

Unit 3 – ICT & ELT

CALL/T: Evolution of CALL, ELT Methodologies and Approaches for CALL, Networks & CALL, Multimedia CALL

Definition

Computer-assisted language Learning (CALL) is an approach to teaching and learning in which the computer and computer-based resources such as the Internet are used to present, reinforce and assess material to be learned. It usually includes a substantial interactive element. It also includes the search for and the investigation of applications in language teaching and learning. Except for self-study software, CALL is meant to supplement face-to-face language instruction, not replace it. CALL has also been known by several other terms such as technology-enhanced language learning, computer-assisted language instruction (Davies) and computer-aided language learning but the field is the same.

Technologies used in CALL instruction

Software used in a CALL environment can be designed specifically for foreign/second language learning or adapted for this purpose. Most language textbook publishers offer educational software of some sort, whether it is meant to support a paper textbook or to stand alone for self-study. Most programs designed for language learning are tutorials. These generally are drill programs that consist of a brief introduction plus a series of questions to which the learner responds and then the computer gives some kind of feedback. With these kinds of programs, the material to be learned may already be programmed in by the publisher, which is more common, or may allow the instructor to program in the material to be learned.

Programs not designed specifically for language learning can be adapted for this purpose. Generally, these are task-based activities where the stated goal is something other than language learning; however, using the target language is essential for getting the task done. For example, with Face maker, students create different faces by using words in the language to command the computer. Role-playing games, where the user creates and controls a character in a fantasy realm, can be used in this manner as well. Authoring programs allow an instructor to program part or all of the content to be learned and program part or all of how the content is to be learned. Some examples of these programs include Cloze master, Choice master and Multitester. With these, the format is pre-programmed and the instructor puts in the material. General authoring programs like Macromedia Director can be used to make an entire course; however, most teachers do not have the time or the technical ability to make use of such programs.

Internet-based

The World Wide Web was launched in 1992 reaching the general public by 1993, opening up new possibilities in CALL. Internet activities vary considerably, from online versions of software (where the learner interacts with a networked computer), to computer-mediated communication (where the learner interacts with other people via the computer), to applications that combine these two elements.

Nowadays, web sites that cater to foreign-language learners, especially those learning English, are so numerous and varied that it can be very difficult to determine where to begin. There are even meta-sites dedicated to trying to give a starting point such as Dave's ESL Café (www.eslcafe.com) and LLRC Recommended Sources (<http://llrc.itesm.mx/webresources>). Many of these websites are based on the drill-exercise format but some also include games such as Hangman.

Computer-mediated communication (CMC) has been around in one form or another since the 1960's but only became widely available to the general public since the early 199's. CMC comes in two forms: asynchronous (such as email and forums) and synchronous (such as text and voice chat). With these, learners can communicate in the target language with other real speakers cheaply, 24

hours a day. Learners can communicate one-on-one or one to many as well as share audio and video files. Because of all this, CMC has had the most impact on language teaching.

Internet applications which combine interaction with another computer as well as another person or people both derived from role playing games (RPGs), which are activities where participants become part of a story where they work together and/or work against each other. RPGs were originally played on paper with pencils and dice but since the 1990s nearly all RPGs have been computer-based, with the computer acting as a player and/or referee. RPG scenarios can be as simple as Crimson Room's (http://www.fasco-csc.com/index_e.php) goal of escaping from a locked room, but more often the scenario is a quest or journey, where players become a fantasy character and must use their skills to obtain treasure and experience. Some popular online RPGs include: Fairyland (<http://www.1010game.com/asp/downloadpage.asp>), Runescape (<http://www.runescape.com/>) and the simply-titled Quest (<http://www.questrpg.org/>). In chat rooms, the purpose is basically just to talk, so usually all participants see is a blank screen with words on it. RPG programs, however, participants appear on the screen (usually as simple animated figures) and interact with landscapes and objects as well as text they, the computer or other participants wrote. Participation in an RPG mimics many real-world communicative situations, such as buying and selling as well as a few not-so-real ones such as casting spells.

History (Evolution of CALL)

CALL's origins and development trace back to the 1960's and since has consisted of a symbiotic relationship between the development of technology and pedagogy. Its development can be divided into three phases: behavioristic CALL, communicative CALL and integrative /explorative CALL.

Behavioristic CALL is defined by the then-dominant behavioristic theories of learning of Skinner as well as the technological limitations of computers from the 1960's to the early 1980's. Up to the late 1970's, CALL was confined to universities where programs were developed on big mainframe computers, like the PLATO project, initiated at the University of Illinois in 1960. Because repeated exposure to material was considered to be beneficial or even essential, computers were considered ideal for this aspect of learning as the machines did not get bored or impatient with learners and the computer could present material to the student at his/her own pace and even adapt the drills to the level of the student. Hence, CALL programs of this era presented a stimulus to which the learner provided a response. At first, both could be done only through text. The computer would analyze errors and give feedback. More sophisticated programs would react to students' mistakes by branching to help screens and remedial activities. While such programs and their underlying pedagogy still exist today, to a large part behavioristic approaches to language learning have been rejected and the increasing sophistication of computer technology has led CALL to other possibilities.

Communicative CALL is based on the communicative approach that became prominent in the late 1970's and 1980's. In the communicative approach, the focus is on using the language rather than analysis of the language, teaching grammar implicitly. It also allowed for originality and flexibility in student output of language. It also correlates with the arrival of the PC, making computing much widely available resulting in a boom in the development of software for language learning. The first CALL software in this phase still provided skill practice but not in a drill format, for example, paced reading, text reconstruction and language games but computer remained the tutor. In this phase, however, computers provided context for students to use the language, such as asking for directions to a place. It also allowed for programs not designed for language learning, such as Sim City, Sleuth and Where in the World in Carmen Sandiego? to be used for language learning. However, criticisms of this approach include using the computer in an ad hoc and disconnected

manner for more marginal rather than the central aims of language teaching. It will usually taught skills such as reading and listening in a compartmentalized way, even if not in a drill fashion.

Integrative/explorative CALL, starting from the 1990's, tries to address these criticisms by integrating the teaching of language skills into tasks or projects to provide direction and coherence. It also coincides with the development of multimedia technology (providing text, graphics, sound and animation) as well as computer-mediated communication. CALL in this period saw a definitive shift of use of computer for drill and tutorial purposes (computer as a finite authoritative base for a specific task) to a medium for extending education beyond the classroom and reorganizing instruction. Multimedia CALL started with interactive laser videodiscs such as "Montevideo" (Schneider & Bennion 1984) and "A la rencontre de Philippe" (Fuerstenberg 1993)... all of which were simulations of situations where the learner played a key role. These programs later were transferred to CD-ROMs.

In multimedia programs, listening is combined with seeing, just like in the real world. Students also control the pace and the path of the interaction. Interaction is in the foreground but many CALL programs also provide links to explanations simultaneously. An example of this is Dustin's simulation of a foreign student's arrival to the U.S. Programs like this led also to what is called explorative CALL. More recent research in CALL has favored a learner-centered explorative approach, where students are encouraged to try different possible solutions to a problem, for example the use of concordance programs in the language classroom. This approach is also described as data-driven learning.

Role changes for teachers and students

Teachers

Although the integration of CALL into a foreign language program can lead to great anxiety among language teachers, researchers consistently claim that CALL changes, sometimes radically, the role of the teacher but does not eliminate the need for a teacher altogether. Instead of handing down knowledge to students and being the center of students' attention, teachers become guides as they construct the activities students are to do and help them as students complete the assigned tasks. In other words, instead of being directly involved in students' constructions of the language, the teacher interacts with students primarily to facilitate difficulties in using the target language (grammar, vocabulary, etc.) as use the language to interact with the computer and/or other people.

Elimination of a strong teacher presence has been shown to lead to larger quantity and better quality of communication such as more fluidity, more use of complex sentences and more sharing of students' personal selves. However, teacher presence is still very important to students when doing CALL activities. Teachers should be familiar enough with the resources to be used to anticipate technical problems and limitations. Students need the reassuring and motivating presence of a teacher in CALL environments. Most students report preferring to do work in a lab with a teacher's or tutor's presence rather than completely on their own.

Students

Students, too, need to adjust their expectations of their participation in the class in order to use CALL effectively. Rather than passively absorbing information, learners must negotiate meaning and assimilate new information through interaction and collaboration with someone other than the teacher, be that person a classmate or someone outside of the classroom entirely. Learners must also learn to interpret new information and experiences on their own terms. However, because the use of technology redistributes teachers' and classmates' attentions, less-able students can become more active participants in the class because class interaction is not limited to that directed by the teacher. Moreover more shy students can feel free in their own students'-centered environment. This will raise their self-esteem and their knowledge will be improving.

Language Laboratories

Language labs are a very comprehensive and cost-effective tool for educational institutions to monetize their language training and also offer students effective language learning via the latest technology and educational content. They are the perfect solution for designing a structured academic curriculum in accordance with the objectives of an educational center with an international vocation audience that seeks the highest quality in teaching

The levels of functionality of current language labs vary from manufacturer to manufacturer. All labs will have a level of teacher control to manage student licenses / desktops. The more sophisticated ‘software only’ labs have a higher level of teacher management and control over the student desktop. One of the key differences with the ‘high end’ ‘software only’ products is their ability to work ‘live’ with the students as they record and work with media. So instead of waiting to correct student recordings after they have been recorded and collected back it is now possible for a teacher to work synchronously and ‘live’ with students on their own, in pairs and in groups, thus enhancing the immediacy of the teaching and learning experience.

The next generation digital language labs allow teachers to monitor, control, deliver, group, display, review and collect, audio, video and web-based multimedia content. The student player is linked to the teacher console and can play audio, video and web-based formats. Students can rewind, stop, start, go back to last silence, record, fast forward, repeat phrase and bookmark. The principle of a language lab essentially has not changed. They are still a teacher-controlled system connected to a number of student booths, containing a student's control mechanism and a headset with a microphone. Digital language labs had the same principle. A software-only language lab changes the concept of where and what a language lab is. Software can be installed and accessed on any networked PC anywhere on a school, college, or university campus. Software-only systems can be located in one room, from room-to-room or campus-to-campus.

