

Studying, teaching and applying Telepediatrics in Europe: Evaluation of the PEDITOP (www.peditop.com) Telepediatrics public health component

A.N. Kastania¹, I.A. Apostolakis²

¹*Department of Informatics, Athens University of Economics and Business,*

²*Visiting Professor, National School of Public Health*

¹ank@aueb.gr, ²gapostolakis@nsph.gr

Aims and Objectives: There are three general types of research design as exploratory, descriptive and causal. The main focus of this research study is to **explore and describe the relatively unknown area of e-Learning in TelePediatrics in Europe**. As such, the appropriate design is a 'hybrid' of exploratory and, more predominantly, descriptive research. Questionnaires or interviews are generally regarded as the main data collection procedures to be used for these types of research. For this study, web based questionnaires were chosen as they appeared to be the most effective and practical strategy given the time and monetary constraints imposed. Two models of questionnaires were designed to answer the questions: How the overall effectiveness of a public health e-learning platform can be evaluated? How a public health e-learning component can be evaluated?

Limitations: Despite the advantages associated with questionnaires, a number of limitations must also be acknowledged. For example, as people are not always willing to complete and return web based questionnaires, one of the biggest problems can be a low response rate. Furthermore, as the researcher has no control over the conditions under which the web based questionnaire is completed, the questions may be misinterpreted or even answered by someone other than the targeted respondent. Another weakness of web based questionnaires is that they are limited in terms of flexibility. For example, unlike interviews that can be modified quite quickly if necessary, web surveys and web based questionnaires are less flexible and therefore require more preliminary thought and preparation into their structure and content.

Research Instrument - Questionnaire design: The **E-class course evaluation questionnaire designed** sets out questions relating to various e-Learning implementation content issues. Closed-ended questions were used. It was hoped that the relatively straightforward nature of these questions would reduce any participant apprehension and make the respondents feel more comfortable about the questionnaire. The **Evaluation of the PEDITOP e-learning system questionnaire** consists of questions relating to the evaluation of the e-Learning systems. It

required the respondent to evaluate the e-Learning program by marking whether the results had been positive, negative, neutral or unknown. Factors such as the presentation, content and the length of the questionnaires were also considered in the overall design process to ensure that they would all impact positively on the respondent's attitude to the survey, and therefore increase the final response rate.

Data analysis: The key issue with web survey data is that of appropriate analysis. In this research investigation qualitative analysis was considered appropriate.

Methodologies used were:

(a) basic statistics techniques (frequencies)

(b) advanced statistics (for questionnaire behavioral analysis [crosstabs and Kruskal Wallis Tests were applicable] was performed via using the Statistical Package for the Social Sciences),

(c) Data mining via decision tree that was also applicable in the above questionnaires design.

Results: Evaluation results are presented on the basis of a web based research conducted on European Level among students in the framework of the LEONARDO DA VINCI PEDITOP Project (www.peditop.com). The Project received a 2007 Helsinki Award from the European Union It is concluded that the proposed model questionnaires can be used for the evaluation of health related e-learning platforms.