

Abstract

In the era of rapid developments and great demands, technical education must be continuously upgraded both in qualitative and quantitative terms. Unfortunately, inadequate funding and constant changes in T.V.E (Technical Vocational Education) exhaust the teacher without giving him/her a motive to improve his/her teaching. It is worth mentioning that there is no support for teachers with technical seminars in laboratory courses.

On their part, EPA.L students, recipients of an old educational model, have been disappointed by their low school achievement over the years and they have lost any motivation for learning, developing skills and acquiring knowledge.

In response to this, a modern lesson adjusted to the student's needs, interests and based on the social demands can upgrade the quality of teaching and improve the performance of both teachers and students, as well as enhance the graduates' knowledge and skills. In this dissertation, a complete learning environment of mixed type will be created. This term implies an environment that makes use of conventional elements and tools and at the same time enriches the learning material with e-learning available to both students and teachers.

Purpose

- A) Upon the completion of the dissertation, the quality of Greek Technical Vocational Education (T.V.E) and Adult Education (A.E) will have been highlighted, as well as the point of view of teachers, pupils, EPA.L graduates, the apprenticeship year graduates, vocational institution (V.I) or school of continuing education (S.C.E) students and finally the employers and the society in general.
- B) In addition, the research aims at studying the efficiency and effectiveness of learning, understanding of knowledge and acquiring skills by offering to pupils and educators specially designed tools through information and communication technology (I.C.T) which will be adapted to the students' interests, requirements and skills while fostering their interest in learning and further research. For this purpose, a standard mixed - type course (Automobile Systems) will be organized in the field of Mechanical Engineering of the C grade of EPA.L and V.I (Vehicles - Mechanotronic) based on the curriculum. This standard course will be available to everyone (teachers and students) who

will be able to improve their knowledge and engineering skills by means of materials suitable to them.

Method

This dissertation will investigate the quality of education in two stages:

The first stage concerns the presentation of a comprehensive aspect of the Quality of both Technical and Vocational Education and Adult Education. For this purpose, questionnaires will be delivered to Teachers, Students, EPA.L Graduates, Students of the Apprenticeship Year, V.I Students and Employers of the above graduates. We will make an attempt to form common questions for each group so that we will be able to compare the answers and finally evaluate the quality of education.

The questionnaire questions will be based on the four basic research (pillars) in Greek education set by the Ministry on the basis of the European axes and the corresponding quality indicators. There will also be questions related to Adult Education and Counseling.

In each questionnaire there are Questions - Categories related to:

- Personal details of respondents
- Educational Infrastructures, Human Dynamics - Training, Assessment and Organization of School Life, Teaching Means.
- Relationships, School Atmosphere and Socio-Economic Status.
- Educational Processes - Teaching.
- Educational Outcomes - Labor Market.

The second stage concerns comparing the learning outcome which derives from the implementation of a standard laboratory course using I.T in the field of Mechanical Engineering. This standard course will be implemented using educational tools such as Moodle, and others.

The data will be collected through questionnaires and the sampling units will be selected by sampling in clusters from EPA.L schools that will accept to participate in the survey.

The questionnaires will be sent mainly via e-mail. In addition, Lime Survey will be used for data collection, Excel to organize data, create charts and diagrams. The S.P.S.S and the Minitab will be used as statistical packets for data analysis.

Possible Conclusions

- ✓ Recording of the teachers', pupils', graduates', students' of apprenticeship year, I.V.T students' and employers' opinion.
- ✓ The expectations, concerns, concerns, goals and objectives of each category will be taken into consideration.
- ✓ We will try to interpret the above data in order to provide possible solutions aimed at improving the quality of Technical and Adult Education.
- ✓ We will motivate other colleagues to follow and organise "e-learning" courses for every one's benefit.
- ✓ We will estimate whether these lessons can benefit and improve student performance.
- ✓ The statistical data and their analysis will be useful information in the hands of experienced Career Advisors so that they will be able to educate anyone who wishes to turn to Technical or Adult Education about its requirements, problems, career prospects, etc.