The Significance and Relevance of the Language Laboratory

The significance of the language laboratory has been much felt in the domain of communication. We live in a multilingual and multicultural world, which is being shrunk to the size of a village by the advancement of science and technology. It is not merely for learning a single language, but can be used for teaching a number of languages efficiently. To acquire a sensibility for the sounds and rhythm of a language, one has to hear the best samples of a spoken language (Richards, 2001). This is precisely the function of the language laboratory. Some highlights of the language laboratory are given below:

1. It is a tool designed for teaching any language.
2. It helps one to learn pronunciation, accent, stress and all other aspects of the phonetics of a language.
3. Effective communicative training programmes for the general public, private and corporate sectors, junior and senior level officers can be given through the lab.
4. Web-content creation, the setting up of in-house news magazines, corporate publicity and identity, and teaching materials can be generated through the language laboratory.
5. General documentation, software documentation and all forms of technical documentation can be done.
6. Experts can utilize the laboratory for creating and editing scientific and technical materials for teaching language.
7. The language laboratory enables one to conduct courses for various groups of people like students, faculties, businesspeople, etc.

8. Short-term and long-term coaching classes for international examinations like IELTS, TOEFL and other competitive examinations can be organized.
9. Online courses and paperless examinations can be conducted through the language laboratory.
10. The language laboratory exists to help one to use technology effectively to communicate.

Using a language lab has many benefits

Language labs are becoming highly valued at colleges and universities because they offer students a structured eLearning environment that is successful and reliable. New technologies are increasingly more present in classrooms as they facilitate the teacher's role in creating a more attractive learning environment for the student and can offer their students more practice hours and up-to-date exercises than can be found in language books.

1 A language lab is practical

Learning a new language just by studying the theory is not enough to guarantee a successful language learning experience. Language labs provide practice in an entertaining and interactive way to acquire the 4 main language skills: listening, speaking, reading, and writing. Students learn more comprehensively through a language lab, using more class time instead to achieve these three main objectives:

- Self-learning: The student progresses in a self-guided but structured and progressive training to achieve the goals and objective set by the school or educational body.
- Complimentary: Language labs allow students to reinforce material learned in class by putting them into practice through interactive activities.
- Monitoring and Evaluation: Teachers know the progress of each student and receive reports of strengths and weaknesses to better adapt the classroom activities.

2 Students learn much faster in the language lab

Practice leads to language learning success! Language labs' interactive courses help students learn much faster than in a regular classroom setting. The methodology of the classroom language network uses a progressive model to promote natural learning, where students learn the different concepts of language in an intuitive way. The language lab boosts the motivation of students achieving higher levels of language retention and progress.

3 The teacher takes on a more important role in the language lab

There is a big fear in the education world that technology will replace the role of the teacher and the position will become obsolete entirely. The language lab debunks this myth because it provides supplementary materials that only facilitate the role of the instructor rather than compete with it. The teacher can then focus on the important parts of the course rather than waste time explaining everything. The structure of the language lab courses also facilitate the work teacher puts in when preparing lessons and allows them to prepare them in less time and with a greater volume of interactive resources. The course then collects the student information and provides instantaneous reports of the lesson's progress against objectives; the teacher uses this information to guide the direction of the class.

4 Use more resources and varied activities than in a traditional classroom

Language labs allow students to practice the language with a much wider variety of activities and exercises based on the computer. Learning occurs in a structured way, in a real context and visually attractive way that immerses the student in the language learning environment and promotes language use. The students can watch videos, practice their pronunciation through a speech recognizer, learn new vocabulary, and much more.

5 Language labs allow for diversity in the classroom

Language laboratories provide teacher attention to students, especially in the case of schools with different levels because as interactive courses, language labs are tailored to the individual needs of students. On the other hand, thanks to monitoring and evaluation in real

time, the teacher knows exactly what course objectives pose major difficulties for the student time and can reinforce the class accordingly.

6 Labs foster communication in the classroom

Language labs also encourage communication student-teacher as well as student-student with activities and exercises essential to oral communication and the understanding of the language. The labs include tools for creating groups, host conversations via chat, promote messages on the board, access to a community of students who are also studying the same language, etc.

7 Language labs are an intuitive tool for both the student and teacher

This method of learning does not require professional technical skills for use in the classroom, the teacher only needs basic computer skills and students will welcome the added technology they are already so adept with.

8 language labs optimize computing resources

Both universities and colleges have classrooms with computers there for students to complete school works or study other subjects. There are also a number of faculty computer labs or office computers for administration also available. Language labs essentially recycle resources an educational institute already has and adapts it to the language course.

Model E-Lab iTell

iTell is in use for two triumphant decades now and the poise of over 1 million users worldwide via 4000+ educational institutions all over the globe. Our customers are our pride indeed. Advanced & Cost Effective iTell is the world's most advanced and futuristically designed digital language lab system that intelligently harnesses the power of cutting-edge information technology to deploy an easy-to-use yet comprehensive software platform for efficient teaching and quick learning of a foreign language.

Features

- Intercom
- Conferencing - Selective & General
- Lesson Studio (Customized learning materials)
- View Master (Student monitoring)
- Live Classroom
- Things-To-Do (Exercises to be undertaken by the student)

Advantages

- Listen, Speak, Read and Write (LSRW) - The most effective methodology used for teaching and learning languages
- Review/Compare/Evaluate/Repeat with original/native accents in text/audio/video formats
- Highly effective listening, speaking, reading and writing..

Benefits

- Teaching and Learning Efficiency are enhanced with the advanced, unique and user friendly features
- Total Control and Monitoring provide Total Peace of Mind
- Customized and detailed attendance and progress reports on students' and the teachers

Self Learning & Self-paced Learning

Self-Learning

According to Malcom Knowles, self-learning is defined as: “a process by which individuals take the initiative, with or without the assistance of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, and evaluating learning outcomes”. Research reported by Harvard Business Review also reveals that we ‘rarely grow alone’ and that we are better equipped to learn and extend our knowledge as a collective. This is powering the growth of like-minded networks, especially within organisations and teams. However, as we seek more meaningful pursuits in our lives, the ability to learn for ourselves extends far past simply the workplace.

Where there are gaps in knowledge, fear fills the void! In an economy and society that innovates faster than ever in human history, challenges also crop up that require just as swift resolution. Facing a future that we cannot foresee, the ability to adapt and learn is key. However, where there are gaps in knowledge, fear can fill the void and cause procrastination, denial and ignorance. Technology and the connectivity of people, is the only way to equip ourselves with the mobility we need to combat this unknown future. You can see this in the increasing adoption of the Internet across the world, the rise of online learning systems, the shift in University courses to online, and even social networking sites are having significant impacts on society (not all good either). But due to the pace at which innovation has increased, significant skills gaps are appearing quicker than ever, placing pressure on us to constantly up-skill.

As information becomes ubiquitous, technology is playing a powerful part in accelerating our ability to access this knowledge. It’s an especially important consideration for modern education. Findings published, in the International Review of Research in Open and Distance Learning, state that “the amount learned from the online classroom is somewhat greater than in the traditional lecture-based courses.” Plus, even the least-prepared people acquired knowledge just as well as those who were already ‘skilled’ in the subject.

Society, and especially young people, are presented with a notion that their examination results are the measure of their ‘intelligence’. And, therefore, the measure of their value in society. This is a fallacy and fundamentally opposed to what society needs now. Education is not a vessel to be filled; but a fire to be lit.

Traditional exams (closed book) assess one’s ability to regurgitate information. The same information people across the entire country are learning — curriculum based learning. But education is a fire to be lit. Not a vessel to be filled. Our future relies on our ability to apply critical thinking and problem solve. Exams are no longer fit-for-purpose and potentially damaging to our health. It’s been reported on for years: Our schools exam system is no longer fit for purpose | Mehdi Hasan

5 Ways To Improve Self-Learning

1. Allow Yourself to Be Curious

According to a study from the University of California, the researchers state that curiosity makes our brains more receptive for learning. When you learn to satisfy a level of curiosity, it makes the learning journey more enjoyable. Harvard Business Review also found that people who were curious in their roles at work, were 34% more creative, less reactive to stress and provocation, more empathetic with others and better at communicating. The self-learning process will become more effective and exciting if you can trigger your intrinsic curiosity.

Our intrinsic motivation normally starts with a strong purpose — Your “Why”

- Why do you need to enhance your knowledge about this specific subject?
- Why is this information going to be of use to you?
- Why are you going to use this knowledge to create an impact in your life?

Once this is clear to you learning can become a bug, like anything else that you enjoy, learning can become— Dare I say it — a habit. When your motivation to learn is intrinsic, it ceases to be a chore. It's about your personal desire to gain more knowledge and to make progress towards 'WHY' you're learning. Moving from a passive learner to an active learner will make your learning experiences more meaningful to you.

2. Set Goals to Create New Opportunities

Goal setting is extremely important because it helps you increase productivity and also improves your focus. Having clear objectives means you are more likely to create a specific plan and take action to achieve your goals. When you're learning new skills, one potential goal you can think about is how to apply these skills to your working life or how these skills can open new career opportunities for you. An inspirational example comes from the transformation of a war zone to a tech zone in Gaza. Suffering from one of the highest unemployment rates in the world, due to aid cuts and blockades, a company called Gaza-SkyGeeks came up with an innovative tech-solution. They launched coding academies across Gaza, encouraging people to begin a self-learning journey by setting a career goal for them. The courses provided people with coding skills and help people securing full-time jobs from employers all around the world.

When problem solving, an interesting tactic they employed was the 20/20/20 rule.

- 20 mins self learning
- 20 mins working with another learner
- 20 mins with a mentor

Plus, the mentors are now past students of the craft (like any mentor), which means that experience and expertise becomes self-perpetual. In a world of self-learners, the opportunity we're presented with is a shift from learning from one, to learning from many.

