation notes and the teacher and student interviews. The quantitative method included examining (1) the amount of words/sentences in written texts, and (2) the extent of successful use of features of the text type. The findings from both the qualitative and the quantitative analyses provide insights into the potential development of students' speaking and writing proficiency with the use of the iPad over 6 months as summarised below.

First, in order to have an overall picture of the use of the iPad in the EFL classroom, this study investigated what are the characteristics of a technological-mediated TBLT design in the iPad secondary classroom (RQ1). The activities and tasks used throughout the project were selected and divided according to the main goal. Two groups of tasks were created: 1) tasks targeting speaking skills and 2) tasks targeting writing skills. The tasks were designed using the technology-mediated TBLT framework. The analysis of the lesson plans and the materials used in the classroom contributed to find a shared structure for the lessons. The tasks selected proved to be successful for learners, as students reported in the interviews. Activities involving the active use of the tool for creating, practicing speaking performances and accessing authentic materials were the most successful among students and teachers; this is possibly due to the specific needs analysis conducted by the teachers before the lesson planning. Overall, findings showed a clear change both in practice for teachers and learners and also in learners' performances of tasks. This is consistent with the

results of other studies (Al Fadda & Al Qasim, 2013; Lin, 2014; Lys, 2013).

The analysis of the use of the iPad to perform speaking tasks provides insights into the role of potential mediator of the mobile device as reported in Chapter 7, thus addressing RQ2. The qualitative analysis of the mediational uses suggests that the students benefited from the use of the different features of the iPad to facilitate language production. The iPad allowed learners to find successful time-management strategies and simplify their tasks (e.g., the recording function, the access to authentic samples on YouTube). Students all reported that the iPad changed their standard school day habit, making them almost paperless. Applications such as Dropbox and Google Drive reduced the need for external data storage (Eichenlaub et al., 2011), and different recording and note taking options were available. The qualitative results of the learners' speaking performances perceptions indicate that the learners became more independent in the use of the iPad overtime. This may have been a result of the mediation they experienced exploring different speaking tasks. The findings also show the changes in students' behaviours from novice users to more expert users as in Bird and Edwards (2015).

Finally, the quantitative analysis of written texts (RQ3) shows that there was an increasing frequency of the errors and number of sentences, thereby suggesting that there is a correspondence between text complexity and the increase of errors, confirming the results in Lys (2013) and Larsen-Freeman (2009). Although, no relevant differences were found between the pen and paper group (pen and paper) and the experimental group (iPad) in terms of accuracy, the iPad group produced slightly more complex texts. Overall, textual analysis showed that learners seemed to have improved on different textual aspects of the essay writing overtime; they were able to use a wider range evaluation terms, organise the text using proper expressions (e.g. to conclude, however etc.), use mental verbs properly etc. However, triangulation of data showed also an increasing pen and paper of the tool to perform writing tasks during this study. For example, one approach involved synchronizing the iPad notes with Evernote to simplify notes, timetable, assignments etc., and another involved the use of the Tinypdf application to

annotate and personalize course materials and texts. Throughout the project students noted the importance of the synchronous use of different apps, such as Evernote, GoogleDrive, Showbie, and Haiku Deck for content creation. As in Eichenlaub et al. (2011), students recommended various applications to enhance note taking without a keyboard and to improve the organization and layout of written texts and virtual notebooks (i.e. TinyPdf, Penultimate etc.).

Likewise, the results coming from the triangulation with the interviews with teachers and learners support the idea that the iPad had an important influence on students' self-regulated learning. The same questionnaire was delivered to teachers and learners at the end of the project. The responses (mainly in English) help to understand in more depth students' and teachers' perceptions about the usefulness of the iPad to develop speaking and writing skills in the English as a foreign language classroom. From the answers to the first open-ended question (*Tell me briefly about your experience using the iPad to teach/learn English*) both teachers and learners seemed to have received many benefits from the use of the mobile device in their teaching/learning. The learners in particular did not mention any challenges unless requested. This interpretation is based on the fact that only 5% of these students mentioned some issues on the use of the iPad to learn English. Moreover, all of them mentioned at least four different reasons why the iPad was useful in the EFL classroom.

In sum, the results show that through observation of the tool mediation following SCT principles, it is possible to gain insights into learners' developing writing and speaking abilities and use them further to help learners and teachers adopt them in the future. It also indicates that the process of integration of mobile devices into the language learning secondary classroom takes a long time and requires motivation and strong methodology from teachers and engagement from learners in order to take advantage of this kind of mediation accessible through mobile devices.

The findings presented here cannot be generalised due to the particular context where it was implemented (semi-private Italian secondary EFL classroom) and the specific mobile device used (iPad). However, it reveals

several possible implications for EFL teachers, policy makers, and researchers in the field that would like to integrate mobile devices into the secondary language classroom.

9.3 Implications for practice: EFL teachers

Mobile devices allow individuals to engage in powerful learning experiences inside and outside the classroom, and their use is expanding and evolving considerably (Lys, 2013). Teachers, SLA researchers and educators cannot ignore these changes, as future learners will expect them to deliver new ways of learning to improve motivation and to provide innovative learning tools. This study showed how mobile devices can be used with effective instructional approaches that provide additional learning opportunities to the traditional secondary language classroom.

This study has a number of implications for EFL teachers and educators. As mentioned throughout this thesis, the role of mobile devices is changing the way students and teachers' approach language learning. This study aimed at providing possible and affordable practices to be integrated in a well-formulated curriculum. It is not the technology in itself, the iPad in this study, that will solve pedagogic challenges in the EFL classroom, but rather the way these technologies are used and perceived by teachers and learners (Warschauer & Healey, 1998). Therefore, the findings from this study may provide EFL teachers with insights into how mobile devices, specifically tablets, could be used to develop productive skills, such as speaking and writing, and subskills (e.g., inferring meaning from context).

The study identified a group of tasks and mobile apps that seemed to have worked effectively in developing learners' proficiency in speaking and writing, but also in enhancing participants' motivation and engagement. Although these activities were identified in the context of secondary school language education, the context of this particular study, they could be explored in other language learning contexts. For example, there were a few iPad built-in functions that were frequently used and mentioned in this study: *recording speaking performances, sharing written assignments* and *providing synchronous and personalized feedback on speaking and writing*

performances. Together with other effective teaching techniques, an EFL teacher could use these activities in different second language teaching contexts (i.e. young learners, one-to-one teaching, distance language courses etc.). Additionally, rather than focusing on speaking and writing, the tutor could concentrate on listening practice using the same applications and so support students in developing other skills and subskills.

Another important finding that has a more general pedagogical implication is the development of learners' motivation and self-regulated learning. All the participants involved in the study showed a growing independence in the use of the mobile device for their own language development. One learner said '*sometimes I feel I can work on my tasks without even asking information to the teacher, 'cause the iPad is helping me'*. Overall the findings support the SCT view that learners' interaction with a learning tool, a physical tool (the iPad, in this study) can mediate and scaffold the developing of speaking and writing tasks. In fact, another important implication of this study is the power of the mobile device in helping learners to overcome some difficulties related to language production (e.g., public speaking). Due to the nature of the medium, it was not possible to measure the amount of tool-learner mediation in this study, although, for example, data showed an increasing length of speech recordings, or a fast organization of tasks overtime from the beginning to the end of the project.

Although the study presents encouraging results in the integration of the iPad into the EFL classroom, there are, nevertheless, a number of considerations to bear in mind. For example, an inexperienced young teacher may find it apparently easy to teach with the iPad, considering the usual self-confidence in using smartphones and tablets, and could ignore the importance of having a strong methodology background on second language teaching and on technology-mediated curriculum design. An experienced teacher, on the other hand, may find it challenging to identify key features of mobile devices for ELT and work with the iPad for speaking and writing. We can argue that, the implications for teachers' development are crucial in order to support the learners methodologically and technically as observed also in several studies (Bird and Edwards, 2015; Liu et al, 2014).

9.4 Implications for policy makers and institutions

This study has important implications for institutions and policy makers. As presented in Chapter 1, the distribution of iPads and tablets is rapidly increasing.

Although limited to the specific Italian EFL contexts, this study offers general indications for institutions and policy makers on how to integrate mobile devices into the secondary language sector. The school involved in the project initially implemented the project only as a classroom set, as students were not allowed to bring the device home. This was mainly due to the fact that the school did not have a specific policy on the use of mobile devices for educational purposes. It took almost one school year to agree on a policy to propose to students and families. The experience of this study indicates that, in order to have a successful implementation of mobile devices in education, institutions are required to provide teachers with proper basic skills on the management of mobile devices and participants (learners, teachers, families etc.) with an appropriate policy of use where rules and regulations are clearly stated and signed from people involved. The key point relevant to the policy about the current study was whether to allow students to take the device home, because that would imply additional regulations to be set and agreed at management level. The school involved in this study made this decision after the first phase of the study, and learners were allowed to take the iPad home after school. Findings showed how the possibility to use the device also outside the school offered students more opportunities to engage in language activities with no boundaries of place and time. It would be beneficial to further investigate this aspect in future studies.

9.5 Contributions

The primary aim of this study was to investigate the use of iPad in an EFL classroom in order to understand:

1. What the characteristics of technological-mediated language speaking and writing tasks for mobile devices are.
2. How the iPad supports and mediates the development of speaking and writing skills.

As presented above (9.2), findings show how well designed and goal-directed technology mediated tasks contribute to the performance of effective language tasks. Also, the iPad proved to have positive influence, mainly acting as a scaffolding tool, on learners' speaking and writing performance.

This study contributes to the broad area of second language acquisition research, specifically it adds knowledge to SCT-based research, SFL and technology-mediated TBLT research.

First, this study contributes to the growing body of SCT-oriented MALL research. In SCT, technology is seen as a tool that can mediate the learning experience. This means that mobile devices are seen as mediational tools that contribute to students' learning and development. Moreover, they facilitate 1) 'personalization' in terms of content creation, feedback received by the teacher through the iPad, and 2) 'scaffolding' developed from the interaction and collaboration through the device while performing tasks.

One of the most significant contributions of this study is the implementation of the technology-mediated TBLT framework as conceptualized by Gonzales-Lloret (2014) to design and support EFL tasks to develop speaking and writing skills with the iPad. This research applied and evaluated the technological-mediated TBLT framework in an EFL secondary mobile-learning context in the form of collaborative action research. In particular, it shows how the use of mobile devices affects the complexity of a task. Unfortunately, it is not possible to measure how they affect tasks generally, and answers are not straightforward. For example, adding notes to a text, as students did using TinyPdf, may reduce the complexity of a reading task, but it adds new features as web searching and digital literacy. This study aimed at contributing to identify what principles researchers need to consider when they look at how mobile technologies affect tasks and how a task can transform mobile technologies use. More research is needed in this area.

An innovative methodological contribution of this study is the combination of a SCT framework with selected SFL principles to analyse learners' written assignments in a technology-mediated task-based learning context. The use

of the textual and ideational metafunctions to scan text has contributed to find evidence on how learners produce texts using mobile devices. Further studies would be needed in order to investigate the use of SFL as a teaching tool in a SCT oriented MALL research.

