

Chapter XXII

Listening Comprehension of Languages with Mobile Devices

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ABSTRACT

The use of the mobile devices in language learning has been developed at a very high speed in the last years. Thus, we are witnessing many research and development projects set in universities and distance learning programs. However, the interest in research related to listening comprehension competence remains relatively low. Our proposed research examines mobile devices such as MP3 players, laptops, PDAs, and cell phones in a mobile learning environment for studying English as a foreign language at a French university. One focus is on pedagogy; therefore, a major part of our research is on developing, evaluating, and analyzing listening comprehension activities, and then composing activities into a curriculum. The chapter starts with the presentation of mobile learning, language skills, and listening comprehension. It then presents our approach of the use of mobile devices for learning English as a second language. Finally, a learner evaluation methodology is presented. The chapter ends with the conclusion and future trends.

INTRODUCTION

As computers and the Internet become essential educational tools, the technologies become more portable, affordable, effective, and easy to use. This provides many opportunities for widening participation and access to the Internet. Mobile devices are much more reasonably priced than

desktops and therefore represent a less expensive method of accessing the Internet.

This chapter describes a mobile learning approach in which mobile devices are used for educational activities. The main focus of this chapter is on listening comprehension of foreign language. A new approach on the use of mobile technology and how it was used in language

learning, especially listening comprehension, is presented.

One of the main goals in our research is to explore what the best mobile learning practices and activities are in terms of assisting and supporting learning to become a more meaningful process. Another goal is to explore from a pedagogical perspective the innovative future learning practices, which are related to mobility and the new forms of studying (Buck, 1998).

BACKGROUND

Mobile learning (m-learning) refers to the use of mobile and handheld information technology devices in teaching and learning. These mobile tools often travel with the learners (Kadyte & Akademi, 2003). Among these tools, we can quote the telephone (Attewell & Savill-Smith, 2003), personal digital assistants, or PDA (Kneebone, 2003), pocket PC (Holme & Sharples, 2002), tablet PC (Mock, 2004), laptops that have wireless capabilities (Willis & Miertschin, 2004), portable MP3 players (Bayon-Lopez, 2004; Djoudi & Harous, 2006), and so forth. Mobile devices can be used in many educational settings and accomplish many educational tasks. Most mobile devices are useful in education both as administration, organization, and teaching aids for practitioners, and also as learning support tools for learners.

The term “mobile learning” is used to cover a complex array of possibilities opened by the convergence of new mobile technologies, wireless infrastructure, and e-learning developments. As with any emerging paradigm, there are many attempts to define its essence. In order to do this, let’s consider the following:

1. M-learning is the intersection of mobile computing and e-learning: accessible resources wherever you are, strong search capabilities, rich interaction, powerful support for effective learning, and performance-based

assessment eLearning independent of location, time, or space (Quinn 2000).

2. Three ways learning can be considered mobile “learning”: it is mobile in terms of space; it is mobile in different areas of life; it is mobile with respect to time (Vavoula, O’Malley, Sharples & Taylor, 2005).
3. M-learning is a development from e-learning, which for its part originates from d-learning (distance education). The rapid growth of information and communication technologies makes it possible to develop new forms of this education. Today’s learners’ knowledge of mobile devices makes the entrance of mobile learning possible (see Figure 1) (Georgiev, Georgieva & Smrikarov, 2004).

M-learning has now emerged as a new wave of development based on the use of mobile devices combined with wireless infrastructure, and much of the current literature on m-learning reveals all the strengths and weaknesses associated with the more mature e-learning communities. There are, of course, close links between e-learning and m-learning, and it can be argued that they represent a continuum based on the deployment of ever more sophisticated technologies.

The question is to know how these technologies affect the learning environment, pedagogy, and continuing education (Mifsud, 2002). According to Bryan (2004), mobile technologies and their adoption by the younger generations are going to transform education. It is a question of “modeling learners as creative and communicating participants, rather than passive consumers” and to “describe the world like a service on which one can read and write.” The article adopts a broad definition of mobility. It is interested in continuous connectivity, the dynamic combinations of wired and wireless devices, and learners and their environments.