3) Assess Resources that Support your Learning Journey

Whatever subject you want to learn about, the resources on the Internet are endless. Now don't get me wrong, it's not as linear as a course or curriculum, but there are opportunities in that.

Typical Learning Environment

Knowledge in a classroom/course is based on curriculum and modules. This is typically a very linear style of learning.

Benefit: Bundled knowledge provides a clear and efficient learning journey towards a set goal.

Weaknesses: You learn a % of information available, as chosen by a tutor or institution through a set curriculum of which you adhere.

Self-learning environment

Knowledge in pursuit of an interest, based on curiosity and life-long learning is collected in a more sporadic fashion.

Benefit: The nature of learning in a curious manner leads to serendipitous discoveries (information and people) and takes you down paths you may never of been exposed to.

Weakness: It's unknown what you'll discover or achieve, and you may learn about topics in a broad manner rather than deep (but that's your choice).

So when you're on a self-learning journey, here are a few guiding principles to live by:

- Be skeptical and verify everything — the Internet is awash with information produced from people who have varying experience and opinion. Even this very article you're reading should be reviewed and constructively challenged. Through constructive challenge, debate and counter-argument, we become wiser to the various complexities of any one topic.
- Use peer-reviewed academic databases:

Google Scholar and World Cat can be useful and powerful tools when you're looking for reliable sources. Google Scholar allows you to search for free and purchase full-text articles and books from academic publishers and universities. It lists citations and gives you links to peer-reviewed academic

journals, abstracts, technical reports, and more. World Cat helps you locate libraries local to you with reputable sources of information. You can even have resources posted to your library or receive e-documents online.

•Online learning platforms: Then when you do discover you want to go deeper in a specific topic, there are numerous sites with interesting courses.

4) Create Something Out of What You've Learned

Make a habit of creating something new from what you've learned. One of the strategies to solidify information in your long term memory is to use multiple ways to present information (Christopher P., 2015). For instance, creating a video presentation, drawing a mind map, telling a story or creating your own personal learning journal can be helpful. At WONDR, we've been big on helping you curate knowledge, which is why we created 'Projects'. The ability to store, organise and review the importance of what you find is important. FYI — We're always looking to improve projects, to offer you more creative ways of organising but here's a quick overview:

5) Build a Network of "Learning Collaborators" Around You

We are collaborative learners by nature. Take advantage of online communities that will support you through your learning journey. In the self-learning process, each learner is also a teacher, so it's super helpful to become a part of a learning community and share your knowledge with others. As mentioned in point 3, about the serendipitous nature of self-learning, you can signpost each other to the information you each discover; crowd sourcing knowledge as you go. According to The Lean Pyramid Model, developed in the 1960s by the NTL Institute in Bethel, Maine, people retain 90% of what they learn by teaching someone else or putting it into action immediately. This is further supported by The Protege Effect, an ancient old practice recently observed in the phenomenon of why older siblings are usually smarter; because they've had to teach their younger siblings.

"While we teach, we learn," — Roman philosopher, Seneca

Our attention and memory both receive a boost when we picture ourselves relaying new material to another person. We make a more conscious effort to understand information in order to inform others. You can also find encouragement, advice and stimulus from members who have the same interests and learning styles like you. This social study by Moreland, R et al in 1996, shows that by working in small teams, you can directly improve your ability to acquire and process information because it requires a "socially shared cognition". So, as we face increasing disturbances within global societies and constant economic unrest or uncertainty, our ability to learn, unlearn and relearn will be more important than ever.

Benefits of Self-Learning

Why would you even want your child to become a self-learner?

1. Student becomes an independent thinker.
2. Student learns to accept responsibility.
3. Student gains the freedom to learn without restrictions.
4. Student earns accountability.
5. Intrinsic rewards become the focus, that good feeling inside that comes from a job well done.
6. Student tests well because he is used to tackling problems on his own, which equals confidence.
7. Students retain more naturally when they do the work versus parents spoon feeding the information into them.
8. Students learn where to go when help is needed. There is no need to worry about gaps in their education because if they need to know something down the road, they will just look it up on their own.
9. Student has the courage to delve into an area of interest to study it without having to wait for a teacher to teach it.

10. Students become more than prepared for college study, which will require motivation and planning ahead.
11. Self-learning gives the opportunity to develop a good work ethic.
12. Self-learning allows the learner to go as deeply into a subject and interact with the subject matter as deeply as he would like to go.
13. Self-learning enables the learner to limit the number of interests undertaken so as not to be spread too thinly.
14. Self-learning allows the family to function as a family without emulating an institution at home.
15. Self-learning eliminates all excuses for not reaching one's potential. It will never be anyone else's fault if the student doesn't learn.
16. Self-learning is more fun than being taught at.
17. Self-learning means that mom can read great books rather than teacher's manuals and text books.
18. Self-learning trains one to go to the source for information which reduces the possibility of erroneous material.
19. Self-learning is the wave of the future now that so much information is available at our fingertips.
20. Self-learning means that babies and toddlers get more attention from mom because she is not busy playing teacher.

Self-Paced Learning

What is Self-Paced Learning?

Self-paced learning is defined as a specific learning method in which the learner is able to control the amount of material they consume as well as the duration of time they need to learn the new information properly. The result of the individual's ability to process the learning material is often referred to as knowledge retention. Self-paced learning differs from other learning methods because you are in control of what you learn and when you learn it. Learning at your own pace is not necessarily a new form of learning, but the concept is still somewhat new for businesses. Think about when you begin a new job. You are expected to be onboarded and fully operative within a short amount of time. This means learning the new processes, meeting new co-workers, understanding the product, complying with procedures, and mastering the tools needed to perform the job effectively. Most likely, the process is different than what you may be accustomed to and getting up to speed can be challenging. Considering the circumstances, getting up to speed on new procedures puts a lot of pressure on new employees. Especially on those who have only operated in legacy capacities.

Most e-learning solutions already offer self-paced learning tracks because of its autonomous nature and ability to capture and record each person's interactions within the system. For these reasons, self-paced e-learning solutions continue to dominate modern employee training. Modern staff training and career development opportunities provide benefits for both the employee and employer, but what most employers fail to understand is exactly how important these opportunities are in order for them to remain competitive.

In fact, a recent study showed that 70% of participants confirmed "job-related training and development opportunities influenced their decision to stay at their job." Let's look at the benefits for both employees and employers.

Advantages of Self-Paced e-learning for Staff Training

Flexibility

The most obvious benefit of offering a self-paced learning strategy means not only can employees learn whenever they feel like but also wherever they feel like. This benefit also extends to the employers as well. Flexibility for training sessions means no need to organize the logistical aspects that surround planning a training event. This translates to no meeting room arrangements,

finding an instructor, updating the learning and development training content, inviting attendees, and ensuring that everything else is organized for the event.

For employees, the logistical aspect is also removed when more remote learning options are made available. This translates into employees having more time to learn material as less time is spent arranging flights, hotels, and transportation to the office. Learning alone also means you can learn from your mistakes without feeling guilty or ashamed when you answer something wrong in front of a room full of people. Without the time pressure and social pressure, each person has the chance to learn to the best of their ability.

Higher Knowledge Retention

One of the biggest benefits of self-paced learning is an improvement in knowledge retention and memory performance. Exercising cognitive functions helps the brain with performing mental tasks which improves overall memory. Self-paced learning also supports inductive thinking, which refers to the ability to comprehend information and then derive conclusions based on the information presented. One way to support this is the implementation of gamification techniques in e-learning. We already engage with instances of gamification in our daily lives, such as participation in loyalty programs or when we share our progress or results in an app on social media.

Offering courses in this manner allows for information to be processed in bite-size pieces as opposed to all at once. This is known as micro learning and prevents cognitive information overload. It also presents the information in a less intimidating and more entertaining way, thus increasing the likelihood that it will be stored in long-term memory. Overall, if it is fun, it will be used often. And best of all, you can track progress and adjust courses and learning material based on results.

Improved Employee Experience

In Userlane's latest webinar with Gethin Nadin, Director of Employee Wellbeing at Benefex, we learned that the employee experience is one of the main influences on employee retention. Gethin discussed the many aspects that play a pivotal role in constructing a great employee experience, one of them being a modern and supportive working environment. Since technology is already so prominent in our daily lives, it makes sense for companies to provide access to materials they need by using a means that people are already familiar with. Not only is a better employee experience something that will give you the edge in your business, it is also something that has become an expectation from employees.

Websites such as LinkedIn and Glass door give potential employees the ability to filter through their options and have a glimpse into what the company culture and employee experience are like without even having a first interview. The employer no longer has the upper hand on future and current employees. Social capital is now just as valuable as financial capital, meaning that employees will no longer hesitate to look elsewhere if certain career expectations in the workplace are not met. Jacob Morgan, author of *The Employee Experience Advantage*, recently sat down with 250 organizations to discuss the disconnect between employee engagement and employee experience at their businesses.

Of the 250, Those that invested most heavily in employee experience were included 28 times as often among Fast Company's Most Innovative Companies, 11.5 times as often in Glassdoor's Best Places to Work, 2.1 times as often in Forbes's list of the World's Most Innovative Companies, 4.4 times as often in LinkedIn's list of North America's Most In-Demand Employers, and twice as often in the American Customer Satisfaction Index. This research shows that an investment in a better employee experience is what will give your business an edge as the job market becomes more competitive.

Self-Paced Learning and E-Learning: Methods and Best Practices

One way to jump start self-paced learning in your organization is by updating your e-learning programs within a Learning Management System. A LMS already serves as the central learning

portal for employees and is therefore the most logical place to start implementing changes in the learning system. The material should already be user-friendly, easily accessible, and interactive in order to increase the chances of the material being retained and well-received. Standard e-learning tends to be asynchronous in nature, making it difficult to track progress, and fails to account for the effects of the forgetting curve. A LMS does provide a wealth of knowledge and is very useful to learn certain skills in the workplace. When it comes to learning how to use software, however, your staff can benefit from a more “blended” approach within their e-learning material by utilizing interactive onscreen guidance.