Moreover, the research methodology used in this study can be of direct relevance to all those researchers and teachers who see the classroom as a research setting and would like to start practising action research. A particular contribution to the field of action research is the use of a collaborative action research approach, which contributes to the combined work among teachers and the researcher (me). Given the predominance of standard action research or qualitative approach to the language classroom, this study provides an alternative way of investigating the integration of mobile devices into the EFL classroom.

This study also contributes to the area of EFL teacher professional development and practice by providing professionals with a group of effective technology mediated tasks and mobile apps that could be of immediate use in the classroom through collaborative action research, specifically in the secondary language classroom or at intermediate level.

9.6 Limitations of the study

This study has had a number of limitations that must be noted. They are mainly related to the context of the research and to the data collection and analysis. The sample of students and teachers was relatively small and the context was quite specialized, which reflects the nature of action research: contextual, localized, and small-scale (Burns, 2009). In particular, this study took place in the context of a semi-private high school in Milan, many of the students involved had already the iPad or a similar device at home, so they were quite familiar with it, and probably came from affluent families which could afford this type of devices. It is crucial to consider that, a study carried out in a public state school, in a different area of the city or the country could have different impact and present different challenges. Future research should include large scale participants and over a longer period of time. This study had two main phases: 1) the initial exploration phase on perceptions,

which informed 2) the following and more significant study on skills development. The first phase of the study lasted six months and took place the school year before the following phase. The participants were students and teachers of the school, but some of them changed over the two school years. For example, one teacher moved to another school, and two students who participated in the pilot were in an international exchange program for half of the second year. Obviously this had an impact on the data collection and on the implementation of the project (Chapter 5).

The data collected were analysed mainly using a qualitative approach; there is only an attempt to use quantitative data to analyse written texts. To fully test the impact and the amount of mediation of the iPad in the language classroom I believe, the use of both qualitative and quantitative data analysis is strictly required.

In terms of data collection and reliability, I could have asked the same group to first use the tablet, and then go back to pen and paper, to perform similar tasks. This could have helped to have a clear picture of what the impact of the device could be with the same learner and the same proficiency level. In addition, due to the context of the study it was not possible to set up a true control group totally exempt from using the iPad. Most of the families were willing to have their sons using the mobile device. In terms of reliability it would have also been beneficial to conduct a pre and a post-test in order to compare and contrast results.

Moreover, I have collected samples of written tasks performed by students, but due to time constraints, I did not collect sample of speaking recordings overtime. This resulted in two different approaches to the data: qualitative on speaking, quantitative and qualitative for writing. Having speech samples could have contributed to analyse both skills (speaking and writing) using the same analytical tools. Finally, effective tasks and activities were selected based only on interviews and teachers' meeting data; I am aware that different choices would have provided richer insights into the mediating role of the iPad. For example, I could have used classroom observation video of full lessons, I could have asked students to keep log of what they did with the iPad and why they did so.

9.7 Future directions for possible research

There are a number of directions that future studies in this area can take. Considering that mobile devices should and can support language learning, and the large distribution of these devices among teenagers, it would be beneficial to have more studies investigating the implementation of mobile devices at secondary school levels in different countries.

Moreover, many studies have concentrated on methods using the mobile devices as content distributor (e.g. vocabulary studies) rather than focusing on the interaction of the tool with learners, teachers and its role in the collaborative tasks. Studies on this area would give important contributions to the field of MALL.

In terms of research methodology, larger scale studies that carry out a more comprehensive analysis of the development of speaking skills is thus needed in future research by using qualitative data collection procedures. In addition, researchers should consider the idea of measuring development of writing skills using SFL theory of language principles as suggested in this study.

Finally, more evidence of the implementation of a technology-mediated TBLT framework is needed in order to provide teachers and educators with clear directions for the MALL classroom. Moreover, this study has focused on the task design and implementation of the task-lesson cycle (Norris, 2009); future studies should consider also the focus on the reflective and assessment stage of the TBLT cycle.

References

Abdous, M. H., Camarena, M. M., & Facer, B. R. (2009). MALL technology: Use of academic podcasting in the foreign language classroom. *ReCALL*, *21*(1), 76-95.

Adams, R., Amani, S., Newton, J., & Alwi, N. (2014). Planning and production in computer-mediated communication (CMC) writing. *Task-based language learning–insights from and for L2 writing*, *7*, 137.

Al Fadda, H., & Al Qasim, N. (2013). From Call to Mall: The Effectiveness of Podcast on EFL Higher Education Students' Listening Comprehension. *English Language Teaching*, *6*(9), p30. Retrieved from http://www.ccsenet.org/journal/index.php/elt/article/view/29635

Al-Fahad, F. N. (2009). Students' attitudes and perceptions towards the effectiveness of mobile learning in King Saud University, Saudi Arabia. *TOJET: The Turkish Online Journal of Educational Technology*, *8*(2).

Aljaafreh, A. L., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, *78*(4), 465-483.

Arnold, N., Ducate, L., Lomicka, L., & Lord, G. (2005). Using computer-mediated communication to establish social and supportive environments in teacher education. *CALICO journal*, 537-566.

Aronin, S., & Floyd, K. K. (2013). Using an iPad in Inclusive Preschool Classrooms to Introduce STEM Concepts. *Council for Exceptional Children*, *45*, 34–39.

Aw-Yong, J., Anderson, N., & Chigeza, P. (2013). Developing culturally-responsive lessons on the iPad for teaching English as Second Language to Chinese learners. In *2013 IEEE 63rd Annual Conference International Council for Education Media (ICEM)* (pp. 1–11). IEEE.

Backman, K. Kyngäs H. (1998) Challenges of the grounded theory approach to a novice researcher. *Hoitotiede*, *10*, 263-270.

Bax, S. (2003). The end of CLT : a context approach to language teaching.

ELT Journal, *57*(3), 278–287.

Berg, B. L. (2004). *Methods for the social sciences*. Pearson Education Inc, United States of America.

Bird, J., & Edwards, S. (2015). Children learning to use technologies through play: A Digital Play Framework. *British Journal of Educational Technology*, *46*(6), 1149-1160.

Borau, K., Ullrich, C., Feng, J., & Shen, R. (2009). Microblogging for langauage learning: using Twitter to train communciative and cultural competence. *Advances in Web Based Learning - ICWL 2009*, (500), Vol. 5686, 78-87.

Breen, M. (1987). Learner contributions to task design. *Language learning tasks*, *7*, 23-46.

Brooks, J. J. G., & Brooks, M. G. (1999). *In Search of Understanding: The Case for Constructivist Classrooms*. *Association for Supervision and Curriculum Development*.

Brumfit, C., & Mitchell, R. (1989). The language classroom as a focus for research. *Research in the language classroom*, 3-15.

Burns, A. (1999). *Collaborative Action Research for English Language Teachers*. Cambridge University Press.

Burns, A. (2003). *Collaborative action research for English language teachers*. Ernst Klett Sprachen.

Burns, A. (2009). *Doing action research in English language teaching: A guide for practitioners*. Routledge.

Burnside, R., & Muilenburg, L. (2012). Using the iPad to Support Early Struggling Readers. In *World Conference on Educational Multimedia, Hypermedia and Telecommunications* (Vol. 2012, pp. 2374–2375).

Burston, J. (2013). Mobile assisted language learning: A selected annotated bibliography of implementation studies 1994-2012. *Language Learning & Technology*,*17*,157–225.

Burston, J. (2014). MALL: the pedagogical challenges. *Computer Assisted Language Learning*, *27*(4). http://doi.org/10.1080/09588221.2014.914539

Burston, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. *ReCALL*, *27*(1), 4–20.

Bygate, M. (2001). Effects of task repetition on the structure and control of oral language. In M. Bygate, P. Skehan and M. Swain (Eds.), (pp. 23-48).

Çakmak, F., & Erçetin, G. (2018). Effects of gloss type on text recall and incidental vocabulary learning in mobile-assisted L2 listening. *ReCALL*, *30*(1), 24-47.

Campigotto, R., McEwen, R., & Demmans Epp, C. (2013). Especially social: Exploring the use of an iOS application in special needs classrooms. *Computers and Education*, *60*, 74–86. http://doi.org/10.1016/j.compedu.2012.08.002

Canale, M., & Swain, M. (1979). *Communicative approaches to second language teaching and testing* (Vol. 1, No. 5). Ministry of Education.

Canto, S., De Graaff, R., & Jauregi, K. (2014). Collaborative tasks for negotiation of intercultural meaning in virtual worlds and video-web communication. *Technology and tasks: Exploring technology-mediated TBLT*, 183-212.

Chai, C. S., Koh, J. H. L., & Tsai, C.C. (2013). A review of technological pedagogical content knowledge. Education technololology and society. Vol 16 (2).

Chang, C. K., & Hsu, C. K. (2011). A mobile-assisted synchronously collaborative translation–annotation system for English as a foreign language (EFL) reading comprehension. *Computer Assisted Language Learning*, *24*(2), 155-180.

Chapelle, C. A. (2001). *Computer applications in second language acquisition.* Cambridge University Press

Chapelle, C. A. (2003). *English language learning and technology: Lectures on applied linguistics in the age of information and communication technology* (Vol. 7). John Benjamins Publishing.

Chapelle, C. A. (2009). The relationship between second language acquisition theory and computer-assisted language learning. *Modern Language Journal*, *93*, 741–753.

Chen, C.M., & Chung, C.-J. (2008). Personalized mobile English vocabulary learning system based on item response theory and learning memory cycle. *Computers & Education*, *51*, 624–645. http://doi.org/10.1016/j.compedu.2007.06.011

Chen, X.B. (2013). Tablets for Informal Language Learning: Student Usage and Attitudes. *Language Learning & Technology*, *17*(1), 20–36.

Chien, Y. C., & Tsou, V. (2012). Learn English with iPad. In *International Conference on Digital Content*.

Chih-Kai and Hsu, C. K. C. (2011). A mobile-assisted synchronously collaborative translation–annotation system for English as a foreign language (EFL) reading comprehension. *Computer Assisted Language Learning*, *24*(2), 155–180.

Chinnery, G. M. (2006). Going to the MALL : Mobile Assisted Language Learning. *Language Learning & Technology*, *10*, 9–16.

Chou, C., Block, L., & Jesness, R. (2012). A Case Study of Mobile Learning Pilot Project in K-12 Schools. *Journal of Educational Technology Development and Exchange*, *5*, 11–26. Retrieved from http://www.sicet.org/journals/jetde/jetde12-2/2-Chou.pdf

Christie, F., & Unsworth, L. (2000). Developing socially responsible language research. *Researching language in schools and communities: Functional linguistic perspectives*, 1-26.

Coffin, C., & Hewings, A. (2005). Engaging electronically: Using CMC to develop students' argumentation skills in higher education. *Language and education*, *19*(1), 32-49.

COUNCIL, O. E. (2001). Common European Framework of Reference for Languages: Learning, Teaching. *Assessment*.

Cuban, L., Kirkpatrick, H., & Peck, C. (2001). High access and low use of technologies in high school classrooms: Explaining the apparent paradox. American Educational Research Journal, 38(4), 813-834.

