

Network-based learning essay

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Network-Based Learning Introduction In an era of advanced technology and globalization, the importance of integrating Information and Communications Technology (ICT) into almost all activities can hardly be denied.

In fact, during the past decade, ICT use had consistently and relatively grew that it has made ubiquitous impacts on society and our daily lives (Yuen, Law & Wong 2003). ICT has created such an impact that for most sectors, it has become a necessity instead of an option because of the intense competition dictated by it. The education sector is one of those industries who have already adopted new technologies to help them improve and meet the changing needs in today's environment. In fact, schools around the world—mostly in developed countries—tend to jump on the bandwagon of computer-aided and network-based learning (Further Education 2007).

Network Based-Learning is becoming increasingly automated in many Further Education Colleges installed in its educational management system for the past 10 years. Four cases of network-based learning will be used to develop semantic network or concept map. Aside from this, the report will provide heuristic statements.

Suggested Network-Based Learning Concept Map Learning today has seen different innovation through the use of the internet or the World Wide Web. Based on the presented case, it has been found out that there is a need for a new concept map that will enable learners, teachers and designers to have a more effective teaching-learning process that is information technology based. The extensive use of information technology improved the efficiency in delivering learning, enhance and speed up access for both teachers and learners optimize use of available learning resources.

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Through the Online Public Access, Internet facilities and multimedia terminals, information in electronic and multimedia formats has fast become an integral part of the new network resources. Remote access to teaching and learning services including web renewal service, online reservation service and email enquiry service gives the teachers, learners as well as designers have greater convenience and faster than traditional learning process. Designing and developing a concept map is a difficult process.

By considering these concept mapping aspects, user-friendliness and network efficiency can be achieved. In this section, different aspects of semantic network or will be discussed in detail. Based on the analyzed case studies, these learning objects is useful because they are self-contained which are efficiently annotated with metadata in form of digital or non-digital. Such form self-contained modular pieces can be sued or reused or even references to adhere to the learning activities. Leaning objects can be integrated to form a larger educational instructional design. With this, the development of a new concept mapping is necessary. Herein, the concept map will be based on the object-based lesson model. With this new model a subject can have as many chapters, lectures, discussions and topics as required.

This concept map is seen in the figure below. Herein, the hierarchy of the course and lesson plan design is based on any conventional learning approaches. The goal of this semantic network is to guarantee that instructional designers are conscious of all the factors and aspects governing a specific lesson. As can be seen in the figure the model or the lesson may include different forms of teaching-learning process like computer

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simulations, mental approach, 3 dimensional form or even the conventional paper-process. In this network-based learning, the teacher may focus on the 3 dimensional form approaches which include multiple intelligences. The 3 dimensional forms also enable the teachers to makes the learning tangible for least restrictive environment learners which have using multiple intelligences approach or other learning styles. At the bottom of the model, the teacher may choose different approach of multiple intelligences: kinesthetic intelligence which uses body parts to solve a certain problem or in this case to understand relationship and spatial intelligence using visual images to understand certain relationships. On one hand, the teacher may also choose to use different learning styles such as synthesis (creative) learning, social learning or concept learning to be used in the teaching learning process.

The model used also provide learning opportunity for least restrictive environment learners by using a learning process which uses less verbal approach and using concepts visible to understand certain relationships. It can be said that this new network based learning enable both the teacher and the learner to choose the best approach to used in the teaching-learning process. Figure 1 Concept Map for New Network-Based Learning

Statement This part of the paper will present some heuristics statements based on the analyzed and evaluated case studies. The content of the Network-Based Learning should be clear and efficient to ensure that the teacher and learner would achieve the teaching-learning objective.

. According to the case presented, the content aspect is perhaps the most important factor of a semantic network. Users naturally use the network-based learning to learn and to find information; thus, the content is a significant aspect to which the network will be judged by the user in terms of usefulness (Pelgrum & Anderson, 1999). Basically, in concept mapping with a good content, the designer must clearly identify the users or target audience of the learning process by identifying the specific user type, the designer could easily determine the content needs of this audience, i.

e. teachers and learners. In addition, the goals of the designer must also be evident in the site so as to incorporate the right network based learning content. In choosing the content of the new network based learning design, it is important for the designer to consider those that can be provided and maintained realistically. This will be based largely on the ability of the designer to update the NBL to enhance its capability and usability.

One of the specific factors that contribute to the network based learning efficiency is its being informative (Chakraborty, Lala & Warren, 2003).