Interactive guides offer constant support because they are already implemented on top of the software that you need to work in. This specific self-paced approach combines traditional training with technology, allowing the user to take full ownership of their progress and manage their workload. Userlane is a great example of the combination of self-paced learning and e-learning through the implementation of interactive onscreen guides. For example, new employees are able to get started in any software program from the very first day. Not only is the long onboarding process shortened significantly, current employees are also given the ability to sharpen their skills by utilizing interactive support available to them within their programs.

This bilateral relationship continues even after a contract has ended by online reviews and endorsements. Luckily, there are benefits for both the employee and the employer. However, the results can vary immensely depending on the amount of dedication from each side. Self-Paced Learning Methods: Supporting the Employee-Employer Relationship. The employee-employer relationship is ever-changing, and, luckily, most businesses are already making considerable efforts to improve the way employees live and work. However, whether the investment in employees is a priority still remains an important question. As an employer, the bottom line is – how important is it to your business to attract and retain top talent?

The fact of the matter is, employees are being aged out by a younger, tech-savvy workforce and need to be provided with the ability to stay sharp in their careers. At the same time, more businesses are offering better benefits, flexibility, career development programs, opportunities for growth, and transparency. Offering the option for self-paced learning is just one piece of the puzzle needed to provide the most beneficial experience to both employees and employers in order to obtain and retain the best talent. If you are interested in learning more about employee experience and other staff training methods, check out our webinar with Gethin Nadin about all things needed to create the best employee experience possible.

e-learning

E-learning refers to the use of information and communication technologies to enable the access to online learning/teaching resources. In its broadest sense, Abbad et al (2009), defined E-learning to mean any learning that is enabled electronically. They however narrowed this definition down to mean learning that is empowered by the use of digital technologies. This definition is further narrowed by some researchers as any learning that is internet-enabled or web-based (LaRose et al, 1998; Keller and Cernerud, 2002).

Present Trends in Teaching English

The 21st century confronts its citizenship with new choices, opportunities and challenges due to the all-pervading technology into all spheres of life. In this era, the educational institutions cannot remain mere venues for the transmission of a prescribed set of information from teacher to student over a fixed period of time rather the educational institutions must promote “learning to learn” i.e. the acquisition of knowledge and skills that make possible continuous learning over the lifetime. So it becomes the responsibility of the teachers to shape up accordingly to meet the demands of the day.

The need of the day is to equip people with proficiency in the English language and this is possible only with a proper blend of edification and e-learning tools (modern technologies). Traditional teaching and learning paradigms have been shaken by the impact of the integration of e-learning tools into educational practices. E-learning is a diverse range of technological tools and systems that can be utilized by capable and creative teachers to enhance teaching and learning situations. These are used to make learning more interesting, motivating, stimulating and meaningful to the students. These tools have been touted as potentially powerful enabling tools for educational change and reform as they are making marked inroads into the combination of digital technologies and English language learning.

Use of e-learning tools of in Teaching English

Internet

Internet is not merely a source of authentic material in English but also a source of information in the form of articles, courses, conferences and many more. The teacher can send assignments to the students through e-mails and can also take online exams. Parents can view their children's work online at any time. Students do not miss their lessons as now they can see a web cam version online and get worksheets and notes from electronic online whiteboards. Schools are linked in a network and work on projects together and prepare materials online. Every school has got its own website. Many software are also available on Internet that students can use free of cost. Spelling Bee is one of those an internet resources, which helps the students to spell English words. The teacher can also choose the level of difficulty that s/he wants to train to his/her students.

YouTube videos can be used in an ELT classroom for various aspects of English as to enhance vocabulary, accents, pronunciations, voice modulation and many more. The real advantage of using YouTube in teaching English is that it offers authentic examples of everyday English used by everyday people. The teacher can use it as a tool for improving their Listening and Speaking, Reading and Writing skills. The teacher can select a part of the movie appropriate to the level of the students and s/he can show those movie clippings to the students. For the first time, s/he can mute the volume and ask the students to watch the movie attentively. Later s/he can ask the students to watch the movie once again and this time s/he can ask the students to frame the dialogues of the movie clippings simultaneously. This will improve their speaking skills. Another activity to enhance their speaking skills can be: the teacher can show a selected part of the movie to the students and further ask them to narrate the rest of the story of the movie or the climax of the movie. This will add to their creativity as well as their speech. The teacher can also prepare worksheets on the movie clippings in advance and

ask the students to complete those worksheets while watching movies. This can prove a good activity to enhance their listening and writing skills. The teacher can also ask the students to write a paragraph related to the movie as: “If I were the hero of the movie.....” Or “What, according to you, should be the title of the movie?” Listening skills can also be enhanced through YouTube as news headlines are available to watch on YouTube. As the news is summarized very quickly (in the first minute for the video below), the teacher can ask students to listen to the news headlines and put those headlines in order (where they will have the headlines on a handout).

Skype

Using Skype provides unlimited possibilities for the teachers and students to collaborate with each other anywhere in the world. It provides immense opportunities for the students in a foreign language class to connect with classes in other countries to practice their language skills. Through Skype the teachers can provide mentoring or homework help to the learners. The Students can read, present, or perform for other students and also collaborate with other students on writing or research projects. They can also participate in professional development activities within or outside the school district.

Twitter, a gift of Technology, is a social networking application that could help in improving students’ English to a greater extent. As an online education technology tool, twitter’s impact on engaging students in learning concepts is unlimited. The teacher can use a dozen activities for using an online education technology tool to engage students in classroom activities to develop a better understanding of concepts.

The teacher can select any genre for the story and begin the activity with a story opener which is tweeted to the students for contribution to the story line. Once all twitter network participants have contributed to the development of the story line, the teacher can analyze their work. This involves editing, story structure, creative writing, and proper use of grammar. The teacher can ask the students to select a word of the week and tweet it around the network requesting synonyms, homonyms, and antonyms of the word. Once all responses are received, the teacher can check them for accuracy and develop a link of the difficult words for strengthening the vocabulary of the students. The teacher can also conduct Online Debates through Twitter. It can be done with the students of the same classroom or the students of the different classrooms on the class twitter network. Examples include “Pen is mightier than sword”, impact of fast food restaurants on health issue, and many more.

Smart-boards

Interactive whiteboards are good replacements for traditional whiteboards or flipcharts as they provide ways to show students everything which can be presented on a computer's desktop (educational software, web sites, and others). SMART boards help teachers use a student-centered approach to teach language arts. Language arts teachers can use SMART Boards to improve reading and comprehension, and teach grammar and writing. With a SMART Board, teachers can combine video, audio, Web browsing and word processing to teach students interactively.

The teacher can use smart board to enhance students’ language skills in play way method. For e.g. ‘Pictogram’ (Draw a picture and guess the word) can be played. With younger learners spelling races are very popular. Word games are an excellent way of settling classes and revising vocabulary. S/he can use anagrams or jumbled sentences for the Learners or s/he can also ask the synonyms or antonyms or the lexis or collocation words. The teacher can use different colours when writing. For eg. While teaching grammar the teacher can use the Blue colour pen for the nouns, the Yellow colour for the verbs, the Red colour for the adjectives and the Green colour adverbs.

For e.g.:

The young (Red Colour) boy (BLUE) jumped (Yellow Colour) from the tall (Red Colour) tree (Blue Colour) quickly (Green Colour).

The teacher can also display paragraphs with errors and ask the students to edit the paragraphs or proofread them. To teach writing skills the teacher can also use a story starter and ask the students to write a class story or chain story or peer story. S/he can also write sentences based on photographs as it will teach them the usage and functions of the language. S/he can further use photographs of persons (i.e. characters from book, persons from history) and can ask the students to write in “bubble” about their thoughts.

Mobile Phones

The use of mobile phones as a learning tool has a wide variety of applications. The teacher can ask the students to make a photo documentary using the camera function on their mobile phones. The teacher can assign a theme for the documentary to the students. After taking a sufficient number of photos, the students can upload the documentaries prepared by them to websites such as Flickr and type narrative descriptions for each picture to share with their teachers, classmates, family and friends. Instead of taking out a dictionary, the students can simply use their translator, and instead of trawling through books for a piece of literature, they can find the book online books and be directed to a specific word.

Podcasting

Today the students are listening to news clips, music, and video clips via the Web. They are no longer watching movies at the theatre or on the TV, they are watching via computers and hand held DVD players. The teacher can reach to these students in one new way i.e. through podcasts. A podcast is a series of digital-media files which are distributed over the Internet using syndication feeds for playback on portable media players and computers. Utilizing podcasts in the classroom is very easy. The teacher can download many free ESL podcasts on the Internet to use in class. S/he can assign a podcast assignment for homework and form a discussion on the topic the next day. The teacher can also assign a music podcast that introduces students to the culture as well as how the language is often used creatively or the news channels through which the student can also learn the use of intonation and stress.

Blog

Blogging has become increasingly popular, especially in the realm of education as they are a great way to share information and generate discussion. Instead of text books and traditional methods, many educators prefer using these new techniques to help teach students and gain experience with various forms of social media. Setting up a course blog doesn't have to be complicated. Educators can use a free platform such as Blogspot, Wordpress, or Tumblr to host the blog. Nowadays, blogs can also display photos and some people are using them with audio and even video, The teacher should encourage the students to visit blog frequently. S/he should respond to student posts quickly, writing a short comment related to the content S/he should also ask questions about what the learner writes to create stimulus for writing. Writing to the blog could be required, and it may form part of the class assessment. Students should be encouraged to post their writing homework on the blog instead of only giving it to the teacher.