Cumming, T. M., Strnadova, I., & Singh, S. (2014). iPads as instructional tools to enhance learning opportunities for students with developmental disabilities: An action research project. *Action Research*, *12*(2), 151–176. http://doi.org/10.1177/1476750314525480

Curry, M.J. & Lillis, T.M. (2003). Issues in academic writing in higher

education.

In C. Coffin, M.J. Curry, S. Goodman, A. Hewings, T.M. Lillis & J. Swann, (Eds.), *Teaching academic writing: A toolkit for higher education* (pp. 1-18). London: Routledge.

Daniels, H., Cole, M., & Wertsch, J. V. (Eds.). (2007). *The Cambridge companion to Vygotsky*. Cambridge University Press.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

Denzin, N. K., & Lincoln, Y. S. (2008). *The landscape of qualitative research* (Vol. 1). Sage.

Dornyei, Z. (2003). Attitudes, Orientations, and Motivations in Language Learning: Advances in Theory, Research, and Applications. *Language Learning*, *53*(S1), 3–32.

Ducate, L., & Lomicka, L. (2009). Podcasting: An effective tool for honing language students' pronunciation? *Language Learning & Technology*, *13*(3), 66–86.

Dunn, W. E., & Lantolf, J. P. (1998). Vygotsky's zone of proximal development and Krashen's i+1: Incommensurable constructs, incommensurable theories. *Language Learning*, *48*, 411–442.

Ebbutt, D. (1985). Educational action research: Some general concerns and specific quibbles. *Issues in educational research: Qualitative methods*, 152-174.

Eggins, S. (2004). *Introduction to systemic functional linguistics*. A&C Black.

Eichenlaub, N., Gabel, L., Jakubek, D., McCarthy, G., & Wang, W. (2011). Project iPad: Investigating tablet integration in learning and libraries at Ryerson University. *Computers in Libraries*, *31*(7), 17–21.

Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.

Ellis, R. (Ed.). (2005). *Planning and task performance in a second language* (Vol. 11). John Benjamins Publishing.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, *62*(1), 107-115.

Estaire, S., & Zanón, J. (1994). Task-based Teaching.

Flewitt, R., Kucirkova, N., & Messer, D. (2014). Touching the virtual ,

touching the real : iPads and enabling literacy for students experiencing disability, *37*(2), 107–117.

Frohberg, D., Goth, C., and Schwabe, G. (2009). Mobile Learning projects – a critical analysis of the state of the art. Journal of Computer Assisted Learning, 25(4): 307–31.

Fuchs, C., Hofkirchner, W., Schafranek, M., Raffl, C., Sandoval, M., & Bichler, R. (2010). Theoretical foundations of the web: cognition, communication, and co-operation. Towards an understanding of Web 1.0, 2.0, 3.0. *Future Internet*, *2*(1), 41-59.

Gabarre, C., Gabarre, S., Din, R., Shah, P. M., & Karim, A. A. (2014). iPads in the foreign language classroom: A learner's perspective. *3L: Language, Linguistics, Literature*, *20*(1), 115–128.

Gaies, S. J. (1980). T-unit analysis in second language research: Applications, problems and limitations. *TESOL quarterly*, 53-60.

Garner, M. (2011). Presenting with an iPad. *Journal of Electronic Resources in Medical Libraries*, *8*(4), 441-448.

Garrett, N. (2009). Computer-assisted language learning trends and issues revisited: Integrating innovation. *The modern language journal*, *93*, 719-740.

Gibbons, P. (2003). Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly*, *37*(2), 247–273. http://doi.org/10.2307/3588504

Gibbons, P. (2006). *Bridging discourses in the ESL classroom: Students, teachers and researchers*. A&C Black.

Glaser, B., & Strauss, A. (1967). Grounded theory: The discovery of grounded theory. *Sociology The Journal Of The British Sociological Association*, *12*, 27-49.

Godwin-Jones, R. (2011). Emerging technologies mobile apps for language learning. *Language Learning & Technology*, *15*(2), 2–11.

González-Lloret, M., & Ortega, L. (Eds.). (2014). *Technology-mediated TBLT: Researching technology and tasks* (Vol. 6). John Benjamins Publishing Company.

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in

nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, *24*(2), 105-112.

Greenfield, E. (2012). The Implementation of the iPad In Reading Instruction. Retrieved from http://fisherpub.sjfc.edu/education_ETD_masters/212

Gromik, N. A. (2012). Cell phone video recording feature as a language learning tool: A case study. *Computers & Education*, *58*(1), 223–230. Retrieved from http://www.sciencedirect.com/science/article/pii/S0360131511001424

Halliday, M. A. K. (1977). The context of linguistics. *On language and linguistics*, *3*, 74-91.

Halliday, M. A. K. (1985). Systemic background. *Systemic perspectives on discourse*, *1*, 1-15.

Halliday, M. A. K., & Martin, J. R. (1993). General orientation. *Writing science: Literacy and discursive power*, 2-24.

Halliday, M. A. K. (1994). Spoken and written modes of meaning. Media texts, authors and readers: A reader, 51, 51-73.

Halliday, M. A. K., & Matthiessen, C. M. (2014). *Halliday's introduction to functional grammar*. Routledge.

Hampel, R., & Hauck, M. (2006). Computer-mediated language learning: Making meaning in multimodal virtual learning spaces. *JALT CALL Journal*, *2*(2), 3–18.

Hampel, R. (2010). Task design for a virtual learning environment in a distance language course. *Task-based language learning and teaching with technology*, 131-153.

Hargis, J., Cavanaugh, C., Kamali, T., & Soto, M. (2013). A Federal Higher Education iPad Mobile Learning Initiative: Triangulation of Data to Determine Early Effectiveness. *Innovative Higher Education*, *39*(1), 45–57. Retrieved from http://link.springer.com/10.1007/s10755-013-9259-y

Hasan, R. (1995). On social conditions for semiotic mediation: the genesis of mind in society. *Knowledge and pedagogy: The sociology of Basil Bernstein*, 171-196.

Hawkey, R. (2006). Teacher and learner perceptions of language learning activity. *ELT Journal*, *60*(3), 242–252. http://doi.org/10.1093/elt/ccl004

Hayhoe, S. (2013). Accessible, inclusive M-learning: using the iPad as a case study.

Healey, D., & Klinghammer, S. J. (2002). Constructing meaning with computers. *Tesol Journal*, *11*(3), 3-3.

Hiep, P. H. (2007). Communicative language teaching: unity within diversity. *ELT Journal*, *61*(3), 193–201.

Hinkel, E. (2011). *Handbook of research in second language teaching and learning*. Routledge.

Holliday, A. (1997). Six lessons: cultural continuity in communicative language teaching. *Language Teaching Research*, *1*(3), 212–238.

Hoskins, C. N., & Mariano, C. (2004). *Research in nursing and health: Understanding and using quantitative and qualitative methods* (Vol. 23). Springer Publishing Company.

Housen, A., & Kuiken, F. (2009). Complexity, accuracy, and fluency in second language acquisition. *Applied linguistics*, *30*(4), 461-473.

Hsieh, W. J., Chiu, P. S., Chen, T. S., & Huang, Y. M. (2010). The effect of situated mobile learning on Chinese rhetoric ability of elementary school students. *6th IEEE International Conference on Wireless, Mobile and Ubiquitous Technologies in Education, WMUTE 2010: Mobile Social Media for Learning and Education in Formal and Informal Settings*, 177–181.

Hsu, C.-K., Hwang, G.-J., & Chang, C.-K. (2013). A personalized recommendation-based mobile learning approach to improving the reading performance of EFL students. *Computers & Education*, *63*, 327–336. http://doi.org/10.1016/j.compedu.2012.12.004

Hsu, L. (2013). English as a foreign language learners' perception of mobile assisted language learning: a cross-national study. *Computer Assisted Language Learning*, *26*(3), 197–213.

Hu, G. (2005). 'CLT is best for China'—an untenable absolutist claim. *ELT journal*, *59*(1), 65-68.

Huang, J.-H., Lin, Y.-R., & Chuang, S.-T. (2007). Elucidating user behaviour of mobile learning: A perspective of the extended technology acceptance model. The Electronic Library. Vol 25 (5), 585-598. doi: 10.1108/02640470710829569

Huang, Y. M., Huang, Y. M., Huang, S. H., & Lin, Y. T. (2012). A ubiquitous English vocabulary learning system: Evidence of active/passive attitudes vs. usefulness/ease-of-use. *Computers and Education*, *58*, 273–282.

Hubbard, P. (2008). CALL and the future of language teacher education. *Calico Journal*, *25*(2), 175-188.

Hung, J. L. and Zhang, K. (2012). Examining mobile learning trends 2003–2008: a categorical meta-trend analysis using text mining techniques. *Journal of Computing in Higher Education, 24: 1–17*

Hunt, K. W. (1965). Grammatical Structures Written at Three Grade Levels. NCTE Research Report No. 3.

Hunt, K. W. (1977). Early blooming and late blooming syntactic structures. *Evaluating writing: Describing, measuring, judging*, 91-106.

Hutchison, A., Beschorner, B., & Schmidt-Crawford, D. (2012). Exploring the Use of the iPad for Literacy Learning. *The Reading Teacher*, *66*(1), 15–23.

Hwang, W.-Y., & Chen, H. S. L. (2013). Users' familiar situational contexts facilitate the practice of EFL in elementary schools with mobile devices. *Computer Assisted Language Learning*, *25*(2), 101–125.

Hwang, W.-Y., Chen, H. S. L., Shadiev, R., Huang, R. Y.-M., & Chen, C.-Y. (2012). Improving English as a foreign language writing in elementary schools using mobile devices in familiar situational contexts. *Computer Assisted Language Learning*, *27*(5), 359–378.

Hwang, G. J., Chin-Chung, T., & Yang, S. J. (2008). Criteria, strategies and research issues of context-aware ubiquitous learning. *Journal of Educational Technology & Society*, *11*(2).

Hyland, K. (2007). Genre pedagogy: Language, literacy and L2 writing instruction. *Journal of second language writing*, *16*(3), 148-164.

Ifenthaler, D., & Schweinbenz, V. (2013). The acceptance of Tablet-PCs in classroom instruction: The teachers' perspectives. *Computers in Human Behavior*, *29*(3), 525-534.

INDIRE (2014). The Italian Education System. *I quaderni di Eurydice*, *30*, 7-8.

Jarvis, G. A. (1991). Research on teaching methodology: Its evolution and

prospects. *Foreign language acquisition research and the classroom*, 295-306.

Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, *27*(2), 119–132.

Kahn, G. (2012). Open-Ended Tasks and the Qualitative Investigation of Second Language Classroom Discourse. *Journal of Ethnographic & Qualitative Research*, *6*, 90–107.

Kauffman, M. (2012, March 2). Largest deployment of iPads in schools. Anticipating the Future [Web log]. Retrieved from http://www.ipadinschools.com/category/anticipating- the-future/

Keene, N. (2012, January 27). iPads lead school revolution. The Daily Telegraph. Retrieved from www.dailytelegraph.com.au.

