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Integration of virtual and academic counseling system in Distance Education For Health Management (DEHM)

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Abstract

In information age, modern health organizations can use distance education of e-learning issues effectively and they can increase the speed of the learning process of development. Because, health systems can adapt changes by using innovations of leadership and they can reach learning organization level by understanding, thinking and doing well things properly. In this paper, we demonstrate the role of informal discussion about face to face Academic Counseling System (ACS) requirement HES. We try to explain of the synchronal integration of face to face e-learning process and adapting continuous training of the HRM. In this paper, for reaching expected high quality in training we want to explain the importance of academic counseling system and supporting by face to face training during HESM.

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1. Introduction

Information technology is becoming integral to both the workplace and everyday activity of citizens in the rapid industrialization and long standing efforts to modernizing in the world. Economy in information technologies or the purpose of increasing incomes can provide advantages for the versatile use of institutional plans that are the velocity factor of internet era. In the renewal of the Distance Education for Health Management (DEHM), richness of academic interaction processes with active participation is an essential factor. In DEHM, internet-based interactive e-learning process requires a balanced synchronization in managerial, administrative, technical and reinforcement areas in health systems. Every country in the world economy of the 21st century- China, India, Japan, and EU countries- develops new fashion institutions and establishes the balance between harmony in harmoniousness. Moreover, creating ignition in harmony makes neurons provide common procedures at higher level of the system. Nowadays, transformation of huge institutions into short term project teams, partnership, alliance and common enterprises by division is very similar to these short term groups in the nervous system. There is still a long way in front of synchronization industry. Firstly, many small companies that haven't reconstructed raw material and/or

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steps that lead to deeper and more complicated temporary integrations of the problem. Anymore synchronization specialists want to achieve more than selling software. They want to serve directly to their customers and till the ultimate user by following the chain step by step (Toffler , 2006). The constant feedback that institution and managers provides to the workers provides a realistic background with regard to the awareness level. Obviously, getting negative feedback is more difficult than getting positive feedback. So, it is necessary that we appreciate and make use of constructive negative feedback (Yoney, 2007). Now, computers that are as big as a book are easily accessible. Changing conditions require new pedagogical objectives (Gardner, 2006). Knowledge, interest, sensitivity and experience are such notions that are acquired not just by their own lives but rather by using habits based on the past and experiences that are inherited from traditions (Onat, 2006).

The distance education for health management involves development dynamism that is flexible and open to management, renewal and creativity. Institutional education, technology and service model procedures have the advantage of coordination competition Health and Research. The purpose is a constant improvement together with organizational productivity in the processes. In e-transformation institutional awareness, institutional culture change, background standards and accumulation of knowledge provides dynamism in the renewed web-based education, students develop their abilities in the areas they need with the help of various software equipment that include mutual interaction. Students adopt a teaching time and teaching style that are suitable for their own individual needs via educational environments that they enter as “asynchrony” different from classical classrooms and educational materials that they use. Different from traditional classroom environments students can continue interaction and communication in the classroom under their own control and without taking the teacher to the center. In DEHM, interactive e- learning process can enrich within the inner and outer business and academic counseling of face to face interaction dynamism. Richness harmonious can be design between cultural, artistic, sportive opportunities and face- to face activities is required. Practice involving studies, training, graduate interaction are possible with providing multiple participation for a more systematic interaction. Orientation, academic counseling and guidance can be provided in a way that is suitable for DE environment. In classrooms, students knowing each other more closely will motivate them. Academicians from other universities, people that are successful in the industry and other field specialists can be invited to the classes and linked to relevant geographic area.