Conclusion

As English has turned into a universal language, its presence and value in the world has expanded enormously in the past decades. But if language teachers teach as they taught earlier, then the required goals of learning English Language may not be achieved in the present global scenario. In the past, no productive, creative and constructive activity was given to the learners to develop the four language skills. With the changing needs of the hour (time), technology is developing day-by-day. We are living in the 21st century and it is the age of technological advancement. Thus the recent trend in teaching English is the use of modern technological tools as English language teaching has been affected a lot with the availability of these tools

E-learning in India

We are in an era of digitization and technological advancements have an impact on almost every aspect of our lives on an ongoing basis. From the way we communicate to how businesses are run. The impacts of digitization are also visible in the field of education and have effected major changes in how education is being imparted and consumed. Rote learning and reliance on printed material or book based learning are fast becoming a characteristic of the past.

Till the end of the last century, the education system in India was working on the traditional classroom-based learning, where the students didn't get the opportunity to participate in the interactive sessions. To face the challenges of the changing time, it became necessary to make concepts more clear and students competent enough to cope up globally. Hence, the concept of Digital Learning evolved in 2002 - 2003. With technology spreading its wing to the education sector, the typical classroom which was once characterized by boring hour-long sessions now transforms into an interesting, fun-filled environment. Digital education made life easier for both, students and educators.

The E-learning industry in India is a prolific one, witnessing a steady growth rate of 25 per cent year-on-year and is projected to be a \$1.96 billion industry by 2021. With a network of more than 1.5 million schools and 18,000 higher education institutes, the market for digital education in India is enormous. Today, digital learning is no longer a luxury but the implementation of digital tools of learning has become a necessity in schools.

The key factors leading to the growth of the digital market in India are rising demand from various segments, growing number of smartphone users, improving penetration of internet, and increasing participation at the government level. New age technology platforms help in assessing the performance of students, teachers and institutions as a whole and are increasingly being adopted by educational institutions in India. Cloud-based platforms which help classroom go paperless are also finding takers. Also apart from the latest developments in ICT classrooms, Augmented Reality and Virtual reality is being adopted in the field of education.

Further, the launch of a plethora of IT related platforms has generated huge entrepreneurship opportunities and many education startups have sprung up with new and improved versions of e-learning modules in line with the demands and ever-changing needs of the students. E-learning contents are designed to present a holistic picture with audio supplements, which makes learning lot more interesting as learners now utilize both visual and audio senses. MBD has been instrumental since last one decade to take e-learning to schools and students in various forms and today we support more than a million learners across the country with digital content.

Also, Innovative deployments of ICT solutions have been instrumental in transcending multiple barriers to providing access to education in the country. With increasing digital literacy in the country, ICT solutions have gained momentum in driving quality education to the nooks and corner of the country. With government initiatives such as 'Digital India' with a vision to transform the country into a digitally empowered society and the knowledge economy, ICT solutions will play a more critical role not only in promoting education but also towards driving digital literacy.

With access to smartphones and the internet in the country growing by the day, the scope for the growth and development of the e-learning industry is immense. The pace at which changes happen in today's world is truly unprecedented. Education and technology are sectors that effect changes and are in turn affected by changes around them. The best one can do in such a scenario is to be innovative and have the agility and willingness to adapt to new developments surrounding them.

However, it must be noted that technology is just an enabler, requiring a human to operate it and make use of it. Thus the perceived advantages or for that matter disadvantages of technology

when it comes to students is merely an outcome of the way technology is used or handled. The outcome of any technological intervention is dependent on the manner and purpose with which they are put to use. What is important is the responsible use of technology. Students should use it intelligently to learn more effectively. It will help in mapping the requirement of a child, assess his/her learning outcomes as well as make learning more receptive.

Online education in India has come a long way with the development of technology. India is one of the nations that is developing at an exponential rate in terms of technology. With the population of more than 1.3 billion, the availability of high-speed internet and smartphones, India has the most number of technologically driven persons. The rise of the internet has changed the way of life in India. People like to do everything online, they shop online, do business online, make friends online, learn online etc. While eCommerce being the most significant online industry, Online education and learning stand right next to it. With the ever-increasing information available on the internet and the countless number of online courses many people in India prefer to learn online.

By Seeing the potential and immense popularity of digital technology in India, Our Honorable Prime Minister has envisioned transforming our nation and creating opportunities for all citizens by harnessing digital technologies Through digital India initiative. The initiative comprises of various projects in various areas relating to health, education,labour, employment etc. As a part of Digital India project, many colleges and universities offer online correspondence courses. Now let's go through some of the interesting facts about online education in India.

Interesting facts about Online education in India

- Online education market in India was worth \$ 247 million in 2016, which is expected to grow about \$ 1.96 billion by 2021. That is a compound annual growth rate of 52%.
- The number of users enrolled for various online learning courses is estimated to be 1.6 Million in 2016, Which is expected to grow about 9.6 Million by the end of 2021.
- It is estimated that there is a 175% increase in the cost of classroom education, this gives online education more preferred because it is cost effective.
- Nearly 48% population in India between 15–40 age group with high aspirations but lower income is a good target market for online education. And, the acceptability of online channel is high in the younger demographic.

These factors clearly show the involvement and future potential of e-learning in India. Now let's discuss some of the advantages and disadvantages of e-learning over traditional education.

ADVANTAGES OF E-LEARNING

Some studies give advantage of e-learning as its ability to focus on the needs of individual learners. For example, Marc (2002) in his book review on e-learning strategies for delivering knowledge in digital age noted that one of the advantages of e-learning in education is its focus on the needs of individual learners as an important factor in the process of education rather than on the instructors', or educational institutions' needs. Some of the advantages that the adoption of elearning in education, obtained from review of literature includes the following:

- It is flexible when issues of time and place are taken into consideration.
- E-learning enhances the efficacy of knowledge and qualifications via ease of access to a huge amount of information.
- It is able to provide opportunities for relations between learners by the use of discussion forums.
- E-learning is cost effective in the sense that there is no need for the students or learners to travel.
- E-learning always takes into consideration the individual learners differences.
- E-learning helps compensate for scarcities of academic staff, including instructors or teachers as well as facilitators, lab technicians etc.

- The use of e-Learning allows self-pacing. For instance the asynchronous way permits each student to study at his or her own pace and speed whether slow or quick.

DISADVANTAGES OF E-LEARNING

The most noticeable condemnation of e-Learning is the complete absence of vital personal interactions, not only between learners and instructors, but also among colleague learners (Young, 1997; Burdman, 1998). According to Almosa (2002), regardless of all the disadvantages of e-learning, there are a lot of benefits which inspire its use and also encourage the search for ways to reduce disadvantages. The disadvantages of e-learning that have been given by studies include the following:

- E-learning as a method of education makes the learners undergo contemplation, remoteness, as well as lack of interaction or relation
- With respect to clarifications, offer of explanations, as well as interpretations, the e-learning method might be less effective than the traditional method of learning
- When it comes to improvement in communication skills of learners, e-learning as a method might have a negative effect.
- Since tests for assessments in e-learning are possibly done with the use of proxy, it will be difficult, if not impossible to control or regulate bad activities like cheating.
- E-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste.
- E-learning may also deteriorate institutions' role socialization role and also the role of instructors as the directors of the process of education.
- Also not all fields or discipline can employ the e-learning technique in education. For instance the purely scientific fields that include practical cannot be properly studied through e-learning.
- E-learning may also lead to congestion or heavy use of some websites.

EDUSAT

EDUSAT is the first Indian satellite built exclusively for serving the educational sector and was launched successfully by Indian Space Research Organisation (ISRO) using GSLV-F01 on 20-9-2004. It is mainly intended to meet the demand for an interactive satellite based distance education system for the country. It strongly reflects India's commitment to use space technology for national development, especially for the development of the population in remote and rural locations. It is powerful enough to cover the whole Indian Sub-continent with its high power transponders of Ku band and C band. There are 5 regional and 1 national spot beams of Ku band and 1 national spot beam of Extended C band. There are Hub, Teaching End and large no. SITs and ROTs are connected with EDUSAT.

Gujarat University is also having SIT (Satellite Interactive Terminal) of EDUSAT at EMMRC, Ahmedabad. This SIT is connected with CEC-UGC higher education network on EDUSAT. Apart from CEC-UGC there are other users of this satellite i.e. AICTE, IGNOU, CIET-NCERT, Vigyan Prasar – Dept. of Science and Technology, Govt. of India.

Lectures on different topics from different subjects like Physics, Chemistry, Management, Hindi Lit., English Lit., Mass Communication, Genetics, Bio-informatics, Economics, Political Science, Sociology, Psychology, Library Science etc. are being delivered on the CEC network. CEC is also providing a service called 'Lecture on Demand (LoD)' and these lectures are demanded by the students and faculties of various colleges and departments of universities across the country. Lectures are also recorded for the later viewing by students. Cataloguing process of these lectures is going on.

VIDEOCONFERENCING

Videoconferencing implies the use of technology for a group or organizational meeting rather than for individuals. It saw its earliest use with AT&T's Picturephone service in the early 1970s. Transmissions were analog over short distances, but converted to digital forms for longer calls, again using telephone transmission technology. Popular corporate video-conferencing systems in the present day have migrated almost exclusively to digital [ISDN](#) and [IP](#) transmission modes due to the need to convey the very large amounts of data generated by their cameras and microphones. These systems are often intended for use in conference mode, that is by many people in several different locations, all of whom can be viewed by every participant at each location.

Some observers argue that three outstanding issues have prevented videoconferencing from becoming a widely adopted form of communication, despite the ubiquity of videoconferencing-capable systems.