The information architecture or organisation of the network-based learning must be coherent and simple so that the learner will be able to easily understand the process. In accordance to the cases studies and analyzed, another important factor of the concept map is information architecture or organization. In order to effectively meet the goal of the teaching and learning process, complexity of information architecture must be avoided. Typically, this can be done by limiting the mapping sections to the most necessary information. The information should also be categorized properly and arranged in a logical manner.

The designer should also ensure that all page designations of the network based learning contain the correct content. Moreover, each concept map must contain sufficient options for easier navigation (Letters and Science Computer Resources, 2006). It has been known that anything in excess is not good; this also applies to network based learning content. NBL designers agree that too much information in the network learning is perceived unnecessary by most users, except if these contents are logically arranged and comprehensive. Thus, proper organization is considered as an important factor of a NBL's contents. Chakraborty, Lala and Warren (2003) noted that organization refers to the manner to which the information and images used for the site are arranged. This factor contributes to clarity and user convenience as they are able to find the needed information easily.

This in turn helps in enhancing the quality of visitor experience among users. To be accessible for teacher and learner the Network based learning should be able to avoid unnecessary content which may affect the user-friendliness and ease of the learning process. Based on the contexts of the case studies chosen, it has been found out that the efficacy of a network-based learning has been studied by a number of researchers.

In general, researchers concluded that the effectiveness of NBL is dependent on its content, information and the learning procedures. When designing NBL, one should think about how they access NBL, as well as how you transmit information and learning activities from one network to the other. Teachers and learner should know almost immediately upon accessing NBL why they should stick around, what's in it for them. In addition, accessibility is yet another aspect to be considered when designing NBL. The accessibility <https://assignbuster.com/network-based-learning-essay/>

of NBL refers to the level of ease teachers, learners and designers will encounter in using the network. According to Hanson (2000), poor download speed due to transmission, access and server lags can cause irritation among users.

This in turn makes the NBL less accessible. In addition, broken links limit the accessibility of the NBL content, which can also cause user frustration and may have negative effect on the teaching and learning process. The main effect of the network based learning should be usable for the teacher and learner to ensure that teaching-learning objectives are achieved.

It has been noted from the cases that one of the problems encountered in network based learning is the usability of the process. In this regard, the main effect of the NBL pertains to another significant factor known as usability. Concept mapping creation based on usability is actually the practice of developing an effective NBL that will enable minimal stress and total usage efficiency to the users (Goldsborough, 2004). From this definition, it becomes clear that the design of NBL should not only be based on the intuition of the design team. Rather the needs and preferences of the end-users (teachers and learners) should also be taken into account. In general, the usability of NBL pertains to how easily it can be used, navigated and understood. NBL is considered usable when the user can find the information he or she needs easily and quickly. Network-based learning also has a high usability level if the user can comprehend the purpose of the network and its instruction for efficient use.

In simple terms, the main effect or the usability of NBL refers to the site's overall function and effect to the user. The usability of NBL on the perspective of the user is very important as it can make a difference between a satisfied user and a frustrated one, or a user that was able to achieve his aims and the one who was unable to. For developers, usability is also significant as it could lead to successful systems or failure due to lack of significant usability aspects. In any case, inadequate usability can lead to wasted resources, time and effort, ultimately resulting to failure. Eighmey (1997) stated that the efficient execution of NBL contributes to its effectiveness and usability for the teaching and learning process. For this analysis, the author opted to base the new Network based learning through the use of learning objects. Such learning object is the main focus of the concept mapping development.

Conclusion The critical feature of network based learning is considered as a collaborative structure, which can entail numerous learning advantages for the users. First, collaboration capability distributes the cognitive load among the teachers and learner of a group and allows them as a whole to learn and discuss new lessons that necessitate the access of knowledge beyond that possessed by any user. Second, the capability of network based learning takes advantage of the network distributed expertise; as the students divide up the learning issues, they become “experts” in particular topics.

Third, learning discussions encourage individuals to coordinate different points of view, enhancing reasoning and higher order thinking skills that promote shared knowledge construction. Concurrently, this type of

discussions result in members talking each other out of their unshared biases and presuppositions as they discover that some of their beliefs and opinions are not socially defensible. In short, network based learning engages learners in cognitive activities that could not be realized individually; the social interaction sets the stage on which a shared cognition occurs. In creating the network based learning, it is recommended that designers and developers have to consider many things regarding the information technologies and designs. If the network based learning adhere to the set standards of teaching and learning process, and then the network based learning can be considered as accessible and readable.

Developing the network based learning can be arranged into six steps: defining the goal which requires a clear goal so as to decide on the appropriate style, appearance and features; overall appearance which should reflect on the teaching and learning culture of the educational institution.

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