Kim, S. K., & Lim, K. (2010). A case study on the effects of microblogging as a learning activity to enhance ESL students' cultural knowledge and motivation to write in English. *Multimedia-Assisted Language Learning*, *13*(3), 155-174.

King, a. M., Thomeczek, M., Voreis, G., & Scott, V. (2013). iPad(R) use in children and young adults with Autism Spectrum Disorder: An observational study. *Child Language Teaching and Therapy*, *30*(2), 159–173.

Knapp, P., & Watkins, M. (2005). *Genre, text, grammar: Technologies for teaching and assessing writing*. UNSW Press.

Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education journal. Vol 9 (1), 60-70.*

Kozulin, A., Gindis, B., Ageyev, V. S., & Miller, S. M. (2003). Vygotsky's educational theory in cultural context. *Educational Research*.

Krashen, S. D., & Terrell, T. D. (1983). The natural approach: Language acquisition in the classroom.

Kukulska-Hulme, A. (2006). Mobile language learning now and in the future. Swedish Net University (Nätuniversitetet).

Kukulska-Hulme, A. (2009). Will mobile learning change language learning?. *ReCALL*, *21*(2), 157-165.

Kukulska-Hulme, A. (2012). Language learning defined by time and place: A frame- work for next generation designs. In J. E. Díaz-Vera (Ed.), *Left to My Own Devices: Learner Autonomy and Mobile Assisted Language Learning* (pp. 1–13). Emerald Group Publishing Limited.

Kukulska-Hulme, A. (2013). Re-skilling Language Learners for a Mobile World, 1–16.

Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, *20*(3), 271–289.

Kukulska-Hulme, A., & Traxler, J. (Eds.). (2005). *Mobile learning: A handbook for educators and trainers*. Psychology Press.

Kukulska-Hulme, A., & Viberg, O. (2018). Mobile collaborative language learning: State of the art. *British Journal of Educational Technology*, *49*(2), 207-218.

Lan, Y. F., & Huang, S. M. (2012). Using mobile learning to improve the reflection: A case study of traffic violation. *Journal of Educational Technology & Society*, *15*(2).

Lantolf, J. P., & Appel, G. (1994). Theoretical framework: An introduction to Vygotskian approaches to second language research. In *Vygotskian approaches to second language research* (pp. 1–32).

Lantolf, J., & Thorne, S. (2006). Sociocultural Theory and Second Language Learning. In *Theories in second language acquisition* (pp. 201–224).

Larsen-Freeman, D. (2009). Adjusting Expectations: The Study of Complexity, Accuracy, and Fluency in Second Language Acquisition. *Applied Linguistics*, *30*(4), 579–589. http://doi.org/10.1093/applin/amp043

Larsen-Freeman, D., & Strom, V. (1977). The construction of a second language acquisition index of development. *Language Learning*, *27*(1), 123-134.

Lee, J. F. (2000). *Tasks and communicating in language classrooms*. McGraw-Hill.

Leaver, B. L., & Willis, J. R. (Eds.). (2004). *Task-based instruction in foreign language education: Practices and programs*. Georgetown University Press.

Leis, A., Tohei, A., & Cooke, S. D. (2015). Smartphone assisted language learning and autonomy. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)*, *5*(3), 75-88.

Levy, M., & Hubbard, P. (2016). Theory in computer-assisted language learning research and practice. In *The Routledge handbook of language learning and technology* (pp. 50-64). Routledge.

Lewin, K. (1946). Action research and minority problems. *Journal of social issues*, *2*(4), 34-46.

Li, Z., & Hegelheimer, V. (2013). Mobile-assisted grammar exercises: Effects on self-editing in L2 writing.

Liao, X. (2004). The need for Communicative Language Teaching in China. *Elt*, *58*(3), 270–273.

Lim, G. S. (2012). Developing and validating a mark scheme for writing. *Research Notes*, *49*, 6-10.

Lin, C. (2014). Learning English reading in a mobile-assisted extensive reading program. *Computers & Education*, *78*, 48–59.

Lincoln, Y. S. (2001). Engaging sympathies: Relationships between action research and social constructivism. *Handbook of action research: Participative inquiry and practice*, 124-132.

Littlewood, W. (2004). The task-based approach: Some questions and suggestions. *ELT journal*, *58*(4), 319-326.

Littlewood, W. (2007). Communicative and task-based language teaching in East Asian classrooms. *Language Teaching*.

Littlewood, W. (2014). Communication-oriented language teaching: Where are we now? Where do we go from here?. *Language Teaching*, *47*(3), 349-362.

Liu, G. Z., Lu, H. C., & Lai, C. T. (2014). Towards the construction of a field: The developments and implications of mobile assisted language learning (MALL). *Literary and Linguistic Computing*, *31*(1), 164-180.

Liu, P . L. (2016). Mobile English vocabulary learning based on concept-mapping strategy. Language Learning & Technology, 20(1), 128–140.

Lomicka, L., & Lord, G. (2012). A tale of tweets: Analyzing microblogging among language learners. *System*, *40*(1), 48–63.

Long, M. H. (1985). A role for instruction in second language acquisition: Task-based language teaching. *Modelling and assessing second language acquisition*, *18*, 77-99.

Long, M. H. (1991). Focus on form: A design feature in language teaching methodology. *Foreign language research in cross-cultural perspective*, *2*(1), 39-52.

Long, M. (2014). *Second language acquisition and task-based language teaching*. John Wiley & Sons.

Long, M. H. (2007). Recasts in SLA: The story so far. *Problems in SLA*, 75-116.

Long, M. H., & Doughty, C. (Eds.). (2003). *The handbook of second language acquisition* (pp. 487-535). Blackwell.

Lord, G. (2008). Podcasting Communities and Second Language Pronunciation. *Foreign Language Annals*, *41*(2), 364–379.

Lys, F. (2013). The development of advanced learner oral proficiency using iPads. *Language Learning & Technology*, *17*, 94–116.

Mang, C. F., & Wardley, L. J. (2012). Effective adoption of tablets in post-secondary education: Recommendations based on a trial of iPads in university classes. *Journal of Information Technology Education*, *11*(1), 301-317.

Martin, J. R. (1993). Life as a noun: Arresting the universe in science and humanities. *Writing science: Literacy and discursive power*, 221-267.

Martin, J. R., & Rose, D. (2008). *Genre relations: Mapping culture*. Equinox.

Mcconatha, D., Praul, M., & Lynch, M. J. (2008). Mobile learning in higher education: An empirical assessment of a new educational tool. *Turkish Online Journal of Educational Technology, 7(3), 15e21.*

McKernan, J. (2013). *Curriculum action research: A handbook of methods and resources for the reflective practitioner*. Routledge.

McTaggart, R., & Kemmis, S. (Eds.). (1988). *The action research planner*. Deakin university.

Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education. Revised and Expanded from" Case Study Research in*

Education.". Jossey-Bass Publishers, 350 Sansome St, San Francisco, CA 94104.

Meurant, R. C. (2010). The iPad and EFL digital literacy. In *Communications in Computer and Information Science* (Vol. 123 CCIS, pp. 224–234).

Milton, J. (2002). *Literature Review in Languages, Technology and Learning Literature Review in Languages, Technology and Learning*. *Futurelab*.

Mock, K. (2004). Teaching with Tablet PC's. *Journal of Computing Sciences in Colleges*, *20*(2), 17-27.

Mohan, B. (1992). Models of the role of the computer in second language development. *Computers in applied linguistics: An international perspective*, 110-126.

Moreno, A. I., & Vermeulen, A. (2015). Profiling a MALL App for English Oral Practice A Case Study. *J. UCS*, *21*(10), 1339-1361.

Morgana, V. (2014). Investigating Students' Perceptions of the Use of the Ipad into the English Language Classroom. In *Conference proceedings. ICT for language learning* (p. 258). libreriauniversitaria. it Edizioni.

Morgana, V. (2016). Technology-mediated TBLT: Researching Technology and Tasks. *System*, (58), 130-132.

Motill Booklet – see http://www.motill.eu

Motteram, G. (2013). Developing and extending our understanding of language learning and technology. *Innovations in learning technologies for English language teaching*, 177.

Motteram, G., & Thomas, M. (2010). Afterword: Future directions for technology-mediated tasks. *Task-based language learning and teaching with technology*, 218-237.

Müller-Hartmann, A., & Ditfurth, M. S. V. (2010). Research on the use of technology in task-based language teaching. *Task-based language learning and teaching with technology*, 17-40.

Murray, O. T., & Olcese, N. R. (2011). Teaching and Learning with iPads, Ready or Not? *TechTrends*, *55*(6), 42–48.

Nah, K. C. (2010). The use of the internet through mobile phones for EFL listening activities. In *ALAK 2010 Annual Conference* (p. 197).

Nah, K. C. (2011). Optimising the use of wireless application protocol (WAP)

sites for listening activities in a Korean English as a foreign language (EFL) context. *Computer assisted language learning*, *24*(2), 103-116.

Neumann, M. M., & Neumann, D. L. (2014). Touch Screen Tablets and Emergent Literacy. *Early Childhood Education Journal*, *42*(4), 231–239.

Nor Fariza Mohd Nor, Hazita Azman, & Afendi Hamat. (2013). Investigating Students' Use of Online Annotation Tool in an Online Reading Environment. 3L: Language, Linguistics, Literature®. Vol 19 (3)

Norris, J. M. (2002). Interpretations, intended uses and designs in task-based language assessment Language Testing, 19(4), 337-346.

Norris, J. M. (2009). Task-based teaching and testing. *The handbook of language teaching*, 578-594.

Nunan, D. (1992). *Research methods in language learning*. Cambridge University Press.

Nunan, D. (2003). *Practical English language teaching*. McGraw-Hill/Contemporary.

Nunan, D. (2004). *Task-Based Language Teaching* (Cambridge Language Teaching Library). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511667336

Nunan, D. (2005). An introduction to task-based language teaching. *The Asian EFL Journal Quarterly June 2005 Volume 7, Issue 1.*, *7*(1), 25-28.

Oberg, A., & Daniels, P. (2013). Analysis of the effect a student-centred mobile learning instructional method has on language acquisition. *Computer Assisted Language Learning*, *26*(2), 177-196.

Oladunjoye, O. K. (2013). *iPad and computer devices in preschool: A tool for literacy development among teachers and children in preschool*. Stockholms universitet.

Oskoz, A., & Elola, I. (2014). Promoting foreign language collaborative writing through the use of web 2.0 tools and tasks. *Technology-mediated TBLT: Researching technology and tasks*, 115-148.

Pachler, N., Cook, J., Bachmair, B., Kress, G., Seipold, J., Adami, E., & Rummler, K. (2010). *Mobile learning: Structures, agency, practices*.

Mobile Learning: Structures, Agency, Practices.

Papadima-Sophocleous, S., & Charalambous, M. (2015, March 20). Impact of iPod Touch-Supported Repeated Reading on the English Oral Reading Fluency of L2 students with Specific Learning Difficulties. *The EuroCALL Review*.

Park, S. Y., Nam, M. W., & Cha, S. B. (2012). University students' behavioral intention to use mobile learning: Evaluating the technology acceptance model. *British Journal of Educational Technology*, *43*(4), 592-605.