- **Eye contact:** [Eye contact](#) plays a large role in conversational [turn-taking](#), perceived attention and intent, and other aspects of group communication. While traditional telephone conversations give no eye contact cues, many videoconferencing systems are arguably worse in that they provide an incorrect impression that the remote interlocutor is avoiding eye contact. Some telepresence systems have cameras located in the screens that reduce the amount of [parallax](#) observed by the users. This issue is also being addressed through research that generates a synthetic image with eye contact using stereo reconstruction.
- **Appearance consciousness:** A second psychological problem with videoconferencing is being on camera, with the video stream possibly even being recorded. The burden of presenting an acceptable on-screen appearance is not present in audio-only communication. Early studies by Alphonse Chapanis found that the addition of video actually impaired communication, possibly because of the consciousness of being on camera.
- **Signal latency:** The information transport of digital signals in many steps need time. In a telecommunicated conversation, an increased [latency](#) (time lag) larger than about 150–300 ms becomes noticeable and is soon observed as unnatural and distracting. Therefore, next to a stable large bandwidth, a small [total round-trip time](#) is another major technical requirement for the communication channel for interactive videoconferencing.
- **Bandwidth and quality of service:** In some countries it is difficult or expensive to get a high quality connection that is fast enough for good-quality video conferencing. Technologies such as [ADSL](#) have limited upload speeds and cannot upload and download simultaneously at full speed. As Internet speeds increase higher quality and high definition video conferencing will become more readily available.
- **Complexity of systems:** Most users are not technical and want a simple interface. In hardware systems, an unplugged cord or a dead battery in a remote control is seen as failure, contributing to a perceived unreliability. Successful systems are backed by support teams who can pro-actively support and provide fast assistance when required.
- **Perceived lack of interoperability:** not all systems can readily interconnect, for example ISDN and IP systems require a gateway. Popular software solutions cannot easily connect to hardware systems. Some systems use different standards, features, and qualities which can require additional configuration when connecting to dissimilar systems. Free software systems circumvent this limitation by making it relatively easy for a single user to communicate over multiple incompatible platforms.
- **Expense of commercial systems:** well-designed [telepresence](#) systems require specially designed rooms which can cost hundreds of thousands of dollars to fit out their rooms with codecs,

integration equipment (such as [Multipoint Control Units](#)), high fidelity sound systems, and furniture. Monthly charges may also be required for bridging services and high capacity broadband service.

These are some of the reasons many systems are often used for internal corporate use only, as they are less likely to result in lost sales. One alternative to companies lacking dedicated facilities is the [rental of videoconferencing-equipped meeting rooms](#) in cities around the world. Clients can book rooms and turn up for the meeting, with all technical aspects being prearranged and support being readily available if needed. The issue of eye-contact may be solved with advancing technology, including smartphones which have the screen and camera in essentially the same place. The ubiquity of [smartphones](#), [tablet computers](#), and computers with built-in audio and webcams in developed countries obviates the need to buy expensive hardware.

Videoconferencing modes

Videoconferencing systems use two methods to determine which video feed or feeds to display. *Continuous Presence* simply displays all participants at the same time, usually with the exception that the viewer either does not see their own feed, or sees their own feed in miniature.

Voice-Activated Switch selectively chooses a feed to display at each endpoint, with the goal of showing the person who is currently speaking. This is done by choosing the feed (other than the viewer) which has the loudest audio input (perhaps with some filtering to avoid switching for very short-lived volume spikes). Often if no remote parties are currently speaking, the feed with the last speaker remains on the screen.

1) Multipoint videoconferencing

Simultaneous videoconferencing among three or more remote points is possible in a hardware-based system by means of a [Multipoint Control Unit](#) (MCU). This is a bridge that interconnects calls from several sources (in a similar way to the audio conference call). All parties call the MCU, or the MCU can also call the parties which are going to participate, in sequence. There are MCU bridges for IP and ISDN-based videoconferencing. There are MCUs which are pure software, and others which are a combination of hardware and software. An MCU is characterised according to the number of simultaneous calls it can handle, its ability to conduct transposing of data rates and protocols, and features such as Continuous Presence, in which multiple parties can be seen on-screen at once. MCUs can be stand-alone hardware devices, or they can be embedded into dedicated videoconferencing units.

2) Cloud-based video conferencing

Cloud-based video conferencing can be used without the hardware generally required by other video conferencing systems, and can be designed for use by [SMEs](#), or larger international or multinational corporations like [Facebook](#). Cloud-based systems can handle either 2D or 3D video broadcasting. Cloud-based systems can also implement mobile calls, VOIP, and other forms of video calling. They can also come with a video recording function to archive past meetings.

Videoconferencing provides students with the opportunity to learn by participating in two-way communication forums. Furthermore, teachers and lecturers worldwide can be brought to remote or otherwise isolated educational facilities. Students from diverse communities and backgrounds can come together to learn about one another through practices known as [telecollaboration](#) (in foreign language education) and [virtual exchange](#), although [language barriers](#) will continue to be present. Such students are able to explore, communicate, analyze, and share information and ideas with one another. Through videoconferencing, students can visit other parts of the world to speak with their peers, as well as visit museums and other cultural and educational facilities. Such [virtual field trips](#) can provide enriched learning opportunities to students, especially those in geographically isolated locations, and to the economically disadvantaged. Small schools can use these technologies to

pool resources and provide courses, such as in foreign languages, which could not otherwise be offered.

A few examples of benefits that videoconferencing can provide in campus environments include:

- faculty members keeping in touch with classes while attending conferences;
- faculty members attending conferences 'virtually'
- guest lecturers brought in classes from other institutions;
- researchers collaborating with colleagues at other institutions on a regular basis without loss of time due to travel;
- schools with multiple campuses collaborating and sharing professors;
- schools from two separate nations engaging in [cross-cultural exchanges](#);
- faculty members participating in thesis defenses at other institutions;
- administrators on tight schedules collaborating on budget preparation from different parts of campus;
- faculty committee auditioning scholarship candidates;
- researchers answering questions about grant proposals from agencies or review committees;
- student interviews with employers in other cities, and [teleseminars](#).

ELT through E-learning

E-learning is the delivery of a learning programme by electronic means; it includes web-based learning, virtual classrooms, digital collaboration and delivery of content through internet. It can be combined with face-to-face learning with a teacher, in blended learning.

Example

A learner may choose to sign up for an online language skills programme, which will offer reading, writing, listening and live speaking activities over the web. There may be a tutor who will monitor his progress, organise speaking sessions, and mark written work.

In the classroom

The face-to-face class time in a blended learning programme will be used to clear up organisational problems, for an emphasis on speaking skills, and as an opportunity to help build a good class dynamic between group members.

The Advantages of E-learning in English Teaching

The Abundant Teaching Resources

Internet provides us with a tremendous wealth of teaching resources. We can easily find the text information, pictures and audio data on almost any topic we like. Powerful tools, such as Google, Baidu and other search engines, can find a huge amount of information in any subject for us. It is very convenient and most of these information can be obtained free of charge. Part of the content has been turned into multimedia courseware. Learning becomes very convenient and interesting.

Easy Access to Information

We couldn't get our textbooks until the bookstores began to sell. Nowadays, we can immediately get from the Internet the teaching resources we need at low cost. It is unimaginable in the traditional agricultural society and industrial society. When we hear the news of a person or event, we can find the relative information from the Internet. We can use the information as the teaching materials by appropriate pedagogical strategies. For example: Amy L. Chua, Professor of Law at Yale Law School, published her new work " Battle Hymn of the Tiger Mother " which caused lively discussion on children's education both in China and the USA. If students are interested in this topic, they can immediately find the relevant information for learning and discussion. A large number of high school and college students have cell phones now. Texts, images, sounds can be stored in their mobile phones. Students can read English articles and hear the voice. Such easy access to information creates a small environment for them to learn English. E-learning makes students learn English anywhere, anytime.

The Effect of Direct Interest

In psychology, the so-called "direct interest", is that caused by the needs of discovering the thing itself. Playing the role of direct interest in learning English is very important because it makes learning interesting and results in better performance owing to high degree of concentration. For instance, Shanghai students, participating in the Program for International Student Assessment, which is given to 15-year-olds in about 64 countries, for the first time, landed at the top of the math, reading and science rankings. This result was echoed with unspeakable astonishment in the USA, but it is not big news in China. On the contrary, some people

Teaching Students in Accordance with Their Aptitude

Reading has always been personal thing. Everyone's level of learning, interest and comprehension are different, e-learning suits with student's ability. E-learning assures that students can expand their individual horizons.

The Corresponding Changes of Pedagogical Strategies in English Teaching

The so-called pedagogical strategies are those effective teaching programs, based on the teaching tasks and the characteristics of the students, choosing the relevant teaching content, teaching methods and techniques. When e-learning is applied to English teaching, the pedagogical strategies will be fundamentally changed. In the past 30 years, English teaching has been dominated by teacher-centered strategies in China, focusing on teaching grammar and reciting words. The result is that students got only a score or a certificate. Most of them could not speak or write in English properly.

E-learning can turn the pedagogical strategies to student-centered, focusing on fostering linguistic sensitivity and improving listening comprehension and ability of expression so as to enable students to master English as soon as possible. Language acquisition does not depend on grammar and invalid exercises, but on student's own constant practice. That is the E-learning Pedagogical Strategy.

Listening

Language acquisition should start from the auditory sense. So, what materials should be listened to? In the classroom teacher determines everything. But e-learning offers students opportunities to choose learning materials by themselves. Psychological research indicates that each person is more concerned about their own decisions. Students usually choose these materials in which they are interested. Interest in the material itself is "direct interest". Direct interest results in better learning.

For the students from Grade 6 to 9, the teacher guides them, at the very beginning, to find the materials of appropriate difficulty and in which they are interested. Usually, they will learn quickly, and soon they will find very appropriate learning materials without teacher's help. Similarly, for the students from Grade 10 to 12, part of the materials for group discussion can be recommended by teachers and other materials can be found by students themselves.

For college students, e-learning is indispensable. They have strong self-learning ability with good judgment. E-learning provides a richer treasure than textbooks for them to improve their language skills. Students from Grade 6-12 can find substantial materials on <http://www.cri.cn> and <http://www.shanghaidaily.com>. The undergraduates can take advantage of rich learning materials on relative websites in the United States, UK, Australia and other countries.

