Learning Styles and E-Learning Face-to-Face to the Traditional Learning

Nina Bencheva

Learning Styles and E-Learning Face-to-Face to the Traditional learning: *The article considers an analysis of the knowledge delivery methods: traditional learning, blended learning and E-Learning. A literature review and analysis of the delivery methods have been done. Comparison between traditional learning and E-Learning is made. The most important advantages and disadvantages of the different delivery methods are analyzed.*
Key words: Learning, traditional learning, blended learning, E-Learning, delivery methods.

INTRUDUCTION

What is learning? – People all learn in different ways from listening, watching, questioning, doing and helping others to learn [11]. Different learners have different cognitive processes, learning style preferences and past experiences that they apply when learning takes place [4, 5, 10, 15]. An individual's learning style will affect the manner in which information is processed during learning and thinking, having a considerable effect on the learning effectiveness and efficiency [10]. Sadler-Smith [13] referred to 3 dimensions of learning preferences:

- *Dependent learners* – prefer instructor-directed, highly structured programmes with explicit assignments and assessment by the instructor;
- *Collaborative learners* – are discussion oriented and favour group projects, collaborative assignments and social interaction;
- *Autonomous learners* – prefer to exercise an influence on the content and structure of the learning programmes within which the instructor is a resource.

Just as there are different methodologies that learners prefer in a classroom situation it is reasonable to assume that the same situation exists when someone is using a technology-supported environment. Ross and Schulz [12] suggest that computer aided instruction may not be the most appropriate method of learning for all students.

What is E-Learning? – We can essentially consider E-Learning as the computer and network enabled transfer of skills and knowledge. E-Learning refers to using electronic applications and processes to learn. E-Learning applications and processes include Web-based learning, computer-based learning, virtual classrooms and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. It can be self paced or instructor led and includes media in the form of text, image, animation, streaming video and audio.

In the GrayHarriman [3] the differences between the different type of E-Learning resources are given:

- **Online Learning** takes place via the Web and may include text, graphics, animation, audio, video, discussion boards, e-mail, and testing. Online learning is typically "on demand" and self-directed but may include synchronous chat, web based teleconferencing (audiographics), or similar technology.

- **Distance Learning** is learning that takes place when the instructor and the learner are not in the same physical location. It can also take place if the instructor and the learner are in the same location but not at the same time. Today distance learning is carried out via a number of media ranging from postal mail to teleconferencing or the Internet. "Distance Learning" (learner focus) and "distance education" (instructor focus) are often used as interchangeable terms. In reality, however, Learning is the result of Education.

- **Blended learning** combines online with face-to-face learning. The goal of blended learning is to provide the most efficient and effective instruction experience by combining delivery modalities. The term "blended learning" is used to describe a solution that combines several different delivery methods, such as collaboration software, Web-based

courses, Electronic performance support systems (EPSS), and knowledge management practices. Blended learning also is used to describe learning that mixes various event-based activities, including face-to-face classrooms, live E-Learning, and self-paced instruction.

- **M-Learning** – The term M-Learning or Mobile Learning refers to the use of handheld devices such as PDAs, mobile phones, laptops and any other handheld information technology device that can be used in teaching and learning.

COMPARING TRADITIONAL LEARNING AND E-LEARNING

There is an argument that traditional learning is the best way of maintaining a learning process. Other models are always considered to be inferior or less efficient. However, there is no finding to support this argument, and research shows that technology-supported models are at least as good as traditional learning [9].

E-Learning includes many components that are familiar from traditional learning, such as: presentation of ideas by the students, group discussions, arguments and many other forms of conveying information and accumulating knowledge.

E-Learning also includes advantages which are not found in traditional learning, such as: time for digesting the information and responding, enhanced communication among the learners, both as regards quality and as regards urgency, knowledge being acquired and transferred among the learners themselves, the ability to conduct an open discussion, where each learner gets more of an equal standing than in a face-to-face discussion, access to information and to discussion ability, responses may be made around the clock with no restrictions, a higher motivation and involvement in the process on the part of the learners.

