Cairo University
Institute of Educational Studies
Educational Technology Dep.

A Conceptual Suggestion for Distance Higher Education Programs in the Light of Some International Expertises and Trials

A Thesis Submitted as Fulfillment of the requirement for the Degree of Ph.D. of Education Philosophy

Prepared by

Nader S. Shemy

Master Degree in Educational Technology

Thesis Supervisor

Prof. Dr. Mustafa Abdel Same M.

Professor of Educational Technology

Director of National Center for Educational Research and Development

Prof. Dr. Hassan H. Gamea

Professor of Educational Technology

Faculty of Specific Education Alexandria University

2005

Abstract

The last few years have witness a rapid instructional change and a continuous increase in the number of countries which adopted distance education as a substitution or supplementary form of traditional education. This might be because distance education is considered as economic mean to spread education within many sectors that have not been given the opportunities to complete their education, and so through distance education they have the opportunities and assistance to acquire knowledge, information and skills and to accommodate themselves with the society where they live.

With this rapid change, most of countries that used distance education within their instructional organization depended on unorganized efforts of some individuals. In addition, some other countries built the system on the experiences of other nations without looking at the constraints of their local societies. In both cases, the results were not satisfied enough.

Egypt has not been far from serious trials to insert distance education within the instructional system. Distance education is considered one of the scientific approaches to enable the Egyptian higher education to respond to the requirements of the developmental plans and the preparation of qualified and training staffs in all fields.

In order to make these trials serious in reality, it was important to follow a number of steps that lead to organize the process of designing distance education program according to a valid and scientific way. These steps could be named as instructional design models, and this what the researcher is trying to reach in the hope that the nature of distance education program suits the nature of higher education form in Egypt.

According to the above-mentioned discussion and ideas, there was a need to find a conceptualization or a model to design distance education program for higher education system in Egypt, and to functionalize it in solving many instructional problems in Egyptians higher Education. In the light of that, the following question is addressed:

- What is the proposed instructional design for distance higher education program in the light of some international expertise and trials?

Based on what have been mentioned, the following procedures were considered:

1. Reviewing literature and related studies in the field of distance higher education programs for the purpose of finding out the nature of these programs, their characteristics and properties, their design and requirements, and how to apply them. This what has been done and included within chapter two of this thesis.
2. Defining what instructional material, have been used in distance higher education programs in order to high light them, set their instructional design, and define the way in which they could be functionalized. This is because the instructional materials are considered us the most important element that may affect the success or failure of any distance education program. This has been done and included in chapter three of this thesis, which comprised the following subjects:
    - Procedures concerning instructional materials. instructional design of Computer multimedia programs.
    - Tele conferencing technology.
    - Interactive video programs.
    - Broadcasting via satellite technology.
    - Internet services and applications.
    - Virtual reality technology.

- Teletext and videotext technology.
- Broadcasting audio programs (audio recording).
- Broadcasting television programs (video tapes).
- Printed materials.

3. Presenting and analyzing the international work and expertise of other nations in designing distance higher education programs, with more emphasis on positive and negative sides of all experiences. This has been done, and included in chapter four, which comprised the following subjects:
    - Aspects of the European expertise.
    - Aspects of the American expertise.
    - Aspects of the Asian expertise.
    - Aspects of the Australian expertise.
    - Aspects of the African expertise.
    - Aspects of the Arab expertise.
    - Aspects of the Egyptian expertise.
4. Build up the conceptual suggestion for designing distance higher education programs in the light of the above-mentioned procedures and steps. This has been done and presented in chapter five of this research, which comprised the following stages:
    - First stage: a Preliminary analysis of the instruction requirements.
    - Second stage: Preparing and designing the instructional content.
    - Third stage: Designing and producing the instructional multimedia.
    - Fourth stage: Defining the elements of interaction environment.
    - Fifth stage: Defining the delivery and correspondence system.
    - Sixth stage: Defining the support systems.

- Seventh stage: The initiative application in order to evaluate the worthiness and efficiency.
- Eighth stage: the final execution (application).
- Ninth stage: the summaries evaluation.
- Tenth stage: the constructive evaluation.
- Eleventh stage: specific quality standardization.

5. Presenting the conceptual suggestion to experts who specialize in instructional design and educational technology, and then conducting the required.
6. Evaluating the efficiency of the conceptual suggestion by following the steps and procedures in stage seven in the model, and this includes:
    - Reviewing and evaluating by experts.
    - Evaluating the quick original model.
    - Evaluating the whole program (Alpha evaluation).
    - Evaluating the whole program with the teacher present (Beta evaluation).
7. In view of the steps and procedures mentioned in stage seven in the conceptual suggestion, the researcher stanted conducting the conceptual suggestion stages through stating the objectives and syllables of the course for educational technology students who study a General Diploma in education. The course title was named "Readings in educational technology". In addition, the researcher suggested and defined the scientific content for one of the studied courses with the title of: educational technology, communication, and updating education. Then, the researcher began designing a printed material, a multimedia program, and a guide for learners which clarified everything required to study from distance.
8. The researcher presented the printed material, the multimedia program and the learner guide to a group of experts for the purpose of reviewing and evaluating. This was done via interviewing and meetings.

9. The printed material, the multimedia program, and the learner guide were given to some postgraduate students (students who study a General Diploma in Education, the institute of educational studies, Cairo University), to review and evaluate them. This was done via individual and group interviews. Through the interviews, the quick original model, and the full program (Alpha evaluation) were evaluated. Further the full program was evaluated with the teacher present (Beta evaluation).

in the light of that and based on the individual and group interviews, and according to the questionnaire given to the sample, the researcher made sure that the proposed conceptual suggestion of distance higher education program was appropriate and had a sufficient validity when designing these specific instructional programs.