Reading

E-learning allows students to read their own interested materials. For example, when the book "Battle Hymn of the Tiger Mother" was published, it produced an immediate reaction from the press. "The Wall Street Journal" website had more than 4,000 pieces of comments. On the website of "Facebook" also appeared about 100,000 pieces of comments. The author also received thousands of letters. Some readers support the author, but someone said she was close to "abuse" her two daughters. Students can learn the freshest English through reading these materials.

Translating

Sometimes students cannot understand the materials they find. Therefore, it is necessary to translate some parts or all of them. If they do not understand, they can ask their teacher. Translating enables students to better understand the materials and enlarge their vocabulary, understand grammar and Western cultures.

Speaking

Based on the learning materials that students have listened to, read and translated, the teacher can ask students to elaborate an event, including who, when, where, what, why, so that students can develop oral skills. For high school students, a seminar can also be arranged. For example, we still choose the topic "Tiger Mother". The question could be: Do you agree to what Tiger Mother did? Why do some people in the United States not support her?

Writing

After listening to, reading, translating and speaking the material, students are required to write it down to describe the event itself, and their own feelings, comments, etc.. Write a summary for each material. In this way, students can develop their ability of outputting information in English. Students input information of English by listening to the sound, reading the text, understand the material by translating, and then output information by speaking and writing. Only all these things have been done, the whole process of learning a language could be considered complete. Prof. Zhongzai Zhang of Beijing Foreign Studies University said, "Language cannot be mastered if there is only input of language but no output of language."

In the past three decades, the pedagogical strategies in China attached importance only to the explanation of grammar and reciting vocabulary of English. It seems that they find only grammar and words when students read the texts. They also seldom listen to the tapes or radio, so students cannot speak and write after they graduate from high schools and universities, although they passed numerous tests and obtained many certificates. They not only had no right input of information, but also had no right output of English.

Psychological research indicated that the language in the brain is called the inner language. It can be turned into outer language only through speaking out by mouth or writing out by hand. This conversion process is called speech or verbalization. Only the speech behavior enables people to master a language.

M-Learning

What is mobile learning?

Mobile learning is the ability to obtain or provide educational content on personal pocket devices such as PDAs, smartphones and mobile phones. Educational content refers to digital learning assets which includes any form of content or media made available on a personal device. Mobile learning using handheld computers is in its infancy in terms of both technologies and pedagogies. As a result there is still some dispute amongst industry advocates in how mobile learning should be defined: in terms of devices and technologies; in terms of the mobility of learners and the mobility of learning, and in terms of the learners' experience of learning with mobile devices.

Most researchers and educators probably view mobile learning as the immediate descendant of e-learning. Pinkwart, et al. (2003) for example, defines e-learning as 'learning supported by digital "electronic" tools and media', and by analogy, mobile learning as 'e-learning that uses mobile devices and wireless transmission'. Quinn (2000) defined it earlier, as simply learning that takes place with the help of mobile devices, or the intersection of mobile computing (the application of small, portable, and wireless computing and communication devices) and e-learning (learning facilitated and supported through the use of information and communications technology).

How is that different from e-learning?

E-learning has come to define any dissemination of educational knowledge over the Internet. This makes e-learning a subset of technology-based training. It also incorporates a number of learning activities conducted on the Internet, of which mobile learning is one part. Many authors (e.g., Mostakhdemin-Hosseini and Tuimala, 2005) view mobile learning simply as the natural evolution of e-learning, which completes a missing component such as the wireless feature, or as a new stage of distance and e-learning (e.g., Georgiev, et al. 2004). M-learning is often described as occupying a sub-space within the e-learning space, which is in turn a sub-part of digital learning.

Differentiating e-learning from mobile learning

E-learning can be real-time or self-paced, also known as "synchronous" or "asynchronous" learning. Additionally, e-learning is considered to be "tethered" (connected to something) and presented in a formal and structured manner.

In contrast, mobile learning is often self-paced, un-tethered and informal in its presentation.

e-learning	m-learning
lecture in classroom or internet labs	learning anywhere, anytime
e-mail-to-e-mail	instantaneous messaging
private location	no geographic boundaries
travel time to reach to internet site	no travel time with wireless internet connectivity

Because mobile devices have the power to make learning even more widely available and accessible, mobile devices are considered by many to be a natural extension of e-learning.

Mobile Learning – A timeline

To understand why we're in an exciting period in mobile learning education, it is important to take a look at the technologies and developments that have gone into making learning accessible to people on the move. This convergence of mobile information and enabling technologies has significantly impacted the way users interact with information on a daily and immediate basis.

From the above timeline, it is clear that the technology overlap that has happened in this last decade has given the needed impetus to escalating the potential of mobile learning.

COMPUTING DEVELOPMENT

	1970s	1980s	1990s	2000s	2010s
HARDWARE	XEROX ALTO/XEROX STAR	APPLE LISA/APPLE MACINTOSH	WINDOWS, LAPTOPS, PDAS	TABLET PCS, KINDLE	iPAD
SOFTWARE	LISP, SMALLTALK	C++	JAVA, PALM OS, CORBA		
COMMUNICATIONS	PUP, ETHERNET	ANALOG CELLULAR RADIO, TCP/IP	WORLDWIDE WEB, DIGITAL CELLULAR RADIO, WIRELESS LAN, WAP, BLUETOOTH	WI-FI	

AUDIO DEVELOPMENT

	1960s	1970s	1980s	1990s	2000s
HARDWARE	RECORDS, REEL-TO-REEL, 8-TRACKS, AUDIO CASSETTE	SONY WALKMAN	CDS	DIGITAL AUDIO PLAYER, MP3 PLAYERS	iPOD
FORMAT	ANALOG AUDIO REPRODUCTION	ANALOG	DIGITAL AUDIO REPRODUCTION	WAV, MP3, WMA	

MOBILE DEVELOPMENT

	1980s	1990s	2000s
TELEPHONY	ANALOG CALLS	MOBILE COMMUNICATION, SIMPLE MESSAGING	SMARTPHONES
GENERATION	1 G – ANALOG CELLULAR TELEPHONY	2 G – DIGITAL MOBILE COMMUNICATION	3G – WIDEBAND MOBILE COMMUNICATION
NETWORKS	CELLULAR NETWORKS	DIGITAL NETWORKS	IP DATA NETWORKS

Objectives & Challenges in Mobile Learning

Mobile technologies possess educational potential for today's generation akin to that of television some 40 years ago or so. Carly Shuler identifies the following key opportunities and challenges in mobile learning, which summarize arguments in the debate about mobile learning aptly:

Objectives

Encourage 'anywhere, anytime' learning

Mobile devices allow students to gather, access, and process information outside the classroom. They can encourage learning in a real-world context, and help bridge school, after school, and home environments.

Reach underserved children

Because of their relatively low cost and accessibility in low-income communities, handheld devices can help advance digital equity, reaching and inspiring populations 'at the edges' – children from economically disadvantaged communities and those from developing countries.

Improve twenty-first century social interactions

Mobile technologies have the power to promote and foster collaboration and communication, which are deemed essential for twenty-first century success.

Fit with learning environments

Mobile devices can help overcome many of the challenges associated with larger technologies, as they fit more naturally within various learning environments.

Enable a personalized learning experience

Not all children are alike; instruction should be adaptable to individual and diverse learners. There are significant opportunities for genuinely supporting differentiated, autonomous, and individualized learning through mobile devices.

Challenges

Negative aspects of mobile learning

Cognitive, social, and physical challenges must be surmounted when mobile devices are incorporated into children's learning. Disadvantages include: the potential for distraction or unethical behavior; physical health concerns; and data privacy issues.

Cultural norms and attitudes

Though many experts believe that mobile devices have significant potential to transform children's learning, parents and teachers apparently are not yet convinced. A 2008 study done by the Joan Ganz Cooney Center in collaboration with Common Sense Media found that most teachers see cell phones as distractions and feel that they have no place in school.

No mobile theory of learning

Currently, no widely accepted learning theory for mobile technologies has been established, hampering the effective assessment, pedagogy, and design of new applications for learning.

Differentiated access and technology

Wide diversity among mobile technologies represents a challenge for teachers and learners who wish to accelerate academic outcomes as well as the producers who seek to facilitate such learning.

Limiting physical attributes

Poorly designed mobile technologies adversely affect usability and can distract children from learning goals. Physical aspects of mobile technologies that may prevent an optimal learning experience include: restricted text entry, small screen size, and limited battery life.

ADVANTAGES AND DISADVANTAGES

Among all modern communication devices, mobile phones are the most powerful communication medium even richer than email or chat as it can act as a learning device despite its

technical limitations. With such a learning device the learner controls the learning process and progress in his/her own space based on his/her cognitive state.

Learning through the computer or e-learning enables the learners to learn in a non-classroom environment when they are at home in front of their personal computers online or offline. However, learning through the mobile phone or m-learning provides the learners with the opportunity to learn when they are in the bus, outside or at work doing their part-time jobs. In fact, they can learn every time and everywhere they are.

Two main characteristics of mobile devices are portability and connectivity. As for connectivity, designing the mobile system must have capability of being connected and communicated with the learning website using the wireless network of the device to access learning material ubiquitously including short message service (SMS) and mobile e-mail.

Portability enables learners to move mobile devices and bring learning materials. Klopfer and his colleagues state the following properties of mobile devices: 1) portability: such devices can be taken to different places due to small size and weight; 2) social interactivity: exchanging data and collaboration with other learners is possible through mobile devices; 3) context sensitivity: the data on the mobile devices can be gathered and responded uniquely to the current location and time; 4) connectivity: mobile devices can be connected to other devices, data collection devices, or a common network by creating a shared network; 5) individuality: activities platform can be customized for individual learner. The widespread influence of the market increased the popularity of the mobile phone, and this fulfills the need of teachers to provide tools and software for the learners in teaching contexts. Moreover, comparing with other wireless devices such as laptop computers, mobile phones are rather inexpensive having functions as Internet browsers available in most devices. With such inexpensive devices accessible to even the poorest areas and having the functionalities of e-mail or SMS, it is now possible to transfer information to and from mobile phones between instructors and learners without any difficulty.

