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Promoting Active Online Interaction with Maritime English Students

V. Kudryavtseva, S. Barsuk & O. Frolova Kherson State Maritime Academy, Kherson, Ukraine

ABSTRACT: The present paper is aimed at sharing practical experience of organizing active interaction with Maritime English students of remote groups in conditions of permanent online teaching and learning processes. The authors explore various strategies that can be integrated into the design and development of tailored e-books and tutors' e-courses to foster high level of Maritime English students' online interaction. In addition, the use of modern digital tools for the successful running of e-books and e-courses is discussed as well as the role these tools play in promoting atmosphere of interaction to allow students be deeply engaged into learning activities and contribute to genuine discussion. A few aspects considered with regard to the process of designing e-books and e-courses are accessibility of learning materials, integration of design elements, and development of students' online community, encouraging discussions and application of effective assessment methods

The study examines their experience of teaching Maritime English using Moodle and Zoom platforms. The findings of the study can be useful for educators to promote more interactive online learning.

1 INTRODUCTION

The necessity and importance of online teaching and learning has been much stressed upon by researchers and practitioners at various involvement levels, especially during the last decade [1, 2, 3, 4, 5]. Beginning as an emergency response to COVID pandemic, online learning has eventually become the only feasible opportunity for studies to go on because of the current situation in Ukraine. For the young the Ukrainian generation of students, unprecedented situation of being refugees or staying in unsafe conditions within the country, with no possibility of having offline classes makes acquiring new skills, moreover communicative skills of a foreign language, extremely challenging.

Once appeared, online education has been successfully developed and implemented in our everyday practice to teaching and learning Maritime English at Kherson State Maritime Academy. Within last four years the teachers have been working on the e-course designing and further improvement, employing effective pedagogical approaches to meet both academic standards and learners' changing expectations.

Taking one step at a time the teachers have constructed an efficacious online course of Maritime English that is grounded on the principles of communicative approach and active learning, such as importance of interaction between the training process participants, students' engagement in doing meaningful activities and reflection on their learning performance [6].

The purpose of the paper is to describe practical experience of organizing active interaction with Maritime English students of remote groups in conditions of permanent online teaching and learning processes.

2 MODEL OF ACTIVE ONLINE INTERACTION

Central to the research presented here is a model of active online interaction developed by the authors. It consists of five inner components which are integrated with two outer components (Figure 1).

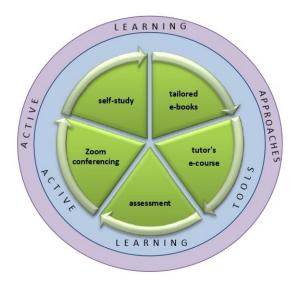


Figure 1. Components of active online interaction

The model places the inner components (tailored e-books, tutor's e-course, Zoom conferencing, self-study and assessment) within the context of the two outer components (active learning approaches and active learning tools). All the inner and outer components of the model are aimed at promoting students' online interaction within the whole course of Maritime English. These components and their interrelationships are outlined in more detail in this paper.

3 OUTER ELEMENTS OF ACTIVE ONLINE INTERACTION

3.1 Active learning approaches

Being successfully put into traditional face-to-face practice and then gradually embedded into online course, active learning approaches correlate well with D. R. Garrison's Community of Inquiry Framework [7] recognized as one of most used in online pedagogy. All the components of the model are interconnected and, when driven by active learning approaches, optimize students' engagement. Cognitive engagement and learners' autonomy – two essential components of an effective online course – have been increased through embedding inquiry into the learning process, when students collaborate with

their peers synchronously or asynchronously to investigate a driving question, search and evaluate information and build new knowledge [7]. The activities and projects are based and designed on authentic work experience and directed to meet students' recognized training needs [6].

The teacher's role is performed through organizing discussions on Zoom meetings, providing timely feedback on the LMS Moodle forum, coaching and personalized learning on individual tutor's e-course, elaborating individual playlists and scaffolding learning materials, guiding students' access to information.

To a large extent, supporting social interactions among students also depends on the teacher's regular efforts to foster a strong sense of community. It can be reached through students' engagement in learning outcomes setting, choosing assessment strategies, and self- and peer reflection both synchronously and asynchronously to advance self-directed learning.

To provide efficient e-learning and motivate students to take responsibility for their academic achievements, flipped class has been mainstreamed, when students get familiarized with learning materials before the lesson and check the new concepts perception during synchronous online meetings on Zoom. Such approach optimizes learning and increases efficiency of lessons releasing time for speaking practice.

