

Towards a Multimedia Based e-Learning System for Effective Acquisition of Arabic Language

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Abstract: We plan to construct an e-learning system in a few years, for the beginners of the Arabic language, especially for Japanese. We hope the system may also be used for Arabian children. E-learning system will be developed using the PSI theory and evaluated in relation to the learning styles and cognitive styles to improve the Arabic Language e_Learning. Blended learning, CSCL, LMS and Multimedia will be prepared in. We appreciate any comments and suggestions on our project.

Keywords: E-learning Supporting system, Blended learning, CSCL, LMS.

Introduction

In recent years, blended learning and CSCL (Computer Supported Collaborative Learning) are popular in educational technology research area. LMS (Learning Management System) is widely used to record the students learning progress.

Mosa (2010) found that there is a relationship between the students' recognition progress and their cognitive styles in his work for master thesis. He studied how graphical images well digitally processed help students in learning photography concepts in his class for the students majoring in Educational Technology. Students having "independent" cognitive style and those having "dependent" cognitive style showed statistically significant difference in their learning progress. There are a few studies on Personalized Systems of Instruction (PSI) except for those done by Koen (1970, 1971, 1973, 2002, 2005) and Morita et al. (2005, 2006, 2008). Morita et al. (2005) found in his studies on PSI that there is a relationship between the students' learning progress and their learning styles.

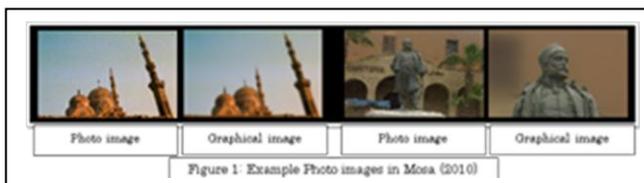


Figure 1: Example Photo images in Mosa (2010)

It is suggested better to apply the PSI theory in any learning system to support students depending on their learning and cognitive styles. It is widely known that multimedia work well in language learning. Arabic countries increase their presence in the world and there is strong desire to learn Arabic language and the culture of the Islamic religion worldwide. It is the time to develop an e-language learning multimedia –based system equipped with learning management to provide personalized support, and also multimedia supports.

A project is planned with the following intentions:

1. A multimedia based e-learning system should be developed using the PSI theory.
2. The system should be evaluated in relation to the learning styles and the cognitive styles of the learners to improve Arabic language learning for the foreigners.
3. An implementation of the e-learning system should be done in an international course between Egypt and Japan.

Research Plan :

1. Objectives:

- Development of a multimedia based e-learning system using the PSI theory will be done to build "E-language Learning System of Arabic language".
- The E-language Learning System will be designed at the beginning, using the instructional design methods.
- The e-learning system will include the mechanism in it to modify learning processes time to time in order to devise a learning process after assessing the users' learning results using the multimedia.
- Target users:
The beginners of the Arabic language, especially for Japanese people. We intended that the system will also be used for Arabian children.

2. Product:

E-language Learning System of Arabic language is designed with these the following features and functions:

- It will be possibility for the Learner to repeat using any media they want to use (Listen or watch).
- It will be Supporting Websites related to the topic of the E-Learning Arabic Language System.
- It will be Supporting Printed Mini Books.
- It will be Required Activities for the Language Skills (Listening, Talking, Reading and Writing) from the learners (Online and Offline).
- It will be Supported Automatic Reader for the Arabic Text with the learners to help them any where far from the e-Learning System.

3. Construction:

E-language Learning System of Arabic language will be in three Languages:

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- A. Arabic Language.
- B. English Language.
- C. Japanese Language.

E-language Learning System of Arabic language will be in three levels:

- A. Arabic Language Basics and Vocabulary: for the beginner Foreigners and Arabian children.
- B. Arabic Language Sounds and Pronunciation: for foreigners who already studied the "Arabic Language Basics" and Arabian children.
- C. Arabic Language for Daily Life: for foreigners who already studied the "Arabic Language Basics" and Arabian children.

4. Schedule:

Firstly, Arabic language content will be obtained from scientific sources such as:

- A book taken from a professor of Arabic language at Cairo University in Egypt,
- Arabic language Center at Tanta University in Egypt,
- Islamic Arabic Institute in Japan,
- Arabic language Center in the Egyptian Culture Office in Japan.

Secondly, Arabic language content will be designed and organized into Effective Multimedia forms.

This is why the E-language Learning System of Arabic language will include: Sound files, Video files, and Graphics.

These supported Multimedia will be by (Male and Female), (Adult and Children), (Native Arabic Language and Foreigners specially Japanese people).

Then, establishment the LMS (Learning Management System) will be developed with Moodle (Modular Object-Oriented Dynamic Learning Environment).

An E-language Learning System of Arabic language will be developed for foreigners based on the PSI theory:

- Each learner will control the E-language Learning System of Arabic language by him or her self depending on his or her personal properties during the study.
- E-language Learning System of Arabic language will support and help the learners by Online Learning (Interactive Chat and Interactive Calls) and Offline Learning (E mails and SMS).