Comparison between traditional learning and E-Learning is shown in Table 1.

Table1: Comparison between traditional learning and E-Learning

	Traditional Learning	**E-Learning**
Classroom Discussions	The teacher usually talks more than the student.	The student talks at least as much as or more than the teacher.
Learning Process	The learning is conducted with the whole class participating; there is almost no group or individual study.	Most of the learning process takes place in groups or by the individual student.
Subject Matter	The teacher conducts the lesson according to the study program and the existing curriculum.	The student participates in determining the subject matter; the studying is based on various sources of information, including web data banks and net-experts located by the student.
Emphases in the Learning Process	The students learn "what" and not "how"; the students and the teachers are busy completing the required subject matter quota; the students are not involved in inquiry-based education and in solving problems, but rather in tasks set by the teacher.	The students learn "how" and less "what"; the learning includes research study which combines searching for and collecting information from web data banks and authorities on the communications network; the learning is better connected to the real world, the subject matter is richer and includes material in different formats.
Motivation	The students' motivation is low, and the subject matter is "distant" from them.	The students' motivation is high due to the involvement in matters that are closer to them and to the use of technology.
Teacher's Role	The teacher is the authority.	The teacher directs the student to the information.
Location of Learning	The learning takes place within the classroom and the school.	The learning takes place with no fixed location.
Lesson Structure	The teacher dictates the structure of the lesson and the division of time.	The structure of the lesson is affected by the group dynamics.

Proctor [8] proposes a spectrum of E-Learning highlighted in figure 1.

Contact learning	Flexible learning	Blended learning	Online learning	Distance learning

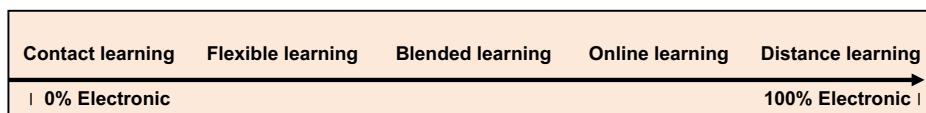ı 0% Electronic   100% Electronic ı

Figure 1: Spectrum of E-Learning

Analyzing the proposed spectrum the places of the Online learning and Distance learning could be changed. Online learning is more closed to 100% Electronic learning than the Distance learning. The Distance learning could be more effective if some lectures or seminars are face-to-face delivered in the beginning of the course.

Why blended learning?

Blended learning (BL) systems combine face-to-face instruction with computer-mediated instruction [1].

The definition reflects the idea that BL is the combination of instruction from two historically separate models of teaching and learning: traditional face-to-face learning systems and distributed learning systems. It also emphasizes the central role of computer-based technologies in blended learning.

There are many reasons that an instructor, trainer, or learner might pick blended learning over other learning options. Osguthorpe and Graham [7] identified six reasons that one might choose to design or use a blended learning system: pedagogical richness, access to knowledge, social interaction, personal agency, cost-effectiveness, and ease of revision.

Blended learning has become increasingly important and is closely related to distance learning and E-Learning. In spite of the many attractive advantages of accessibility, flexibility, and cost savings of E-Learning, direct human contact, especially the physical face-to-face interaction is missed in the learning process. Putting learning materials online doesn't make learning happen automatically. It is a big challenge to create good E-Learning courses, and develop relevant learning skills and culture. Many people and organizations returned to the face-to-face mode after experiencing frustrations with E-Learning [6].