From recent work in the field of mobile learning (Cohen & Wakeford, 2005; Keefe, 2003;

Lindroth, 2002; Vavoula, 2004), we can note the following remarks:

- The reconfiguration of the classrooms and campuses in reconfigurable open spaces, mixing physical presence and distant collaboration, seems to be one of the attractive prospects. There is no need anymore to equip these spaces in a fixed way. Also, we do not need to limit the learners to a specific area because they are equipped with their own communication devices; the borders are pushed to the infinity.
- The continuous cooperation, independent of the place, could transform the way research is undertaken on the ground or learning experiments are done. One can imagine dispersed teams that exchange and publish their results and analyses in real time.
- Finally, the m-learning could become the way to follow in order to have lifelong learning. In this approach, any person could, at any given place and time, choose a particular subject, and find a learning community that is learning this topic. He or she can join this group for a while and leave when his or her objectives are reached.

Early results have suggested that there are positive effects on learning with handheld devices. However, much of the research is driven by the technical capabilities of new devices; application of theory to the use of these technologies for educational purposes is lacking, and educational potential of mobile technologies have been sparsely explored (Laru, Järvelä & Clariana, 2005; Liukkunen, Tolonen & Laru, 2005; Sharma & Kitchens, 2004; Tolonen, Laru, Pönkä & Järvelä, 2005; Trifonova & Ronchetti, 2004). The change from e-learning to m-learning will excite the change in the educational paradigm. This will require the pedagogical methods change and communication changes between teacher and learners on the one hand and among learners on the other hand.

LANGUAGE SKILLS AND LISTENING COMPREHENSION

In order to understand the problem being considered in this chapter, it is of primary importance to know what are the capacities concerned during a learning process of a foreign language. We point out that the capacities in learning a language represent the various mental operations that have to be done by a listener, a reader, or a writer in an unconscious way; for example, to locate, discriminate or process the data. One distinguishes in the analytical diagram basic capacities that correspond to linguistic activities and competence in communication that involve more complex capacities.

Basic Language Skills

The use of a language is based on four skills. Two of these skills are from comprehension domain. These are oral and written comprehension. The last two concern the oral and written expression (see Table 1). A methodology can give the priority to one or two of these competences, or it can aim at the teaching/learning of these four competences together or according to a given planned program.

On one hand, listening comprehension corresponds to the most frequently used competence and can be summarized in the formula “to hear and deduce a meaning.” Chronologically, it is always the one that is confronted first, except in exceptional situations (people only or initially confronted with the writing, defective in hearing, study of a dead language [a language that is not in use anymore], study of a language on the basis of the autodidact writing). On the other hand, the written expression paradoxically is the component for which the learner is evaluated more often. It is concerned with the most demanding phase of the learning by requiring an in-depth knowledge of different capacities (spelling, grammatical, graphic, etc.).

Table 1. Basic languages skills

	Oral	Written
Comprehension	Listening	Reading
Expression	Speaking	Writing

Listening Comprehension

Listening comprehension refers to understanding the spoken language. When we speak about listening comprehension, what we really mean is listening and understanding what we hear. In our first language, we have all the skills and background knowledge we need to understand what we hear, so we probably aren't even aware of how complex a process is. Here we will briefly describe some of what is involved in learning to understand what we hear in a second language. There are two kinds of listening situations in which we find ourselves: interactive and noninteractive.

Interactive listening situations include face-to-face conversations and telephone calls in which we are alternately listening and speaking and in which we have a chance to ask for clarification, repetition, or slower speech from our conversation partner. Some noninteractive listening situations are listening to radio, TV, films, lectures, or sermons. In such situations, we usually don't have the opportunity to ask for clarification, slower speech, or repetition.

Listening comprehension can be described in levels. Lower levels of listening comprehension would include understanding only the facts explicitly stated in a spoken passage that has very simple syntax and uncomplicated vocabulary. Advanced levels of listening comprehension would include implicit understanding and drawing inferences from spoken passages that feature more complicated syntax and more advanced vocabulary. The development of listening comprehension varies depending on the personal, social, and cultural experiences of the learner.