3.2 *Active learning tools*

Active learning tools are the basics for promoting students' active online interaction. With everyday lessons, despite of them being online, there is no need to allot maximum time for the levels of understanding and remembering. Introduced into immediate practical usage, vocabulary units (about four to five at every lesson) or grammar structures (no more than one either to be revised or presented) get contextual application in freer activities.

In various researches active learning tools are understood quite differently, nevertheless, one important component is specified – activities involving essential skills based on Bloom's taxonomy [8]. Active learning is mostly grounded on pair and group work. These can be quite well realized on Zoom platform with its breakout rooms provided that students are led by the Maritime English instructors proficient in communicative approach to teaching and learning processes. Pair work can be widely used at any lesson stage and be extremely efficient if the instructions are clearly set.

Possibilities for meaningful collaboration in small groups to organize discussions like fish-bowls, expert groups, jigsaw groups, polling / reasoning by means of case-studies, problem solving, job echoing / simulations / role-plays reveal just a short list of all possible variants for grouping students and setting tasks. The restrictions for group work concern students' communicative proficiency, group sizes and improperly designed targets.

Project making of different complexity levels as an active learning tool can be applied in the work with

senior students where its usage, based on their onboard and life experience, is most rewarding. But, as emphasized, in practice it is still of little priority in everyday education [9].

A probable solution for this might be using a sandpit – group discussion where free communication and exchange of opinions are encouraged to explore the problems on the agenda either at the educational institution or onboard vessels. This important prework for implementing project making at lessons may be done in two ways – focused faculty attention or joint interdisciplinary efforts to elaboration of a list of problematic issues in modern shipping. Also, this may be best done with the students of management level who are in the know of modern advancements and critical aspects in the maritime industry.

All of the above mentioned active learning tools invariably provoke genuine interest of students as such that allow them to exchange ideas and lead to improved communication skills.

4 INNER ELEMENTS OF ACTIVE ONLINE INTERACTION

4.1 Tailored e-books

Much appreciated by students and teachers, the appropriately tailored e-books serve as a reliable tool for online learning and teaching. The basic requirement to such course e-books as perceived and implemented by us is to incorporate the methodical approach used by the faculty.

In compliance with the guidelines of the IMO Model Course "Maritime English" [10], the e-books developed by the department faculty for each of ten semesters are based on communicative approach with inputs of active learning, deeper learning, and inquiry-based learning. The above mentioned model course specifies the necessity for students to practice basics of the language (topical vocabulary and recommended grammar structures) as well as to acquire reading, listening, speaking and writing skills. The activities in our e-books for online learning cover all those requirements and are placed accordingly.

Each e-book contains five modules of twelve to fourteen lessons structured either as Presentation – Practice – Production (PPP) for the first and second years of study (support level), Engage – Activate 1 – Study – Activate 2 (EASA) for the third and fourth years of study (operational level) and Patchwork for the fifth year (management level) involving students into controlled, semi-controlled and productive activities in the logical sequence.

Starting from the second year of study, students get more and more exposed to reading extracts from official documents like guides, codes, conventions which deepen their theoretical knowledge derived from technical texts in the e-books and to reading and analyzing narrative parts of maritime accident reports which lead them to individual and group judgments reached through reasoning to be then compared with conclusions in official reports. Most lessons, especially closer to the end of modules, contain short case studies while one of the final lessons of every module,

planned as flipped class, is devoted to analyzing a narrative of a maritime accident report. The analysis is done in compliance with a set of questions and tasks placed after the text:

- 1. Knowing what happened
- 2. Critical understanding of facts (chain of misdoings)
- 3. Identifying goals
- 4. Conducting analysis based on theoretical readings
- 5. Stating the problem
- 6. Analyzing case data
- 7. Generating and evaluating alternatives
- 8. Developing an action plan.

As it might be clearly seen, a challenging task pursued by the department faculty is to lead students from low order thinking skills to high order thinking skills (HOTs). The activities for developing students' knowledge of vocabulary, mastery of grammar structures, understanding professional basics in English by means of reading technical texts, listening, viewing, and writing are normally aimed at providing students with elementary skills of understanding, remembering, and applying, if to follow Bloom's taxonomy [8]. That is not enough for future seafarers who have to take quick decisions in unpredictable situations where they need higher forms of thinking such as analyzing, evaluating, and creating.

