

Multiple Intelligences Learning Activities Model in e-Learning Environment

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Abstract

The purpose of this research, entitled Multiple Intelligences Learning Activities (MILA) Model in e-Learning Environment, was to synthesize the form of MILA model.

The research processes were divided into 3 steps. Firstly, we studied the factor which affected the appropriate information for learning activities model. Secondly, we synthesis the MILA model using the studied factors. In this step, we studied the related information of synthesized model, create the research tools (questionnaire) and defined the expert groups (8 staff from computer teaching and education field, 3 experts for evaluate the index of consistency and 5 experts for evaluate the rating scale).

The results from analyzed data were shown as follows: firstly, the experts views regarding the factor of MILA model were at very good level ($\bar{x}=4.50$, $S.D. =0.55$). This means that the MILA model can be used these factors to activities learning. Secondly, the experts view regarding the appropriate of MILA model were at very good level ($\bar{x}=4.51$, $S.D. =0.55$). Finally, the experts view regarding the appropriate of MILA module and structure were at good level ($\bar{x}=4.48$, $S.D. =0.55$).

Keywords: Multiple Intelligences, Learning Activities.

1. Introduction

In 1983, Howard Gardner published Frames of Mind [1,2] The Theory of Multiple Intelligences (MI), in which he provided extensive research to support his contention that human intelligence is multifaceted rather than singular. The nine intelligences identified by MI theory are Linguistic, Logical-mathematical, Spatial, Kinesthetic, Musical, Naturalist, Interpersonal, Intrapersonal and Existential. MI concept is a psychological theory that addresses what the brain does with information. It defines intelligence as the capacity to solve problems or fashion products that are of value. It states that there are nine different ways to demonstrate this intelligence with each having its own unique characteristics, tools, and process that represent a different way of thinking, solving problems, and learning.

However, MI domains were to 3 groups [3,4]: 1.) Analysis domain (Logical-mathematical, Musical and Naturalist) is thinking process and analytic. 2. Introspective domain (Intrapersonal, Spatial and Existential) is manipulated and imagine. And 3.) Interactive domain (Linguistic, Interpersonal and Kinesthetic) is interactive and communication.

The University students were average score intelligence domains. Because the university students have experience and learning in high education used more than an intelligence domain [5,6]. Therefore, this

research was developing MI domains (3 groups).

Learning management System (LMS) is a collection of eLearning tools available through a shared administrative interface. A learning management system can be thought of as the platform in which online courses or online components of courses are assembled and used from.

Online Tools were to synchronous tools and asynchronous tools. Synchronous tools enable real time communication and collaboration in a ‘same time’ mode. They possess the advantage of being able to engage people instantly and at the same point in time. Asynchronous tools enable communication and collaboration over a period of time through a ‘different time’ mode. These tools allow users to connect together at each person’s own convenience and own schedule.

MILA is learning activities that utilize the MI concept and individual learning characteristics to provide three groups.

This paper presents MILA’s model for using MI. It describes how it incorporates the MI theory into it’s model and design and demonstrates how students can choose between MI groups.

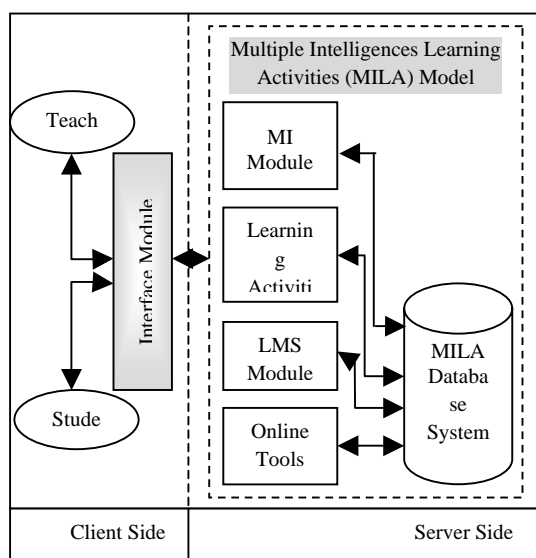


Figure 1: MILA Model

The following sections illustrate these points by describing how the MI concept is integrated into the model, design and implementation of MILA’s MI module, learning activities module, LMS module and online tools module. shown in Figure

2. MILA Modules

2.1 MI Module

The MI concept inspires the MI Module in MILA model. Gardner [1,2] identifies nine intelligences involved in producing material and educational activities.

The intelligence includes the logical/mathematical, linguistic/verbal, visual/spatial, bodily/kinesthetic, musical/rhythmic, interpersonal, intrapersonal, naturalist and existential. MILA model uses three group of these intelligences in MI module:

1. Analytic domain consists of Logical-mathematical, Musical and Naturalist. This is the ability to thinking process think logically and analytic.

2. Introspective domain consists of Intrapersonal, Spatial and Existential. This is the ability to manipulate and create mental imagine.