LITERATURE REVIEW

Research projects using mobile devices in language learning environments have begun to appear. Several projects are in the works to provide iPods, mobile phones, or other mobile devices to learners, enabling access to audio files for language learning (Norbrook & Scott, 2003; Sharples, 2003).

The European Ad-hoc.com project has developed an innovative advanced multimedia language learning system that allows travelers to access the Web through advanced new communication applications and acquire certain language information in order to communicate with locals in the country of their destination. These new applications allow for fast transfer of data (text, sound, picture, and video) through the user's mobile device (phone, palmtop). The system is presenting linguistic content embedded in its cultural context, furthering the understanding of Europe's cultural and multilingual diversity, as it is proven that the mutual understanding in the communication process depends not only on linguistic competence but also on the awareness and perception of cultural behavior, cultural differences, and similarities. An online manual, which acts as an online tutor, has also been developed as a support tool. The project is focused mainly on two axes: PDA's multimedia capabilities and short-range wireless communications technologies (Ad-hoc.com, 2007).

Thornton and Houser (2005) described several ways of using mobile phones in the classroom, introducing applications such as Poodle, created specifically for the cell phone. Poodle (like Moodle

for phones) is a course management system (CMS) for mobile phones. The authors prepared several modules, allowing instructors to distribute course materials, conduct quizzes, and discussion forums, and to run real-time polls. Their research shows that cell phones make an efficient media for some language learning tasks. They e-mailed short vocabulary lessons at timed intervals to the mobile phones of Japanese university students. Compared with students urged to regularly study identical materials on paper or on the Web, students receiving mobile e-mail learned more. Research on input shows that Japanese college students can type texts on cell phones almost as quickly as on desktop PCs, so writing even long reports on mobile phones is entirely feasible.

Several foreign language courses at the University of Wisconsin (USA) have also used wireless laptops for various classroom activities. A teacher of Norwegian developed Web-based vocabulary and grammar exercises to be accessed with mobile devices, allowing her to integrate technology activities into the class without having to move to the program's language lab. Minor problems were reported, including trouble-resizing pictures to fit in the small screen and sporadic difficulties with network connections. A French class used handheld devices for various small group and whole class online chatting. A Latin class used them to access ancient poems both in text and audio (Samuels, 2003).

PURPOSE AND APPROACH DESCRIPTION

Motivation

Learner's lack of oral practice of the language affects the learning process in a negative way. This phenomenon is caused by several factors, which are due to the fact that the classes are overloaded (number of learners per class is high). Also, many learners are skeptical about the need to

communicate in a foreign language (e.g., English by French speakers).

Speaking and listening comprehension are two critical elements for foreign language learning, and they can only be achieved by frequent practice. Oral learning is at a disadvantage compared to the read/written learning. This disadvantage leads us to think that oral learning must be given more attention. Indeed, oral learning has the following advantages:

- It reveals phenomena that are hidden if we have only a written document: intonations, accents, realization or not of certain vowels, their stamps, and so forth.
- It gives the teacher the possibility to intervene, explaining or raising questions, in order to guide the listener to know what is important and to contribute to the perception structuring and the speech recognition.
- It invites listeners to present assumptions, to interpret, to discuss, and so forth.

Language instructors note that it is very difficult to make learners practice oral expressions while studying a foreign language. In general, very few institutions have a language laboratory that can be used by the learners for oral practice using a computer (one or two learners per computer). But computer access always remains a problem when learners return home. How do learners study for the oral examination when they have very limited access to the tools?

The latest handheld devices with third-generation mobile networks can provide mobile users with the capabilities to record their voices, send multimedia messages with pictures and sound, and enable video conferencing through mobile devices. In addition, mobile learning allows learners to better utilize their downtime and participate in learning activities anytime and everywhere (Farmer & Taylor, 2002). Learners can have access in a "guided autonomy" to recordings chosen by the teacher so they can practice using them (Little,

2000). Practice on the audio support can be done in a traditional classroom using a PC in language laboratory and especially continued at home.

