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MULTI-LANGUAGE PRESENTATION OF E-LEARNING/DISTANCE COURSE CONTENT

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Abstract. Shipping is an international business where crews can be multinational and represent a number of different languages and cultures. However, to ensure safe operation of a vessel, all crew members must be trained to a common standard. This standard is set by the IMO but is implemented by the various countries. However one commonality that is shared is that English is considered the default language in shipping.

The authors have demonstrated their method to produce and deliver distance/e-learning courses using a suite of learning technologies including interactive video lectures, online assessment tools, discussion and tutoring tools and technologies as well as a Learner Management System to house them all. These same technologies can be used to integrate multi-language support into a body of course content material crafted using the authors tool kit and methodologies that can match the IMO learning objective.

Initially the authors explored making our E-Learning content more accessible to those with hearing disabilities or bandwidth restrictions through the use of subtitles in our online lectures. After the process for this evolution was determined, it became evident that the E-Learning content could also be made available to French speaking Canadians with English audio and French subtitles.

With the E-Learning script in text form, it is now possible to create audio in virtually any language that can then be transplanted into the original E-Learning content. The net result being that the E-Learning content of our STCW compliant distance/E-Learning course can now be made available as:

- E-Learning content with English audio and no subtitles;
- E-Learning content with English Audio and alternate language subtitles;
- E-Learning content with alternate language audio and alternate language subtitles.

This paper describes the evolution of multiple language presentation of E-Learning content in a single E-Learning/distance course. As well, it outlines the process of converting the E-Learning content of the authors from English to subtitles and audio of an alternate language. This paper finally explains the rationale for preparing a single course in full compliance with an IMO model course in multiple languages.

Key words: E-Learning, distance, learning, multi-language, modern technology, culture

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1 INTRODUCTION

The unique environment that is the maritime working environment is a challenge in many ways. Due to the multi-national and multi-cultural reality of crewing, there is an agreed upon international standard for communication aboard and between vessels at sea that falls under the heading of maritime English. The challenge exists to train all seafarers to have an acceptable knowledge of maritime English, and additionally to be able to pronounce and understand maritime English such that effective communication can consistently and effectively occur aboard and between vessels.

Deck officer and marine engineers alike receive career specific skills and technical training needed to attain professional certification. On top of this, mariners must also receive training in maritime English.

It is in the interest of the ship owners, the crews, and considering the sensitive and critical nature of the shipping environment, the world as a whole, that both facets of this training are achieved to the highest standard possible.

2 EDUCATION

Maritime English may be defined as a set of key phrases in the English language as prescribed by the IMO. These collectively are called the Standard Marine Communication Phrases (SMCP) (IMO, 2001). The ability to communicate effectively using maritime English while at sea is imperative. Maritime English is not only for mariners whose native language is not English, but is a facet of the education of all mariners, English speaking and non-english speaking alike.

The challenge of teaching maritime English to non-English speaking mariners is great. For this reason, it makes intuitive sense to expose mariners to English in a written and audible working context beyond the base instruction of maritime English.

The authors have created a course entitled 'Applied Mechanics for Marine Engineers'. This course was developed to conform to the appropriate sections of the STCW standard governing training and certification of marine engineers as laid out by IMO (IMO, 2012). To course content of this delivery was created as interactive online presentations authored using Adobe Captivate.

While authoring this content, consideration was given to making the content 'accessible' to those who might have limitations in participating in the course. The content is presented with PowerPoint type slides with some animation and audio narration.

Initial accessibility was enhanced by ensuring that font sizes and types were appropriate to make sure that the text was as readable as possible. The narration was clear and understandable and of an appropriate volume ensuring that course participants could comfortably hear and understand it while wearing headphones or using their computer speakers. Consideration was then given to providing subtitles to the videos to permit those who could not listen to the narration (for whatever reason) the opportunity to receive the spoken information on top of the content contained in the slides.