The E-language Learning System will be modified by taking into account the systematic instructional design and training needs analysis, depending on the mechanism of the e-learning system to modify the learning processes any time to devise a learning process after assessing the users' learning results.

Evaluate the E-language Learning System of Arabic language:

The learning styles and cognitive styles of the learners will be assessed, also Comprehension test ("pre-test" before each lesson and "post test" after each lesson), as well as attitudes survey for the e-learning system will take place. And at the same time the

performance of the system will be evaluated in various ways. It will be checked how well the system fully support learners depending on their learning styles and cognitive styles, E-Learning, Blended learning, E_Learning and Blended Learning, E-Learning System, Distance learning, Adaptive learning, Collaborative Learning, Language learning support system, Learning management system (LMS), Personalized system instruction (PSI), Educational Multimedia, Educational Implementation, Instructional Design, Culture Difference, Learner Attitudes, Learner Nationality, Learner Age, Learner Gender, Learner Major, Learner Job and Experiment Place or the Country.

Implementation of the E-language Learning System of Arabic language:

- Multimedia software will be used to record the Arabic Language sounds and videos, also Graphics software will be used to show the human sound system organs during the Arabic Language pronunciation.
- It will be a database for the Arabic Language alphabet and vocabulary. This to be matched with the sound, video and graphic files.
- Software and all data will be stored in the computer hard disk and on the laboratory server.
- It will be username and password for every learner to access the e-Learning system any where any time.
- Learners activities, studying times, participation and home works will be stored in database to be used in the results analyzing and comparing to other learners properties.
- It will be online teacher according to announced time table to help learners when they need by chatting or calls, as well as offline helping by e mails or SMS.
- Individual activities and group activities will be designed to match learner needs.

After establishment the LMS (Learning Management System) by using the Moodle (Modular Object-Oriented Dynamic Learning Environment), it will be

An E-language Learning System of Arabic language will be developed for foreigners based on the PSI theory:

It will be an Exploratory experience for the E-language Learning System of the Arabic language: (Two weeks)

Place: in the Egyptian Culture Office in Tokyo.

Learners: Japanese people and other nationalities who study Arabic Language.

A guide user will be prepared to show how to apply and use the E-language Learning System of Arabic language.

Learners will know that is not the real e-Learning system, but it is only as a test for e-Learning system.

Comprehension test ("pre-test" before each lesson) will be taken

as a placement test to determine the level of the learners and help them to apply for the suitable level to study.

Also, There is "post test" after each lesson will be taken as a progress test.

Attitudes survey for the E-language Learning System will be done to discover the advantages, disadvantages and the learners needs to be easy for them to use and understand the Arabic Language lessons. So we have to ignore the difficulties which the learners found.

It will be supporting tools should be done according to the comprehension test and the attitudes survey in the E-language Learning System.

This is to be as a modified version of the E-language Learning System of the Arabic language.

The real Implementation for the E-language Learning System of Arabic language will be done:

At first, It will be announced (Four weeks) for the E-language Learning System of Arabic language in:

- Arabic language centers in Egypt:
 - Cairo University Center.
 - Ain Shams University Center.
 - Alexandria University Center.
 - Tanta University Center.
 - Japanese Embassy Center.
- Arabic language centers in Japan:
 - Waseda University.
 - Tokyo University of Foreign Studies.
 - Osaka University.
 - Kio University.
 - Egyptian Cultural Office.
 - Islamic centers in Japan:
 - Islamic Arabic Institute in Tokyo.
 - YUAI international school.
 - Islamic Center in Japan:
- Islamic mosques in Japan:
 - Otsuka mosque.
 - Turkish mosque
- Waseda University (Waseda WEEKY, Japanese Student Lounge, International Student Lounge, Laboratory website and the Egyptian Culture Office in Tokyo).
- Facebook website.
- Twitter website.
- Wishing to share this project with the NHK TV in Japan.

Secondly, E-language Learning System of Arabic language will be in three Languages:

1. Arabic Language.
2. English Language.
3. Japanese Language.

E-language Learning System of Arabic language will be in three levels:

1. Arabic Language Basics and Vocabulary: for the beginner foreigners and Arabian children.
2. Arabic Language Sounds and Pronunciation: for

foreigners who already studied the "Arabic Language Basics" and Arabian children.

3. Arabic Language for Daily Life: for foreigners who already studied the "Arabic Language Basics" and Arabian children.

Then, E-language Learning System of Arabic language will be implemented in an international class having students in Egypt and Japan, possibly at the same time (Six weeks) as the following:

- Comprehension test ("pre-test" before each lesson) will be taken as a placement test to determine the level of the learners and help them to apply for the suitable level to study (One week).
- The modified version of the E-language Learning System of the Arabic language will be taken (Four weeks).
- Also, There is "post test" after each lesson will be taken as a progress test (One week).
- The results of the e-learning system in Japan and the results of the International e-learning system between Egypt and Japan will be analyzed statistically(One week).
- The results will be compared with those of the previous studies(One week).
- **Finally**, conclusion will be written(One week).

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