FOREIGN LANGUAGE AND INTERCULTURAL COMPETENCE: A CHALLENGE IN HEALTHCARE EDUCATION AND PRACTICE

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Abstract

This paper describes the methodology and findings of a project to design and develop an online English language program for healthcare including intercultural needs. The project is an ERASMUS+ 2014 project, where organisations from seven different countries are participating: Tecnalia Research & Innovation (SP), Pro-Kompetenz (DE), Klaipėda University (LT), Palacký University (CZ), The Slovak Medical University (SK), FIT-The ICT Pipeline (IE) and English in Medical Practice Association (PL). The consortium brings together language training departments of higher education centres dedicated to the training of medical and care staff. As common challenge, the partners have identified the lack of a modular, adequate, homogeneous, media supported training programme, based on the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR) standards to satisfy demands of learner-centred formal and informal learning approaches for the English levels B1/B2 and development of intercultural competences for training centres and learning at the workplace. The aim of the project was first to investigate how to overcome the inadequate situation to use self-made materials composed of different sources, producing a free and high-quality reference material for the English education for healthcare students and professionals in European countries, based on the experience and needs from institutions that really work on the subject and know the gaps. Secondly, it is commonly recognized that foreign language/intercultural competences contribute to better recognition on the European labour market, especially among healthcare professionals. The project’s aim is to overcome linguistic barriers and improve chances for students, medical and care professionals for active efficient use of the potentials that the European community offers for learning and working. The project will finish by September 2017 offering innovative linguistic support in the area of English for Medical Purposes by providing an easily accessible, flexible and media assisted learning programme to those who wish to volunteer, carry out specialist trainings, study or work professionally in English speaking healthcare environment. The project’s final products are: learning content which uses ICT-based methodologies that directly addresses needs of the target groups in both formal learning arrangement and flexible, self-paced informal learning settings, a free learning platform for informal and personalized learning, exchange forum and content that can be used on mobile devices, a free app for android mobile devices, the content of professional English in healthcare (nursing in particular) specified according to CEFR, media based content for speaking and listening practice based on CEFR, and tailored, tested, professional and intercultural modular content, including development of intercultural competence.

Keywords: English for Medical Purposes, E-learning, ICT; Intercultural competences, healthcare, nursing.

