INTERNATIONAL ONLINE COURSE: A PILOT EXPERIENCE OF A CLINICAL REASONING COURSE FOR PHYSIOTHERAPY STUDENTS FROM THREE COUNTRIES

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Abstract

Introduction:
International cooperation and collaborative teaching-learning between universities should and will be the future considering the process of globalization. This cooperation and collaboration is challenging our educational methods and it is important to be innovative in creating new teaching-learning paths based on new technologies. This paper describes a strategic course designed in international cooperation to improve clinical reasoning at different levels. The novice levels endure the idea that a person just follows a set of given rules, without any discretionary judgment or analytical situation. When the person starts organizing principles to quickly access the particular rules that are relevant to the specific task at hand, she/he is on the competent level. This is when the active and analytical decision-making begins.

Purpose:
The purpose is to validate the design of an international online course. This course integrates new ways of teaching and learning, in an online setting, considering globalization, new technologies and new ways of communications. The authors design a pilot implementation of an online clinical reasoning course with three International partners and validate the pedagogic materials and the management of the course.

The clinical reasoning course objectives are to enable independent work in expert tasks in the physiotherapy field and as an independent entrepreneur (EQF/NQF level 6). It is focused on assessment skills for physiotherapy expert, as well as for communicator and professional roles described in European Skills and Competences, Qualifications and Occupations (ESCO) group of European Network for Physiotherapy in Higher Education (ENPHE).

Approach:
The ongoing idea and a draft of the pedagogical materials for this course was developed by the Facilitating of Learning (FoL) working group during spring seminar held by ENPHE in March 2015 in Madrid. In January 2016 three universities decided to start the project: Ghent University (UG) from Belgium, Satakunta University of Applied Sciences (SAMK) from Finland and University of Vic – Central Catalonia University (UVic-UCC) from Spain. 30 students and 3 teachers participated during the pilot considering cooperative work. There were students from 1st to 3rd year of Physiotherapy Degree. In April 2016 the practical implementation of a pilot started by finishing the pedagogical contents and proceeding until the end of that year by doing the course. After the course an ad hoc questionnaire of 5 directed questions was designed and sent it to students to collect students’ perceptions about the course. Feedback from the questionnaire was collected 2 weeks after finishing the course and analyzed. There was a 100% response rate.

Discussion:
In planning and implementing the course the authors have to take into account the selection of the proper activity based on his/her experience level, his/her different curricula’s and different years of studies. Considering these above-mentioned additional literature has to be provided.

Feedback from questionnaires shows that instructions and teachers feedback needs to be very clearly given in an online course, especially when people from different countries are working together.

Collaborative teaching-learning approaches with international peers are good and effective ways of giving and receiving feedback in a foreign language. Also, multicultural approach allows mutual understanding, respecting and coping with differences.
Impact/Implications: Working in an international group with people you don’t know personally prepares you to work in a globalized society.

Keywords: Clinical reasoning, physiotherapy, internationalization, online course.

1 INTRODUCTION

This paper presents a part of a strategic blended learning online-course designed to improve clinical reasoning in four different levels. It will emphasize specifically the first step which has the aim on clinical interview (anamnesis or subjective interview). The sustaining philosophy of our approach/project was based on the concept of clinical reasoning by Higgs and Jones [1] on the one hand and of mobile learning by Taylor [2] on the other hand.

Clinical reasoning is defined as “an inferential process used by practitioners to collect and evaluate data and to make judgements about the diagnosis and management of patient problems”. This standpoint could be linked to Dreyfus’ Model of skill acquisition [3]. The novice levels endure the idea that a person just follows given rules, without any discretionary judgment or analytical situation. When the person starts organizing principles to quickly access the particular rules that are relevant to the specific task at hand, she/he is on the competent level. This is when the active and analytical decision making begins. In our understanding, this collaborative work using blended learning will help students to improve their clinical reasoning skills and to emphasis their attention and knowledge in the different aspects of health and problem solving.

Taylor has defined mobile learning as “learning mediated by mobile devices, or mobility of learners (regardless of their devices), or mobility of content/resources in the sense that it can be accessed from anywhere” [4]. The current situation concerning technology and ways of teaching-learning it is easier now to bring together students from different countries seeking for this common goal concerning clinical reasoning.

Collaboration is a twenty-first century trend [5]. Collaborative learning includes the idea of challenge in the way that students have to express and defend their positions, and generate their own ideas based on reflection. International collaboration between universities should and will be the future having in mind the process of globalization.

2 PURPOSE

The purpose is to validate the design of an international online course for different countries. The clinical reasoning course objectives are to enable independent work in expert tasks in the physiotherapy field and as an independent entrepreneur (EQF/NQF level 6). It is focused on assessment skills for a physiotherapist described in European Skills and Competences, Qualifications and Occupations (ESCO) group of European Network for Physiotherapy in Higher Education (ENPHE) [6]. Generic competences to reach this purpose are to carry on a subjective interview and to provide good and effective feedback to your peer. Below a table (Table 1) with the description of specific competences for each role is described.

