DEVELOPMENT AND IMPLEMENTATION OF INTERACTIVE MOBILE E-LEARNING APPS FOR EUROPEAN NURSING EDUCATION (DIMEANE) – A TRANSNATIONAL PROJECT

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Abstract

Today's students expect flexibility and digital technologies in their learning process and increasingly, e-learning resources have been designed to be amenable to different devices such as tablets and mobile phones. This Erasmus + funded project (DIMEANE 2014-2017) addresses bachelor student nurses' challenges and needs regarding active and flexible learning approaches and innovative teaching practices based on digital open educational resources (OER) as well as cohesion of the nursing education in Norway, England and Spain as OER promotes international mobility.

The specific aim of the project was to develop and implement a platform independent app of interactive, web based multimedia e-compendiums for bachelor nursing education at University of Stavanger (UoS), Catholic University of Valencia (UCV) and University of Nottingham (UoN).

Process of developing the e-learning app:

The process of developing the e-learning app included interdisciplinary and included educational staff, technical staff, researchers and nursing student representatives.

The development of the app consisted of three main activities that were interacting throughout the process:

1. Content development: The pre-existing Norwegian learning material (compendiums) was translated into English and Spanish. Four of the compendiums were nursing focused and four were biology focused. The content was adapted and adjusted according to the curricula of nurse education at the partners' universities. Differences between the partners' programs were identified and quality assured to comply with national guidelines.

2. Technical development: A new web based app platform was developed to make the multimedia and interactive learning (i.e. simulation games, images and exercises) material usable on iOS and Android mobile devices as well as all other platforms, online and offline. Audio of all text was recorded, available both in the app and e-compendiums, and separately as podcasts through iTunesU and other channels.

3. Feedback from the user perspective: Student nurses representatives were included in all phases of the process to assure relevance. A preliminary version of the app was tested in a small group of nursing students and focus group interviews were conducted. The feedback from the student representatives and findings from the qualitative interviews guided further development of the e-learning app.

Implementation and evaluation:

The implementation of the finished e-learning app took place at UoS, UoN and UCV from fall 2016 through spring 2017. The implementation follows the specific programs at the participating universities. After the implementation, a validated questionnaire survey will measure students' use and satisfaction with the app solution and the content. Focus group interviews will supplement further insight. In addition, the experiences and reflections of the educational staff working with the translation/adaption process will be analysed in order to gain knowledge on cultural and subject matter differences at the universities' nursing education programme.
Preliminary conclusion:
Evaluation data is not yet analysed. However, the project has so far provided useful experiences regarding the value of interdisciplinary cooperation, an interacting working process, a visible working platform, open communication between the participating university partners and the importance of including the user perspective through all phases of the process.

Keywords: e-learning app, nursing education, international cooperation, user perspective.