

# **The Adoption of E-Learning in Teaching and Learning Processes; an Option for Life-Long Education**

Dr. Baginda Simaibang

Faculty of Teacher Training and Education, Bandar Lampung University, Lampung, Indonesia

\*Corresponding email: sbaginda@yahoo.com

---

## **Abstract**

The objective of this study is to investigate the benefits of the adoption of electronic learning (E-Learning) in teaching and learning processes. E-Learning is an educational approach that utilizes computer technology, particularly digital technologies that are internet-based, to provide instruction and learning experiences. The definition of e-learning refers to a wide range of applications and processes designed to deliver instruction through electronic means. This means is normally employed over the network. It includes video streamings, video-conferencing through satellite transmission, online learning, web-based training (WBT), computer-based training (CBT), internet, intranet, PCs at work, school or home, interactive multimedia, games, simulations, flash animation, online tutorials, video and audio resources such as tapes, CD, and DVD.

Research indicates that e-learning signals the paradigm shift in education and training that is in progress. It provides a new set of tools and instructional practices that overcome distance barriers, logistic costs and adds value to existing traditional learning process, such as classroom lectures, textbooks, video and CD-ROM. As computer technology is introduced, it immediately becomes integrated with the instructional technology that preceded it. This is called "blended learning" or "hybrid learning" delivery. Old and new instructional methods are blended, and more technically we are blending a sequence of both asynchronous (self-paced) and synchronous (collaborative) learning events. The revolutionary impact of e-learning lies not simply in having a multimedia platform on a single desktop, but also it is the combined power of a world-wide network of computers that connects authors, instructors and learners globally with the immediacy of text, graphics, audio and video, as well as interactivity and collaborative interactions. The tremendous education and learning benefits that e-learning has offered covers an increase of productivity, reduction of training cost, competitive advantage, education transformation, train anywhere and any time globally 24/7, elimination of knowledge gap, extended education chains, re-skill learners and instructors, self-paced learning and promotion of teaching and learning innovations. The internet-based education represents the underlying principle that makes lifelong learning a reachable and accessible learning for all learners.

*Keywords:* e-learning, online learning, web-based training (WBT), computer-based training (CBT), internet, blended learning.

---

## **1. INTRODUCTION**

**Electronic learning (e-learning)** is an educational approach that utilizes computer technology, particularly digital technologies that are Internet-based, to provide instruction and learning experiences. It refers to a wide range of applications and processes designed to deliver instruction through electronic means. This means is normally conducted over the web, however it also can include CD-ROM or video-conferencing through satellite transmission. The definition of e-learning includes online learning, web-based training and computer-based training. Most importantly, it signals the paradigm shift in education and training that is in progress. Social, technological and economic drivers are transforming education around the world. As globalization encompasses local economies like never before, the development of a skilled workforce becomes a genuinely international concern. And as human capital becomes the chief source of economic value, education and training become lifelong endeavors for the vast majority of workers. E-learning is about placing classes online to address training issues that encompasses training, education, information, communication, collaboration, knowledge management and performance management. It addresses education issues such as reducing costs, providing greater access to opportunity for learning and increasing learner competence and learning optimization initiative.

The following list is a quick summary of e-Learning modalities currently in use such as the use of technology to enrich classroom and workplace learning, for example Internet, CD-ROM, interactive multimedia, games, simulations and social networks. Online instruction for distance learning costs savings (no face-to-face meetings). Blended instruction (combining online and face-to-face learning events). Synchronous: real-time, multiple

students online, instructor-led session. Asynchronous: students and instructor in intermittent interaction. Instructor-led group work (combining both synchronous and asynchronous events). Self-study (online tutorials, research and discovery learning events). Self-study with subject matter expert (tutoring, mentoring, coaching). Web-based tutorials (individual or group using self-paced online resources). Computer-based tutorials (individual or group using CD-ROM resources). Video and audio resources: tape, CD, DVD, online streaming, download, or pod-cast.

The revolutionary impact of e-learning lies not simply in having a multimedia platform on a single desktop. It is the combined power of a world-wide network of such computers that connects authors, instructors and learners globally with the immediacy of text, graphics, audio and video, as well as interactivity and collaborative sharing.