Human computer interaction is a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use (Dix et al., 2004). The main purpose human computer interaction is to improve new approaches to design usable and functional systems. This new systems can provide technology usability, efficiency and effectiveness. E-learning requires creative and innovative approach for delivering well designed, flexible, learner centered and interactivity for HR of the business (Khan, 2005)

2. The Increasing Importance of Creativity for Business Environments

Active creativity is fundamental for solution to the current problems in the business environments. In scientific process, relevant sections’ (counselor/ academician, participants) revealing their creative potential against the defined problem area is important with regard to inspiring the studies that focus on scientific problem solving. The managerial and administrative dimensions of these conditions that are adapted in academic environments are paid attention within the scientific researches and experiences in academic environments; the notion of creativity has a determining role in producing information and using this information in academic, teaching-learning and social living conditions. In establishing new problem fields and reaching novel synthesis according to cause-effect relationship, the notion of creativity that intuitively looks the existing one critically provides solutions to social problems and its stance against individual/social problems that produces alternatives in academic environments is meaningful (Kaplan, www.universite-toplum.org/text.php3?id=159 - 24k).

In science, events aren’t analyzed one by one, but rather according to their relationships with one another. Cause and effect are the concepts that go together and are related to the situations (Yıldırım, 1979). Today, the production and access of the knowledge at an increasing rate don’t reduce the role of creativity. In reaching at new synthesis evaluating the produced information by confirming it requires creativity. The purpose of education is not to renew what the previous generations have done, but rather to create human societies that have the ability to do something new over the previously done things. According to Piaget, creative and innovative people are supervisor and are kind of people that don’t admit everything offered to them as they exist (Sungur, 1992). It is useful to employ

creativity or interactive communication between academicians and students in the current education environment instead of transferring the already prepared knowledge to the individuals or claiming to teach everything. In this way, it is intended that learners positively affect the education environment by using their own initiative, being an active factor that produces information in the information process, taking a position as producer- consumer. Thus, using the potential of creativity can initially enable people to look at the life from a global perspective. In education field, flexibility in creative thinking is emphasized in training teachers as well as students (Yavuz, 1989). Yürekli (1996) indicates that academic staff need to learn together with learners; that's, knowledge production efforts are required. According to Inam (1995), the way to achieve this requires the university to be an institution where information is freely produced, discussed based on its own inner dynamics.

2.1. Efficiency factors of the increasing face to face interaction richness

Nowadays, the aid provided by internet to the education processes is growing and increasing to the developing web platforms and the strong database relationships provided by content management support (Togay, Kılıç and Karaaslan, 2006). In e-learning, a learning practice is shared simultaneously or not with other learners and teachers on an interaction environment that is established via computer nets. One of the basic aspects of web usage in education environments is the interaction among participants (Davidson- Shivers and Rasmussen, 2006:23). Establishing interaction in a web based education environment from all around the world that is free of an authority and fast makes an important contribution to learners using their initiatives and developing effective features that help them to achieve themselves. More than being a task attributed to somebody, academic counseling and web based education environments is an interactive notion that learners and teachers establish together. There is a need for visional enterprises and scenarios for the quality and standard development of DEHM.

As a further study, more sensitive outcomes can be achieved as a result of the adaptation of other technologies of the artificial intelligence into the system (Öncü ve Varol 2006). While some people are good at active learning by interacting with others, some others may prefer to individual learning by themselves. While some learn with visual shapes more easily, other adapted verbal methods. The information that people confront within their daily life isn't structured according to their learning preferences. Individuals should learn to use all the methods necessary for storing the knowledge they wonder or they have to learn in their long term memory and achieve the behavioral change that they are expected by transferring that knowledge into practice. That's to say, they need learning to learn. (<http://www.bilgikurdu.net/index.php?/Makale/Uzaktan-Egitimde-Modeller-insan-Kendi-Kendine-Ogrenebilir-mi.html>, 3.03.2008).

2.2. E-learning provides face to face ACS of the DEHM

The domain model consists of concepts, topics, exercises and tests. The teaching model uses both of learners centered and domain model to adapting presentation for the users;

- a) Increase of quality and standards of e-learning for the human resource of the business,
- b) Actualizations of e-books contains in the business training systems,
- c) Increase of e-research project studies for the human resource of the companies.
- d) Improving flexible participation and exchange programs based on actual business problems,
- e) Providing e-academic supports of other business and Universities toward to the all business.
- f) Providing face to face ACS to e-Learning of the DEHM can increase the quality of education.