The explosive growth in sales of portable MP3 players suggests that these devices are becoming increasingly ubiquitous. Learners can truly get their ears very well acquainted to the target English as a second language. They can listen to the recording as many times as they want. For the teacher, the advantage is undeniable regarding the choice of documents in the target languages. Indeed, direct and free access to sound resources of foreign languages on Web sites (without copyright infringement) makes it possible to expose beginner and continuing learners to the authentic language, which is the first step to being competent in comprehension. This approach seems to be very promising because it offers learners more possibilities to work on their oral expression and to be exposed to the target language.

Objectives

The approach proposes to the learners a new learning situation of a language as one of its main objectives. Also, it helps learners to become speakers who are able to make their idea comprehensible and to progress quickly in learning a foreign language.

It also claims to give coherence to language learning through a multiple exposure to the target language (in this case, the English Second Language for French speakers). Thus, the portable MP3 player, for example, is presented as a tool adapted to the achievement of these objectives since it allows learners:

- To familiarize themselves with a new technological environment, a new workspace, and a different learning method integrating communication and information technologies.
- To diversify teaching and learning forms of the foreign language in connection with the

committed reforms and within the national programs guidelines.

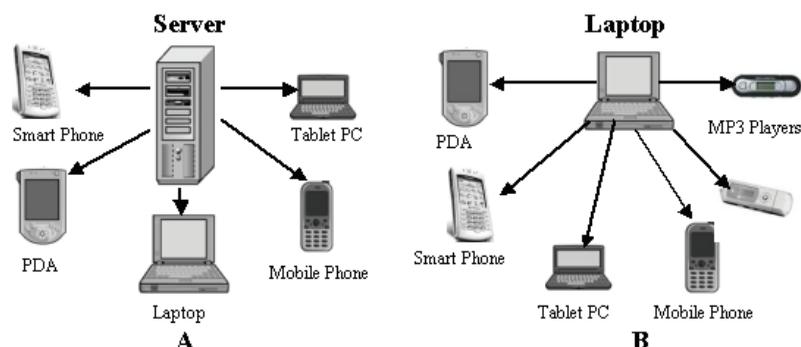
- To propose to learners the learning situations that give them confidence and motivation. In this direction, the use of the MP3 player in language learning contributes to a positive modification of a learner's attitude where a stronger participation of all concerned people is necessary (Norbrook & Scott, 2003).
- To develop learners' autonomy (they have permanent access to their working group information and resources via the platform's means) and to support regular and constant personal work (Little, 2000).
- To modify the work practices of individual learners (Lundin & Magnusson, 2002). Specific tasks are assigned to learners to carry out every week in order to support a regular practice of their oral expression.

In addition to these general objectives, the following priorities are added:

- To improve the learner's oral competences, which are found in very heterogeneous classrooms and at a rather low level.
- To support the listening and comprehension work on authentic sound documents.
- To allow autonomy guided work outside the classroom based on supporting materials prepared by the teacher.
- To facilitate access to the sound resources via the means offered by the learning platform on the Web.
- To support collaborative learning to achieve oral expression and listening comprehension in a classroom by active participation of learners.

The approach is an integral part of the general pedagogy framework, which aims at making the learner as autonomous as possible and especially very active—active in his or her training and ac-

Figure 1. Sound and text files diffusion



tive in knowledge construction (Mitchell, 2002; Zurita & Nussbaum, 2004). We are using the MP3 player as a tool because it serves our teaching objectives and not because it is technically a powerful object (Little, 2000).

Approach Description

Current uses of these devices were never intended to correspond entirely to the uses envisaged by their inventors, which results in speaking about diversion of use to characterize the share of social and cultural creativity, which is and will always remain in the users' hands (Perriault, 1989). Our approach draws its originality from the diverted use of simple mobile devices (e.g., MP3 player, PDA, cell phone, etc.), which was not initially created for teaching, to help increase the learner's listening comprehension of English as a second language.