3. Interactive domain consists of Linguistic, Interpersonal and Kinesthetic. This is the ability to communication and interaction.

Gardner suggests [2] that everybody possesses the different types of intelligences to different degrees and that they operate together in an orchestrated way. The theory suggests that even though different intelligences do tend to be stronger in some people, everybody has the capacity to activate all the intelligences and in different situation different intelligences or a combination of intelligences may be used.

MILA builds a model of the student’s group characteristics by MI questionnaire. The ability of student’s intelligence also

stored in MILA database system. Shown in Figure 2.

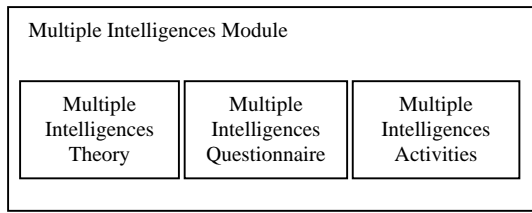


Figure 2: MI Module

2.2 Learning Activities Module

In the learning activities module in reference to Robert Gagne’s conditions of learning is shown in Figure 3.

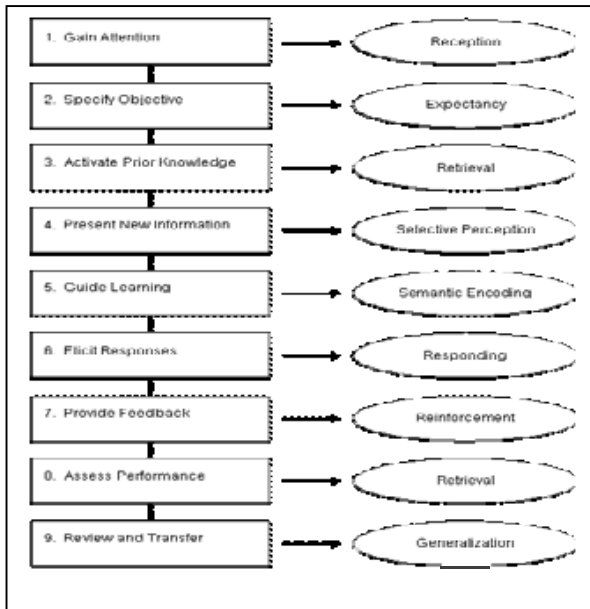


Figure 3. Robert Gange’s “Conditions of Learning”

2.3 LMS Module

LMS module for collaborative development of learning content with built in database connection and authoring tools. MILA are based on Moodle software and add five modules consists of

- Assignment Module provides functionality to use assignment by instructor.

- Lesson Module provides functionality to use content of course.
- Quiz Module provides functionality to use about the question answered by the teacher.
- Survey Module provides functionality to use search engine.
- Workshop Module provides functionality to use group project.

LMS module can be purposely created as Shown in Figure 4.

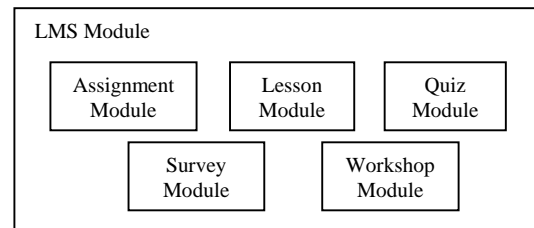


Figure 4. LMS Module

2.4 Online Tools Module

Online tools [5, 6, 7] provide learning interactivities to allow immediate responses between students and students or students and the instructors or between students and interactive media. The students and the instructors to communicate among themselves. Online tools module shown in Figure 5.

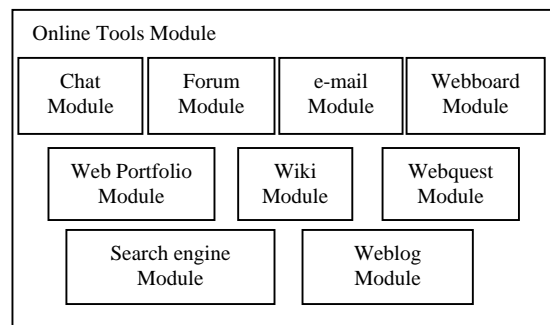


Figure 5. Online Tools Module

2.5 Interface Module

This modules were interacts between teacher and the learner, and the layout on the screen.

3. Results

Result of MILA Model is shown in Table 1.

Subject	Mean	S.D.
the factor of MILA model	4.50	0.55
the appropriate of MILA model	4.51	0.55
the appropriate of MILA module and structure	4.48	0.55

Table 1. Result of MILA model

In conclusion, the MILA model could be introduced to teaching and learning.

4. Conclusion

This paper introduces research in the area of Multiple Intelligences, Learning management system, Learning Activities and Online tools, which resulted in the development of MILA. This paper describes a model and architecture for supporting the different multiple intelligences learner. This paper identifies and illustrates the component required for building MILA. The paper concludes by outlining the initial MILA model.

Finally was developed a prototype for MILA program by using MILA model.

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