DE, which took its place in contemporary education system by teaching with letters, is in the renewed forms like web based education, synchronous education with the development of internet and internet Technologies. The academic studies that began with post and television can be used in live classrooms that are completely web based, supported by video conference system and simultaneous with other universities. Teleconference meetings that use internet web, electronic posts that replaced traditional posts, electronic books and periodic publishing that make up an alternative for the published resources are the models that are used as a part of internet based DE. Today, among these models, the most commonly used model is Web Based Distance Education (WBDE) model. In WBDE model, all of the different techniques that are used under the name of web based DE are utilized. HTML page structures are arranged to reach at the content, e-post lists are used to carry out the interaction safely and discussion lists and chat programs are used to increase the interaction. The most outstanding advantage of WBDE is that students can get

access to the content involved in the system and use the resources as much as they want. An ideal model comes out when the provided flexibility is combined with the economical advantages (Carswell and Venkatesh, 2002; Maly and others 1998). For the reliability of the health system in the future, the determined global health education standards that involve DEHM expertise in the preparation to be done should be talking into account by considering the quality.

3. Interaction ACS can give common Platforms for DEHM

What is important is implementing the technology into education that is suitable for the policy of DE and that will best serve the purposes of the institution and recipients (Alkan, 1997). In the technologies used in DE, the relationship among interaction environment, communication and technology gains importance. Interaction refers to the communication between two or more sides. However, interaction isn't just used with this general meaning in DE. When interaction is mentioned, three different interaction levels that have a direct influence on the quality of the on-going education should be born in mind (Trentin, 2000). Here the interaction is carried out with a delay, and thus, feedback is transferred to learners with a delay as it is obtained from student with a delay. The synchronous refer to technologies where simultaneous interaction is provided. In this sense, all three levels of interaction can be achieved simultaneously by means of the technologies like video conference that provides interaction close to face to face interaction, interactive TV (Girginer, 2001). Environment (media) is the communication structure that involves special presentation of information. For this reason, every environment has peculiar features in presenting and organizing information. Same environment may involve several different presentation technologies. For instance, when a sound based environment is used, voiced conference may make simultaneous interaction possible while sound cassettes merely provide the interaction between participants and learning materials with one way interaction. In education, five environments are mentioned (Bates, 1995): face to face, graphics/ written texts, sound, images and computers. In the effectiveness of DES, pedagogical, financial, managerial, technological targets and objectives have an importance as a criterion ([http:// www.odevsel.com/bilim/1869/uzaktan-egitimde-teknoloji-ve-etkinlik.html](http://www.odevsel.com/bilim/1869/uzaktan-egitimde-teknoloji-ve-etkinlik.html), 04, 03.2008). In 1999, in his study called The No significant Difference Phenomenon, Thomas Russel indicated that the view that DE was as effective as the traditional education was supported by the research conducted as he listed 355 studies that had been conducted since 1928 about the effectiveness of DES in DE literature (Russell, 1999).

Therefore, other factors, as well, should be considered when the influence of one factor on effectiveness is taken in to account. For example, the contribution of the program or class that is developed as a factor affecting the effectiveness will be related to the use of appropriate technology in the presentation, a detailed observation of the target group, the institution's providing its appropriate resources to this application (Girginer, 2001). Presenting the program or class to the learners who are qualified to get the education, developing the mentioned program or class according to the target groups needs and expectations will affect student satisfaction and success and closely related to this, it will affect the effectiveness. Another factor that influences the effectiveness is counselor teachers who make up the other side of education. Selecting and training the educators effectively may be a very important factor in the success of the program. So, it is highly important that educators are matched according to the program and needs of the learners (Moore- Thompson, 1997). This effectiveness process can be measured in various ways like the rate of reaching at learners, the rates of completing the programs, program/class exam results, the advantages of learning, the rate of being employed after graduation and observing changes in life standards. Education technology is a sophisticated process that systematically analyzes the problems that involves the notion of human learning, develops appropriate designs by employing all the components (human power, knowledge, methods, techniques, tools, regulations) that provide solutions, applies and evaluates these designs by managing them (Alkan, 1997:16). DEHM is an elaborate education technology that develops and evaluates education by designing it within the system of learner-teacher interaction (pedagogical, technological, and administrative) in the holistic interaction process that is free from time and location. With this respect, any kind of equipment that increases the quality of teaching learning is regarded as technology. The purpose of using technology in learning- teaching is to provide better values to such recipients as students, employers and governments in terms of education (Bates, 1997:93). The reasons for using technology n teaching- learning (Bates, 2000:16) are; to increase the access to learning and teaching, to increase the quality of learning, to decrease the cost of health education, to establish cost effectiveness in education, to make managers gain the ability to work with technology and to provide the abilities that they will need in the