Technology-based instruction offers leverage to make both the planning/ development process and the delivery/ learning process more efficient. The tools augment the instructional capacity of teachers and learning activity of students. Instructors and curriculum developers can now share resources more easily and together build learning-object repositories. Multimedia and expanded resources from the network can enhance the traditional classroom experience dramatically. Online synchronous tools create a new kind of cyber-classroom, connecting distance learners from many locals ("any where") in peer-to-peer engagement. Online self-paced tutorials create enriched interactive and exploratory learning experiences that are accessible on-demand any time when a learner is ready.

There are four primary goals of e-learning. It maps these four learning goals using the following criteria:

1. Process and goal: information and instruction: broadcast, transfer, develop and certify.
2. Content: scope and depth: awareness, understanding, use and mastery.
3. Learning tasks: simple and complex, degree of required practice and interaction.
4. Development time: rapid and robust: amount of time and effort required for learning development.

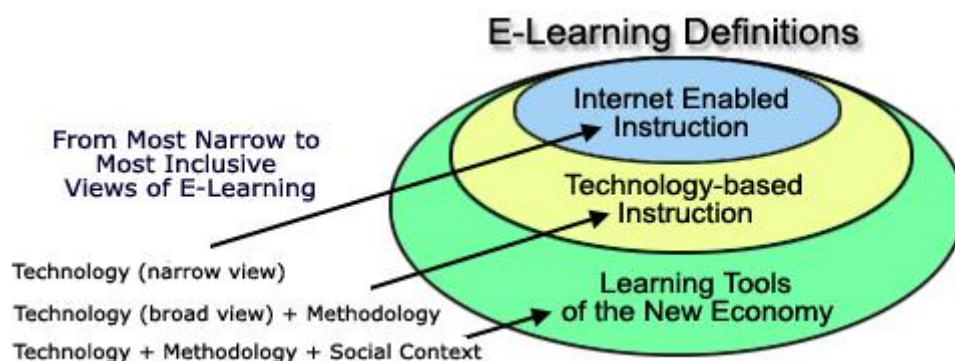
As computer technology is adopted in education development, it immediately becomes integrated with the instructional technology that preceded it. This is called "**blended learning**" or "**hybrid learning**" delivery. Old and new instructional methods are blended, and more technically we are blending a sequence of both asynchronous (self-paced) and synchronous (collaborative) learning events. The tremendous education and learning benefits that e-learning has provided cover an increase of productivity, reduction of training cost, competitive advantage, education transformation, train anywhere and any time globally 24/7, elimination of knowledge gap, extended education chains, re-skill learners and instructors, self-paced learning and promotion of teaching and learning innovations. The internet-enabled education tool represents the underlying facility that makes lifelong learning a free, reachable, flexible and accessible learning process for all learners.

## 2. DISCUSSION

The shift in learning paradigm is experienced as both evolutionary and revolutionary impacts occur. It is evolutionary by promoting instructional best practices, shared standards, and greater access to resources. It is revolutionary by advances that are discontinuous and disruptive as in the phrase, **the internet changes everything**. The network of networks is not just a technology web (connection and communication). It is an information access web, a publishing web, a commerce web, and a social-collaborative web that leverage and synergize with each other. It is a communications highway to and through a newly consolidated global village.

The challenge of understanding e-learning is that historically the term has been used with three levels of definition — from most narrow to most inclusive. Each of these definitions suggests a slightly different vision of what e-learning is, how it is used, and the benefits it achieves.

The following graphic illustrates the increasing scope of e-Learning definitions. Each ring builds upon the previous foundation and adds a new elements of technology, methodology, and social context.



1. **Internet-enabled instruction** These definitions focus on the revolutionary impact of networking technology (internet & intranet).
2. **Technology-based instruction** Definitions include a broader view of technology (inclusive of mobile, wireless, iPod, video, game & other technologies) and methodology issues such as instructional design and best practices including, blended learning, personalization and collaboration. Further, they orient to a more inclusive use of instructional technology.
3. **Learning tools of the new economy** Cultural and social impact are key defining characteristics. These definitions are culturally driven, not just technology driven based on the reality of a new, globally networked and interdependent economy that is being advanced by technology.