Canada is a bilingual country with a relatively low population spread out over a very large geographic footprint. This electronic delivery of Applied Mechanics for Marine Engineers is still relatively new, but has already been taken by learners from several Canadian provinces. The notion of delivering this course to a more global Canadian population (vis a vis English and French speaking learners) became a real possibility with the notion that the authors could provide French subtitles to the course content with English audio.

Where this course conforms to the international standard that must be applied globally to all marine engineers, the authors rationalized that this could lead to an opportunity to share web-based or electronic course resources with other maritime universities. Additionally, it was envisioned that providing these learning materials to mariners whose primary language was not English would give those learners an opportunity to maintain or enhance their English speaking and comprehension skills.

This may be envisioned as an effort to develop and ensure multilingual competence in the maritime community to the extent that SMCP can reliably be used to communicate at sea. (Multilingual competence may be described as providing mariners with the capacity "to use several languages appropriately and effectively for communication in oral and written language" (Cenoz et. Al, 1998, p. 17)).

Non-English speaking mariners will be expected to use maritime English in various situations for different purposes, and subsequently mat need to make use of all components or aspects of communicative competence. However, it is often the case that they do not develop all competencies in a second or third language (English, in this case) to the same extent or level (Cenoz et. Al, 1998, p. 9). Therefore, successful foreign language learning requires that the mariner make appropriate selection and use from a strategy repertoire (Green and Oxford, 1995).

Every learning process requires a manner or strategy to be adapted so as to achieve the main purpose of learning. Chamot (1987, cited in Hismangoglu, 2000) defined learning strategies as processes, techniques, approaches and actions that students take to facilitate the learning and recall of both linguistic and content areas of information.
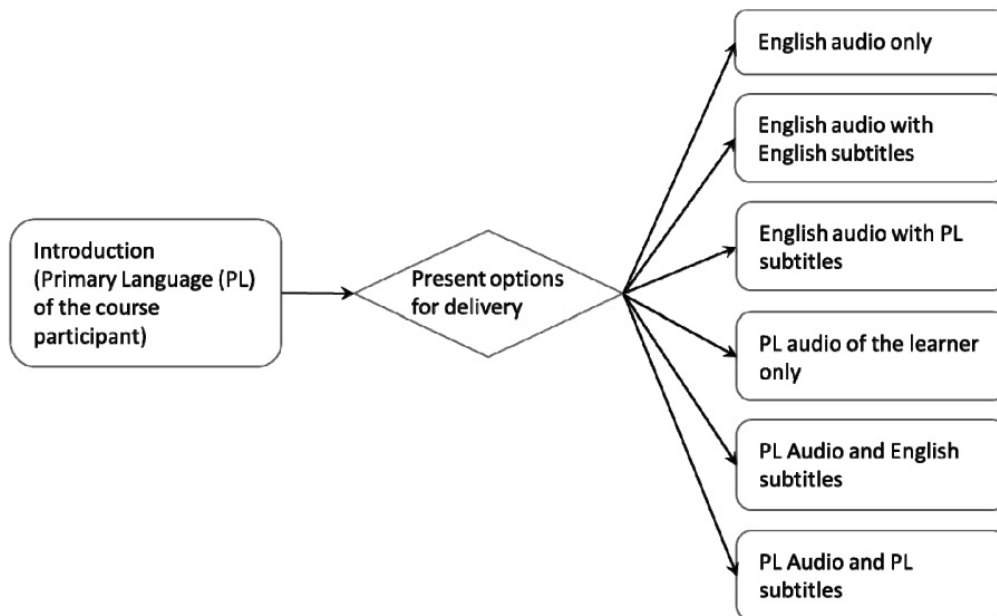
Figure 1 Multi-Language Delivery Options

Appropriate learning strategies are tools encouraging learners to take responsibility for their own learning and result in improved proficiency and greater self-confidence (Oxford, 1990).

