"Please try to stay calm, the doctor is coming" VOCAL-Medical: A Language and Cultural Tool for Staff in the Medical Sector

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Abstract

*The **VOCAL-Medical project** (Vocationally Oriented Culture and Language – Medical) is a two year Leonardo da Vinci Transfer of Innovation project, funded by the EU Commission, and part of the Lifelong Learning Programme. It follows on from two earlier EU projects, namely VOCAL (www.vocalproject.eu) and the award winning Problem-SOLVE. The VOCAL-Medical project partnership brings together 14 partner countries and 9 languages. This multilingual collaboration involves the designing of language and intercultural materials and the testing, piloting and reviewing of prototypes by professionals and patients in the emergency medical sector. The end product will be an on-line training tool for emergency staff who deal with patients who do not understand the local language. There will be also an app for mobile phones (smart phones) and tablets (with HTML5 functionalities) which can be used by the consultant in an emergency medical situation to assess the medical history and current complaint of the patient.*

This project is directed at professionals in the medical sector who need to communicate with patients who are non-nationals in emergency situations where good communication skills can literally mean the difference between life and death. It responds to a growing need in the medical sector to overcome the language and intercultural barriers which are occurring with ever greater frequency as a result of demographic changes and increased mobility.

The project will provide language and culture training materials contextualised for the medical sector, through cooperation between educational institutions and professionals working in the field.

The interactive on-line materials will be bilingual (in the language of the nine partner countries and English). Learning styles and autonomous learning environments are considered in the design, and authentic situations incorporated. Linguistic and cultural preparation is achieved by means of virtual journeys through a variety of scenarios.

The project will contribute to bridging the gap between different healthcare systems and different cultural behaviours inherent in the doctor-patient relationship. This has benefits for healthcare systems, for the professionals who work in them and for patients. Better doctor-patient communication means better health care outcomes in terms of survival, patient satisfaction and patient safety.

1. Introduction

The VOCAL-Medical project (**V**ocationally **O**riented **C**ulture **a**nd **L**anguage – Medical) is a two year *Leonardo da Vinci* Transfer of Innovation project and part of the EU Commission's Lifelong Learning Programme. It is a follow-on project to Vocal (www.vocalproject.eu), an earlier EU project that ran from 2007 until 2009 and that was based on the Problem SOLVE EU funded project that was awarded the EU Language Label 2006.

The VOCAL project partnership consists of 10 European countries, a combination of 14 partners and 9 languages. The lead project partner, the Institute of Technology, Tralee (ITT) co-ordinates this pan-European collaboration. Quality issues are dealt with by a partner in the UK and technical matters the remit of Danmar Computers in Poland. The lead medical expert is the Belgium partner Thomas More Kempen, who is supported by other medical colleagues in the ITT, RCSI (Royal College of Surgeons in Ireland) in Dublin and the Emergency Services in Slovakia. Other project partners are from Bulgaria, Germany (two partners), Lithuania, Poland (two partners), Slovakia (a university partner), Slovenia and Turkey. Apart from being medical experts partners are also mobility coordinators, language lecturers and experts in multimedia or ICC (Intercultural Communication). The dual focus of this on-line project is on the one hand a medical context led by the Belgium partner and an intercultural competence led by one of the German partners, Assist GmbH.

The end product is a multi-lingual, multi-cultural on-line application for staff in emergency care that will support their communication skills and can also be used in real time emergency situations. The target group is emergency staff in the medical sector.

2. Rationale – research summary

Emergency care departments and ambulance services are fast-paced work environments characterized by a broad variety of pathology and patients. Moreover, emergency care often requires instantaneous decisions about life and death (Adriaenssens et al, 2011; Kilcoyne & Dowling 2007). In most cases, emergency consultations are unplanned resulting in increased stress, anxiety and even aggression in patients and relatives. As a consequence, good communication is primordial in this setting to gather essential medical information and to reduce levels of distress. A study by Philips et al (2010) revealed that non-native speakers, and immigrants often seek help in emergency care (Philips et al, 2010). Several studies in the last decades emphasize the need to bridge language barriers in emergency care (Flores G, 2006; Carrasquillio et al, 1999; Meischke et al, 2013). Research shows significant effects on 'time to dispatch' (e.g.; delay in start-up of resuscitation), accuracy of the level of medical care delivery, misinterpretation of symptoms and diagnostic mistakes, and overall satisfaction of non-native speaking patients in ER. An interesting overview of the consequences of language barriers on quality of care is available online* at School of Public Health of Berkeley University (2010). In addition to language barriers, also intercultural differences play an important role in the adequate delivery of emergency care. Religious aspects, gender attitudes and health beliefs were found to alter communication between health care providers and patient in ER (Taylor et al 2013).

3. Aims and Objectives

The aim of the VOCAL-Medical project is to transfer innovation from Leonardo da Vinci TOI project VOCAL (2007-2009) and other relevant EU projects of the LLP 2007-2013 in relation to language learning in vocational contexts to a new vocational area, namely the medical sector. It targets professionals in the medical sector who need to communicate with patients who are non-nationals in emergency situations where good communication skills can literally mean the difference between life and death. In doing so it responds to an increasing need to overcome language and intercultural barriers in the medical sector as a result of demographic changes and increased mobility.