1 INTRODUCTION

In the last few decades the medical community has increasingly underlined the necessity for medical students and healthcare professionals to acquire adequate and patient-friendly medical language and communication skills [1]. English has become lingua franca in medical sciences. Students, graduates of medical schools and medical staff are encouraged to read medical journals, participate in international conferences, take an internship or undertake work in other European countries to develop professionally and share experience. All above situations will not happen if it had not been for the knowledge of the English language [2, 3]. A study [4] found that the global nurse migration was a fact and “are part of a broader global nursing workforce crisis”. By this, is an urgent need to consider the profile of the student, their cultural background, learning strategies, as well as diversity in media and technology enhanced learning environments. Access to the European Union (EU) has opened the job market for new countries from Eastern Europe (EA). It has been observed that there are a growing number of healthcare professionals (especially nurses) from Poland (PL), Czech Republic (CZ), Slovakia (SK) or Lithuania (LT) who leave their homeland and undertake work in English-speaking countries, the United Kingdom (UK) and Ireland (IE) in particular. At the same time, there is a constant
labor market exchange between Western European countries among healthcare professionals, especially Spain (SP), Italy (IT) and Germany (DE). Recently, the Union of Nursing (SATs) informed that the German Government has set in Spain to hire 30,000 health professionals, primarily nurses and assistants. The project will contribute to objectives of Europe 2020 [5] by enhancing competitiveness of EA healthcare workers, strengthening their career chances and promoting labour market integration. Starting work in a foreign country is a very demanding process. It not only requires good professional preparation, but primarily language skills. Requirements for foreign language and intercultural competences are changing fast [6]. There are new and changing techniques and equipment, approaches and treatments. Besides sound basic skills there is a high demand on practice related - mainly oral - communication skills that are not sufficiently developed among healthcare workers. Different from other fields of professional occupation, this gap bears a high risk as the following article of Daily Mail Online: “Nurses who can’t speak English put patients in danger: Lord Winston’s stark warning over NHS workers from Romania and Bulgaria. Some nurses do not understand basic phrases including ‘nil by mouth’. Strict EU laws mean nurses coming in from European countries cannot be tested on language skills” [7]. Partners that all are experts in this training field unanimously agree that learning material and approaches that satisfy those demands in a holistic approach is not available on the market. Learning material that has been developed on the UK market, in other projects or at the institutions, does not satisfy as a whole the specific practical communication requirements for the different fields of professional activity (care, hospital, and medical tourism), ethical and intercultural issues, entrance level of students, need for consultation, and further learning and fast just-in-time orientation at the workplace. Common European Framework of Reference for Languages (CEFR) was envisaged primarily as a planning tool whose aim was to promote transparency and coherence in language education but in language training for the correspondent levels B1 and B2 in the healthcare field, is practically handled using a patch-work of very different materials, bought or self-produced, adapted, with different focus and approaches, sometimes containing intercultural topics, sometimes not, sometimes referring to new developments in healthcare, or not, using media or not – finally, more or less each centre uses own materials. Internet has brought the ability to learn to the palm of one's hand. Some studies discuss the pedagogical changes [8] that have arisen in the teaching of medical discourse as a consequence of the adoption of Information and Communication Technologies (networks, smartphones, apps, iPads [9], tablets e-learning platforms and materials [10] with an student centered approach) [11]. They examine in particular the use of iPads in the classroom, and consider how this influences the arrangement not only of in class activities, tasks and discussions, but also the possibility to connect the traditional classroom to resources outside the classroom. Moreover, by exploring the positive relationship between language learning and technology, the authors investigate what else the students could do with their iPads to develop their language skills, and how language courses relying on shared technology could be further developed. Moreover there is an increasing interest in the kinds of self-directed, curiosity based learning that have long been common in places such as museums [9]. According to the Horizon Report [12] these factors, along with different forms of informal learning, serve to enhance student engagement by encouraging them to follow their interests. Thus, many experts believe that a blending of formal and informal methods of learning can create an environment that fosters experimentation, curiosity, and above all, creativity. This paper presents work done in the project HELP, an ERASMUS+ 2014-1-ES01-KA203-004735 project which has been funded with support from the European Commission, where organisations from seven different countries are participating: Tecnalia Research & Innovation (SP), Pro-Kompetenz (DE), Klaipėda University (LT), Palacký University (CZ), The Slovak Medical University (SK), FIT-The ICT Pipeline (IE) and English in Medical Practice Association (PL). It is therefore the aim of this project, to create a training programme for healthcare English learners and professionals at the levels B1 and B2 of the CEFR, in line with latest developments concerning the professional content and requirements for European workplace and taking up potentials from media support for learning (mobile devices, connection education and workplace - a training programme that satisfies the demand in the European dimension). The project’s long-term aim was to improve employability, competitiveness and entrepreneurship in the view of new European employment possibilities for healthcare professionals by giving them a tool to more successful integration into foreign and national labour markets. Other envisaged short and long-term benefits were connected with development of intercultural competence, professional and long-lasting synergy of organizations active in the field of education, training and work and cross-sectorial cooperation to attract non-traditional learners, mostly adult healthcare workers. The project makes its contribution to innovativeness in vocational training with respect to development of foreign language and intercultural competences for the workplace. In order to meet the needs, it offers computer assisted pedagogical material available for learners and trainers and a learning platform for media
based cooperative learning in formal learning settings based on CEFR. The consortium wishes to preserve national qualities and at the same time create a unified value and generally recognized course on English for Medical Purposes, thus the challenge to create a completely new learning approach for the English training of healthcare professionals in five East European countries is met within this European perspective.

