

Distance education as solution in adult education for female physical education teachers.

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Continuous training of educators is necessary not only for their constant professional development and progress, but also for the updating and development of educational systems. Within the framework of the present assignment distance educational material in the scientific field of football was developed, aiming to meet the educational needs of female teachers of Physical Education, who stand in need of training in the specific scientific field. After the development of the first issue of the educational material, in written and digital form, a formative evaluation was carried out and certain suggestions concerning the filling out parts of the written material came up as its result. Following the corrective interpositions and the final development of the educational material application of a distance learning program was done where the material was the main source of learning material among a group of thirty female Physical Education teachers aiming at its final evaluation. After the results had been processed both the efficiency of the educational material and the achievement of its learning aims, as well as its appropriateness for the distance training of female Physical Education teachers.

Keywords Distance learning; educational material; training; assessment

1. Introduction

Distance learning is particularly important to the training of teachers who should respond efficiently to frequent and fast changes of knowledge. The distance training method using specifically designed educational material offers to trainees the possibility of choosing their personal pace of learning while at the same time they can participate without physically attend. This kind of programme application facilitates the participation of all teachers -especially those who work in inaccessible regions- in training programmes, without actually being necessary for them to leave home or overlook their professional, family or social obligations. (Matralis, 1998, 1999; Race, 2001; Rintala, 1998). Female primary teachers of Physical Education in Greece constitute a category of educators which stand in need of training. Female teachers of Physical Education have not been taught football courses within the frames of their academic studies, while they are called to teach the relevant subject in their school classes. It is, thus, necessary for them to be trained at a postgraduate level on the particular subject. This assignment attempts to cover the lack of training of female Physical Education teachers in the field of football by developing educational material which is compatible with distance learning and their training with this method.

2. Purpose

The purpose of this assignment was the design, development and evaluation of distance educational material, in written and digital form, in the scientific field of football, which could be the base of training for female teachers of Physical Education in primary schools.

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3. Materials and method

The design and development of the educational material was based on the particular features of the female Physical Education teachers, on the particular features of distance learning as well as on the theories and principles which condition adult learning. More specifically, the stages met throughout the planning and development of the educational material, are the following:

- Identifying female Physical Education primary teachers profile (demographic, cognitive, learning, social and professional characteristics),
- Defining pursued teaching targets,
- Defining detailed content,
- Selecting the form of the material presented,
- Surveying bibliographic resources on the theories and principles which condition adult learning
- Surveying bibliographic resources on the specific characteristics of distance training educational material,
- Surveying bibliographic resources on educational material designing models in open and distance training – selection of model,
- the model selected for the development and designing of the educational material was that of West and Lionaraki (2001),
- Collecting, studying and assessing educational material in the scientific field of football,
- Developing material in the form of distance training
Printed material
Digital material (multimedia educational software cd-roms).

Assessing education material:

Within the frames of the present assignment both formative as well as final assessment were applied.

Formative assessment

The aim of formative assessment was to check upon the quality and the appropriateness of the educational material for female teachers of Physical Education in order to identify possible problems or deficiencies and propose corrective interventions. Five persons especially trained in the scientific field of football as well as five persons with no special training served as assessors.

The assessment of the educational material was completed through the use of a relevant questionnaire and the immediate monitoring of three of the non-specialised trainees in the field of football while they were using digital material. The study of the data collected through the questionnaires led to certain suggestions to complete the printed material while the data collected through the monitoring of trainees proved that the digital material is generally user friendly.

Final assessment

Following the corrective interpositions and the final development of the educational material an application of a distance learning programme was done where the material was the main source of learning material among a group of thirty female Physical Education teachers aiming at its final evaluation.

3.1 Aim

The aim of the assessment was to check the appropriateness of the educational material for the distance training of female Physical Education teachers as well as its effectiveness to disseminate information and turn it into knowledge. Aiming at the above target, a questionnaire monitoring the appropriateness of the material, as well as a preliminary and a final test were used, which had been adapted to the needs of the survey.

3.2 Sample

Thirty female Physical Education teachers, working in primary schools in the prefecture of Dodecanese (complex of island in the Aegean Sea) took part in the survey. Sixteen teachers were working in Rhodes, seven in Kos, and five in Kalymnos and two in Leros. Their average age was 33.7 years and their average working experience in public schools was 4.9 years.

3.3 Assessment tools

A) Tests

A 30 multiple-choice questions test was drawn up to assess the cognitive level of the participants. The latter were called to complete the test twice. The first assessment was carried out prior to the study of the educational material and the second one after its completion. In both cases, the questionnaire was the same (the questions were presented in different order).

B) Questionnaire for the appropriateness of the material

The questionnaire included sixty questions and the answers were given in a five level scale (“Very much”, “Much”, “Pretty Much”, “A little”, “Not in the least”).