Online learning and WBT are key subsets of E-Learning, but E-Learning is a broader umbrella category: it includes numerous tools of person-to-person contact, including ways of making traditional classroom teaching more effective. A too narrow definition sets up a false dichotomy that sees e-learning is "online" as opposed to traditional learning, which is in the "classroom."

E-Learning is about web pages, while classrooms are about person-to-person contact. Print and broadcast media news stories about emerging technology will often present e-learning as though "online" and "classroom" that exist in separate worlds and at cross-purposes to one another. They voice enthusiasm about the new instructional technology that is providing unexpected and rich learning opportunities to the millions of people using the internet at home, at school and at work. They want to draw distinctions between the old and the new.

The essential positive idea is to point to the revolutionary impact of the Internet in education. What is missed, however, is the fact that every phase of education and training has already been impacted by this revolution. Virtually every school and corporation now uses multimedia computers and the internet to some degree. While some lag behind in adopting technology for classroom delivery, the fundamental reality of the internet and social networking are now found almost universally. The revolution has been so pervasive and rapid. Education and training are being transformed from the foundations of communication, instructional method and use of media.

## **2.1 INTERNET-ENABLED INSTRUCTION**

When e-Learning is understood as internet-enabled learning, it includes educational elements as web-based class administration, email communication between learner and instructor, internet research for exploratory learning, digital collaboration, virtual classrooms, and the use of computer labs to enhance the classroom. All of these e-learning tools actually strengthen traditional classroom delivery, and are not meant to replace the direct human-to-human contact of the classroom. These features routinely provide cost-savings, time-savings, convenience, more personal contact, and more direct experience of the subject matter. The rapid adoption of e-learning that has occurred in corporate, school and government settings is based on the fact that these new tools powerfully leverage traditional education and training. Examples of the various e-learning definitions at this level are: e-Learning refers to web-based training — anywhere, anytime, self-paced instruction — that is presented over the Internet to browser-equipped learners. E-learning is the convergence of learning and the internet. E-Learning is content and instructional methods delivered on a computer whether on CD-ROM, the internet or an intranet and designed to build knowledge and skills related to individual or organizational goals. E-learning is the use of network technology to design, deliver, select, administer, and extend learning. E-Learning is Internet-enabled learning. Components can include content delivery in multiple formats, management of the learning experience, and a networked community of learners, content developers and experts. E-Learning provides faster learning at reduced costs, increased access to learning, and clear accountability for all participants in the learning process. In today's fast-paced culture, organizations that implement e-Learning provide their work force with the ability to turn change into an advantage. Each of these definitions acknowledge the revolutionary impact of networking for training and education in corporations, schools and government. Client-server technology standards, particularly the web browser and related technologies, for example HTML, CSS, DOM, JavaScript/ECMA scripting, and XML) have rapidly evolved and have been universally and enthusiastically adopted.

These technologies remove barriers to instructional delivery — overcoming problems of incompatibility and access — and they continue to dramatically increase in power, quality and effectiveness. These important capabilities include multimedia instruction: anytime, anywhere. Asynchronous learning that cover live virtual classrooms and synchronous learning such as streaming video and audio: new broadband capabilities will

enhance the next phase of rich media delivery. Internet phone will transform the level of interactivity in virtual classrooms and collaborative learning tasks that encompass.

1. Instructor resource sharing (instructors are now collaborating and building shared curriculum archive in ways never before possible)
2. Enhanced instructor-student and student-student communications.
3. Global access to learners and instructors.

Networking, both internet and intranet, establishes a new context for education and training. It redefines the dynamics of the learning community and its resources. So whether one particular learning experience is online or offline, in cyberspace or in the classroom, the network effect is still present.

## 2.2 TECHNOLOGY-BASED INSTRUCTION

An even more inclusive view sees that e-learning involves methodology as well as technology. It includes the methodology of instructional design and a variety of instructional best practices, such as blended learning design, personalization and collaboration techniques. Furthermore, it is more than just internet technology; it embraces a wide variety and constantly evolving array of instructional technologies such as wireless and mobile (phone, PDAs & iPod).

In addition, the various analog electronic tools that ushered in the first wave of instructional technology in the preceding generation are powerful foundations of e-learning, and these technologies are being redefined and transformed by the digital revolution. The current instructional technology inherits all of the insight and best practices which were cultivated by the early phases of multimedia, computer based training (CBT), and distance learning (telecommunications) development.