2 METHODOLOGY

Funding for the HELP project from the European Commission managed by the Spanish service for the internationalization of education (SEPIE) enabled the start of the project in September 2014 and will conclude by September 2017. The HELP project uses a design and development methodology consisting of 5 stages: Gathering requirements in the analysis phase, Prototyping in the design phase, Developing, Piloting and Evaluating (implementing the required improvements included).

![Figure 1. Stages of the project.](image)

Before the Needs Analysis took place, language training departments of Higher Education centres identified in a general way the lack of adequate training material to satisfy demands of students and professional from the area of healthcare, not only in the field of English language but also in the field of related intercultural competences. In the analysis phase data was gathered based on desk and field research, on questionnaires and structured interviews. All target sectors were included. Medical universities analysed linguistic needs of students from the healthcare sector and did it with cooperation of English teachers who specialize in medical English. Other institutions, e.g. hospitals, had direct contact with professional healthcare staff. The Irish partner collected data directly from foreign healthcare staff working in the UK/Ireland. Competences needs assessment was focused on practical linguistic and intercultural needs but included also general communication and cooperation skills, participating 252 learners and 71 medical English teachers. The majority of respondents were still directly belonging to the area of Higher Education (HE); they had experience from Erasmus programme or internship abroad. From there the team designed and built a prototype including 20 courses that were implemented in the learning management system (LMS) based on Moodle linked to the app, including: the development of the content structure based on previous outputs results and partners’ expertise, agreement on a common scope to produce a learning environment that fulfilled educational requirements for English training for healthcare staff at B1 and B2 levels, the assessment of the collected good practice and decision on further use, specifying key vocabulary and key content of intercultural issues, specifying main activities for learner-centered learning approach, “real life” simulation tasks and projects, learning strategies, designing the organization of the units and curriculum to enable use in formal and informal learning environments, designing the presentation of the learning content: navigation, illustrations, layout, media support and developing the audio-video materials for the activities. In each phase of the project, a peer-review system was established where materials produced by one partner were reviewed by another. In addition, 2 annual meetings of the entire consortium and more than 20 conferences were held by Skype to address specific issues.

The project Healthcare English language programme (HELP) makes its contribution to innovativeness in vocational training with respect to development of foreign language and intercultural competences for the workplace. In order to meet the needs, it offers computer assisted pedagogical
material available for learners and trainers and a learning platform for media based cooperative learning in formal learning settings based on CEFR. The consortium wishes to preserve national qualities and at the same time create a unified value and generally recognized course on English for Medical Purposes, thus the challenge to create a completely new learning approach for the English training of healthcare professionals in five East European countries is met within this European perspective. The learning content included in HELP (Table 1) is composed of 14 medical and 6 intercultural competence modules.

Table 1. Competence modules.

<table>
<thead>
<tr>
<th>Medical</th>
<th>Intercultural</th>
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<tbody>
<tr>
<td>1: Hospital procedures</td>
<td>15: Why do we need intercultural competence in care healthcare?</td>
</tr>
<tr>
<td>2: Documentation</td>
<td>16: What does it mean to be intercultural competent?</td>
</tr>
<tr>
<td>3: Physical examination</td>
<td>17: Cultural standards and stereotypes time-tight and time-loose cultures</td>
</tr>
<tr>
<td>4: Hospital equipment</td>
<td>18: relationship-oriented or result-oriented – how can we work together?</td>
</tr>
<tr>
<td>5: Hospital wards and healthcare specifics</td>
<td>19: Communication – did I understand what you mean?</td>
</tr>
<tr>
<td>6: Human anatomy</td>
<td>20: nutrition – what’s wrong with the Irish stew?</td>
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<td>7: Body systems</td>
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<td>8: Basic diseases</td>
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<td>9: Drugs</td>
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<td>10: Wounds and injuries</td>
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<td>11: Taking care of patients</td>
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<td>12: Safety</td>
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<tr>
<td>13: Health education</td>
<td></td>
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<tr>
<td>14: Ethics</td>
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The Help learning material include:

- B1/B2, divided into thematic sections prepared with the International Classification for Nursing Practice (ICNP) norms;
- Each section addresses the four language skills focusing on oral communication and didactically based use of media support;
- Production of videos, most of them based on cartoon videos in order to simulate real situations and enrich the content of the modules.
• Every section finishes with the “first aid” – key words and communicative units for practical use;
• English words with International Phonetic Alphabet (IPA) transcription;
• Intercultural input regarding professional hospital and care environments;
• Gather genuine pictures, video clips, conversations from daily routines in are and hospital for HELP learning content;
• Providing support for learner-centred approach. Adequate sections with tips and guidance for active acquisition and for self-paced learning in informal settings will be developed for platform and content for use on mobile devices based on apps;
• Every module includes a “HELP Skype Community” section where the students enrolled in the module can practice speaking skills with their colleagues.

During the development stage, the learning platform for containing HELP was built based on a website platform based on Moodle. Nowadays, there is a movement in higher education from proprietary software to open source, for e-learning applications and we decided to use Moodle, which is used by many universities and it is flexible enough to allocate the learning resources, design training courses, implement different types of exercises, etc., or a tailored development to implement the solution based on the requirements founds on previous preparation activities. Among the advantages of Moodle solution are zero acquisition cost (available under free licenses), its flexibility and user-friendly interface. The platform was accompanied by the development of an app based on the official Moodle app, linked to the platform in order to facilitate the access to the learning resources from mobile devices and available under free licenses stored in the Android Market. The platform was designed for use in formal learning approaches too e.g. for cooperative learning phases in the classroom. In order to meet requirements for informal learning, there is free access for interested students and professionals for self-paced learning. Adequate sections with tips and guidance for self-paced learning in informal settings were developed and stored on the platform. During the first phase it was developed the graphic design of the platform. The structure was adapted to the needs of target group which reflect “Analysis” activities. Next step was filling the content prepared by participating partners. The third part of development was focused on testing the functionality of the platform and creating background tools (accounts, testing environment, creating other tools as the forum). Localization of content and the app development were carried out during this phase too. The fourth part was focused on the pilot testing of the learning platform. Finally, the last activity was realized after testing and was focused on incorporating changes and requirements that arised during the process of the pilot testing.

During the piloting stage, the learning content and environments, developed in previous activities was tested with 607 users (400 students, 143 self-learners and 64 teachers) from more than 15 different European countries and gathered information based on the questionnaires filled by them using SurveyMonkey (https://www.surveymonkey.com/). Interviews with key contacts were developed on how to further develop/improve it. Content analysis was performed. Feedback from Bulgaria, Turkey, Serbia, Belgium and Finland was also received as a value added to the project. Finally, during the evaluation stage the prototype was tuned in line with the testing results and user needs in order to obtain the final products that were available since March 2017 with the improvements and corrections implemented.