private lives through technology. Inner structuring of institutions in educational institutions gains importance by structurally varying as the structures of educational institutions change with the development of technology. The functions of Educational Management System (EMS) involve the presentation of the contents of e-learning, recording, interaction and communication between the users and trainers, measuring and evaluating, observations and the reports of user education information and other procedures. In two way interaction that allows for direct interaction between the teacher and students at far corners, environments that are both individual and rich with communication systems are mentioned as students participate in the education either individually or in groups. Compared to the communication nets used by previous generations, the technologies in this formation may provide a much more equal communication net between learners and the teacher and among learners themselves (Bates, 1995).

3.1. Analysis of e-learning human computer interaction and user interfaces

We analyze HR usability at the principle level. Principles reflect the highest level of requirements in a domain, which are based on the cognitive sciences success on HR. Principles are abstract, independent upon implementation suitable e-learning platform for HR training programs. The e-learning methodologies are based on common didactic principles (Miles, 2003, Doneva, 2007). Different instruments are employed to solve problems related to the application of standards, principles, guidelines and recommendations (Mariage, 2004).

The principles of Human Computer Interaction (HCI) and for usable user interfaces (UI) design are summarized in Table I. (Damasevicius and Tankeleviciene, 2008). After all, we have extracted a subset of 10 principles, which we describe further as a common principal model:

- (1)Flexibility/learner-centeredness' (2)Feedback/interaction (3)Affordance (4)Simplicity
 (5)Consistency/organization (6) Error tolerance (7) Standardization (8) Learn ability /memo ability
 (9) Accessibility/openness (10) Satisfaction/engagement

Table 1. Principles of HCI and for UI design

Principle	Descriptions	Example recommendations
Accessibility	The degree to which the system can be used comfortably by a wide variety of people	Allow adjustment of font size
Affordance	Connection between a user interface and its functional and physical properties	Use interface elements similar to real world
Consistency/organization	A harmonization informative or agreement among parts of a system	Use familiar patterns of interaction
Error tolerance /reliability	The ability of a system or component among parts of system	Error messages should be expressed in plain language, indicate the problem, and suggest a solutions
Feedback	The return of information about the results of a process or activity	Keep the user informed about the state and actions of the system
Flexibility	The easy with the which a system or component can be modified for use in applications or environments other than those for which it was specifically designed	Allow the users to customize interface according to their preferences
Learn ability/memo ability	The arability of the user to learn how to use a system and to remember its operational principles	Dialogues should not contain information which is not irrelevant or rarely needed
Satisfaction	To comfort a system its users	Avoid using very bright colors
Simplicity	The degree to which a system or component has a design an implementation that is straight forward and easy to understand	Keep the number of interface elements visible to the user minimal
Standardization	Adherence to standards/recommendations/guidelines	Follow standards and /or guidelines where possible

Source: Damasevicius, Robertas and Tankeleviciene, Lina, 'Merging HCI and e-Learning Domain Oriented Design Principles for Developing User Interface for Mobile Devices, FL2008 Conference, Istanbul, 2008, pp.155-166.