The focus on technology-based instruction particularly includes:

- New online collaboration tools which support team learning, mentoring, and especially virtual classrooms;
- Blended Learning which combines Internet delivery with the traditional classroom and textbooks;
- Advances in instructional design such as interactive multimedia, learning object, personalization, and simulation, and
- Earlier electronic technologies such as audiotape, videotape and videoconferencing are recognized as essential tools.

The point of this expanded view is that it acknowledges continuity of the current Internet tools with the previous generation of instructional technology. This current phase of educational revolution is about improving instructional design methods for a purpose not just introducing the next wave of new instructional technology. E-learning is a generic term for all electronically supported learning which includes an array of teaching and learning tools that use electronic media including phone bridging audio and videotape, video teleconferencing, and satellite broadcast. In recent years, the term has been delimited to web-based or online courses that make use of electronic mail; video conferencing, discussion boards, chat rooms, and electronic whiteboards on the Internet."

These definitions emphasize the use of current instructional technology integrated with the previous generation of electronic learning tools, and openness to the continuing digital revolution. For instance, interactive television is a convergence of Internet technology with broadcast television. This will provide tremendous benefit to both schools and corporations when used for distance learning.

## 2.3 OVERCOMING TIME & PLACE BARRIERS

The tremendous impact that e-learning has had on education and training has been achieved through use of online technology to support both asynchronous (self-paced) and synchronous (collaborative) learning events.

**Asynchronous** learning is self-paced that is occurring at different times as determined by the learner. Self-managing learning events is how adult learners prefer to learn. Most importantly, asynchronous learning offers the dramatic economic impact of making curriculum available 24/7.

The essential dialogue of an instructor-student relationship can still be preserved in a self-paced, distance model if the tutorial is designed to include person-to-person contact through email, threaded discussion, phone and video.

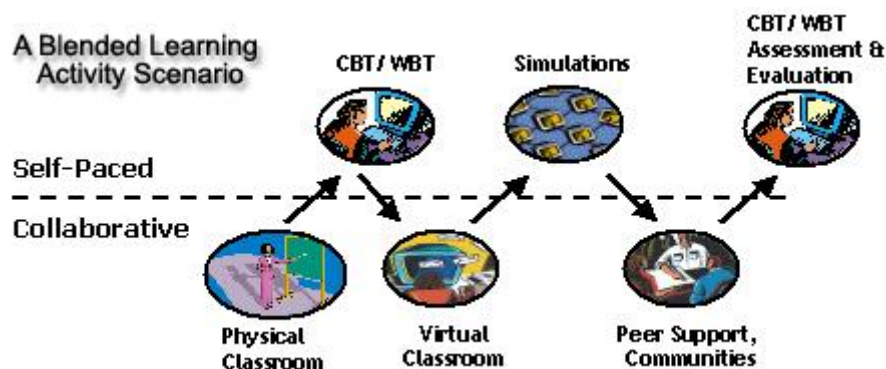
**Synchronous** learning events are real-time learning that bring instructor and student together at the same time in a live event. Synchronous learning involves social learning principles and dynamics, whether the interaction is one-one, one-to-many, or many-to-many.

	<u>Synchronous</u>	<u>Asynchronous</u>
Online	<ul style="list-style-type: none"> <li>✓ Virtual Classroom</li> <li>✓ Video / teleconferencing</li> <li>✓ Chat rooms / instant messageing</li> </ul>	<ul style="list-style-type: none"> <li>✓ WBT / CBT</li> <li>✓ Threaded Discussion Groups</li> <li>✓ Recorded live events</li> <li>✓ Online documents</li> <li>✓ e-mail</li> </ul>
Offline	<ul style="list-style-type: none"> <li>✓ Classroom</li> <li>✓ Hands-on labs</li> <li>✓ Field Trips</li> </ul>	<ul style="list-style-type: none"> <li>✓ Books</li> <li>✓ Videos</li> <li>✓ Audio Tapes</li> </ul>

The concept of the classroom has been expanded and transformed by new modes of collaborative learning. Today a classroom can be physical, virtual or both. E-learning makes possible new modes of collaborative learning that overcome distance barriers and logistical costs that provide dramatic economic savings. Because the internet is global, our classrooms can now be global.

