# Drop-out Causes in an E-Learning CME Course with High Retention Rate

# M. Cristina Mazzoleni<sup>a</sup>, Carla Rognoni<sup>b</sup>, Enrico Finozzi<sup>a</sup>, Maria Franchi<sup>a</sup>, Beatrice Presciutti<sup>a</sup>, Ines Giorgi<sup>a</sup>

<sup>a</sup> Salvatore Maugeri Foundation IRCCS, Pavia, Italy <sup>b</sup> Department of Computer Engineering and Systems Science, University of Pavia, Pavia, Italy

#### **Abstract and Objective**

E-learning efficiency regarding Continuing Medical Education (CME) has been proved but drop-out rate is quite high. The aim of the present work is to investigate the drop-out causes focusing on a course for nurses and physiotherapists (7811 users). An email was sent to 1393 drop-out users (17.8%) to investigate the possible causes of abandon that can be classified in 4 major areas: 1) lack of a real interest to attend; 2) presence of real interest but abandon due to reasons independent from the will i.e. lack of time or lost website address; 3) technical or usability problems; 4) disagreement with the educational model. About 18% of the users replied to the email within the following 2 weeks assessing lack of time as the first abandon cause (41.6%), maybe related to difficulties in considering e-learning education as a working activity.

### Keywords:

E-learning, CME, Drop-out.

## Methods

Although e-learning has many advantages, literature reports higher rate of drop-outs in comparison with in-person modality [1]. The aim of the present work is to investigate the drop-out causes for an e-learning CME course about "Patients handling" for nurses and physiotherapists. The system is available free of charge since 2008 at the URL http://fad.cbim.it. The course includes: a mandatory initial test to evaluate the initial knowledge, 3 learning modules, a casebased test, a final test and a satisfaction questionnaire. Four attempts are available for both case-based test and final test. Drop-outs were defined as the users not concluding the course during the period of time starting from the date of the enrolment till the end of the observation period, excluding the users enrolled during the last 30 days that were considered still attending. An email was sent to drop-out users to investigate the main causes of their abandon. Users were invited to check the most representatives among 12 possible causes.

### **Results and Conclusion**

During 20 months 7811 users enrolled in the course. A more detailed description of the users behaviour is presented in [2]. Drop-outs users were 1393 (17.8%) (32% male, 68% female -

80% nurses, 10% physiotherapists, 10% other - mean age 39.4 years), while 142 users were considered still attending the course. Retention rate is hence 82.2%, that is a pretty satisfactory value in comparison with other studies (25-70%).

A figure of 249 users replied within the following 2 weeks, reporting a total of 310 checked items. Forty-two percent of the users replied the same day they received the email. The most frequently reported abandon causes were: lack of time (41.6%), lost website address (12.9%), not CME accredited profession (12.3%), technical problems (6.8%) and difficulties in logging into the course (6.1%). Some users enrolled only to test the system (4.2%), while few users judged complicated the website (1.9%), unnecessary the mandatory initial test (1.9%) and a limitation the 4 allowed attempts to pass the tests (1.3%). Few users preferred other educational offers (1.6%) but nobody quoted the low reliability of the system or inadequate course contents. Twenty-nine users explained their motivations and 5 of them stated to have completed the course in the meantime with success, while seven users showed the intention to conclude the course in a short-time. Results exclude serious problems due to system or educational model. The low drop-out rate excludes that the lack of time is due to an excessively time-consuming course. Perhaps "lack of time" is a generic expression pointing out difficulties on making e-learning educational activity be considered as working activity as it happens for traditional in-presence education.

#### References

- [1] Montenegro S, Taliercio V et al. Analysis of Dropouts in the E-learning Courses at the Virtual Campus of the Hospital Italiano de Buenos Aires. INFOLAC2008 - AAIM.
- [2] Mazzoleni MC, Rognoni C, Finozzi E et al. Earnings in Elearning: Knowledge, CME credits or both? Hints from Analysis of Attendance Dynamics and Users' Behaviour. Submitted to Medinfo 2010.

#### Address for correspondence

M. Cristina Mazzoleni, Fondazione Maugeri IRCCS, Via Maugeri 4, 27100 Pavia, Italy. E-mail: cristina.mazzoleni@fsm.it