Parsons, D. (2014). The future of mobile learning and implications for education. In M. Ally & A. Tsinakos (Eds.), *Increasing Access through Mobile Learning* (pp. 217–229). Commonwealth of Learning and Athabasca University.

Pegrum, M. (2014). *Mobile Learning : Languages, Literacies and Cultures*. Basingstoke: Palgrave Macmillan.

Pellerin, M. (2012). Digital documentation: Using digital technologies to promote language assessment for the 21st century. *OLBI Working Papers*, *4*.

Pellerin, M. (2014). Language Tasks Using Touch Screen and Mobile Technologies: Reconceptualizing Task-Based CALL for Young Language Learners. *Canadian Journal of Learning & Technology*, *40*(1).

Perkins, K. (1980). Using objective methods of attained writing proficiency to discriminate among holistic evaluations. *TESOL quarterly*, 61-69.

Polio, C. G. (1997). Measures of linguistic accuracy in second language writing research. *Language learning*, *47*(1), 101-143.

Polio, C. & Shea, M. C. (2014). An investigation into current measures of linguistic accuracy in second language writing research. *Journal of Second Language Writing*, *26*, 10-27.

Polit, D. F., & Beck, C. T. (2004). *Nursing research: Principles and methods*. Lippincott Williams & Wilkins.

Power, T. & Shrestha, P. (2009). Is there a role for mobile technologies in open and dis- tance language learning? An exploration in the context of Bangladesh. *8th International Language Development Conference*, 23-25 June 2009, Dhaka, Bangladesh.

Reeves, T. (1998). The impact of media and technology in schools. *Learning for the 21st Century Skills (2003)*, 1–34.

Rice, C. (1995). *The generation of academic discourse by ESL learners through computer-based peer tutoring; a case study* (Doctoral dissertation, University of British Columbia).

Richards, J. C., & Rodgers, T. S. (2001). Approaches and methods in language teaching. *ELT Journal*.

Richards, J. C. (2005). *Communicative language teaching today*. SEAMEO Regional Language Centre.

Richards, K. (2003). *Qualitative inquiry in TESOL*. Palgrave Macmillan.

Richmond, S. (2011, August 29). Apple iPad moves into the classroom. The Telegraph. Retrieved from http://www.telegraph.co.uk.

Sabah, N. M. (2016). Exploring students' awareness and perceptions: Influencing factors and individual differences driving m-learning adoption. *Computers in Human Behavior*, *65.* http://doi.org/10.1016/j.chb.2016.09.009

Sandberg, J., Maris, M., & De Geus, K. (2011). Mobile English learning: An evidence-based study with fifth graders. *Computers and Education*, *57*, 1334–1347.

Sasaki, M., & Hirose, K. (1996). Explanatory variables for EFL students' expository writing. *Language learning*, *46*(1), 137-168.

Sauro, S. (2014). Lessons from the fandom: Task models for technology-enhanced language learning. *Technology-mediated TBLT: Researching technology and tasks*, 239-262.

Sekiguchi, S. (2011). Investigating Effects of the iPad on Japanese EFL Students ' Self- Regulated Study. *International Conference "ICT for Language Learning",* 4–7.

Selner, A. (2011). iPads in the Classroom for Literacy Instruction, Education Masters. Sharples, M., Taylor, J. & Vavoula, G. (2010). A theory of learning for the mobile age: Learning through conversation and exploration across contexts. In B. Bachmair (Ed.), Medienbildung in neuen Kulturräumen: Die deutschsprachige und britische Diskussion (pp.87–99). Wiesbaden: VS Verlag für Sozialwissenschaften.

Shrestha, P. N. (2013). English language classroom practices: Bangladeshi primary school children's perceptions. *RELC Journal*, *44*(2), 147-162.

Simpson, A., Walsh, M., & Rowsell, J. (2013). The digital reading path: researching modes and multidirectionality with iPads. *Literacy*, *47*(3), 123–130.

Skehan, P. (1998). Task-based instruction. *Annual review of applied linguistics*, *18*, 268-286.

Solares, M. E. (2014). Textbooks, tasks and technology: an action research study in a textbookbound EFL-context. *Technology mediated TBLT. Researching technology and tasks*, 79-114.

Somekh, B. (1993). Quality in educational research: The contribution of classroom teachers. *Teachers develop teachers research*, *26*, 38.

Sotillo, S., Stockwell, G., Kim, D., & Rosell-aguilar, F. (2013). Volume 17 Number 3 October 2013 Special Issue on MALL Articles Announcements & Call for Papers, *17*(3), 47–51.

Miller, K. S. (2000). Academic writers on-line: Investigating pausing in the production of text. *Language Teaching Research*, *4*(2), 123-148.

Spelman Miller, K. (2006). The Pausological Study of Written Language Production. In P. H. Sullivan and E. Lindgren (Eds.), *Computer keystroke logging and writing* (pp. 11-39). Amsterdam, The Netherlands: Elsevier.

Stockwell, G. (2010). Using mobile phones for vocabulary actvities: Examining the effect of the platform. *Language Learning & Technology*, *14*(2), 95–110.

Sung, K.-Y. (2010). Promoting Communicative Language Learning through Communicative Tasks. *Journal of Language Teaching and Research*.

Swain, M., & Kinnear, P. (2010). *Sociocultural theory in second language education.* Multilingual matters.

Taylor, L. (2006). Aspect of teacher-generated language in the language classroom. In Borg, S. (Ed.), Language teacher research in Europe (pp. 125–138). Alexandria, VA: TESOL.

Thomas, M., & Reinders, H. (Eds.). (2010). *Task-based language learning and teaching with technology*. A&C Black.

Thorne, S. (2003). Artifacts and cultures-of-use in intercultural

communication. *Language Learning & Technology*, *7*(2), 38–67.

Thornton, P., & Houser, C. (2005). Using mobile phones in English education in Japan. *Journal of Computer Assisted Learning*, *21*(3), 217–228.

Traxler, J. (2009). Learning in a mobile age. *International Journal of Mobile and Blended Learning, 1(1)*, 1–12.

Traxler, J. (2013). Mobile Learning for Languages: Can The Past Speak to the Future? *The International Research Foundation for English Language Education*, (2013), 1–16.

Tyack, D. B., & Tobin, W. (1994). The 'grammar' of schooling: Why has it been so hard to change? American Educational Research Journal, 31, 453—479

Van Den Branden, K. (2006). *Introduction: Task-based language teaching in a nutshell*. Cambridge university press.

Verspoor, M., Schmid, M. S., & Xu, X. (2012). A dynamic usage based perspective on L2 writing. *Journal of Second Language Writing*, *21*(3), 239-263.

Viberg, O., & Grönlund, Å. (2013). Cross-cultural analysis of users' attitudes toward the use of mobile devices in second and foreign language learning in higher education: A case from Sweden and China. *Computers & Education, 69*, 169-180.

Viberg, O., & Grönlund, Å. (2012). Mobile assisted language learning: A literature review. In *In Proceedings of the 11th Internaltional Conference on Mobile and Contextual Learning* (pp. 1–8).

Victori, M. (1999). An analysis of writing knowledge in EFL composing: A case study of two effective and two less effective writers. *System*, *27*(4), 537-555.

Vincent, J. (2001). The role of visually rich technology in facilitating children's writing. *Journal of Computer Assisted Learning*, *17*(3), 242–250.

Vokatis, B. M. (2014). Meaning making with an iPad: A case study of one child's engagement with iPad applications within her family activity system.

Vygotsky, L. (1978). The development of higher psychological processes. Mind in society.

Wang, B. T., Teng, C. W., & Chen, H. T. (2015). Using iPad to Facilitate

English Vocabulary Learning. *International Journal of Information and Education Technology*, *5*(2), 100–104.

Warschauer, M. (1997). Computer-mediated collaborative learning: Theory and practice. *The modern language journal*, *81*(4), 470-481.

Warschauer, M. (2004). *Technology and social inclusion: Rethinking the digital divide*. MIT press.

Warschauer, M., & Healey, D. (1998). Computers and language learning: an overview. *Language Teaching*. http://doi.org/10.1017/S0261444800012970

Warschauer, M., & Meskill, C. (2000). Technology and second language teaching. *Handbook of undergraduate second language education*, *15*, 303-318.

Warschauer, M., & Ware, P. (2008). Learning, change, and power. *Handbook of research on new literacies*, 215-239.

Wells, G. (1994). The complementary contributions of Halliday and Vygotsky to a "language-based theory of learning". *Linguistics and education*, *6*(1), 41-90.

Wertsch, J. V. (2003). Commentary on: deliberation with computers: exploring the distinctive contribution of new technologies to collaborative thinking and learning. *International Journal of Educational Research*, *39*(8), 899-904.

Willis, J. (1996). A flexible framework for task-based learning. *Challenge and change in language teaching*, 52-62.

Wilkins, D. (1976). Notional syllabuses. *Bulletin CILA (Commission interuniversitaire suisse de linguistique appliquée)(«Bulletin VALS-ASLA» depuis 1994)*, *24*, 5-17.

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *17*, 89–100.

Woollard John, P. A. (2010). *Constructivism and Social Learning*. *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki*. New York: Routledge.

Wu, W. H., Wu, Y. C. J., Chen, C. Y., Kao, H. Y., Lin, C. H., & Huang, S. H. (2012). Review of trends from mobile learning studies: A meta-

analysis. *Computers & Education*, 59(2), 817-827.

Appendices

Appendix 1: Teachers' meetings

From Evernote

a. Meeting - 1

Feedback on first lesson (speaking):
Ask Fiona to include: feedback from students;
Writing: the first lesson will deal with recap of informal email writing and formal letter. Walk Fiona through it: she has to prepare a ppt (PDFs format) with 1 or 2 tips per slide.
Students must use iPad all the time;
They have to make their notes on file material (available) while non iPad students use book;
Encourage eliciting background knowledge;
Improve time managing.

Emanuele and Rosa create a format for lesson 1 and 2.
Lesson 1 - 20 min introduce task (warm up, pair work, feedback, she may tick the tips they have found), 30 mins writing task.
Lesson 2 - Fiona gives feedback, projects good and bad samples on pdf; paper students will need photocopies to include in their notebook; class feedback (20 mins), 30 mins practice on task 2.

iPad students: write assignment using showbie and Fiona corrects them straightforward, hands them back on the following Monday.

Paper students assignments:
Fiona scans uncorrected papers and sends them to Valentina; fiona corrects them and sends scanned corrected version to Valentina.

Ask Fiona to stay on 6th period on Monday on the meeting for IPad.

b. Meeting 4

Valentina 1 more writing lesson to observe and 3 lessons on speaking.

How is the project going?

Fiona> Generally speaking - improvement
Problems> Rosa asks to remind everyone about common mistakes, recycling, spelling, word count etc.
- Students keep asking the same questions. Fiona has to point them out.
- Take into consideration spelling mistakes.

iPad group > some students do not use the spelling checker, they use handwriting on ipad. How important is spelling in FCE? Is there a difference with paper group?