<table>
<thead>
<tr>
<th>Physiotherapist role</th>
<th>Competences</th>
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<tbody>
<tr>
<td>Physiotherapy expert -</td>
<td>Collect qualitative and quantitative data related to the patient/clients</td>
</tr>
<tr>
<td>Assessment skills</td>
<td>physical, mental, emotional and social status and functional ability.</td>
</tr>
<tr>
<td></td>
<td>Demonstrate appropriate (safety, comfort and dignity) handling skills.</td>
</tr>
<tr>
<td>Communicator</td>
<td>Communicate effectively with patient/client.</td>
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<td></td>
<td>Document physiotherapy process clearly along professional code and</td>
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<td></td>
<td>national guidelines.</td>
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<tr>
<td>Professional</td>
<td>Demonstrate ability for the process of planning, prioritizing, organizing</td>
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<tr>
<td></td>
<td>directing/facilitating action and evaluating performance.</td>
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<tr>
<td></td>
<td>Demonstrate ability for self-assessment and develop consciously through</td>
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<td></td>
<td>reflective practice.</td>
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</tbody>
</table>

Table 1. Described competences according physiotherapist role.
3 APPROACH

ENPHE is a network that bring together and enhance collaboration between universities across European countries. Specifically in this case, ENPHE events provide time and space to develop new educational approaches for the use of the members. ENPHE has different working groups with which the mission of the network can be achieved.

The idea arose and was developed by Facilitating of Learning (FoL) working group during the spring seminar held by ENPHE in March 2015 in Madrid. Then the first draft of pedagogical materials was designed considering cooperative work between partners. These pedagogical contents were planned by taking into account both a case-studies and role-playing approaches.

In January 2016 three universities decided to start the project: Ghent University (UG) from Belgium, Satakunta University of Applied Sciences (SAMK) from Finland and University of Vic – Central Catalonia University (UVic-UCC) from Spain. In April 2016 the practical implementation of the pilot course started by concluding all pedagogical contents by 2 students and 1 teacher from each university of this 1 ECTS course and proceeding until the end of that year by doing the course. A final sample of 6 students from each university was recruited during June and July 2016 to participate voluntarily in the project. Students were grouped in peers of two and assigned to another pair of students from international partners. At the end, 30 students and 3 teachers participated the pilot carried out during autumn semester 2016-2017. There were students from 1st to 3rd year of Physiotherapy Degree.

After the course an ad hoc questionnaire of 5 directed questions were designed and sent it to students to recruit the students’ perceptions about the course. There were a 100% of answers. Feedback from the questionnaire was collected 2 weeks after finishing the course and analysed by means of a qualitative approach.

4 DISCUSSION

In planning and implementing the course the authors considered the selection of the proper activity based on the level of experience, different curricula’s and different years of studies. It is also important to consider how a novice professional learns and this is the way how this clinical reasoning online course is divided into four levels, each one of them more suitable for a determinate year students.

- 1st level Subjective interview competences – 1st year students.
- 2nd level Hypothesis, assessment and physiotherapy diagnosis competences – 2nd year students.
- 3rd level Treatment competences – 3rd year students.
- 4th level Reassessment and adjusting competences – 3rd year students.

When students from different years are participating in an activity there is a need to clearly define what is expected from each one of them. This makes it possible to achieve the expected competences. That also means it was important clearly to define from the very beginning which were the competences to be achieved in this first level. Because even if one of the levels is more suitable for a certain year students, it is also true, that students from different years can review or improve the known competences. It is well known/recognized that being involved in teaching and/or helping other students to deepen on a topic increases the knowledge in a more effective way than other forms of learning [7]. Then, students from different years can benefit from the contact with other years’ students.

Mobile learning provides an environment of active teaching and learning and also provides digital convergence advantages such as ease of making national and international collaborative work by relating people from different places and/or building learning communities and ability to retrieve information available on the net. This relational facility and this information acquisition are aspects that can significantly increase student motivation and consequently can lead to meaningful learning, understood as the concept proposed by Ausubel [8]. Additionally, as noted, the processes of teaching and learning in groups, where there is a high rate of interactions between them, allows a greater understanding of the topics presented.

Another challenge when planning an international blended learning course is to have in mind differences from curricula’s and the schedules. To solve that problem, during this pilot course each
university had to decide and agree where to place this course in their own curricula's and when was the best time to start it. Also looking at that point, this project used an adapted version of the published competences that arise from the ESCO working group of ENPHE to have a common and familiar framework and avoid differences between universities.

Collaborative work with international peers is a good and effective way of giving and receiving feedback in a foreign language. Also, such as multicultural approach allows to understand, respect and cope with differences. At the end of the course students agreed in improved interview competencies and learnt issues about coping with feedback from others.

Feedback from questionnaires shows that the course allows students to improve the basic competences related to the interview but instructions and teacher’s feedback needs to be very clearly given in an online course, especially when people from different countries are working together. Another item commonly expressed was related to cultural aspects and communication. These two topics, cultural and communication items, could easily lead on misunderstandings between people. Despite that, students felt the experiences quite rewarding and stimulating, especially due to this intercultural aspect. They highlighted this over other aspects of the course. Additionally, and despite a mobile learning approach was used, working from distance could also somehow make more difficult the process. Nevertheless students reported no problems due to this physical distance.

5 IMPACT/IMPLICATIONS

Working in an international group with people you don't know personally prepares you to work in a globalized society.

ICT and mobile devices are a tangible reality for all levels of society and education. ICT in education should be developed on a pioneering element of innovation. This reaffirms the idea that learning takes place both in formal settings, in the classroom, and in informal places, outside the classroom. Given the current situation, it is easier today to bring student together in search of a common goal even though they are from different countries.

Concerning clinical reasoning, this first level provides and improves interview competences and allows students to reflect on their own strengths and weaknesses by peer assessment and self-reflexion. Thus, this paper presents the experience of validating the design of the course over the clinical reasoning outcomes itself. The expected development of the subsequent levels will facilitate a better overview of this clinical reasoning process.

By the time, this experience has shown to be an excellent way to implement internationalization programs both, at home and abroad, and to allow students to work together with others.

ACKNOWLEDGEMENTS

To the students who decided to participate in the pilot and in the course design. To ENPHE to provide the space to develop international collaboration.

REFERENCES