Cooperation could be defined as follows: people are involved in a common work process. The team is assessed as a whole, and compaction is minimized. Decisions are made by group consensus, especially for collective action. This principle holds true for the field of distance learning, where the cooperative work between learners and or teachers is most often materialized by a team work. The different actors (learner, tutor, author, and administrator) communicate and interchange together, in order to attain a common objective which is the construction of knowledge for learners (Balla, 2008). Our objective is now to complete our application for the use and experiment it, in this field. We can set up this experiment to achieve principles goals. First, we wanted to validate the interest of

corporation in this area and, we want to check the usability or the environment in particular access to the interactive units. Distance learning system implements this new type of corporations;

1. The need of cooperation in distance learning systems
 - a. Means of help to cooperation (communication, support, interactivity)
 - b. The interactivity process (the interactive scenario, constraints of teaching: the length of course, points of synchronization, organizational constraints)
2. Communications between actors ICLE
3. Integration of corporation in hypermedia documents
4. Modeling

Informal discussion about face to face Academic Counseling System (ACS) is requirement HES. In additions, we are agreed to ACS requirement sessions conclusions for HES. In short, whether online or in the classroom, education is future and such distance learning is merely one medium or instruction among several others available in the realm of education all over the world. Since, e-learning is only a medium and not a methodology, whether or not this medium is effective would largely depend on the nature of the interaction ACS between the following key factors, namely a) the improvement of an e-learning course ware that is result driven of ACS , b) the development of teachers practical familiarity which the state of the art in distance education technology of ACS, and c) the commitment that the e-learners should be willing to make o assume leadership in the more individualized, and self-paced e-learning environment that is accessible to anyone who is willing to learn anything, anywhere.

4. E- Learning Opportunities with New Internet Technologies in DEHM

In this section we discuss how to apply new design principles in an e-learning context. Some are the principles are apply easily. For example, multimodality is related to accessibility. Recently, programs for HR in the business are started by collaborating with DES companies or universities. Beyond borders programs are conducted by using novel DES internet technologies. New technologies (internet, fax video and so on) are partially used in DES; main reference resources and course books are sent from one country to another in a published way via posting. International or over business programs can be offered to learners from different countries. The accreditation of the programs by international business accreditation institutions is important with respect to the development dynamism that involves academic integration. Increasing the relationship of the DEHM and health industry will lead to economical social advantages that will eliminate strategic weaknesses in education while leading to various research and development projects, design of new trademarks, effective and productive functioning of techno- parks, multi-dimensional participation of synergy and the contribution that will lead to positive marks. DEHM institutions make a highly positive contribution in terms of climate change and sustainability of the ecological environment. Basic teaching material of DE is processed with digital course books that are designed for self learning, distance teaching techniques and with the guidance of counselor teaching staff.

4.1. Some of the critical issues of the e-learning systems for the DEHM;

- a. Sustaining academic counseling towards e-learning systems for the DEHM,
- b. Continuous weekly e-learning programs of voiced e-books and reference books for the participants,
- c. Health based research as in e-tests for multisystem for DEHM,
- d. E-home/hospital works and e-DEHM training projects on internet,
- e. E-library and research systems, e-business conferences and e-learning portals and free participation DEHM.
- f. Real life based case studies and real examples discussions for the DEHM learners of the systems.

In DE system, designing interactive teaching environments based on information technologies provide several benefits: Curriculum sequencing and planning, tutoring strategies, device simulation and equipment training, domain expert system, multiple knowledge types, special purposes and intelligent/adaptive hypermedia. Different from the traditional mass communication of the internet, it affects the nature of communication differently: Volume, velocity, format and heading. Also, the possibility of vertical and horizontal communication between groups and people highly increases, links involving multiple texts in the sites. Personal control: Holding control over receiving and sending messages provides the opportunity to be able to find what is sought without needing to gather at a certain center and to decide what will be published (Gibson, Ward, 2000). The new sophisticated digital

environment where they can control the current knowledge and express themselves better without DE meditation can bring about an increase in the interaction between the manager and learners by decreasing communication gap to a great extent.