Next steps
Vale - Collect FCE tests in December
Possible list of students' improvement throughout the project
Teachers - Plan speaking lessons (use iPad) - first observation in January

Appendix 2: Lesson planning

September 2015

Review: p.88

Lesson 1:

Bubbl.us - mind map on "restaurant" and "concert" (excercise Trainer on p.88 es. 1,2). Group activity: 4 students work on different fields (restaurant / cafè, concert, book / film, art exhibition, city break).

Students are supposed to come up with as many expressions as possible concerning their field (adjectives and expressions) + draw / create mind map (if successful, to be repeated for story writing).

Class feedback: each group projects their own mind map which gets added to by Fiona.

Task 1 - p.90, websites at school

HW: read a real review (find a sample)

Lesson 2: expression on recommending

Task 2 - p. 120 cafè
Task 3 - p. 153 TV programmes

4th lesson: correction of a bad sample

October 2015

26th Lesson 3: review language, writing a review
27th Lesson 1: story - mind maps on mystery adventure fear surprise happiness using bubbl.us, class feedback. Structure (biennial rules + FCE) Hw 42-43,
3rd Lesson 2: story - only writing
9th Lesson 3: story
10th speaking
Written test - essay compulsory

Appendix 3: Draft of school policy

(with English translation)

LICEO SACRO CUORE iPad LOAN SCHEME
(partly adapted from Blackheat High School policy)

HTTP://WWW.BLACKHEATHHIGHSCHOOL.GDST.NET

This scheme aims to facilitate e-learning by the provision of iPads (iPad 2). As a school we are prepared to provide support and resources but we also need the commitment of parents and students.

As you read through this agreement, you will see a summary of the commitment that the school is making to students and to you as parents, and in turn the commitment required from students themselves, and from parents, to make this scheme work. When you have read this agreement, we invite you and the student to sign and return this to the school, if you wish to partake in this scheme.

As a portable device it is expected that any given iPad is covered on individual household's home insurance. This will cover the iPad for theft and accidental damage.

A. La Fondazione Sacro Cuore will…
• Provide an iPad 2 for the student to use
Fornirà ogni studente di IVA e IVB Liceo Scientifico di un iPad nell'ambito della sperimentazione iPad con la supervisione della professoressa Valentina Morgana.
• Advise on appropriate use (e-safety) of the device and provide recommendations of app download which will aid learning
Consiglierà e guiderà gli studenti nella gestione quotidiana in classe dell'iPad, affinchè la strumentazione possa essere di aiuto nell'ambito del processo di conoscenza del singolo.

B. The Student. I will ..... Lo studente. Io sottoscritto…
• Look after the equipment carefully all of the time and ensure that it is charged ready for use each school day.
Mi prenderò cura della strumentazione in mia dotazione e mi accerterò che sia carico a pronto all'uso ogni mattina, prima dell'inizio delle lezioni
• Report to the School any loss or damage (including accidental loss or damage) promptly.
Comunicherò prontamente alla Segreteria Studenti un eventuale furto, perdita, danno e problema tecnico riscontrato.
• Report to the School any faults in hardware or software promptly.
Comunicherò prontamente alla Segreteria Studenti ogni problema di software o hardware

• Ensure that the iPad is returned to the ICT Department at the School if I leave the school for whatever reason.
Mi assicurerò di restituire alla Segreteria Studenti la dotazione tecnologica in caso di assenza prolungata, procedura di ritiro entro i termini di legge…
• Make sure the iPad is not used for any illegal and/or anti-social purpose, including access to inappropriate
internet sites.
Mi assicurerò che l'iPad in dotazione non sia usato per attività illegali o anti-sociali, incluso l'accesso a siti internet inappropriate, attività di diffusione di traffico dati e immagini senza le appropriate delibere in merito di trattamento dati e immagini.
Non immagazzinerò dati, immagini, apps, filmati non consoni alle attività didattiche
• Make sure that the iPad is not used in breach of the ICT Code of Conduct.
Mi assicurerò che l'iPad in dotazione non sia usato per violare il regolamento di Istituto.
• Bring it to school every day, unless asked not to.
Porterò a scuola l'iPad ogni giorno, e non diversamente esplicitato.
• Ensure that I back up any data stored on the iPad hard drive and save work appropriately. The school will not
be able to retrieve work deleted from the iPads.
MI assicurerò di fere il backup dei miei dati e di salvare il lavoro svolto in classe e a casa in maniera corretta. La scuola non potrà recuperare dati personali dagli iPad in dotazione.
• Make sure it is kept in a secure place at all times when not in use at school.
Mi assicurerò di tenere l'iPad al sicuro durante le ore extra-scolastiche.
• Make sure the iPad is not subject to careless or malicious damage
Mi assicurerò che l'iPad non sia soggetto a danneggiamneti impropri.
• Not decorate the computer or its case, etc, and not allow it to be subject to graffiti. The iPad remains the
property of the school and can be called upon for inspection/retrieval at any time without notice.
Non modificherò l'aspetto dell'iPad in dotazione e di tutto il materiale fornito dalla Fondazione Sacro Cuore nell'ambito della sperimentazione iPad. Tutto il materiale rimane di esclusiva proprietà della Fondazione Sacro Cuore, che può ritirarlo per controlli, sostituzione o confisca senza nessun preavviso e in ogni momento dell'attività scolastica.

To be signed by student:
Lo studente:
I have read this Agreement including the Terms and Conditions overleaf and agree to abide by these terms.
Ho letto e compreso I termini e le condizioni di questo accordo, che sottoscrivo.

Name: _____ Signed: _____ Date: _____
Nome e cognome:_____ firma: _____ Data: _____
Classe:_____

To be signed by Parent:
Il genitore:
I have read this Agreement including the Terms and Conditions overleaf and am happy for an iPad to be provided to my child on these terms. I will take such reasonable steps as is practical to ensure that the terms of this agreement are adhered to. If any parts of the agreement are unclear I will seek advice from the School's ICT Department.
Ho letto e compreso I termini e le condizioni di questo accordo. Farò del mio meglio affinchè quanto stipulato da questo accordo sia messo in atto da mio/a figlio/a. In caso

di mancata comprensione o di richiesta circa la sperimentazione iPad contatterò la Segreteria della Fondazione Sacro Cuore per richiedere delucidazioni in merito.

Name: _____ Signed: _____ Date: _____

Nome e cognome:_____ firma: _____ Data: _____

To be signed by School Representative:
Il rappresentate della Fondazione Sacro Cuore:

I agree on behalf of the School to provide an iPad on the terms and conditions set out in this agreement.
A nome della Fondazione Sacro Cuore concordo di attribuire un iPad a _____ nell'ambito della sperimentazione iPad regolata dal presente accordo.

Name: _____ Signed: _____ Date: _____

Nome e cognome:_____ firma: _____ Data: _____

You and Your Sixth Form iPad for Loan

- Equipment must not in any circumstance be used in violation of the law or of School policies. The Student must comply with the School's **ICT Code of Conduct** the provisions of which apply to this Agreement. Breach may result in the removal of network privileges and, in accordance with the ICT Code of Conduct, even if that breach occurred outside of school, the student's ICT privileges may be withdrawn and, depending on the seriousness of the breach, the student may be excluded from School (either for a fixed term or permanently).
In nessun caso, la strumentazione dovrà essere utilizzata in violazione delle norme che regolano lo stato italiano e il regolamento di istituto. Nel caso in cui queste norme non venissero rispettate, la Fondazione Sacro Cuore potrà, in accordo con il regolamento interno, ritirerà lo strumento.

- The Student shall not in any way alter or personalise the equipment without the prior written approval of the School.
Lo studente non può alterare e personalizzare la strumentazione in dotazione senza il permesso della Fondazione Sacro Cuore

- Personal work may only be undertaken on the equipment outside school hours.
Durante le attività didattiche (scolastiche o extrascolastiche) lo studente dovrà utilizzare la strumentazione ai soli fini dell'apprendimento guidato dall'insegnate.

- The Student may not loan the equipment to any third party.
La strumentazione non può essere ceduta, prestata, o donata a parti terze senza la delibera della Fondazione Sacro Cuore.

- The Student must take all reasonable care of the Equipment and maintain it in good working order at all times.

Any faults, damage, problems or concerns should be raised with the ICT Department as soon as is practical but if the Equipment is stolen or lost this must be reported to the ICT department as soon as possible.
Lo studente dovrà prendersi cura della strumentazione accertandosi con costanza del suo corretto funzionamento. In caso di perdita, furto, danno o questione tecnica lo studente dovrà segnalare il problema alla Segreteria Studenti.

- The Student must take personal responsibility for the security of the equipment in their care.
Lo studente ha responsabilità personale per la sicurezza della strumentazione in suo possesso.

- The Student must not enable the equipment to remember their password to the login screen.
Non sarei molto d'accordo. Ai miei studenti ho detto di non mettere pwd, come avevamo stabilito. Portandoli a casa, direi che debbano mettere la pwd senza la memorizzazione della stessa. La pwd ci verrà comunicata e non potrà essere modificata.

- The equipment should not be left unattended in public places. When travelling by car, the equipment must be stored securely and out of sight when the car is left unattended. On public transport, the equipment should be carried as hand luggage. This is an issue of personal safety also.
La strumentazione non può essere lasciata incustodita all'interno e all'esterno della scuola. Sui mezzi di trasporto, la strumentazione dovrà essere custodita come bagaglio a mano.

- The school will not be liable for any action, loss, damage or injury resulting from the Student's use of the Equipment
La Fondazione Sacro Cuore non si può ritenere responsabile per qualsiasi tipo di azione, perdita, danno o mal funzionamento derivante dall'uso della strumentazione da parte dello studente che la ha in carico.

- The school accepts no responsibility for lost or damaged electronic information or personal storage media.
La Fondazione Sacro Cuore non si può ritenere responsabile per danni collegati ai softwares e alle apps utilizzati dallo studente nell'ambito della sperimentazione iPad.

- The student should ensure that any data is backed up regularly. Any data stored on the iPad hard drive may be wiped in order to repair the computer. The school is not responsible for the loss of any data during any repair or maintenance to the equipment.
Lo studente si deve accertare che il backup dei dati sia svolto con regolarità. In caso di guasto e riparazione ogni dato contenuto nell'iPad potrebbe essere perso. La Fondazione Sacro Cuore non si ritiene in nessun caso responsabile della perdita di dati contenuti nell'iPad.

- The equipment may not be connected to the Internet via a home wireless network (Wi-Fi), unless a firewall is in place.

- If the equipment is used to connect with the Internet from home, the school will not be responsible for the costs involved.
La Fondazione Sacro Cuore non si ritiene responsabile dei costi e delle modalità di connessione wireless al di fuori del perimetro della scuola.

- The equipment should be re-charged at home overnight.
La strumentazione dovrà essere ricaricata su base quotidiana prima dell'inizio delle lezioni.

Appendix 4: Consent form

Centre for Research in Education and Educational Technology
The Open University
Walton Hall
Milton Keynes
United Kingdom
MK76AA

Consent form for persons participating in a research project

Investigating students' and teachers' perceptions of the iPad in the EFL classroom

Name of participant:

Name of principal investigator(s): Valentina Morgana

1. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written statement in plain language to keep.