If the one-place-same-time traditional face-to-face classroom teaching fits at one end of the spectrum of the learning delivery mode, then pure E-Learning fits on the other end. Figure 2 reflects the spectrum of delivery modes in terms of time and space, and illustrates the relationship among distance learning, E-Learning and blended learning.
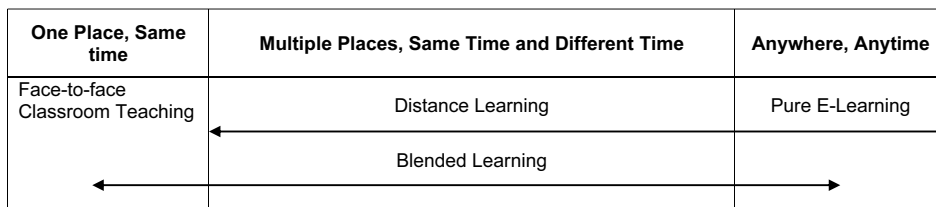
One Place, Same time	Multiple Places, Same Time and Different Time	Anywhere, Anytime
Face-to-face Classroom Teaching	Distance Learning Blended Learning	Pure E-Learning

Figure 2: Spectrum of delivery modes

The results of some studies suggest that there are tradeoffs in the processes when you compare blended and traditional learning. The authors believe that traditional classrooms will continue to offer benefits that arguably cannot fully be obtained in any other manner, but that any gaps in process effectiveness will continue to be narrowed as technology becomes friendlier for both instructor and student [2].

How does learning online compare to traditional training methods?

In the Table 2 the comparison of the online and the traditional training methods is done [14].

Table 2: Learning online compared to traditional training methods

Blended Learning	Traditional Classroom Learning
Study on your own schedule, anytime.	Classes are on a fixed schedule.
Choose how long you study in each session.	Each class session is for a fixed period of time.
Choose exactly what you need to study most.	Follow a fixed curriculum.
All our teachers are qualified native speakers of English.	Classroom teachers are not always native speakers of English.
Students receive personalized feedback of their progress, and vocabulary/grammar reminders after each class.	Teachers often do not have time to give personalized feedback to each student.
The Human Resources department receives a detailed report on the course to allow them to evaluate each student's progress.	The Human Resources department receives a list of student attendance and must presume the students have learnt something.
Where appropriate, technology is used to enhance the learning experience and improve retention.	Classroom instruction does not often take advantage of technology.

According to many authors it is important to realise that there are advantages and disadvantages with traditional versus E-Learning in delivering E-Learning. On the Figure 3 are given some of them.
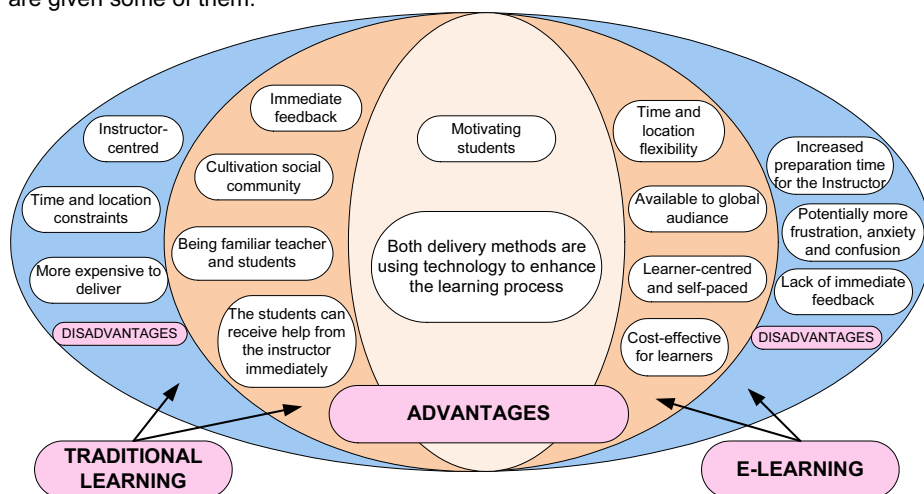

Figure 3: Advantages and disadvantages of the Traditional Learning versus E-Learning

CONCLUSIONS

When we are talking about the learning process in the universities, where the E-Learning is more spread, we have deeply to analyze, according to the spatiality how to deliver the knowledge to the students: traditional learning, blended learning or E-Learning. Before commitment from Traditional learning to Blended learning or full Online learning a thoroughly investigation has to be done.