5. Conclusions

Meaningful learning, as opposed to one-for-all structured (one uniform) learning, depends on concepts, of frames, that are presents in the learner's cognitive structure. For learning to occur, each person mental structures require the understanding of that person's; past history, present needs and an understanding of how he/she learn in different context (Roos and Unlu, 2008). Designing these versions can provide building an effective learning environment for using e-learning principles will be regard to the quality and new modifications of the system. The important thing is to eliminate the weak aspects that come out in the e- teaching process. The essential points involve reaching at the maturity of the system, its design and systematically using certain standards, increasing inter activeness by constantly updating the already prepared contents, its functionality, its quality and reaching at the structure of an attractive model by increasing student participation in classes within the substructures of internet that have become congenial to each other. What leads to the individual's behavior change in the shortest time within the holistic structure of DE is the harmony of the pedagogical activities that has positive effects on him and job consequences. On the other hand, in DES, the effectiveness of the mixed education model that is a composition of face to face education opportunities can positively be increased as well as the courses held in web based classes via internet. In the processing of DEHM, the feeling that they are alone and lonely with the system, and the continuity of the feeling that the system is constantly supported can be provided by tracing the relationship of the system with users, their reactions, criticisms and the problems they confront. Students can get access to the relevant course counselors or trainers by means of e- mail, telephone and fax. Most of the courses are supported by websites via internet. Two sided verbal and visual connection provides opportunity for an interaction between teaching staff and distance education students. That people who couldn't attend to the traditional education process in the past due to various reasons can reach at internet based education opportunities in DEHM via internet involves a basis that reinforces life- long education opportunities as the potential of internet connection system increases every passing day. Interaction in communication process, simultaneity (synchronous data flow), its eliminating time and place limitations facilitate DEHM development achieved by using the advantages of mass communication tools that are peculiar to new media beyond the traditional mass communication. Apart from DEHM, classrooms, television and books, internet based classes increase the dynamism of educational development, as well. The functioning of the fourth and last trend related to e- learning can be provided by using Learning Management Systems about learning architecture and learning standards. In increasing academic interactions among countries, inter- university programs, increasing intensive foreign language learning, wide participation in international conferences, potential development of the university, awarding academic interactions by encouraging them gain importance. Students directly carry out their communication with the faculty by means of e- mail, telephone and fax. Students acquire critical abilities peculiar to their own business environment and life in general. These abilities consist of the capabilities to collaborate in the groups and teams, the capability to write, the capability to search, the capability to communicate, the capability to share the multiple environment and the capability to reach at the resources in online learning association

In e- learning, they are a version of DEHM that involves educational activities which are carried out without requiring the one teaching via internet technologies and the participants to be in the same place and at the same time. Communication tools such as movies, radio, television led to forming of this concept. In e- learning, which meets today's learning requirements, asynchrony (individual) refers to individual's self courses via internet and CD-ROM, classes recorded to videos, verbal- visual web presentations, online discussions, synchronous (live and simultaneous meeting of students and teachers in the internet based classrooms), internet based classrooms, visual-verbal conferences, telephone connection via internet, two- sided (interactive) and live satellite broadcasts. Though DE takes place outside the campus, the program can be combined with the education in the campus. DEHM accreditation program may provide national sufficiency from a single resource for DE programs. Providing the education that educators are asked part by part, linking it with previous knowledge and experiences, comparisons with the examples relevant to individuals' own knowledge, experiences or working environments, varying presentations are awarded in providing support with feedbacks. The change of expectations in e- learning and the

clear and prevalent influence of the technology that becomes widespread with the production of information show the development of pedagogical approaches that are influential in learning and teaching. New technologies provide students with the opportunity of higher quality interaction as published materials, visual and verbal cassettes, as well. Learners transfer, visa, insufficient funds, lack of information and common institutes are important factors that affect the quality of education. Closely related to this, novel common programs, support, network projects, additional credit transfer systems, English training, wide conferences and increasing the number of potential partners may enrich the flexible DEHM opportunities and interaction. On the other hand, university- industry and society collaboration in DEHM and academic interactions or academic counseling in the e- learning process will enrich them more.

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