Thus, our e-books are enriched with questions and tasks stimulating discussions: Why does the nature of some cargoes cause confusion? / What is the difference between hazardous materials dangerous goods? Which situation is more dangerous? Why? / Why could the Master decide to sail when a severe cyclone had been forecasted? / Simulate a briefing between the Master, the Chief Officer and the Agent on providing safe cargo transportation using the plan. / Select the best alternative for the situation. / Compile a list of actions to implement the selected alternative in sequential order. / How would you perform if you were at the

The e-books are uploaded on the LMS Moodle in the format that does not allow students to proceed to other controlled activities without correct answers. This approach helps them understand and remember the required response. As for productive activities, students have an ample possibility to express their ideas, exchange their opinions and share their experience due to Zoom breakout rooms where they can work in pairs or small groups simultaneously and, thus, practise communicative skills extensively.

In the e-books, students' individual work on language and content acquisition is supported by the structured layout of training materials, self-check questions and a word list to each module, brief information on the conventions and codes studied, and lists of topical standard marine communication phrases (SMCP).

4.2 Tutor's e-course

One of the essential components of the fully online Maritime English course is a tutor's e-course on the LMS Moodle aimed to increase students' interaction with peers and the instructor. Created as a supplementary asynchronous course, it provides an additional source of learning materials and space for language mastering via a variety of task formats and multiple learning content. While the basic Maritime English course is applicable for general usage by all students enrolled in the course irrespective of their levels, the individual tutor's e-course is created by the instructor with the primary purpose to meet the particular needs of a specific group and individual learners. The appeal for designing such a course has arisen from the necessity to develop flexible learning environment and make a link between an individual student progress and Maritime English course to reinforce student knowledge gained at synchronous online lessons on Zoom and enhance student access to information.

When designing the tutor's e-course, the instructor focuses on four main components: flexible content, digital tools, targeted instruction, and personalized playlists to customize learning to individuals [11]. The teacher's presence online requires deliberate efforts made by the instructor to adjust the format of learning materials presentation and proper tasks to organize genuine interaction among participants [12]. While conducting online lessons on Zoom, the instructor diagnoses any misconceptions and gaps in learners' knowledge and uses these observations to facilitate discourse and create an opportunity for customized practice to indulge students into learning and boost meaningful engagement.

Students need to be exposed to the tutor's e-course as early as the studies begin. In a welcome letter the instructor familiarizes Maritime English course participants with its objectives, content and duration. The learning outcomes students should acquire on the course completion and the assessment criteria for measuring achievements should be transparent for students to enhance their engagement within the main course

To improve teaching efficacy and increase online interaction, flipped class pedagogy is embedded as an effective approach. Students explore various learning materials to a large extent represented by the IMO publications (international conventions, maritime accident reports, checklists, maritime business correspondence), and by articles from professional websites or educational videos. Such extensive reading or videos require substantial time to understand and elicit key concepts, thus, students need to scrutinize them well in advance by employing different learning strategies asynchronously in the tutor's e-course on the LMS Moodle. It allows keeping learning materials authentic and developing joboriented skills. Teaching occurs through constructing proper tasks to facilitate knowledge building and support struggling learners.

As an expert of the subject, the instructor designs the tasks cultivating cognitive presence and directs learners from fully-controlled exercises used for reading/listening comprehension and vocabulary/grammar practice (Match terms with definitions / Label the pictures / Order the procedure / Answer multiple choice questions / Replacing new vocabulary with synonyms / Fill in the gaps etc.) through semi-controlled activities to check conceptual knowledge (Complete the statements / Choose the best answer / Odd one out etc.) to free practice tasks

that require abilities to apply knowledge, evaluate the situation adequacy, solve the problem and create possible alternatives. Students can work individually and interact with the instructor only or collaborate in small groups to share knowledge and learn from their peers. The most fertile ground for such tasks is a system of case studies, when learners are expected to demonstrate HOTs (Find the root and basic causes of an accident / Make a list of misdoings / Ask and answer five why-questions / Find an alternative solution etc.). One of the ways to promote interaction among educational process participants and create a true learning community is organizing a discussion board on the LMS Moodle forum and peer-reflection writing either asynchronously in the tutor's e-course or synchronously on Zoom.

As a supplementary course, the tutor's e-course does not focus on evaluation aspects and is aimed at deepening students' engagement in the course, create virtual interaction between the instructor and students, and, thus, reinforce the learning process efficacy. Nevertheless, the elements of critical value that contribute to the feeling of learning satisfaction and goals achievement are the instructor's feedback and peer reflection. In online teaching the instructor behaves as a mentor and facilitator, thus, a timely feedback on students' performance helps them recognize their progress and develop own pathway to promote learning. Moreover, undergraduates should be encouraged to review and comment upon peers' responses, assess individual contribution into a group project, reflect on the course content and dominating activities to share responsibility for their learning.