3 RESULTS

All the project's results (the learning material and the app) are licensed under a CC-BY-NC-SA 4.0 Creative commons license, which means that anyone is free to use them as long as the legal terms of the aforementioned license are followed, supporting the production and adaptation of Open Educational Resources in diverse European languages and contribution to the modernisation of Europe’s Higher Education systems as outlined in the Modernisation Agenda [13]. The link for the platform is http://help-theproject.eu/moodle/ and for the app is https://goo.gl/VpurQ
An interesting result from the survey answers is that the teachers teach students from nursing, midwifery, physiotherapy, urgent medical care, radiological science, general medicine, public health, emergency medicine and dietetics. This established the challenge for the project consortium to create motivating and useful material satisfying the needs of students and professionals from all these fields of healthcare. At the beginning of the project a list of topics to present was discussed at partnership level and with the provided answers the selection for the new learning programme was confirmed. Other research showed that medical educators and patients are turning to YouTube to teach and learn about medical conditions [14]. These videos are from authors whose credibility cannot be verified & are not peer reviewed. As a result, studies that have analyzed the educational content of YouTube have reported dismal results. These studies have been unable to exclude videos created by questionable sources and for non-educational purposes; the authors hypothesized that medical education based on YouTube videos, authored by credible sources, are of high educational value and appropriately suited to educate the public. In the production of videos for the online modules of HELP, cartoon videos were produced to practice medical English scenarios based on GoAnimate video templates (https://goanimate.com/) in conjunction with authentic audio where possible. This option was selected due to the privacy and legal issues found when trying to record real situations in hospitals and places with specific instruments.

The results also showed that intercultural preparation from English programs at universities is low. As deeper analysis revealed, intercultural competence often has not been addressed so far in HE but preparation has been limited to learn some rules of behavior and acquire some intercultural knowledge. Another study [6] also showed the role of language and culture in communication for nurses using English as the second language. These nurses constructed new cultural and professional identities, allowing their adaptation. The findings demonstrate that empathy, bilingualism, and intercultural experience are related to intercultural communication competence in healthcare contexts [15, 16, 17, 18]. Additionally it was decided to create a basis for the development of intercultural competence, explaining the cultural concepts and cultural standards in order to understand and correctly interpret situations and behaviors and to be able to react in an adequate way. Six intercultural modules were included in HELP, completely transferable and reusable in any other discipline in HE or any other preparation course for Erasmus student before going abroad. More than half of students and medical staff rated their English preparation from their universities as not sufficient. On the other hand teachers of English language for healthcare purposes rated as good (75, 71%) the linguistic preparation from their English programs in relation to the challenges in the workplace abroad. About 80% of the interviewed students use online-resources for learning. The answers confirmed that we have to dedicate our attention, in frames of HELP project and in HE foreign language learning, to production of online learning settings with a wider range of learning supporting options (videos, pronunciations helps, different speed to choose for listening etc. to meet learners interests and needs, to have an impact on students learning motivation and for improvement of English language knowledge and skills. E-learning can offer an alternative method of education to traditional learning relating to nurses’ or student nurses’ knowledge, skills and satisfaction [19]. Additionally nurse educators highlighted their need for computer information technology staff development to enhance the increasing role information technology has in teaching and learning and the nursing profession [20]. About 57% of respondents had or have Internet access with mobile devices. It means that online learning environments with possibility to learn through mobile devices will
widen learning options, make learning more attractive and improve learning access not depending on learning time and local in order to improve English language and intercultural knowledge.

Additionally the project obtained an official permission to employ the International Classification for Nursing Practice (ICNP) terminology in the learning materials, which facilitates terminological unity and contributes to creating highly-relevant learning content, in particular when creating key words lists with International Phonetic Alphabet (IPA) at the beginning of every module and a short list of expressions at the end of every module. ICNP was created by the International Council of Nurses (ICN) as an international standard of formal terminology used in nursing practice. The product provides a dictionary of terms and expressive relationships that nurses can use to describe and report their practice in a systematic way.

From the analysis of the questionnaires filled by the students, self-learners and the teachers after piloting, students involved in Erasmus+ mobility found the HELP project very interesting as a complementary tool for learning before travelling and during the stay [21]. The content analysis allowed to establish three categories: 1) Very interesting as a complementary tool for learning before travelling and during the stay by the use of technologies; this result is similar to obtain by other studies using e-learning platforms and open source 2) Effectiveness of self-learning 3) Improvement their clinical and intercultural communication skills.