The diffusion of sound files (and also text files) on the Web server of the teaching platform designed for this purpose allows the authorized public a fast remote loading of the sound documents. The platform also provides instructions on the work to be done and exercises for learners. Listening to the sound files is then done starting from the computer itself, and especially by remote loading of these files on mobile devices for listening independently of the computer.

The innovation is thus done by two successive levels of the diffusion: initially it is sent from the server to the computers and other devices connected to the network (Figure 2-A), and then it is sent from each receiving computer to an unlimited number of mobile devices supplied locally (Figure 2-B) (Sabiron, 2003).

Our approach is also based on an evolutionary methodology using a pretest and posttests where several groups of learners will be monitored in order to quantify the possible impacts and collect statistics about the use and its evolutions.

Learners are invited to answer questionnaires that have been prepared at different stages of the learning with the goal to measure the impacts of the devices use on the learners' behavior; in particular, the performances in the language listening comprehension and the degree of motivation (Norbrook & Scott, 2003). Moreover, regular discussions make it possible to obtain users' profiles and a typology of the uses of the mobile devices.

Our approach, which is based on the combination of technologies (information technology, the Internet, and mobile devices), requires little competences in information technology. It aims on one hand to quantify and qualify the impacts related to the use of innovating devices dedicated to foreign language learning, and on the other hand to study the processes of adapting a specific technical device. The generalization

of the devices used in other learning and/or for other types of learning seems to be a prospect in the short and medium term (Bayon-Lopez, 2004; Sabiron, 2003).

COURSE MANAGEMENT SYSTEM

Software Architecture

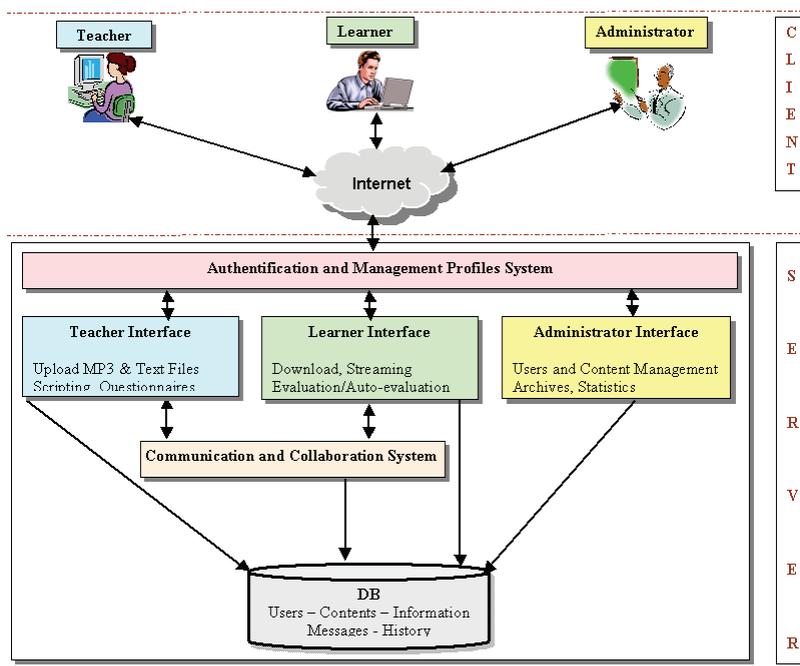
The course management system (CMS) is a Web-based application with server-side processing of intensive requests. It can support a wide range of mobile devices such as laptops, palmtops, and so forth. A key element of our research will be testing the new mobile tools in several device contexts to demonstrate support for heterogeneous mobile device environments. In addition, there is the potential to integrate cellular technologies such as SMS text messaging with platform tools as an alternative mobile platform for learner responses (e.g., Question/Answer, Polling, etc.).

The environment provides the three principal users (i.e., teacher, learner, and administrator) a device that has for primary functionality the availability and the remote access to pedagogical contents for language teaching, personalized learning, and distance tutoring. The e-learning platform allows not only the downloading of the resources made available online (using a standard navigator) but also the diffusion on podcasting mode. The sound files are accompanied by textual documents introducing the subject, its contextual use, foreign speaker presentation, and their phonological variation in order to make it possible to the individual listener to locate the spoken language characteristics.