2. I understand that my participation will involve classroom observations and face-to-face interviews and I agree that the researcher may use the results as described in the plain language statement.

3. I acknowledge that:

   (a) the possible effects of participating in this research have been explained to my satisfaction;

   (b) I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;

   (c) the project is for the purpose of research;

   (d) I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;

   (e) I have been informed that with my consent the data generated will be stored digitally by the researcher and will be destroyed after five years;

   (f) if necessary any data from me will be referred to by a pseudonym in any publications arising from the research;

   (g) I have been informed that a summary copy of the research findings will be forwarded to me, should I request this.

I consent to these classroom observations/interviews being audio-taped/video-recorded □
yes □ **no**

(please tick)

I wish to receive a copy of the summary project report on research findings □ **yes** □ **no**

(please tick)

Participant signature: Date: 17/09/2014

Parent signature

Appendix 5: Classroom Observation

FCE WRITING

Teacher: Teacher/Class - She starts lesson asking general questions to get to know students. Ex. Who would you invite to your dream dinner party?

Explains what part 1 of FCE IS.

IPad > T shows a video of a sample speaking test.
T shows a pdf file (no zoom, no comments, no notetaking).

T writes on the black board, students take notes on their iPads.
No clear instructions. Ss are confused.
Teacher> No monitoring, no taking notes, no feedback. What's the point of the activity?????

T explains part 2 and shows a video about that part.

Students complete speaking part 2 task.

Students: listen and read
One couple performs the complete task. The rest of the class listens and writes down possible mistakes.

GENERAL COMMENTS: VERY POOR USE OF THE IPAD

Observation 4 - Sacro Cuore 4A

FCE Comparing articles and survey

1.SS analyse a pdf file looking for key parts of an article or of an essay.
Ipad group uses tinypdf or open the file in evernote to add comments and highlight key parts.
The teacher plays with her device. At the moment she doesn't monitor.

2. Tshows key answers on board, students answers at t/class mode. T uses word (table with key answers) Paper people copy the table on their notebook, but it's not modifiable, this could bring to having a mess on their notebooks.

Ipad teacher> board not readable because t chooses wrong colours and size to write on the word doc table.

The activity takes too long – 20 minutes. Sts copy from the board.

3. Ipad people opens Showbie to see and complete their task. Problems with wifi connection. T reads the task aloud.
Paper people can read the task on their books.

Showbie is not working. T projects the task on the screen (5 minutes), they follow the task, and start writing on another writing app.
It's 10.48

Sts get distracted, they chat and laugh. Tech problems influenced the classroom management.

Appendix 6: Classroom Observation - writing

Observation 4 - Sacro Cuore 4B

18 students

Article vs Essay

1. Sts download a pdf file from Canvas. Task> they have 5 mins to look at differences and start a short analysis.
T projects her pdf file on board. Sts write down comments using tiniypdf or other pdf annotating app.
T reports one student because he is using the iPad while he is actually in the paper group.
PROBLEM> Paper people tend to talk to ipad people group to get more information easily and quickly. They're stopped by the teacher. Sts cannot use the ipad as support in any way.
Both teachers circulate to monitor.
15 minutes

Video

2. T collects answers and put them on board using a word file that she completes while sts talk. (Table: Article vs Essay) She repeats instructions and common expressions…review work?
Sst get distracted, they're not interested. T boards a couple of examples more. Sts participate by providing examples.
10 minutes.

3. iPad Sts get on Showbie and fin the task to complete. They start the task in class and have to complete by wed night.
Paper group people can only use the book. T provides them with the page.
The class is a bit noisy probably because the teacher circulates talking only one-to-one. Sts can't get started with the task.
It's 12.45

T: "Guys you're technologically to advanced for me, please slow down".
Expressions like this can influence sts behaviour. Once she said this she lost the class.

Students take the picture of the board with all the useful expressions and attach it to their notes so that they can use it at home while doing homework.

Appendix 7: Sample essay – iPad group

(written on Showbie)

ESSAY_final

You must answer this question. Write your answer in 140-190 words in an appropriate style on the separate answer sheet.

In your English class you have been talking about the best ways of learning a foreign language. Now, your English teacher has asked to write an essay for the school magazine.

Write an essay using all the notes and giving reasons for your point of view.

> Is it better to learn a foreign language by attending a summer course, using the internet or visiting the country for tourism?
>
> Write about:
>
> 1) how quickly you boost your language skills
>
> 2) which way is more convenient
>
> 3) ..... (your own idea)

In today's world it is more than advisable to learn a second language, that is due to the ease of communicating between ~~different~~ people who may even be ~~standing~~ on ~~the~~ opposite ~~parts~~ sides of ~~the~~ globe. We will now take into consideration some ways which would allow people to learn a foreign language.

The first thing to be considered would be how quickly you could improve your language skills ~~with~~ using different methods. A summer course would be advisable especially ~~in the case~~ if it is held in the country ~~in~~ a person wants to learn the language of. ~~Using the~~ As for using the internet an enormous amount

An ~~impressive~~ enormous amount of information can be found on the internet, therefore that methods can be considered fairly quick. As for learning a language while on holiday, a ~~th~~ people would be required to spend lots of hours a day ~~liste~~ listening to people speaking, something which is ~~that~~ is usually alone on a ~~tourist~~ touristic trip.

Secondly, the convenience ~~of~~ of a method must be taken into consideration. Obviously, using the internet is the ~~for~~ more convenient way, whereas ~~the~~ course and tourism both imply a ~~type of~~ movement.

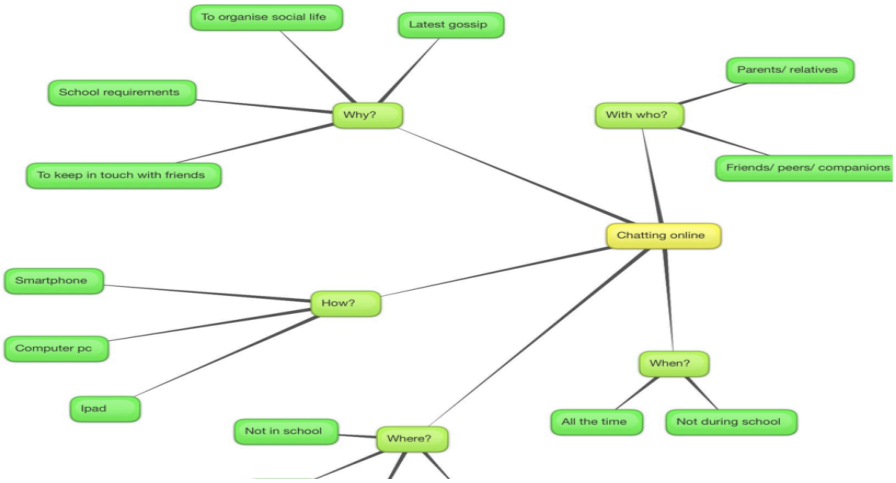
Good so far...

If you want to finish it, send it via email + I'll mark it.

4/5.

Appendix 8: Sample essay – iPad group

(written with Word)



Nowadays chatting online has become essential. The majority of our leisure time we choose to keep in touch with friends, relatives, colleagues or companions. But, is it really what we desire?

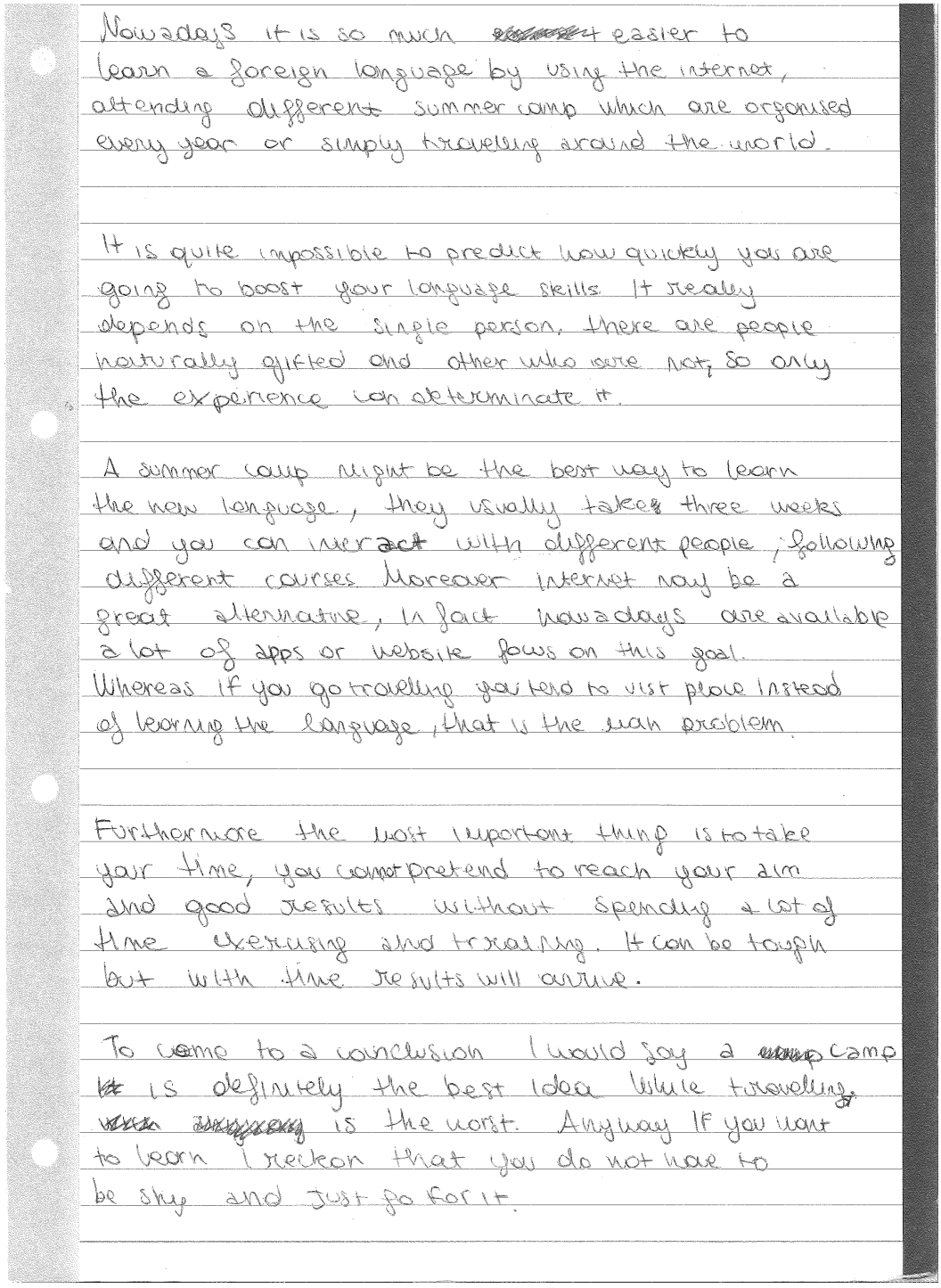
Firstly, when we communicate virtually we loose the contact with the world around us and we concentrate only on our smartphones or laptops. There is evidently a lack of emotions: you place a screen in front of you to hide your feelings. Teenagers never stop texting each other even when they should not, namely at school or at night.