EXAMPLES OF MOBILE LEARNING

Wireless communication technology are applied to many fields such as GPS navigation, wireless monitoring system as well as learning various materials including learning language skills. Mobile learning can take place either within the classroom or outside it. In the former case, mobile phones possessing appropriate software are very effective in collaborative learning among small groups. Although this type of learning has nothing to do with the mobility property of such devices, it provides the learners with the opportunity of close interaction, conversation, and decision-making among the members of their group due to the specific design of the learning activity on mobile phones. These types of interaction among learners and their physical movement can hardly be achieved when desktop or laptop computers are to be used.

Mobile learning technology is more useful for doing activities outside the classroom. Such activities enable learning to be more directly connected with the real world experiments. Moreover, learning through mobile phones outside the classroom has the advantage of better exploiting the learner's free time; even the students on the move can improve their learning skills. SMS-based learning is another development in the use of wireless technologies in education in which receiving wanted text messages supports learning outside of classroom and helps learners benefit from their teacher's experimentation with mobile technology .

Game-based learning is another theme for mobile learning in which learning materials are so designed to be integrated with aspects of physical environment. In such environments, learning activities are facilitated using the mobile technology which serves as a link between the real world of knowledge and the visual world of the game. TimeLab, for instance, is a game about climate change and its effects. Players succeed to get information about the introduction of possible new environmental laws via their mobile devices in different locations as they progress in the game. They

will later discuss the results of the game in the classroom. The m-learning games can also be used to teach second language skills such as vocabulary, pronunciation, grammar, listening and reading comprehension and spelling.

These days mobile devices such as PDAs, phones, and other handheld devices, are used everywhere for doing everything ranging from voice calling to making short message, video chat, listening to audio (Mp3, Mp4, Mpeg), web surfing, shopping, and the like. Apart from these benefits, mobile devices have increasingly grown toward becoming tools for education and language learning, and all its users from teachers or students are getting used to this environment to make education as ubiquitous as possible. Moreover, the emerging of internet made open and distance learning a means of receiving education from all parts of the world. In a short period, the attractiveness of distance learning led to the realization that various mobile devices provide a very effective resource for education. This way, many researchers tried to make mobile devices a rich resource for teaching and learning. It was, in fact, a challenging affair to cover learning tasks by a mobile phone.

MOBILE-ASSISTED LANGUAGE LEARNING (MALL)

Mobile-Assisted Language Learning (MALL) deals with the use of mobile technology in language learning. In contrast to classroom learning, in MALL there is no need for the learners to sit in a classroom or at a computer to get learning materials. In fact, MALL can be considered an ideal solution to language learning barriers in terms of time and place.

When, in 1973, the mobile devices were invented for the first time, no one ever thought some day they would become an important part of routine life. As soon as the mobile phones became a crucial part of our lives, there felt a need for using them in language learning tasks. These days mobile devices such as PDAs, phones, and other handheld devices, are used everywhere for doing everything ranging from voice calling to making short message, video chat, listening to audio (Mp3, Mp4, Mpeg), web surfing, shopping, and the like. Apart from these benefits, mobile devices have increasingly grown toward becoming tools for education and language learning, and all its users from teachers or students are getting used to this environment to make education as ubiquitous as possible. Moreover, the emerging of internet made open and distance learning a means of receiving education from all parts of the world. In a short period, the attractiveness of distance learning led to the realization that various mobile devices provide a very effective resource for education. This way, many researchers tried to make mobile devices a rich resource for teaching and learning. It was, in fact, a challenging affair to cover learning tasks by a mobile phone.

Students do not always have to study a second language in a classroom. They may have the opportunity to learn it using mobile devices when they desire and where they are. As learning English is considered a main factor for professional success and a criterion for being educated in many communities, providing more convenient environment for people to learn English is one of the strategic educational goals towards improving the students' achievement and supporting differentiation of learning needs.

There are many researches and developments towards the use of wireless technology for different aspects of language learning. In the following lines it has been tried to demonstrate the benefits of using mobile phones in learning English as a second language. Areas of mobile-based language learning are diverse among which the most common ones are vocabulary, listening, grammar, phonetics, reading comprehension, etc.

Learning Vocabulary

The type of activities focusing on vocabulary learning via mobile phone differs from one research project to another, depending on the level of language proficiency of the learners. Sending e-mail or SMS to students is a common way of learning new vocabulary based on the lessons covered in the classroom. In a study Kennedy and Levy gave the learners the option to receive messages covering known words in new contexts through SMS to their mobile phones amounting nine or ten messages per week. The results indicated that the messages were very helpful for learning vocabulary.

Similarly, Thornton and Hiuser sent short mini-lessons for learning vocabulary through email to mobile phones of the students three times a day. They used new words in multiple contexts for the learners to infer the meaning. The results showed an improved range of scores on post-tests which were very encouraging. There are other strategies for learning vocabulary via mobile phones. Learners can be provided with some tailored vocabulary practices based on activities performed in the classroom. They are, then, asked to complete them on their mobile phones and send them back to their instructors. Learning vocabulary can also be accompanied by the pictorial annotation shown on learners' mobile devices for better understanding of new words. In a study conducted by Chen, et al., learners were provided with verbal as well as pictorial annotation for learning English vocabulary. Results of a post-test showed that the pictorial annotation assisted learners with lower verbal and higher visual ability to retain vocabulary.

Listening Comprehension

Listening exercises may be considered the first stage in learning a second language. With the advent of the second generation of mobile phones, it is now possible to design a mobile multimedia system for learning listening skills through listening exercises. Huang and Sun designed a system composing of two subsystems. A multimedia materials website that uploaded and maintained video materials, and a set of multimedia English listening exercise on the mobile phone for the learners to repeat exercises in English listening in a ubiquitous learning environment. They attempted to implement the mobile multimedia English listening practice system based on capabilities of the mobile technology providing learners download multimedia sound contents from mobile devices, register the learning website, order mobile learning courses and activate reception of learning courses. According to Huang and Sun, mobile multimedia English listening exercise system can enhance learner's English listening abilities to a high degree. It is also possible to design a platform in which learners listen to a text by vocal service on their mobile phones, followed by a listening comprehension quiz based on the text.

Learning Grammar

Grammatical points can be learnt through a specifically designed program installed on mobile devices, in which grammatical rules are taught, followed by multiple-choice activities where learners select the correct answer from the given alternatives. Grammatical exercises can be in the form of 'true-false' or 'fill-in the blanks' which are to be responded by the learners. Grammatical explanations may also be presented to learners via vocal service or short message service.

Pronunciation

The second generation of mobile devices enable their users to access multimedia functions including listening and speaking ones. A good m-learning service should consist of speech facilities for transmitting voice. Having such facilities, the learners may download dictionaries on the PDA1 with sound functions so that they can learn the correct pronunciation of unfamiliar or new words to be able to fulfill their learning needs. Mobile devices with multimedia function give the learners the opportunity to record their own voice. Then, teachers are able to make a better assessment of the students' weaknesses in pronunciation. This way, by enhancing various functions of the system like providing a dictionary for looking up unfamiliar words and their correct phonetic form, the pronunciation as well as speaking skills of the learners can be well improved.

The Praxis learning podcast line is a platform providing a context-driven, social-based, and software-enhanced website for learning foreign languages. It has recently been working to release mobile language learning features for PDAs, smart phones, etc., enabling learners to learn phonetics of a given language in an interaction way using multimedia functions on the mobile phones (Microsoft research program). The speech aspect of mobile learning is as significant as textual aspect of it, since it enables learners to comfortably speak with a system recording their voice and allowing them to listen back to themselves. Then, they can compare their voice with an ideal pronunciation and make an improvement in this skill.

Reading Comprehension

Reading practices help learners to enhance their vocabulary, and vocabulary knowledge, in turn, helps them to promote reading comprehension. Reading activities can be offered to learners either via a well-designed learning course installed on the mobile devices or through SMS sent to the learners. In either case upon finishing the reading activity, the learners are provided with a reading text function to evaluate their reading comprehension skill. The experimental results of the study indicated that English news reading learning along with unfamiliar vocabulary learning with self-assessing feedback response are very effective in prompting reading comprehension and reading abilities of the learners. Mobile learning programs in which reading function accompanied by text

announcer pronunciation will be more helpful to promote at the same time both reading comprehension and listening comprehension.

CONCLUSION

The rising speed of mobile technology is increasing and penetrating all aspects of the lives so that this technology plays a vital role in learning different dimensions of knowledge. Today, a clear shift from teacher-led learning to student-led learning that m-learning allowed causes the students feel using the technology more effective and interesting than before. In fact, we can provide a richer learning environment through mobile phones for our language learners. Though many researches have been carried out towards MALL technology as a growing field of study in language learning, there are still so many works left to be done and a large amount of information to be uncovered. Moreover, the methods with the help of which mobile device technology can be used to provide a more robust learning environment have to be further improved. The ways through which the barriers of CALL have been removed can help the MALL technology to grow with less effort and cost. Some language skills such as speaking and listening skills as mobile-based activities need some further improvements due to the hardware weaknesses. Mobile-based learning or m-learning faces many challenges, but it has grown in exponentially in spite of all its problems to provide a better environment for language learning.

Mobile learning technology, however, has a rapid pace of development from a teacher-learner text-based approach to a forthcoming multimedia supporting technology. In addition, podcast lectures and digitized audio comments made the online interaction between teachers and learners possible in a more convenient way without any time and space limitations. Although going through language activities on mobile phones may take longer time compared to computers, the learners feel a greater sense of freedom of time and place, so that they can take the advantage of spare time to learn a second language when and where they are. Mobile technology gets learning away from the classroom environment with little or no access to the teacher, though the learning process can hardly be accomplished without a teacher's direction or guidance. As the demand for acquiring a foreign language increases and the people time for more formal, classroom-based, traditional language learning courses decreases, the need felt by busy users for learning a foreign language through MALL will inevitably increases. In other word, MALL can be considered an ideal solution to language learning barriers in terms of time and place.