Thee-learning-based course overcomes time and place barriers by using online learning events. Cost and logistics difficulties are reduced by requiring only one physical classroom event. The classroom event is used to build a sense of purpose, social rapport and community. Follow-up learning events extend this use of community through virtual classroom, online peer support, and off-line peer mentoring. The WBT emphasizes the learning of concepts and practicing them in scenario quiz examples. The simulation aims at providing skill learning and the practical application of the concepts that prepare the learner for transfer of knowledge and skills to the real world. The use of online simulations and assessment allow a higher level of practice and automated test scoring that cannot be easily duplicated in a physical classroom. Peer support and mentoring can utilize both online and offline modes.

The following chart illustrates the different kinds of learning activities or delivery modes that are available to the e-learning designer. Choosing different delivery modes enables a course designer to overcome time and place barriers that will affect learning opportunity and logistical costs. Composing the right blend of these learning activities is the way to engage the learner most effectively.



## 2.4 BENEFITS

The adoption of e-learning services virtually offer a number of education and learning benefits. The following benefits illustrate a more comprehensive view of the impact of e-learning on the institution both big and small schools and educational institutions. These benefits describe to e-learning as integrated with knowledge management and performance components. The emphasis is not merely on the use of technology, but on the emergence of new education advances that are made possible when school utilizes e-learning solutions. Therefore, these solutions can be implemented in ways that impact the education institution strategically, tactically and operationally as required. The distinctions depend on the scope and pervasiveness of implementation, the degree of budgetary commitment, the time-frame, and the objectives of the e-learning programs.



The adoption of e-learning induces the following benefits:

### **Increase Competency Productivity**

- Improve learners competencies.
- Promote knowledge levels and skill of learners.
- Manage continual learning programs that enhance skills.
- Increase the speed of new technology implementations.
- Reduce knowledge gaps, providing for effective teamwork

### **Reduce Training Costs**

- Reduce expensive on-site training programs.
- Make learning available to a global audience.
- Update programs and information at internet speed.
- Eliminate cost-burdened production of materials by providing online accessibility.
- Reduce time away from the office.

### **Gain Learning Advantage**

- Develop competency that meet learners' needs.
- Fully trained learners give institutions a competitive edge.
- Promote innovative thinking among learners.
- Provision of e-learning functions as a value added service.

### **Drive Education Transformation**

- Evolutionary and revolutionary impacts on learning lead to new school strategies.
- Effectively integrate the learner needs supply and demands.
- Provide training to help implement training in new school.
- Education for learners doesn't affect school age.

### **Train Globally 24/7**

- Remove the bounds of geography with e-learning.
- Provide accessibility to world-class learning solutions any time and anywhere.
- Global learning can reach all learners through technologies.
- Provide learning access globally 24/7.

### **Eliminate Knowledge Gaps**

- Schools understand today that their most valuable asset is human.
- Investments made to eliminate skill differentials that bridges the learning gap.
- Skills employees possess improve production, service and learning performance.
- Fill in the gaps with the appropriate learning.

### **Faster Evaluation**

- Online assessing skills and knowledge is possible.
- Training acceleration for the learners is possible.

### **Re-Skilled Learners**

- Trained employees are satisfied assets.
- Learning, education and cross training on new technologies increases employee efficiency.
- Employees can also develop new skills for career development.

### **Increase Learner Satisfaction**

- Knowledge and confidence lead to satisfaction.
- Satisfied learners leads to increased improvement of knowledge.
- Satisfied learners lead to increased productivity, performance and lower truancy.

### **Blended Learning**

E-Learning does not exist apart from already established traditional learning venues. As new technology is introduced and adopted, it immediately becomes integrated with the instructional technology that preceded it. This is called "Blended Learning" or "Hybrid Learning" delivery. We are blending old and new instructional

methods, and more technically we are blending a sequence of both synchronous and asynchronous learning events.

Blended Learning aims at orchestrating an effective composition of learning experiences. Instructional design has a long history of "blending" classroom work with homework, field trips, labs, reading assignments, and audio-visual media. However, what is new in this era of blended learning is the powerful modes of online synchronous and asynchronous activities and technology-based instructional methods which can now be added to the learning process.