Secondly, via internet you can not talk about whatever you want. To write something is always more difficult due to the person you are contacting does not catch your mood. There is usually a misunderstanding when you do not look in the eyes the person you are speaking to. And we all risk to trivialize our state of mind.

Finally, chatting online is dangerous. People can lie about their identity: you can never be as secure as you think. Everyone can read what you say and it can be read whenever. Sometimes, the person you are writing to, go offline when you are still saying something important.

Drawing a conclusion, I would prefer to talk face to face rather than chatting online. Let yourself be captured by what you have in front of you!

Appendix 9: Sample essay – Paper group



Nowadays it is so much easier to learn a foreign language by using the internet, attending different summer camp which are organised every year or simply travelling around the world.

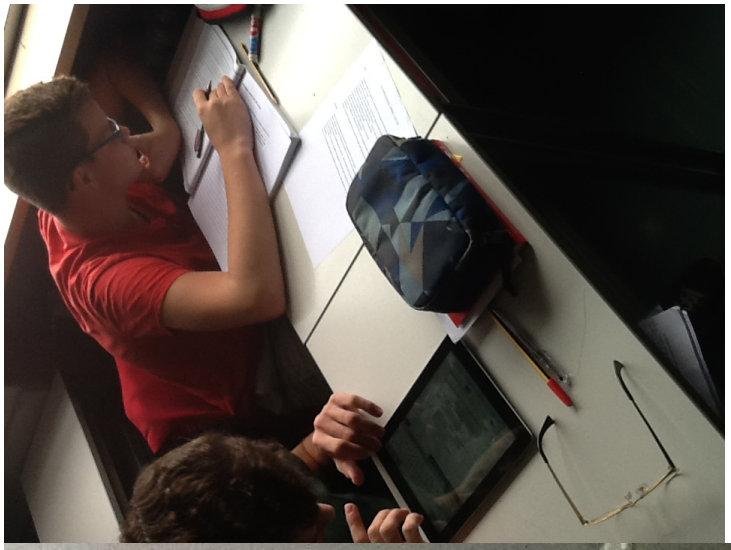
It is quite impossible to predict how quickly you are going to boost your language skills. It really depends on the single person, there are people naturally gifted and other who are not, so only the experience can determinate it.

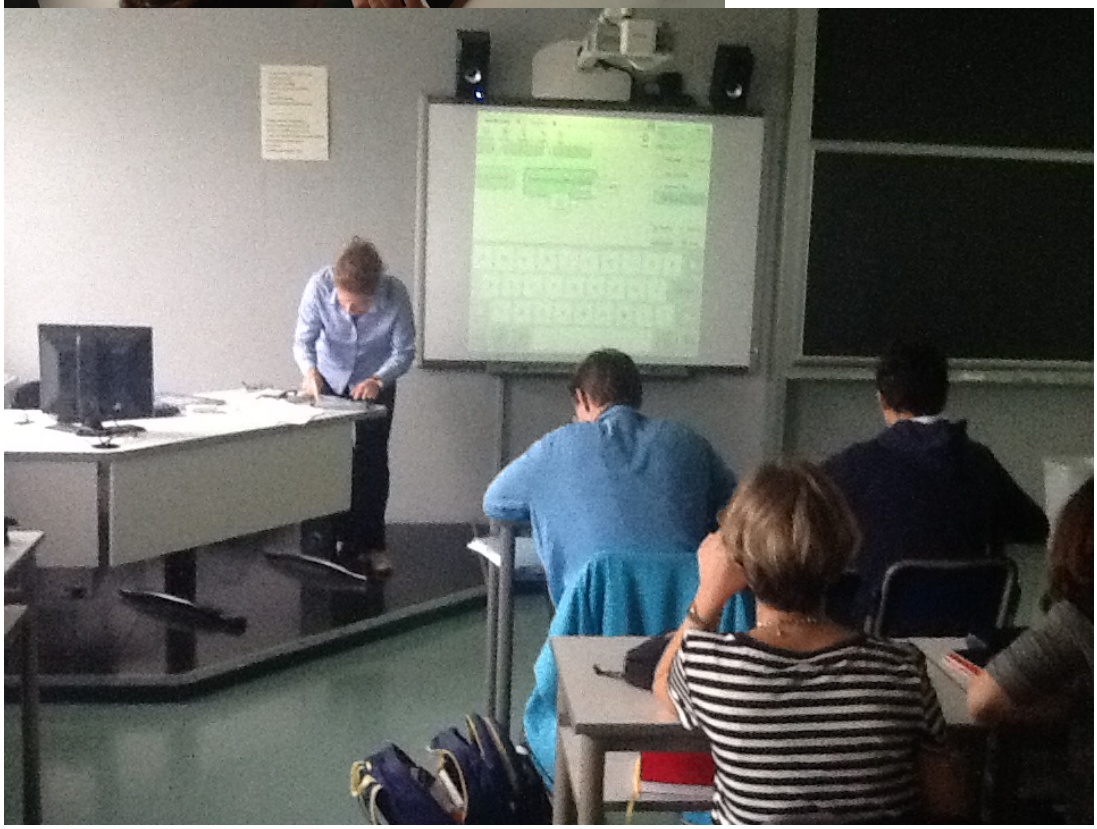
A summer camp might be the best way to learn the new language, they usually takes three weeks and you can interact with different people, following different courses. Moreover internet may be a great alternative, in fact nowadays are available a lot of apps or website focus on this goal. Whereas if you go travelling you tend to visit place instead of learning the language, that is the main problem.

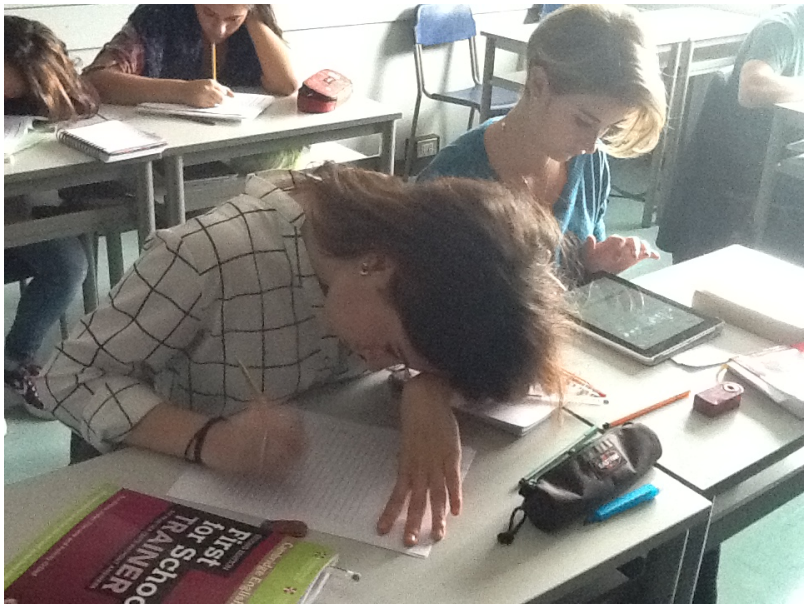
Furthermore the most important thing is to take your time, you cannot pretend to reach your aim and good results without spending a lot of time exercising and training. It can be tough but with time results will arrive.

To come to a conclusion I would say a camp is definitely the best idea while travelling is the worst. Anyway if you want to learn I reckon that you do not have to be shy and just go for it.

Appendix 10: Pictures taken during the project

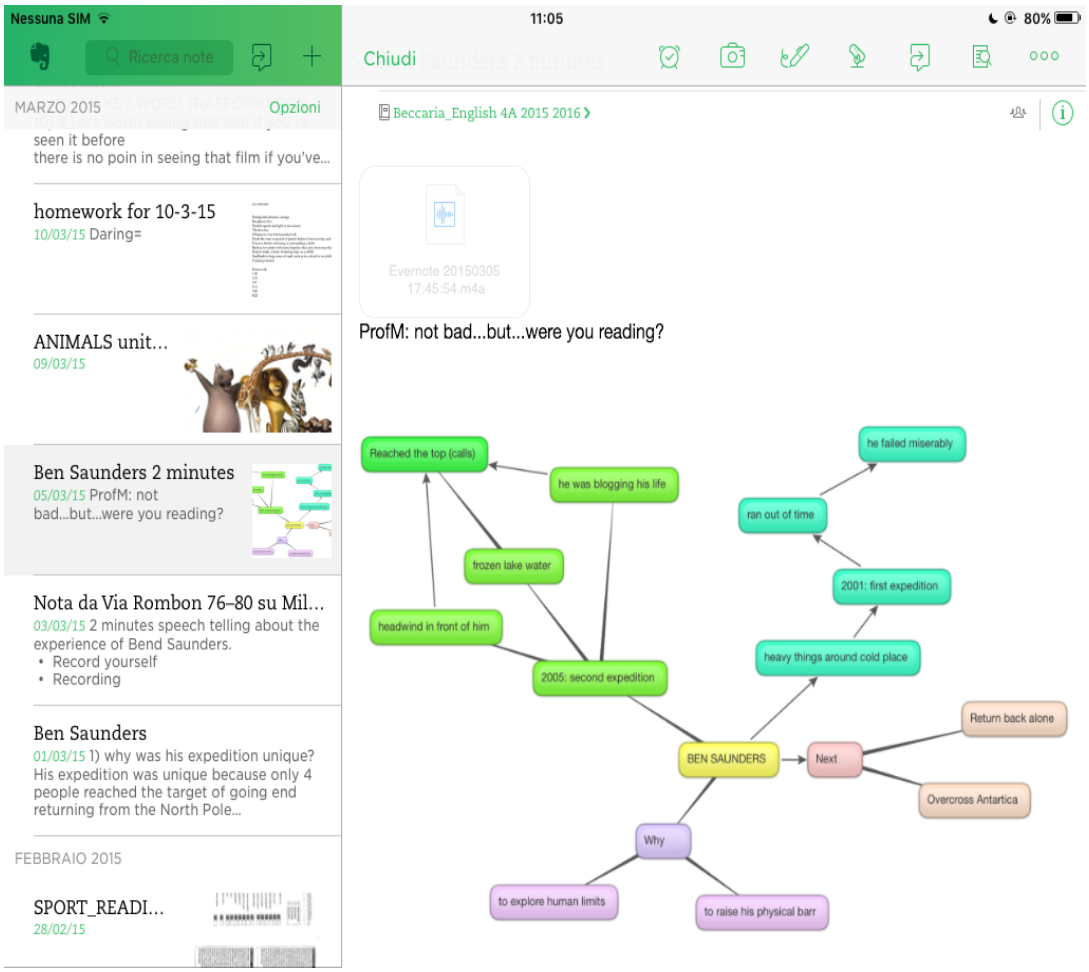





FIRST
TRAINER

Appendix 11: Sample – Evernote use by students

Task – Mindmapping



Appendix 12: Sample – Evernote use by students 2

Task – Note taking