The project aims to provide language and culture training materials contextualised for the medical sector, through cooperation between educational institutions and professionals working in this sector. Its target audience is specifically: in hospital emergency services; ambulance service and fast rescue teams; GP's on standby/call duty (especially in urban areas); doctors/specialists within the hospital examining and diagnosing emergency patients.

Its objective in order to fulfil these aims is to create and test the content of a web-based/mobile application designed for the above purposes.

4. Project methodology

The VOCAL-Medical project researches the topics and materials by means of direct stakeholders' input and feedback on needs analysis. As a result, the materials generated by the partners are based on real and identifiable needs incorporating the needs of the target sector.

Partners participating in the VOCAL-Medical project are adapting the structure and concept of the previous projects and transferring it to the medical sector. The design process for partners consists of four phases:

a) Eliciting and collating relevant linguistic and cultural input from staff working in the medical sector

This entails issuing Needs Analysis questionnaires to the target group: for example, staff working in the healthcare and medical sectors in general but also to include paramedics, emergency medical technicians and ambulance drivers, in order to elicit information useful for medical staff in order to improve communication with their patients. The surveys are monitored and analysed by the medical expert in Belgium. In addition to this input from the surveys, each project partner researches materials for cultural and linguistic topics in the medical sector that are relative to their country.

b) Designing of prototype materials in the foreign language

Based on the results of the medical surveys the Belgium and German ICC partner will design training materials and a tool to support communications in emergency situations. The project partners will transfer the English prototype into their own target languages. The prototype will include virtual tours,

language/medical exercises (True/False; Drag & Drop; multiple choice). Also General and Cultural Information sections will be produced and a final test for users in the training material.

c) Submission of these prototype materials for feedback from the Quality Manager, Project Co-ordinator and also feedback by all partners. Liaison with the technical team is on-going and a bug-tracking system will be used to maintain an up-to-date record of active/fixed technical issues and bugs.

d) Final consultation and testing phase of the prototype template with the target group
The on-line material is aimed to be disseminated to a wide audience of potential end-users and feedback received will be integrated into the final version of the product. Staff in the medical sector are consulted once again with the assistance of feedback questionnaires and requested to test the draft on-line modules of the project for the selected topics. The feedback by the target group will be used to modify the final website product.

5. Structure of the on-line Topics for the training materials
The on-line VOCAL-Medical materials are bilingual (i.e. designed in the target language of each partner country and also available in English). Each of the selected topics is presented according to the same structure. This will include an Introduction page with **General Information** about the selected topic. **Key words & phrases** in the target language accompanied by **audio** in the language of the host country and a written English translation. Animated **virtual tours** of typical scenarios with text files of **dialogues**. A mix of **exercises** (e.g. multiple choice, drag/drop; true/false).Instant feedback to keep the user motivated. Recommended **Do's and Don'ts** based on practical advice from the conducted surveys. A **cultural** information section with country-specific information about health care issues. A **final self assessment** with the individual scores is available.

6. Didactic Approach:
The project creates an autonomous learning environment, combines user friendly technology and navigational components with open access. Native speakers are involved in the preparation of all of the content, virtual tours, questions and quizzes. VOCAL incorporates authentic contemporary situations in a medical environment and is task-based in its learning approach. The availability of high frequency vocabulary as a learning method, audio files and an in-built feedback system are used throughout the sections. Different learning styles are addressed by providing bilingual text files for reading, visual material accompany the animated virtual tours and audio files are provided for listening. The interactive nature of the material ensures that students are self-motivated and it offers the opportunity for autonomous learning.

7. Conclusion
Transnational mobility is growing both between EU member states and other parts of the world. Health services are therefore increasingly confronted with people with an inadequate command of the national language. There is now quite a body of research on the impact of language barriers in the health services which draws attention to problems including misdiagnosis, medication mismanagement, delay and ineffective service delivery as well as ethical considerations, which result from poor communication.
Given the legal basis for the rights of citizens of member states to receive health care, as well as national legislation (such as the Race Relations Act in the UK), there is increasing concern about fair access to medical services as well as about the potential and actual costs of interpreting and translating services. The impact of language barriers is felt especially by those who are in the first line of contact with patients, particularly the emergency services. Inadequate communication and language problems increase the risk for diagnostic or therapeutic failures.
Research has revealed that quality of care is directly related to physician language ability and cultural competence: language barriers have a negative effect on the relationship with the patient. A language gap is associated with poor health education, low standards of interpersonal care and lower patient satisfaction. It also leads to extended waiting times and can trigger aggression and frustration.
The rationale for this project is further developed in need analyses by different partners, provided as an appendix. See for example the 'State of the Art' reports for 16 EU countries published at http://www.mighealth.net.
VOCAL-Medical is a website product that combines linguistic and cultural information for vocational educational purposes in medical care. The presence of a web site ensures that the content created is available long after physical products such as brochures or flyers have been distributed.

It shows that a transition from language learning as an academic exercise to language skills as a practical tool is possible. If we want to develop medical staff in emergency services who are capable of surviving in a foreign language environment then trainers have to ensure that the necessary skills are provided.

The project is due for completion by spring 2016.

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