Teacher's Interface

Mobile devices are becoming more and more important in the context of e-learning. This requires appropriate models for structuring and delivering content to be used on various devices.

Figure 2. Basic architecture of the environment



Different technical characteristics of devices as well as different needs of learners require specific approaches. Then we propose a model for structuring content that allows rendering for different devices as well as presentation of the content in different levels of details according to didactic concepts such as case study, definition, example, interaction, motivation, and directive. This approach allows adaptation of content (i.e., device, granularity of content, content selection based on didactic concepts) at run time to specific needs in a particular learning situation (Zaharieva & Klas, 2004).

The environment allows the teacher, via a dedicated interface, to make at the learners' disposal a considerably large amount of compressed digital audio and textual documents of excellent quality to listen to. These documents are created by the teachers or recovered from the Internet (using streaming or podcast technologies). The interface also makes it possible for the teacher to describe in the most complete way possible the sound files. Relative information to each file is the name, language, duration, public concerned, expected pedagogic objectives, period of accessibility, source, copyright, and so forth. Thus, documents prepared by the teacher are loaded in the database located on the platform server.

If the learner can put his or her techniques and strategies to understand the listening comprehension, then the instructor role consists of helping him or her develop and enrich the learning strategies. It is thus necessary to add to the sound files with a work plan to guide the learners on how to practice their listening within the framework of the designed learning methodology.

Learner's Interface

Learners with laptops or HTML-enabled mobile devices can enter the learning space, see published courses, and take part in them via their mobile

browser. Users can collaborate with other learners or teachers via discussion forums and chat areas. Web content is dynamically adapted to the small screens.

- **File Transfer Module** is used to launch the file transfer functions of the environment. Files can be transferred to other people (and the user) from the local device or the remote server.
- **Collaboration Module** locates people and provides for the transfer of documents and files between people logged into the environment.
- **Course Access Interface** provides for updating lessons, homework, and other assignments as well as the transfer of documents between learners and teachers.
- **Communications tool** launches a variety of communications options, including text and audio, and provides for one-to-many, many-to-one, and one-to-one communication.
- **Interactive Logbook** provides a variety of service options, including history access and editing of user profiles.

Streaming Tool

The streaming server (installed at the same time as the Web server) must know how to manage the adaptation and optimization of flow and the contents, the quality of service. The adaptation to the network and the terminal must be done in real time. Distribution networks of mobile contents are developed based on the content delivery networks model of the Internet. At the networks borders close to the user, the multimedia servers manage part of the distribution and adaptation to the user context. For this whole process to work properly, the client browser must receive the data from the server and pass it to the streaming application for processing.

Podcasting Tool

A podcasting tool within an environment offers direct download of audio files, but the subscription feed of automatically delivered new content is what distinguishes a podcast from a simple download or real-time streaming. Podcasting's essence is about creating content for an audience that wants to listen when they want, where they want, and how they want.

Subscribing to a podcast tool allows a learner to collect programs from a variety of MP3 sources for listening off-line at whatever time and place is convenient. In contrast, traditional broadcasting provides only one source at a time, and the time is broadcaster-specified. While podcasts are gaining ground on personal sites and blogs, they are not yet widespread. In addition, users can view the descriptions of that item while it plays (Kraus, 2006). The simple interface allows the user to easily scroll through the page. The learner will improve his or her English by listening to native speakers talk and discuss topics of interest. He or she will learn new idioms and expressions and learn to use them the way native speakers do. Each ESL podcast lasts 10 to 20 minutes and has three parts:

1. A dialog or story read a bit slower than normal speech.
2. An explanation of some of the expressions and phrases used in Part 1.
3. A repetition of the dialog or story at a native rate of speech.

The podcasts are all recorded at a speed the learner can understand—clearly and comprehensibly. This way, he or she will be able to actually understand the English and pick up the meanings of new words and phrases.

