Coherent Implementation Of E-Learning System With Natural Learning System In The Middle East.

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Abstract: Universities and educational institutions always think about providing better learning opportunities for all kind of learners, right from primary education to the higher education. Additionally, students or learners in the Middle East also seek easy and economic ways for learning. The E-Learning is the main mode of choice for everyone. It is a technology based learning, economical, 24X7 available, time saver and easy. Current Technologies like Internet, Intranet, Extranet, and artificial intelligence offer the promise of reinventing education with quality and distance by supporting interactive and inquiry based learning. The technology based learning or E-Learning widened the way of learning. It extends from primary to research level and becomes more popular amongst adult learners. It also widened access to education and other trainings for those persons who once excluded due to working hours and family commitments and involvement in business. Furthermore, it gets attached to the physically challenged learners due to advancement in the technology. Those who haven’t completed their education due to various reasons can take access by just opening one or two websites with the course of interest. This paper will shed light on adopting TBL (Technology Based Learning) or E-Learning along with natural flavor of classroom learning or face-to-face learning for all level of learners. Feedbacks from educators, trainers and professors showed that they have already adopted the E-Learning or information communication technology, using Internet, blogs, audio conferencing, video conferencing, chat, social media applications, and LMS (Moodle, Blackboard, and ERA) programs. Even their involvement in technology based learning they share their experience that the E-Learning tools nowadays provide error free and synchronized course material. It saves time, has less learning cost, and is available on demand. E-Learning /TBL uses:

- Tablets
- EBook readers
- MP3 Players
- CD-ROM
- Wikipedia
- Webinars.
- Web 2.0 tools
- Discussion and bulletin boards
- Collaborative software
- e-mail
- Blogs
- Chats
- Educational animation, simulation, and games
- Learning Management Systems (LMS)
- Podcasts
- Writing applications (Penultimate)
- Text and graphics editing programs
- Scanners
- Mobile phones

Keywords: E-Learning,TBL (technology based learning), Smart pen, Penultimate, BYOD (Bring Your Own Device), ICT (Information Communication Technology), E-Notebook, ERA (E-Learning Revolution For All).

Introduction

E-Learning provides better learning opportunities by providing error free and synchronized course material. It saves time, has less learning cost, and is available on demand. E-Learning /TBL uses:

Before thinking about implementing the E-Learning system, we have to categorize the education system in two groups i.e. pre education and post education. Pre education may include learners from school and those who are involved in preparatory year or training programs for wide range of students including those who need improvement in reading and writing skills, culture, script and manners. The post education system category includes all learners who are advanced and motivated. They just need direction and need to improve their quality of learning. They can directly choose any E-Learning mode like online, distance or web learning. E-Learning promises a single experience that accommodates distinct learning styles. E-Learning or technology based learning is nothing but learning of content via all electronic technology, including the Internet, intranets, satellite broadcasts, audio and video tape, video and audio conferencing, Internet conferencing, chat rooms, e-bulletin boards, webcasts, computer-based instruction, and LMS (Thomson, 2002.) In addition to the above mentioned technologies one should consider the student’s opinion, natural learning, learning environment and health and fitness issues. Technology based learning or E-Learning can be adopted by many ways but we don’t want to lose the natural way of learning by sense and observation. It is known that E-Learning is partially successful for the students of category 2 while fully successful for category 3 as will be shown in page 3 below. Since E-Learning requires good reading and writing skills, the ability to efficiently read and interpret instructions is a critical skill in E-Learning. Generally written expressions include chemical equation, math’s equation and expansion of equations, and communications. Thus it is important that one has to be comfortable with proper expression writings in E-learning. Many universities and educational institutions adopted the technology based learning called Blended...
Learning System. Blended learning incorporates both face-to-face and online learning. The online learning is integrated into the curriculum, can vary across schools and colleges. These strategies can be particularly useful in rural areas where blended or online learning can help teachers and students in remote areas overcome distance. The main purpose of this paper is to introduce the technology based learning for Middle East students by incorporating basic learning tools (e.g. face-to-face learning) with improved programs designed for E-learning in such away that no hurdle experienced by the students while adopting this technology. The most effective factor while adopting E-Learning or technology based learning is that most of the learners lose their writing skills. Even they don't understand the use of symbols and alphabets, grammar, the words in the sentences, the script and the logos due to distance learning and online learning. Excessive use of tablets, PDAs and PCs creates strain on eyes and brain so it is a big health issue. Reduced social and cultural interaction can be a drawback. Technology has no emotions and feeling like we have in our traditional basic teaching methodology where teacher put his full energy to guide the students. The students too should have respect towards their teacher.