The tutor's e-course provides necessary support for the basic Maritime English course and moves learning beyond online lessons, turns learning into active involvement and contributes to true learning community development.

4.3 Zoom conferencing

Under the current circumstances online lessons of Maritime English are conducted for students synchronously on Zoom. The teachers have been instructed how to teach effectively on this virtual platform. For many of them teaching on Zoom was quite a challenging task and required much effort to optimize their teaching style. The workshop Communication Strategies in Online Environment has been held for the teachers of the English Language Department for Deck Officers this academic year. Its objective was to familiarize the teachers with different techniques to promote online interaction and discuss the ways of improving the tailored e-books and tutor's e-courses. It was organized as a round table discussion dedicated to the reflection on the effectiveness of teaching on Zoom. The speakers shared their experience in online teaching on Zoom and discussed the problems they face in their regular practice. Regretfully, active learning may be applied at online lessons of Maritime English on Zoom with some limitations which are as follows:

 impossibility of organizing the activities that get students moving and make their learning more enjoyable and personalized, e.g. post-it parade, four corners; the most applicable forms of interaction in learning Maritime English (pair and small group work) still give way to individual performance; due to it, student speaking time at the lessons decreases considerably while individual offline tasks in written form can become more dominant [6].

In our effort to promote active online interaction with Maritime English students, the authors have come upon a number of recommendations.

Synchronous online lessons of Maritime English on Zoom can be improved mainly by regular progressive practice. Much depends on teachers' enthusiasm to discover new ideas and practices and apply them at their lessons.

Preparing a detailed plan for an online lesson is essential. The structure of offline and online lesson plans must be the same: the lesson topic, the learning objective, the PPP structure or the EASA structure. The teacher should clearly understand when and how the students will interact with each other during each lesson stage.

The main focus of the online lesson must be on developing students' speaking skills. It is quite important to be clear about what vocabulary or grammar patterns the students are to practise during the lesson. The teacher is free in the choice of different ideas and Zoom tools to suit the learning objective. The students should be regularly provided with the teacher's feedback on the speaking activities (especially those conducted in breakout rooms) as this will advance their motivation for mastering their speaking skills.

4.4 Self-study

One more effective approach to enhance students learning engagement is the self-study modules embedded in the basic Maritime English course on the LMS Moodle. Designed to provide an additional opportunity to explore professional content they are primarily directed to develop soft skills for the undergraduates who have acquired a set of basic shipboard skills.

As it has been discussed in our previous research there is a gap between the skills needed aboard and the skills actually trained at maritime institutions [13]. To fill in these gaps new training content is needed to enhance such skills as critical thinking, stress resilience, leadership and team work. As taking amendments to the curriculum may obviously require significant time and formalities, more feasible approaches to meet the shipping industry standards and encourage further learning are either imbedding new modules in the existing Maritime English course or introducing the entirely new courses that offer micro-credential programmes that make link between the curriculum goals and the skills needed to succeed in the workforce of the future.

As banal and obvious as it may seem, self-studying is one of the small steps that help achieve big goals. In our Maritime English course each module includes self-study to train the soft skills mentioned above.

It is designed following the EASA structure and embraces inquiry-based learning framework. Usually a self-study module starts with questioning on an entirely new concept to encourage students' curiosity and boost their learning.

For example, studying topic "SAR Operations" the students are provoked to answer the question why some ships in distress do not transmit Mayday alert. Students are expected to search professional websites for cases and investigate different maritime accident reports, analyze the chain of actions and suppose possible mishaps.

At Activate 1 stage students are exposed to a variety of articles discussing different aspects of leadership, management styles, and teamwork.

The Study stage comprises several activities aligned from controlled – semi-controlled – to free practice, and students retain what they have learned to further solidify their knowledge and master the language.

At Activate 2 students are expected to be able to explain the new concepts and apply their knowledge to various situations/tasks (case-studies, suggesting alternatives, role-plays or simulations, presentations by means of Venn diagrams, concept maps or flowcharts). With an attempt to increase students' interaction, active learning should be organized in small groups by utilizing Zoom and Moodle platform tools for synchronous and asynchronous interaction.

One more part of a self-study module is a quiz test designed by the instructor. Automatically marked, it serves the dual purposes: as an opportunity for students' self-evaluation and evidence regarding the skills that the students have internalized. The instructor collects complementary information for further analysis to enhance teaching and learning.