### The Variety of E-Learning Instructional Methods

The following table provides 3 (three) kinds of learning activities and instructional methods that are available to an e-Learning blended course: same time/same place (traditional), same time/different place (synchronous), different time/different place (asynchronous: self-paced e-Learning).

<p><b>Same Time/Different Place</b> (Synchronous) Live E-Learning</p>	<p>Web casts Virtual classroom</p> <ul style="list-style-type: none"> <li>■ Mini-lectures</li> <li>■ Interactive lectures (participation required)</li> <li>■ Panels</li> <li>■ Videotape presentations</li> <li>■ Demonstrations</li> <li>■ Guided discussions</li> <li>■ Debates</li> <li>■ Student presentations</li> <li>■ Group collaboration</li> <li>■ Case study analysis</li> <li>■ Role playing</li> <li>■ In-class writing</li> <li>■ Simulation exercises</li> <li>■ Games</li> <li>■ Problem-based learning exercises</li> </ul> <p>Conference calls Video broadcasts Chat Virtual Labs Instant messaging (IM) Online collaboration</p> <ul style="list-style-type: none"> <li>■ E-meetings</li> <li>■ Online coaching or mentoring</li> <li>■ Communities of practice</li> </ul>
<p><b>Different Time/ Different Place</b> (Asynchronous) Self-Paced E-Learning</p>	<p>Web-based learning</p> <ul style="list-style-type: none"> <li>■ Mini-lectures (text, graphics, audio, video)</li> <li>■ Video presentations</li> <li>■ Flash animation (interactive exercises)</li> <li>■ Drill &amp; practice</li> <li>■ Demonstrations</li> <li>■ Guided discussion (email, threaded discussion forum)</li> <li>■ Writing exercises &amp; assignments</li> <li>■ Simulation exercises (automated guidance and feedback)</li> <li>■ Online assessments &amp; testing</li> <li>■ Games</li> <li>■ Problem-based learning exercises (scenario examples)</li> <li>■ Story-telling</li> </ul> <p>Assessments, tests and surveys Simulations (stand alone applications)</p>

	<b>Performance support</b> <ul style="list-style-type: none"> <li>▣ Job aids (on screen; printable)</li> <li>▣ Online help (documentation; search engine tools)</li> <li>▣ EPSS (Electronic performancesupport systems)</li> <li>Online references &amp; document management</li> <li>Online recordings / multimedia</li> <li>▣ Audio</li> <li>▣ Video</li> <li>▣ Webcasts and podcasts</li> <li>▣ Virtual classroom session recordings (Recorded live events)</li> <li>Print-based materials and documentation</li> <li>CD-ROM: self-paced content / multimedia</li> <li>Intranet: enterprise portal</li> <li>Knowledge management systems</li> <li>Communities of practice portal sites</li> <li>▣ Online learning communities (Announcements, publishing articles, promoting workshops &amp; conferences)</li> <li>▣ Discussion forums</li> <li>▣ Project collaboration forums</li> <li>Blog</li> <li>Threaded discussion</li> <li>Email: registration, alerts, group messaging</li> <li>Distributed and mobile learning resources</li> </ul>
<b>Same Time/Same Place</b> (Traditional)	<b>Classroom Instruction</b> <ul style="list-style-type: none"> <li>▣ Mini-lectures</li> <li>▣ Interactive Lectures (participation required)</li> <li>▣ Panels</li> <li>▣ Videotape presentations</li> <li>▣ Demonstrations</li> <li>▣ Guided discussions</li> <li>▣ Debates</li> <li>▣ Student presentations</li> <li>▣ Group collaboration</li> <li>▣ Case study analysis</li> <li>▣ Role playing</li> <li>▣ In-class writing</li> <li>▣ Simulation exercises</li> <li>▣ Games</li> <li>▣ Problem-based learning exercises</li> <li>▣ Story-telling</li> <li>Hands-on Labs and workshops</li> <li>Field trips</li> <li>▣ Observations</li> <li>▣ Fieldwork or clinical work</li> </ul>

Blended learning supports existing classroom instructor-led training to make their learning process more effective. It does this through automating enrollment and student tracking via learning management systems (LMS). Online testing with automated scoring and reporting, and technology-based teaching tools brought into the classroom, including PowerPoint, flash animation, collaborative games and simulation exercises.

