SIGNIFICANCE OF FACE-TO-FACE LEARNING IN VOCATIONAL EDUCATION AND TRAINING

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Abstract
Introduction. The implementation of distance learning in vocational education and training (VET) is relatively new, with a clear increase in demand in recent years. In the Valencian Community there are 14 offers of vocational training in the health sector and 78.6% of them are also offered in the form of distance learning. The objective of this work was to determine if there are differences in the students' profile and academic performance between traditional and distance learning modes.

Methods. A comparative cross-sectional observational study based on a frequency analysis was carried out. 82 students from the first year of Emergency Health Care were enrolled. A self-designed survey and student's grades were used as measuring tools.

Results. Students of the distance group were older, with an active work situation, worse availability, more responsibilities, greater interest in the studies and, therefore, greater motivation. However, students of the face-to-face modality were characterized by having fewer responsibilities, parents with a higher level of education, as well as a greater knowledge of languages. Finally, academic achievement of students enrolled in the face-to-face group was greater.

Conclusion. Despite these results, both modalities provide quality training and it should be considered that the distance learning will become more important due to the characteristics of today's society together with the progress of information and communication technologies (ICTs).

Keywords: Vocational education and training, face-to-face learning, student's profile, academic achievement.

1 INTRODUCTION

In recent years, e-learning has become a valuable learning and teaching approach at all levels of education including higher education, vocational training education (VET) and also in primary and secondary schools [1]. At present, there are more and more students who cannot attend classes due to employment, marital status, family responsibilities, distance and expenses incurred with traditional education, making e-learning the best teaching method for them [2].

E-learning makes use of Information and Communication Technologies (ICTs) in order to replace the traditional and conventional learning methods. The benefits and drawbacks related to it have been studied by some authors. On the one hand, e-learning is cost effective as it allows saving travel expenses and offers opportunities for learning for a large number of students with no need for many buildings [3, 4]. Moreover, the use of e-learning allows students to choose their own pace of learning, encouraging them to depend on themselves, which increases satisfaction and decreases stress [5]. Finally, this type of education offers learners an easily accessible resource to experience learning from any place or location [6] and it offers opportunities in education for people with disabilities [7]. On the other hand, some disadvantages identified by Baker [8] are that students may have problems understanding course information that is technical, quantitative or scientifically oriented and, for this reason, e-learning cannot be effectively used in scientific fields that require hands-on practical experiences. Furthermore, the lack of human contact does not allow instructors to modify teaching plans based on moment-to-moment feedback from students. Moreover, e-learning requires very strong motivation, self-discipline and time management skills to complete learning elements and a course [9].

The Spanish education system allows students to choose the most appropriate training option taking into account their interests and personal situation. The number of students enrolled in intermediate and higher VET schemes has practically doubled from the 2007-2008 to the 2015-2016 academic year, from 451,541 to 719,087 students, respectively. Regarding distant VET, it has gone up from 10,951 to 57,931 students at the same time [10]. VET is focused on careers based on technical
education and skill development training. It is closest to the reality of the job market and responds to the need for qualified personnel specialized in different professional sectors, taking into account the current demand for employment. In this sense, VET improves job quality and productivity [11].

E-learning has gained particular importance in the context of VET as flexible training allows a better adaptation to different student profiles who opt for this learning approach. In the Valencian Community, there are 14 offers of VET in the health sector and 78.6% of them are also offered as distance or semi-attendance-based learning, also known as blended learning. The objective of this work was to determine if there are differences in the students’ profile and academic performance between traditional and virtual learning environments.

2 METHODOLOGY
A comparative cross-sectional observational study based on a frequency analysis was carried out. The study relied on the voluntary participation of 82 students of the first year of Emergency Health Care of an integrated public vocational training center of Valencia. Those students were enrolled in a conventional group (based on face-to-face learning) or in blended learning. Emergency Health Care is an intermediate level VET course focused on students acquiring skills such as transferring the patient to a health care center, providing basic medical and psychological assistance in the pre-hospital setting, carrying out activities of medical teleoperation and telecare, and collaborating in the organization and development of emergency plans, predictable risk mechanisms and health care logistics in case of an individual or collective emergency or catastrophe.