Implementing of the E-Learning in the universities leads to growing of the teachers' time for preparing the materials and decreasing the time spending face-to-face with the students.

A major disadvantage to E-Learning is that the students need to have self-discipline. While being able to work at your own pace can be an advantage, it can also be a disadvantage. This is especially true for students who have difficulty with time

management and procrastination. For these students the traditional classroom method is more successful.

Today students have better basic computer and Internet skills and they prefer the online learning methods, find more accessible the distance learning platforms and consider the access to courses as being more facile.

The Literature review and analysis was done under the project: 142814-LLP-1-2008-FR-ERASMUS-EN "Enhancing Lifelong Learning for the Electrical and Information Engineering Community".

REFERENCES

[1] Bonk, C. J., Graham, C. R., (2005). Handbook of blended learning: Global Perspectives, local designs. San Francisco, CA: Pfeiffer Publishing.

[2] Chen, C., Jones, K. (2007). *Blended Learning vs. Traditional Classroom Settings: Assessing Effectiveness and Student Perceptions in an MBA Accounting Course*. The Journal of Educators Online, January 2007, Volume 4, Number 1.

[3] Gray Harriman Ltd. (2010). *E-Learning Resources*. [Online].   (URL http://www.grayharriman.com/index.htm). (Accessed August 2010).

[4] Honey, P., Mumford A. (1982). *The Manual of Learning Styles*. Peter Honey Maidenhead Berkshire.

[5] Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall Englewood Cliffs, NJ.

[6] Maguire, C., Zhang, J. Working *Paper "Effective Blended Learning for Development".* Tokyo Development Learning Centre, [Online].   (URL http://www.jointokyo.org/en/). (Accessed August 2010).

[7] Osguthorpe, R. T., Graham, C. R. (2003). *Blended learning systems: Definitions and directions*. Quarterly Review of Distance Education, 4(3), pp. 227–234.

[8] Proctor, C. (2002). Proportion, Pedagogy and Processes: The Three P's of E-Learning, Proceedings of the International Academy for Information Management (IAIM), Annual Conference.

[9] Rashty, D. Traditional Learning vs. eLearning, Mount St. Mary's College. [Online]. (URL http://www.msmc.la.edu/include/learning_resources/). (Accessed August 2010).

[10] Riding, R. (1996). *Learning Styles and Technology-Based Training*. University of Birmingham Department of Education and Employment, UK.

[11] Rogers, C. R., Frieberg, H. (1999). *Freedom to Learn Third Edition*. Macmillan College Publishing Company, New York.

[12] Ross, J., Schulz, R.(1999). Can computer-aided instruction accommodate all learners equally?, British Journal of Educational Technology, Vol. 30 No. 1, pp. 5-24.

[13] Sadler-Smith, E. (1996). *Learning styles: a holistic approach*. Journal of European Industrial Training, Vol. 20 No. 7, pp. 29 – 36.

[14] TJTaylor Ltd. *Corporate English Language Training*. [Online]. (URL http://www.tjtaylor.net/english/elearning-online-and-blended.htm).   (Accessed August 2010).

[15] Wall, J., Smit, et al. (2005). *An International Comparison Of E-Learning In Action – An Interactive Graphical on Line Teaching Resources for Residential Construction in Australia and a Blended Programme to Support Irish Entrepreneurs in Ireland*. In: QUT Research Week 2005, 4-5 July 2005, Brisbane.

For contacts:

Nina Bencheva, PhD, Telecommunications Dept., Ruse University "Angel Kanchev", tel.: 082-888 823, e-mail: nbencheva@ecs.uni-ruse.bg

The paper has been reviewed.