Research
E-Learning promises a single experience that accommodates the three distinct learning styles of learning: the auditory learners, visual learners and kinesthetic learners. Other unique benefit provided by an E-Learning is reduced publishing cost, distribution cost and reduction in learning time. The learner is the core of any E-Learning system. Materials and activities are designed with needs and interests of the learner in mind. Students assume control of their learning experience and use it to suit their own specific needs. E-Learning is flexible i.e. Learning can take place any time anywhere as long as necessary equipment is accessible. The E-Learning also allows physically challenged students to more fully participate. E-Learning provides consistent and effective training. All of the target learners can participate simultaneously and receive the same information, reducing the variability introduced through multiple sessions. (Kevin Kruse) Other major benefits provided by E-Learning are just like traditional classroom involving three teaching modes— instructor-centric, content-centric, and learner-centric which can be easily implemented. Redundant instructions, forced instructions, and time bound can be easily avoided. (Pulichino, 2004.)

Instructor-centric mode: Instructor-centric mode may include webinars or pre-recorded lectures or narrated tutorials that are disseminated online, or via CD-ROMs.

Content centric-mode: In a content-centric instructions model, students typically interact with content that is content resides on a remote web server and is accessed via the Internet or from stand-alone computers; here experts interaction with learner is rare.

Learner centric mode: In a learner-centric mode, the learner is the navigator and key decision-maker, and the learner’s interests and needs drive the learning. The instructor acts as a coach and facilitator who help the student to achieve the learning objectives. The learners are free to roam in search of learning objects that help them construct their understanding of the given topic. A learner-centric model is well aligned with constructivist learning pedagogy which maintains that students learn best when they can actively participate in their learning and build their knowledge, rather than just act as passive recipients of knowledge.

All three modes of delivery are effective at transmitting factual knowledge. However, research suggests that a constructivist learner-centered approach leads to better content retention, improved student motivation, and lower dropout rates. (by Vinz Koller, Sandra Harvey, Micheline Magnotta) As time changes we have observed many technologies in teaching like conventional approach (student, teacher, chalk and board), distance learning, online learning, web learning. But adoption of all these approaches takes some time but still face to face approach is more important by many observations and researches. Academician suggests that for pre education and most part of the secondary and higher secondary education needs discipline, observers, students group, and suitable environment. 78% percent of the researchers and academician suggests that there are many level of student and we need all the students to be in the same stream. There are many questions arises in front of them that attitude towards learning and willingness to learn is not an easy task for every learner. They categorized learners according to the student’s level.

First category of learners
Students can learn when they are urged, encouraged, and persuaded by others. They feel secure when somebody helps them. They are learning by observation, i.e. they imitate others. Students can set learning goals and plan learning activities when others help them. Leaning methods and tools are chosen by such category of students when offered to them by others. The above category mostly includes learners from primary and secondary education level or sometimes they are just beginners.

Second category of learners
They learn because they have to, but they eagerly learn only what they are interested in. They are self-confident when they have completed easily understandable tasks. Whenever they work together with others, they try to express their opinion, and discuss ideas. They try to complete the tasks on time. They consult others to set learning goals and plan learning activities. They are the category from partially motivated and learners from secondary education.

Third category of learners
The learners are self-confident; they learn eagerly and responsibly because they like learning and understand what they learn. They can learn by their own and they will help others confidently when somebody seeks help from them. This category belongs to higher education (Post education) and university level students.
Analysis
After analyzing all the objections and favors, sample data is taken for study from Wikipedia for Saudi Arabia which is the biggest county in the Middle East. As compare to total population there are more than 48.15% internet users in Saudi Arabia which indicates that Information Communication Technology is more popular now a days. (Wikipedia). Similarly as per survey E-Learning or technology based learning is equally more popular amongst second category of learners i.e. partially motivated and learners from secondary education or students from higher education (Graph 1). Educators suggested some improvements like behavior control, class room learning environment and reading and writing skills. It means that 20% to 30% improvements are still needed in current technology so that all levels of learners can adopt technology based learning easily. As shown in graph 2. (Data is taken for year 2013 also)

Learning outcome
While adopting E-Learning or ICT (Information Communication Technology) researchers and academician always talk about learning outcome. After E-Learning survey was sent to many Professors, Instructors and Coordinators they raised the issue about learning outcome and whether the current technology could be sufficient to replace the face to face learning. 70% of the respondents believed that technology based learning for primary learners would not be effective and capable of giving the natural flavor of learning and good learning outcome. Learning outcomes describe what students are able to demonstrate in terms of knowledge, skills, and values upon completion of a course, a span of several courses, or a program. Clear articulation of learning outcomes serves as the foundation to evaluating the effectiveness of the teaching and learning process. Focusing on student’s behavior learning outcomes are not about what the instructors can provide but what the students can demonstrate. Three essential components of a measurable learning outcome are 1) Student learning behaviors 2) Appropriate assessment methods 3) Specific student performance criteria / criteria for success.