There are various self-study methods that can be implemented and the benefits students can gain are endless. By diverting to self-study students are encouraged to develop soft skills even though they are not covered by the curriculum but are rewarding for their career in future that facilitates successful and meaningful learning experience.

4.5 Assessment

Being an integral component of the educational process, assessment serves as a motivational and analytical tool for students as well as for instructors. As understood in our practical experience, motivational tools are internal and external influences that contribute to students' satisfaction [14] with their academic studies while analytical tools help students summarize their learning outcomes and enhance meaningful personal input to further success.

The multi-level assessment system applied within the course by our research group works well for both purposes. Students have formal and informal opportunities to self-evaluate their learning progress.

Level one is connected with proceeding individually through online activities of a certain lesson either before or after the lesson or doing them with the online student group and get one point which is not taken into account for the formal assessment but helps recognize one's own failures or achievements. Here special emphasis is laid on controlled vocabulary and grammar activities as the elementary build-up material at the start of a topical

Level two (self-study), comprising three activities (vocabulary, grammar and a short text for reading), is meant to be done by students independently at any time within the length of a module and assessed as a one-point activity, just for students to know they have done it correctly. This level is also considered as informal.

Level three as an initial formal assessment level is presented by online modular stop and check tests to be done individually at the time of students' convenience. They are open to be done about four days prior to the end of learning a module's content. Stop and check tests comprise over twenty tasks reflecting proficiency in vocabulary use, grammar professional reading skills and competence, the latter being situational tasks. The example is taken from the module "Dangerous Goods Handling":

As a Cargo Officer you need to provide a safe stowage for the cargo of NITROUS OXIDE (IMDG Class 2.2). What are the requirements to handling this cargo?

Choose one answer:

- May increase the risk of fire. Keep away from combustible or flammable materials.
- Self-reactive substance. No shock (drop, tumble) or friction allowed.
- Do not pour water. Provide bottom stowage.
- Pay attention to the direction of the wind and do not inhale vapour or dust/mist.

Level four, the next formal assessment level, requires demonstration of oral communicative skills concerning the content of a module. To be familiarized with the scope of learning material for revision, students are provided with a list of logically connected questions/tasks, e.g. the questions/tasks to the module "Dangerous Goods Handling".

- Remembering What information is provided by the IMDG Code?
- Understanding How to find necessary information about dangerous cargo?
- Applying How do you know that the cargo is dangerous?
- Analyzing What is the difference between stowage and segregation? Evaluating – Why do some shippers avoid
- declaring their cargo properly?
- Creating Develop a role-play between a port inspector visiting the vessel after the accident of an oil spill and the Chief Mate responsible for the cargo loading operation.

Criteria for assessing oral skills concern fluency, appropriateness, and accuracy of speech.

Level five, the top level of formal assessment, is wholly dedicated to application of HOTs required to analyze and evaluate the chain of actions done by a ship's crew prior, during and in the aftermath of a maritime accident described in the report. Here students are able to make use of their life experience

ashore and onboard in discussions, debates, group projects, and action plan elaborations containing a detailed sequence of steps to be taken to avoid a similar accident.

Thus, assessment of students' communicative competency is the circle of continuous self-sustained improvement as with each module it begins anew. The purpose of assessment is seen in checking the students' progress towards the desired learning outcomes, supporting their individual efforts, developing ability to assess peers' skills and provide useful feedback as well as promoting students' selfassessment and communicative skills.

Peer assessment accompanies the learning process ensuring the same standards of evaluation and producing additional gains in student achievement, "above and beyond the effect of receiving feedback" [15], except for the graduation computer based test for the bachelor degree. As a teaching tool, it reveals itself in corrections, questions, comments, and advice provided the activities are conducted in a structured

5 CONCLUSIONS

For Maritime English students in the country under martial law, active online interaction has great significance for their professional communication maturing as well as for the further knowledge acquisition and usage. The greatest advantages of promoting online interaction can be achieved by thorough elaboration of the basic educational components, those being tailored e-books, tutor's ecourse, Zoom conferencing, self-study and assessment on the basis of active learning approaches and active learning tools. The outlined requirements to each of those multifaceted components and substantial practice of implementing them testify to the necessity of close faculty collaboration.

The highlighted components need more profound research in terms of developing exhaustive and clearly presented guidelines to be used as methodical materials by Maritime English instructors and students. Some more steps should be undertaken for enriching the presented model with the learning materials for enhancing soft skills content emphasized as a challenge and as a prerequisite for educating resilient and competent seafarers for the shipping industry.

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