Interactive Logbook

The goal of the logbook is to set up an automatic book that keeps information related to the learner's activity while he or she carries out a scenario on a teaching object (date and duration of each connection, MP3 files downloaded or listened to in streaming, exercises for self evaluation, etc.). This requires an effort of information structuring and an implementation within the platform. An exploitation of this information by learners can guide them through their training plan.

The metaphor of the Interactive Logbook was conceived from a very traditional personal learning environment: a logbook kept by learners to record lectures, laboratories, project notes, and more. Although in many subjects, especially the science disciplines, logbooks are still an integral part of courses, they are not well used by learners. Since many learning activities are taking place digitally (e.g., writing essays, analyzing data, browsing the Web, online discussions), it doesn't make sense to print or copy the output for a paper-based logbook. Although the interactive logbook extends to network capability and digital search, the name "logbook" gives an impression of the flexibility and purpose of the tool.

The Interactive Logbook seeks to provide a place in which personal information can be stored completely, privately, and for all time. By being integrated with the environment in which much of the learner's activity takes place, physical time and effort barriers can also be reduced and made even lower by automated logging of basic documents and events (e.g., e-mails, documents, diary entries, etc.) (Kiddie, 2004). Finally, a statistical analysis of logbooks of a group of learners that have done the same activity would give a synthetic vision of the group's learning and would be useful to all people involved in the learning.

Communication and Collaboration Using Mobile Devices

Group Communication

In the environment, learners have to find the same classical environment as they have in real life. In this environment, learners can ask questions whenever they need to and can discuss a lot of interesting or pointless subjects.

The environment also supports group communication by offering discussions, forums, and shared workspaces where learners can exchange documents using a podcasting tool. We distinguish between asynchronous and synchronous communication facilities. Social contacts are a crucial point in learning situations. Learners should therefore be able to present themselves in a personal home page with a photograph, a list of hobbies, and other personal aspects. Such personal presentations are not toys, but they can help learners to get in contact even more easily than in live classroom situations. There is a great potential in using mobile terminals for communication services.

The PC has been developed first for accessing and sharing information, and hence has been used most for individual learning with limited human communication. Mobile technology has been developed specifically for human communication. As communication is regarded as an important element in every kind of learning, the use of mobile technology may therefore prove to represent a potential for new kinds of integration between information sharing and human communication, which may improve the learning outcome of flexible learning.

Communication and Learning Scenarios

The communication and collaboration system launches a variety of communications options, including text, audio, video, and whiteboard,

and provides for one-to-many, many-to-one, and one-to-one communication. It provides a powerful architecture for the development of new educational tools to enhance various modes of teaching and learning. It is ideally suited to mobile learning and able to integrate tools developed explicitly for mobile contexts. The opportunity is to leverage the platform to develop innovative tools for mobile learning that are applicable to (1) synchronous formal learning (e.g., classrooms) and (2) asynchronous informal learning (e.g., discussion in the cafeteria).

Synchronous Formal Learning

There is a number of learning activities in formal educational environments (e.g., teacher-led classroom scenarios) that are ideally suited to mobile learning tools. Synchronous learning activities such as polling/voting and question and answer, where the system immediately collates all responses and presents an aggregate view of votes or answers to all learners, are ideal for pedagogically rich mobile learning. Features that are unique to the system and would enhance this mobile learning include:

- The ability to easily sequence activities into reusable lesson plans (using a simple visual “drag-and-drop” lesson planner).
- Recording of learner responses for later review by learners/teachers and the option for teachers to create question-and-answer activities with either anonymous or identified answers from learners, which provides a basis for more honest answers due to the lack of peer pressure.

Asynchronous Informal Learning

Informal learning scenarios (e.g., student discussion in a cafeteria) provide environments where mobile devices can support flexible, “on-the-fly” learning opportunities. Valuable learning

activities in these contexts could be supported by a content sharing tool and discussion forums and live chat/instant messaging for questions and responses to other learners or the teacher. Again, the environment provides unique features to support these activities by providing an environment to manage and deliver these tools in the context of asynchronous (and synchronous) informal learning, including recording of activities for later learner/teacher review and creation of reusable lesson plans based on informal student learning using flexible toolsets.