In order to determine the students’ profile, a self-designed survey was used as a measuring tool. It was created by “google forms” and included 15 multiple choice questions. It was answered anonymously by learners in a different way depending on the group. The students in blended learning did so through the virtual platform “Moodle”, being the document available for two months. By contrast, the students enrolled in the conventional group filled in the form printed on paper, distributed during teaching hours in the presence of a supervisor.

The evaluation system of this VET course depends on the mode, giving students two opportunities of examination in the case of the blended learning group (January and May) and three in the conventional one (December, March and June). In this work, in order to measure academic achievement, students’ grades compared were those obtained in January in the blended learning group, whereas the average of marks obtained in December and March was used in the conventional one. The numerical grades were classified according to the Spanish educational system in: fail (below 5), pass (between 5 and 6.9), good (between 6.9 and 8.9), excellent (above 9) and with honors (exceptional cases obtaining a 10).

3 RESULTS

3.1 Sociodemographic profile of students
Table 1 shows the percentage of students enrolled in each group according to their gender, age, marital status and residence. As can be observed, students are mostly men in both groups. The distribution by age shows a clear difference between both teaching methods, with 64% of learners being older than 32 years old in the blended learning group, whereas only 24% are in this age bracket in the conventional one. Related to marital status, the greatest differences are found in the percentage of married students, which is twice in the case of students who belonged to the blended learning group (32% vs. 16%). Regarding the type of student residence during the course, it is observed that most of the students of blended learning have their own home (67%) while the majority of the students of the conventional group live with their parents (56%).
With regard to the employment situation, the percentage of active people is much higher in the blended learning group than in the face-to-face one (67% vs. 8%, respectively). Only 5% of students of blended learning define themselves as students, compared to 32% registered in the conventional group. The rest of them, 28% in the case of blended learning and 60% in face-to-face learning, are unemployed.

In addition, information about the working hours of active students was collected. In the blended learning group, 58% indicated to work shifts, 24% continuous, 13% split shift, 2.5% part-time work and the same percentage was obtained in the case of night shift. On the other hand, in the conventional group, 50% of students had a part-time job and another 50% work shifts.

Language knowledge was also analysed, specifically Valencian and English writing, speaking and comprehension skills. The results obtained showed a greater knowledge of students enrolled in face-to-face learning than in blended learning. Finally, it is noteworthy to highlight the highest level of parents’ education in the case of students of the conventional group.

### 3.2 Students’ interests

The reasons why the students had enrolled in this VET course were studied and the results obtained are shown in Fig. 1.
As it is shown, the main objective of practically the totality of students who belong to the conventional group is to get a job, also acquiring important values the objectives of gaining knowledge (44%) and improving the curriculum (36%). However, the students of blended learning give less importance to the fact of getting a job (63%), and much more to maintain it than students of face-to-face learning (37% vs. 8%, respectively).

### 3.3 Academic achievement

The qualifications obtained by the students in each of the professional modules of the first year of Emergency Health Care were studied. The results transformed into percentages are presented in Fig. 2.

Both in the blended learning as in the face-to-face learning, the highest percentage corresponds to a mark of good (30% and 49%, respectively). However, the percentage of failure and non-attendance is higher in blended learning than in face-to-face learning (21% and 14% vs. 5% and 8%), while the opposite situation is observed with the number of students that obtained a grade of excellent or with honors, being higher in the conventional group.

### 4 CONCLUSIONS

According to the results, the students enrolled in blended learning are older, with an active work situation, have a worse availability, more responsibilities, greater interest in the studies and, therefore, greater motivation. However, the academic achievement is worse than in the case of students of face-
to-face learning. Despite these differences, both modalities provide quality training and it should be considered that the e-learning teaching methodology will become more important due to the characteristics of today's society together with the progress of ICTs.

REFERENCES