Technological Solutions
Our main intention behind this paper is that E-Learning or technology based learning should be adopted by all levels of learners in the society. This is an effort of inclusion of new technologies like usage of application programs for reading and writing and some devices useful for reading and writing so that all people should enjoy learning with traditional flavor without losing any natural feeling of education.

1 Devices
These devices can help to make E-learning more natural learning and encourages learner to write and store the notes in their electronic devices. Depending upon category of learner and type of teaching mode these devices are helpful by many technological ideas recently available in the market.

Strategies for E-Learning Success
Nowadays most of the education system adopted Blended Learning System. Blended learning, also known as hybrid or integrated learning has recently become the dominant paradigm for technology based learning success among training designers and experts. Blended learning typically refers to a training approach that combines a mix of online and face-to-face training delivery for improved engagement and better retention. Blending face-to-face with online activities also has the potential of bringing the best of both worlds together in a single course. In its most basic form, it combines a synchronous face-to-face lecture with some online follow-up activities, such as discussion forums or chats. While blended learning does not represent a new concept, many college courses have combined classroom with online content for some time without ever calling it blended learning.
Smart pen: (A Writing Pen)

This pen allows us to write text in natural script (own handwriting) as if we are writing something on blank paper or notebook and store the writing as it is in our display devices. For example “live scribe smart pen”. In addition to that dot paper is also available that we can use with smart pen to draw and write. Dots are used by this pen to remember all we are writing or drawing with reference point shown on this special type of paper.

E-Notebook

Working of Dot Paper
Dot paper uses regular paper printed with a unique pattern of tiny microdots. This tiny pattern works a lot like a GPS system for smartpen. It allows a smartpen to capture everything it writes or draws on dot paper. There are various sizes of notebooks made available by companies for school, and university students.

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A Tablet

Although there are many models available in the market we choose the one that is more supportive for reading and writing and easy to maintain (in terms of weight, brightness, document format support, etc). So we can achieve the new trend of BYOD (bring your own device).

2 Application Programs

Natural Screen Writing

There are some applications that can be used to write directly on touch screen. These applications use inking technology to write on screen and smart enough to avoid stray marks. An example is “penultimate”. The applications like pen ultimate gives you natural experience of writing on paper. So using this application we can read and write very easily.

Remote Data Capture and DigitalPen

Forms’ filling is realized by a digital pen; the digital pen looks like a ball point pen but it consists of microprocessor with memory, a micro camera, a Bluetooth unit and a battery. This is useful for all modes of E-learning. It captures the data and sends via Bluetooth to store with its own identification number. The printed paper forms are the physical replica of the corresponding electronic forms. This technology again has its own additional features. This is server-based program correlates the physical human writing patterns with the correct digital format. It converts the digital handwriting into digital text and stores the processed information into the system database. www.edms.gr/en/skai

Discussion

Technology always has its own merits and demerits. Demerits always motivate to invent more suitable technology. It’s always a never ending process; we discuss the merits of E-Learning, but we should not forget that it has many weak points. We started learning with technology and technology has no emotions and feeling like we have in our traditional basic teaching methodology where teacher put his full energy to guide the students and students too should have respect towards their teacher. In traditional way use to write on board, we use paper pen and student learn writing skills. Student learn with reciting the topic which boosts his memorizing power. Students study in class
room where they learn how to behave with teacher and friends, they learn from each other i.e. helping attitude etc. We all want our children to learn everything with the latest technology and we did it too with the concept of E-Learning. Ever we thought that now our children more techno savvy or we can say depend on machine, they don’t want to do anything. They don’t want to write and memorize because everything is available in LMS. We are not criticizing E-Learning although we should accept it as boom in the teaching methodology but we should also concentrate the loopholes in E-Learning and try to improve it. We should try E-Learning so it can fill the gap of traditional way of learning. When two big concept of learning E-Learning and traditional way of learning get together definitely we will get a good source of learning which will remain everlasting with flawless.

**Conclusion**

Finally, my effort is to bridge the traditional way of learning with technology based learning with the usage of more electronic devices like smart pen which resembles the traditional pen or pencil and more advancement which store the actual text with same written script, creates as many as note books feels like we are using actual notebook and pen and saves the purpose of paper less society and learning. The process of writing with reading will brings more smartness in the learners, usage of latest tablets resembles real text book with low cost and easy to handle.

**Future Work**

It is observed that there is a lot of text material and multimedia material is available in the market for same courses for E-Learning or distance learning, due to this learners get confused about which contents they should choose, which contents gives them more synchronization in the current situation, which contents gives them perfect knowledge, ways to choose the contents. Try to solve this issue using technology.

**References**


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