Oxford provided a taxonomy of language learning strategies broken into two main categories, direct and indirect strategies. The direct strategy taxonomy has three sub-categories:

Memory
    a. Creating mental linkages
    b. Applying images and sounds
    c. Reviewing well
    d. Employing action

Cognitive
    a. Practicing
    b. Receiving and sending messages strategies
    c. Analyzing and reasoning
    d. Creating structure for input and output

Compensation Strategies
    a. Guessing intelligently
    b. Overcoming limitations in speaking and writing

By having learners participate in a course with at least some facet being delivered in a language in which they are working to develop a proficiency, then many of the above learning taxonomies are being indirectly satisfied.

In short, providing at least some content of required course work in English should enhance the maritime learner in their use of maritime English by having the learners develop an internal toolbox of strategies which they may employ when learning and using maritime English.

2.1 Multi-language content delivery

The thought, then, is to consider delivery of certification level course material to mariners where a component or, perhaps, all of the delivery may be provided in english. The learning opportunity itself cannot be compromised in that the content being learned is required for certification advancement and will be examinable.

To ensure an uncompromised learning opportunity, the authors propose that a branched online presentation opportunity be given to the learners using the model presented in Figure 1. For any given presentation of a course delivery, an introduction in the first or native language of the learner be presented using the online content delivery model involving interactive audiovisual web based presentations (Tucker and Cross, 2013). The introduction includes a description of the various options of delivery which may include audio of the presentation in either English or another language as well as the option for sub-titles in either English or another language.

The selections available within a given learning module may be customized by the learning institution based on the desire to further enhance English language skills or to optimize the delivery of the course content.

2.2 Challenges

Several challenges are envisaged by the authors in the creation, dissemination and adoption of multi-language course content for training mariners to advance in their certification levels. These may be presented in general terms as:

– Content Creation

– Content Delivery; and

– Content Adoption

The term content creation refers specifically to the creation and translation of multi-language course content. In particular, translation of technical terms often proves challenging and would have to be done as a collaboration between content experts who are used to teaching in the languages involved in the delivery. Once multiple 'scripts' have been prepared in different languages then audio tracks need to be recorded for each, and following that a synchronization of each of the audio tracks with the appropriate subtitles (taken from the scripts) must take place. This is a time and labor intensive process. Additionally, content should be reviewed to ensure that it is context appropriate with respect to culture and geography and course content and examples should be tailored and customized to ensure that it is meaningful to the course participants.

The challenge of content delivery simply refers to the creation of course content by one content expert, and then having someone take that content part and parcel and deliver it elsewhere. Throw into this mix the confusion that may arise among faculty attempting to use content in a course delivery that is in a language that is not their primary language, and the potential for delivery challenges exist.

Finally, the challenge of content adoption refers to issue that, although all countries training mariners in accordance with the STCW convention requirements certainly teach all of the elements outlined in the convention and the model courses. It is most likely that the teaching points are packaged into courses, which are packaged into programs differently from one country to the next. This will most like result in a repackaging of the content if it is to be used by someone other than where it was originally authored.

These challenges are not insurmountable, and it is with confidence that the authors state that this effort is one that can be achieved.

3 CONCLUSION

Technology now allows relatively easy development of interactive online multi-language learning content and tools. It is estimated based on the experience of the authors who have been creating this type of course content in a single language that it takes about ten to twenty hours of effort to create about one hour of online delivery depending on the type and nature of the course being prepared. Once this has been done, the written script may be translated and the online presentation material reworked to have it delivered in another language using the above described process.

In short, it is possible to create STCW compliant course material in a multi-language format that may then be used by different MET's to train their learners.

As a point of note, the authors are also considering the use of feminine voices in the online presentation of material. The suite of impacts this might have has not been fully considered as of the writing of this paper, but it is anticipated that the use of female voices in the production of this course content may, at least, assist in the acclimatization of mariners to the concept of female maritime professionals.

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