One particular strength of the outputs as identified by testers from all three groups was the presence of recorded keywords, vocabulary and expressions in each module relevant to particular topic. Teachers, students and self-learners emphasized that HELP is a “Great way to learn Medical English”. The feedback indicates that the modules are well selected, well structured, informative, and attractive. It was reported that inclusion of medical terminology successfully expand specialist vocabulary of the student. Many responses shows the usefulness of vocabulary and phrases used in everyday medical situations: “Exercises contain lots of other interesting vocabulary well applicable in practice” (Module 4, Czech Rep., Student)

Innovativeness of the HELP project has also been guaranteed by a variety of intercultural topics with reference to medical professional situations. With the growing trend of international cooperation and adopting to foreign workplace within the EU we provide HELP beneficiaries with modern and practical set of didactic materials. The following comments have been compiled from Polish National Report: “I hope our staff will take benefit of the project’s outcomes as its idea is perfect!”…“Content and linguistic exercises have been well structured and helpful to gain some knowledge about international healthcare. Instructions were clearly structured and understandable. Exercises are great but I don’t think that learners that learn on their own will find partner to talk via Skype. I think they will skip speaking exercises. All the YouTube clips and listening tasks worked well. Good job!”

In order to satisfy the demands of self-paced informal study, both within and external to the workplace HELP took advantage of technologies, with similar results to other researchs [22]. All groups of HELP beneficiaries, including teachers and regular students, approve of the idea of the HELP platform and app. “The platform was really easy in use. I think it can be really helpful for patients and medical staff.”(Poland, Self-learner). “A very motivating platform and project! The content is clear, it is an easy and recommended form of self-learning, rich medical vocabulary - in short – super :-)” (Poland, Self-learner)

This feedback has been very encouraging and has validated the initial idea of the project that there was a dearth of relevant, interactive and work-focused resources suitable for higher education provision. Additionally, it became clear during the pilot testing that although a wide range of medical topics were covered, even incorporating intercultural issues, there are other topics to which the HELP treatment could be applied. Other topics suggested include types and levels of pain and mental health. The lesson learnt here was there is clearly potential for another HELP type project to address additional requirements and subjects not yet catered for by existing medical English resources.

4 CONCLUSIONS

The initial aims were reached. At this moment Higher Education teachers and other interested parties have available well-structured material to allow a holistic and pedagogic well planned approach for English language learning for healthcare purposes. This paper highlights the importance and the benefits of using collaborative e-learning platform in English for Specific Purposes and in Higher Education. HELP contributes to provide a major impact on quality in Higher Education. Well-
structured modules that meet the most important medical contents for the target group, innovative approach with intercultural modules to foster and support mobility of students and staff abroad, audios and videos created in line with the presented contents to support learning, flexible learning environments to widen access to HE, variety of learning tools with printed or printable modules, learning platform and app – all these elements with open access for training staff and students – this way, HELP has created a new quality of Healthcare English learning in HE. The results were created by single partners in different European countries but the transfer has clearly a European perspective.

Collaborative works amongst organisations from seven different countries into HELP consortium has been effective in designing and developing an online distance programme. With the aim of providing an innovative standard learning setting for healthcare English learners and professionals at the levels of B1 and B2 of the CEFR, the team faced challenges relating to the creation of a completely new learning approach for the English training of healthcare professionals in seven European countries met within an European perspective. Last version of HELP was available since March 2017, offering well-structured modules that meet the most important medical contents for the target group, an innovative approach with intercultural modules to foster and support mobility of students and staff abroad, audios and videos created in line with the presented contents to support learning, flexible learning environments to widen access to HE, variety of learning tools with printed or printable modules, learning platform and app. All these elements have open access for training staff and students. The intercultural modules developed in frames of HELP project are completely transferable and reusable in any other discipline in HE or any other preparation course for Erasmus student before going abroad. The centrality of communication skills training throughout healthcare education should therefore constitute an absolute priority in educational settings that seek to provide a good preparation of healthcare practitioners. On-going adoption of the HELP programme will reveal whether or not the team has been successful in its aim in the project.

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