Assessment axes:

1. Printed material. The first axis included the sub-axes of teaching content, teaching methodology and presentation of printed material.
2. Digital material. The second axis included the sub-axes of achieving educational targets, quality of user interaction and presentation of digital material.
3. General questions

3.4 Survey implementation

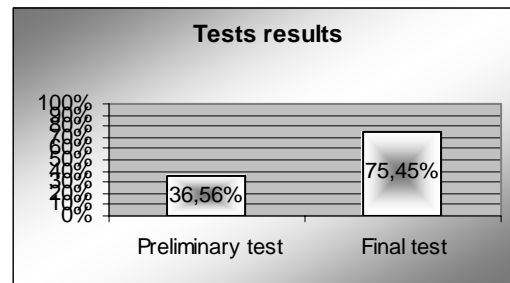
At the initial stages of the experimenting procedure group meetings were carried out where the educational material and evaluation of its appropriateness questionnaires were delivered to the female Physical Education teachers. Moreover, the teachers completed the initial test. The participating parties had 4 weeks to study the educational material and one week to answer the questionnaire concerning its appropriateness. Having studied the educational material the Physical Education teachers attended once again group as well as individual meetings where they took the final test.

4. Results

4.1 Tests results

The participant assessment was based on the average degree of successful performance in the preliminary and final test. In statistical terms, a significant improvement of performance was noted. More specifically, the average degree of successful performance in the preliminary test was 36.56%, while in the final test was 75.45%, i.e. 38.89% performance improvement.

Fig.1 Test results



Analysis of the data collected from the questionnaire

1. Printed Material Axis

In the first axis, 86% of female Physical Education teachers find the printed material “much” or “very much” satisfactory, 13% “pretty much” satisfactory, while just 1% of them find it “a little” satisfactory.

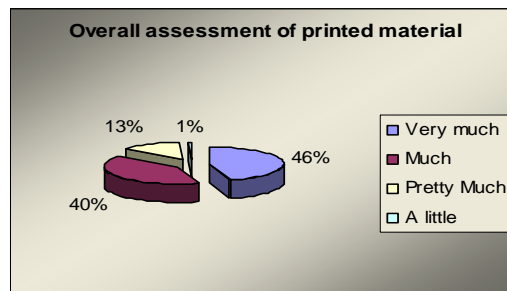


Fig. 2 Overall assessment of printed material

2. Digital Material Axis

The overall assessment of the digital material is most favourable, since 90% of the female Physical Education teachers who completed the questionnaire find it “much” or “very much” satisfactory.

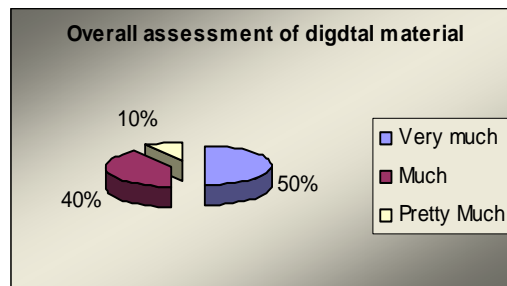


Fig. 3 Overall assessment of digital material

3. General questions

In questions concerning the printed as well as the digital material, the great majority of female Physical Education teachers (88%) stated that the educational material allowed for them to choose the time and pace of their involvement. Furthermore, almost all of the participants (namely 97% of them) described their distance education training process as “much” or “very much” satisfactory.

5. Conclusions

The test results made evident the significant improvement in the performance of the female Physical Education teachers; this proves that the use of educational material leads to significant progress as well as to the successful achievement of its learning targets. Moreover, the great degree of improvement in their performance proves that female Physical Education teachers held a strong motive to be trained in the subject area of football. Being motivated constitutes a basic factor that affects the end-result of learning (Antoniou, 1998; Vosniadou, 2001; Jarvis, 2004). A strong motivation arose from the fulfilment of

their basic need to acquire the knowledge and skills in the field of football in order to be efficient in their professional roles.

Through the analysis of the data collected from the questionnaires it was established that the trainees viewed positively the educational material as well as the procedure of their training with the method of distance learning. Moreover, it was established that the educational material activated and enforced their learning motivation. The appealing and versatile presentation of the teaching material roused their interest and encouraged them to continue their study. What is more, the results prove that the educational material is compatible with distance training as well as the principles of adult learning. The educational material includes the appropriate elements which ensure learning functions like student guidance, encouragement of interaction between student and material, explanations, assessment and support. Furthermore, it associates the existing knowledge and experience of trainees with the subject of learning and allows for them to be autonomous as well as to participate actively in the course of their training (Evans, 1994; Banou, 2001; Rowntree, 1994).

References

- [1] Matralis, X. In D. Bergidis, A. Lionarakis, A. Lykoyrgiotis, B. Makrakis & X. Matralis (Eds) pp 59-62. Patra: E.A.P. (1998, 1999).
- [2] Race, P. London: Kogan Page (1998).
- [3] Rintala, J. *Quest*, 50 (4), 366-378. (1998).
- [4] Lionarakis, A. In A. Lionarakis (Editor), pp 33-51. Athens: Propompos. (2001).
- [5] Antoniou, P.. Doctoral Dissertation. *Democritus University of Thrace*. (1998)
- [6] Bosniadou, S. <http://www.e-yliko.gr/genarticle003.htm> (10/05/2006).
- [7] Jarvis, P. Athens: Metechmio (2004).
- [8] Evans, T. London: Kogan Page. (1994)
- [9] Banou, A. In A. Lionarakis (Editor), pp 53-76. Athens: Propompos. (2001)
- [10] Rowntree, D. London: Kogan Page. (1994).