EVALUATION METHODOLOGY

Listening comprehension has come to be recognized as an active rather than a passive skill, and its importance has been acknowledged in the acquisition of language. With the emergence of multimedia as teaching tools, it is being given renewed attention. Starting from supports authentic listening, the evaluation of listening comprehension aims to check the effective location of certain information, its relations, and, if necessary, its interpretation. Lessons focused on listening will be enhanced by incorporating the following guiding principles (Brindley, 1998):

- Materials should be authentic. Using authentic materials is a good way to develop listening strategies. Predicting, asking for clarification, and using nonverbal cues are examples of strategies that increase chances for successful listening. It also gives them a chance to check for accuracy in hearing sounds, intonation, words, and grammatical structures.
- The language should reflect real discourse, including hesitations, rephrasing, and a variety of accents.
- Language needs to be comprehensible, but it does not need to be constantly modified or simplified to make it easier for the listener.

To verify if comprehension is reached, learners are invited to answer short instructions written in English that do not require them to write in sentences and do not take into account grammatical or orthographical mistakes.

The tasks of comprehension credited on the marks-scale, which appears on the specific grid, provide for each support and are distributed to the learners.

Multiple choice and true/false questions are deliberately avoided. Exercises of this type do not concern a summative evaluation but belong to the training fields that facilitate the comprehension task. It's the same reason that motivates the not fragmented listening constraint.

FUTURE TRENDS

We have started experimenting with the use of the environment in real teaching/learning situations. This experimentation allows us to collect information on the effective activities of the users. We can thus validate or question certain technical choices and determine with more precision the adaptations that have to be made to the integrated tools. Feedback from a panel was very positive, and the mobile aspect of environment was seen as a novel and interesting approach as a research tool. A detailed evaluation of the effectiveness of the learning environment has yet to be completed. In prospect, the approach aims at developing in the learners other oral competence; namely, oral expression, so they can express themselves in a foreign language. The mastering of the language goes through the mastering of elocution. The approach thus envisages giving learners the opportunity to produce audio files as a result of their work by using the "recording" function of an iPod or an MP3 player. Concrete situations of uninterrupted speech, a summary of a lecture, oral comments about documents studied in class, and exercises to argument or justify a point of view facilitate the use and adaptation of the target language (Jones, 2005).

CONCLUSION

We presented in this chapter an original approach for listening comprehension of English as a second language by using devices whose initial function was for different purposes. For example, the portable MP3 player as a nomad object with its characteristics of portability, accessibility, and autonomy is similar to a book.

The approach proposes an innovation that is done on two successive levels. On the one hand, the diffusion or provision of sound resources prepared by the teachers on the distance teaching platform, and on the other hand, the use of the mobile devices to expose sufficiently to a quality authentic language.

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KEY TERMS

Basic Language Skills: The ability to comprehend receptive language and use expressive language to communicate.

iPod: A small and extremely popular portable device designed by Apple Inc. 2001, for storing and playing digital audio files encoded by compression algorithms such as MP3.

Listening Comprehension: A primary process in understanding the words of the speaker. It is a complex communication process that requires instant thought and individual ability to construct the meaning.

Logbook: A personal learning environment running on a personal computer or mobile device. It integrates and aggregates the learner's activities. A significant element of the tool is its support of activity logging. A combination of automatic and manual log entries enables the learner to simply reflect on his or her personal learning journey.

MP3: (MPEG-1 Audio Layer-3) is a standard technology and format for compressing a sound sequence into a very small file (about one-twelfth the size of the original file) while preserving the original level of sound quality when it is played. MPEG stands for Moving Pictures Experts Group, a committee that is part of the International Standards Organization.

Podcasting: Method of publishing audio or video files on the Internet, often allowing users to subscribe to a feed and receive new files automatically by subscription, usually at no cost. The term *podcasting* combines the words iPod and broadcasting and gives a name to a novel method of publishing audio broadcasts over the Internet using syndication for listening on mobile devices and personal computers.

Portable MP3 Player: Device for storing and playing MP3 files. The idea is for it to be small and, thus, portable. It is like a digital music library that you can take anywhere you go.