SHORT COMMUNICATION

TECHNOLOGY ENHANCED LEARNING (TEL) FOR TRAINING DENTAL HYGIENISTS IN UKRAINE: REPORT OF A ROUND TABLE DISCUSSION

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Key words
Technology Enhanced Learning, Dental Hygienist, Ukraine.

Introduction
This paper reports the roundtable discussions held on 12th May 2012 held at the 10th Colloquium on Innovations in Education, Brescia University, Italy. The discussions were framed around three areas: namely background, theoretical concepts and practical considerations in performing a needs analysis for TEL in training dental hygienists in the Ukraine. One specific outcome was the design of a proforma for such a needs analysis that could be applied to all emerging economies. This is included at the end of this report.

Present:
Prof Ken Eaton (Chair) (King's College London)
Prof Kate Fabrikant (Rapporteur) (International College of Dentists)
Mr Colin Ainger (Ergon Communications, UK)
Dr Warren Birnbaum (King's College London)
Mr John Cornforth (Tier2Consulting, UK)
Prof Oksana Denga (Odessa, Ukraine)
Prof Nora Donaldson (King's College London)
Prof Steve Dunne (King's College London)
Prof Paola Ferroni (Curtin University, Perth)
Dr Isobel Madden (UHI, Scotland)
Prof Conchita Martin (Complutense University, Madrid)
Dr Eunan O'Neill (King's College London)

1. Background: Review of the special circumstances for TEL implementation in Dentistry in Ukraine

The Eastern European perspective was considered in terms of culture, the students and the staff. The Ukraine (population 55 million) separated from USSR in 1990. Care provision was carried out through public health care system and is now mostly private. Salaries have stayed flat in academia. Today in the Ukraine care provision is 50/50 public to private. Education provision was stomatology oriented (ie medicine, then dentistry). However ten years ago it converted to EU oriented curricula. There are 17 dental schools (EU standard) and 12 (9 public, private schools provide lower level) dental hygiene schools.

The 'therapist' (previously called zubnoy vrach) trained in dental therapist schools over three years, but were not considered to be of the appropriately qualified and found it difficult to obtain jobs. Dental therapist education has therefore to be refocused towards epidemiology, hygiene and specific course for rural hygienists.

It was considered ideal to have a postgraduate program (Kiev, Odessa) to develop a nucleus of trainers which will become specialist to further spread TEL through-out Ukraine.

It was reported that students are easily able to access the internet and were advanced users with a good level of English. It was similarly reported that staff are apparently open to new ideas and have a good level of English (teaching 50% in the language), at least 50% are young and forward looking and IT staff are available

a) Ethical and discrimination issues revealed that there were ethnical and political differences, with a wide wealth and professional distribution Care provision

is private and public and there are educational differences. In all Odessa is a multicultural centre

b) Connectivity and IT enquiry reported that there was a network infrastructure available in Ukraine but there is need for an analysis of TEL resources. Personal data legislation exists but is not restrictive in the Ukraine. There is IT penetration which was reported as high in both rural and urban areas with computers available in Ukraine. There are educational materials and support for basic technology in Kiev and Odessa.

c) The IT resources ideally need to be supported end –to – end IT and integrated with general primary health promotion. There should be incorporation of language flexibility with management of corruption, copyright issues, in the knowledge of the financial and political situation

d) Sustainability may be considered after an initial pilot using the Child Smile programme where learning materials are open source and include patient materials. This could then be cascaded through Centres that teach and train therapists and local health workers, and feedback obtained. Strong leadership is essential with remote support from those familiar with the programme and with TEL issues. A successful programme was reported in India.

2. Theoretical concepts for implementing successful TEL in the context of Ukraine

a) Faculty support will be needed to apply the principles of best practice in blended learning

b) To ensure that curricular development in health education includes best public health principles it was considered necessary to firstly find liaisons with health workers. There would need to be inbuilt assessment criteria to determine how technology may enhance the achievement of such principles. It was considered desirable to follow the fundamentals of public health best practice through the Ottawa Charter harnessing the determinants of health. Addressing health inequalities by an evidence based approach is essential in education. Finally a dental team approach blended with technology would need to be assessed

3. Practical consideration for performing a needs analysis to evaluate the TEL needs in Ukraine

a) The best approach to performing a detailed needs analysis must include:
   i. Knowledge of who the target audience is that will benefit
   ii. An assessment of the grassroots resources
   iii. Linkage between the data from official & grassroots resources

b) The further steps needed to assess whether a TEL project may be successful in Dentistry will be to carry the evaluation of a small pilot project. This should be under local leadership with remote support.
   i. The Child Smile programme as appropriate to be used as the pilot and will be kindly provided by Isobel Madden (University of Highlands and Islands)
   ii. Translation into Russian will be necessary locally
   iii. Communications support could be offered remotely e.g. though Skype which would be a good indicator of connectivity issues and online systems
   iv. No direct monetary support should be given
   v. The proforma to be completed should include the following:

Objective:

To develop and implement a training program for dental hygienists in Ukraine tailored to needs of urban and rural communities:
   1. (to be filled in by owner of program/proposal)
   2. (to be filled in by owner of program/proposal)
   3. (to be filled in by owner of program/proposal)
   4. (to be filled in by owner of program/proposal)
   5. (to be filled in by owner of program/proposal)

After graduating from the program Dental Hygienists to have following skills to address the above needs:
   1. (to be filled in by owner of program/proposal)
   2. (to be filled in by owner of program/proposal)

3. (to be filled in by owner of program/pro-posal)
4. (to be filled in by owner of program/pro-posal)
5. (to be filled in by owner of program/pro-posal)

Calendar plan of the project
(each of the action has to be granularly des-cribed later in the proposal with exact resou-rces available/needed including those related to TEL itself): Table 1

Action	Owner	Outcome	Date
Finalise the team and appoint the Captain	Leading Specialist (Denga)	Team identified	
Captain/Course Manager/ Course Director appointed (not the same as Leading Specialist, dedicated to the project)			
Assess needs of community and develop profile and competencies	Leading Specialist (Denga)		
Captain/Course Manager/ Course Director	Needs assessed		
Profile of the specialist developed			
Develop a curriculum based on the profile for retaining the therapists into dental hygienists	Captain/Course Mana-ger/ Course Director	Curriculum "A" develo-ped and legitimised	
Identify ways of using TEL in the Curricula "A"	Captain/Course Mana-ger/ Course Director	Courses/activities for TEL identified, aligned and shares	
Identify team members to be in charge of setting up TEL for the selected courses/activities	Captains/Course Mana-ger/ Course Director	Team members iden-tified and trained on basics of TEL	