Blended Learning opens up the instructional options to include all the existing resources of distance learning. This may involve use of audio and videotape, satellite broadcast, interactive TV, audio conferencing, video conferencing, and more. In certain situations due to cost constraints or the opportunity for more effective media use, a virtual classroom may become a viable or preferred alternative to the physical classroom.

From the most inclusive point of view, blended learning incorporates all the options and benefits of synchronous, asynchronous, and traditional delivery modes. Blending takes into account the four basic



instructional architectures described by Ruth Clark (2002): **receptive** (information acquisition), **directive** (response strengthening), **guided discovery** (knowledge construction), and **exploratory** (linking to real world tasks and resources). It creates a blend of activities and instructional strategies that will effectively engage the learning preferences of the students.

## 2.5 LIFE-LONG EDUCATION

Lifelong education is about acquiring and updating all kinds of abilities, interests, knowledge and qualifications from available technology resources that promote the development of knowledge and competences that will enable learners to actively participate in all spheres of social and economic life, taking more control of his or her future, valuing all forms of learning, including formal learning, such as a degree course followed at university; non-formal learning, such as vocational skills acquired at the workplace; and informal learning, such as internet-based learning, for example where learners learn to use e-learning technology means. In practice this should mean that with e-learning opportunities, learners have individual learning pathways suitable to their needs and interests at all stages of their lives. The content of learning, the way learning is accessed, and where it takes place may vary depending on the learner and their learning requirements.

## 3. CONCLUSION

The range of instructional options that are available within an e-learning program is immense. It enables learners to upgrade knowledge globally 24/7. Blending involves providing the end-user with the appropriate learning delivery mode: ILT classroom, virtual classroom, web-based tutorial, CD-ROM, mentoring, team collaboration and print to support learning objectives.

The power of the blend is that it engages the learner in different ways, and then optimizing the combined learning effect. In a blended course, truly the whole is greater than the sum of the parts. The design challenge is to create the most effective synergy of activities and learning style engagements.

Each learning event requires instructional design to ensure that the appropriate information, instruction, feedback, and media use has been presented. The orchestration of the right blend of learning events in a course requires instructional design to ensure that the most efficient and cost-effective sequence of learning experiences have been provided.

The e-learning realization is that electronic learning modes are not an exclusionary alternative to the traditional classroom, but really are an extension of that classroom into cyber-space and global networking. Traditional classroom teaching and learning are addressed with the leverage provided by technology-based instruction and testing. Where appropriate, the distance learning and self-paced approach of e-learning offers an increasingly viable alternative to the traditional classroom (school or corporate). Until now the traditional classroom has been the primary channel of learning opportunities, but with the internet rich-media instruction is available at the business office, at schools, at home and at any place.

Blended learning is the composition and sequence of learning activities that relate to different delivery modes: online, offline; synchronous, asynchronous. Different learning architectures : receptive, directive, guided discovery, and exploratory learning. Different instructional methods and use of media that engage learning style preferences and different social learning dynamics that affect learning motivation.

Lifelong learning is about providing flexible chances to update basic skills and to have learning opportunities at more advanced levels. This means that formal systems of provision need to become much more open and flexible, so that such opportunities can truly be tailored to the needs of the learners. Investment in human capital is important at all points in the economic cycle; skills gaps and professional shortages can certainly be sorted out. E-learning can offer learners an opportunity to have access to life long learning where it induces learning chances in a more visible, more flexible, more accessible, more adaptable, more reachable and easier mode. This advancement removes obstacles, barriers, cost, distance to education access. It also provides special efforts that are necessary in this context for different abilities such as people with disabilities or people living in rural areas.

## References:

- [1] Clark, R., (2002) E-Learning Developers, MacMillan, New York, London
- [2] Clark, R., (2004) Basic Instructional and Architectural Learning, Maxwell MacMillan, Publishing Coy, London
- [3] Kolb, D., (2001) Kolb Learning Style Inventory, Longman, London
- [4] Masie, E., (2006) E-Learning Network Technology, McMillan Publishing Company, New York, London
- [5] Otto, R., (2005) Cognitive, E-Learning Design and Solution, McMillan Publishing Company, New York