ACTIVE LEARNING STRATEGIES IN MARITIME ENGLISH TRAINING

Valentyna Kudryavtseva, PhD, Associate Professor, Head of English Language Department for Deck Officers

Svitlana Barsuk, PhD, Associate Professor of English Language Department for Deck Officers

Olena Frolova, PhD, Associate Professor of English Language Department for Deck Officers

Kherson State Maritime Academy, Kherson, 73000, Ukraine

olenafrolova09@gmail.com

Abstract

The aim of higher education has always been to equip graduates with a set of professional skills for a particular professional area. This is provided by a number of technical subjects which guide students in acquiring necessary knowledge and practicing essential skills. From such perspective, Maritime English occupies a special place in MET, as it combines knowledge of language itself, professional terminology and communication skills with knowledge of the profession itself. The process of Maritime English training is complex enough as it requires answers to the questions what should be trained, how to organize the process and evaluate the progress. It is a real challenge to integrate language learning activities with a profession-focused content into meaningful tasks, find and implement interdisciplinary content to trigger genuine communication. Students should be engaged into a real-life maritime scenario simulation, provided with an opportunity to apply a broader set of professional knowledge, understand, adapt, and create a new scenario in response to the investigated complex problem. The students are trained to think critically and transfer knowledge to the other situation, as well as develop career skills, such as ability to plan, prioritize and communicate in a decision-making process, demonstrate their leadership and teamwork.

To provide sustainable development and face challenges of the current pandemic situation, the educational system shall apply innovative approaches and technologies into the learning process. As the language teachers, our task is to organize a collaborative classroom environment and establish a process for asking questions and developing knowledge through students' cooperation and effective communication. Active learning as a key approach to teaching Maritime English aimed at customizing the educational process to the individuals' needs, encouraging students to reflect on and share responsibility for their progress and train

life-long learning strategies. It is implemented into everyday practice through embedding inquiry into the learning process, when students collaborate to create hypotheses, select information and investigate a driving question. The learning process has moved beyond the class and transformed into flipped classroom environment, where students drive their own learning, and teachers coach them to facilitate and personalize learning through developing individual playlists. It requires from teachers to adjust learning materials and training tasks to respond to students' needs and develop new generation course books as well as digital courses (e-learning) to provide a wide access to applicable resources and make learning feasible.

The article describes the ways how to apply active learning strategies in Maritime English training. The authors of the article share their experience of implementing active learning strategies to provide students with "good command of English in written and oral form" necessary to perform profession-oriented tasks and meet occupational requirements listed in the STCW Convention.

Keywords: communicative competence, active learning strategy, Maritime English course.

Introduction

Nowadays one of the most advanced strategies in higher education institutions is active learning. Researchers in the field of pedagogy attract attention to the fact that still a lot of teachers in higher education verbally transmit information to the students, and students passively receive it. Traditional "passive" method of learning may not be considered to be effective way for students to learn (Michel N., Cater III J.J. & Varela O., 2009; Ghilay Y., Ghilay R., 2015). Moreover, many studies highly recommend to apply teaching techniques that encourage students to be actively engaged in the training material because this type of engagement promotes deeper levels of thinking and better facilitate encoding, storage, and retrieval than traditional "passive" techniques (Peck A.C., Ali R.S., Matchock R.L. & Levine M.E., 2006).

An important part of seafarers' professional training is Maritime English, in particular, development of communicative skills required for professional communication within the maritime field. Teaching and learning Maritime English is inseparably connected with active communication between the training process participants, be that student-student or students-teacher interchange, the more so if it is based on the principles of communicative approach. IMO Model Course 3.17 "Maritime English" (2015), approved by International Maritime Organization, stipulates the necessity of active learning by stimulating frequent learner

participation in order "to assess how much students already know, stimulate interest in a topic, and increase opportunities to interact in English", which is mostly done by teachers. Researchers have provided wide coverage of active learning definitions, elements and strategies mostly concerning ways of conducting lectures with scarce references to teaching Maritime English. We would like to mention some general concepts that were particularly important for our research.

Active learning is defined as any instructional method that engages students in the learning process, where students do meaningful activities and think about what they are doing (Prince M., 2004). The strategies promoting active learning in the classroom are vital because of their powerful impact upon students' learning (Bonwell Charles C., Eison James A., 1991). Students learn more when they are asked to apply what they are learning in different settings (Weston C., Finkelstein A., Ferris J. & Abrami J., 2010).

Thus, in current theories and researches concerning active learning strategies, two important components are specified: activities involving higher order thinking skills (HOTS) (based on Bloom's taxonomy) and student reflection on their learning, with the latter to be done by students themselves.

The purpose of the paper is to describe the practice of implementing active learning into Maritime English training.

Main text. Methodology

On the basis of our successful project concerning implementation of communicative approach in teaching Maritime English, there came a decision of continuing it with a complementing project of incorporating active learning strategies into the training process. As a group of sixteen teachers of Maritime English, we were aware of the existing similarities between communicative and active learning. They both view speaking, reading and writing as well as various forms of student interaction to be the major learning components.

After a series of workshops on active learning (*Active Learning in Higher Education* in November 2020; *Active Learning Strategies* in April 2021) to help ourselves understand the similarities and differences between communicative and active learning, we chose to develop a set of course books in which both ways of learning can be intertwined.

The course books have a unified structure: five modules grouped around essential competencies, three parts in each module with each part containing reading, speaking and writing sections. The activities elaborated for each module present possibilities for developing all levels of cognitive thinking going from lower levels (understanding, remembering,

applying) up to higher ones (analyzing, assessing, and creating), the latter presenting active learning strategies.

As the students' interaction – individual, pair and group work – is characteristic of both learning strategies, the active learning indication depends on two elements of meaningful activities: those promoting students' HOTS and those reflecting on the content measured by the required learning outcomes. To describe how things should be done correctly (e.g. identify and describe ship's type, structure and equipment; explain symbols and abbreviations on a chart; role play the words and phrases for emergency situations etc.) using English in written and oral form is the goal of learning the discipline of Maritime English (STCW, 2011).

The most rewarding foundation for promoting HOTS are undoubtedly cases, sea stories, extracts from maritime accident reports, extracts from books written by seafarers. Provided the tasks are thoughtfully elaborated, they serve as promising catalysts for arousing students' interest and motivation to plunge into exhilarating discussions based on the acquired knowledge and skills.

Short cases and extracts from books by mariners are placed within certain topics in the module parts. Their length fluctuates between 100 and 200 words. A typical set of questions might be: What did the crew member do wrong (analysis)? Could the accident have finished in a more serious injury (assessment)? How could the accident have been avoided (creation)? They are commonly discussed in small groups structured as buzz groups, round table discussions, or jigsaw and expert groups. The emphasis is put on developing critical thinking (analysing and assessing) and decision-making skills (creating) based on communication skills. As a follow-up, students either produce oral reports to the class by a nominated speaker dwelling on the most challenging question/issue or have whole class comments on the question of their choice.

Sea stories and extracts from maritime accident reports designed as texts for extensive reading form a separate section in the course books. Topically, they are connected with the module content and its essential communication competency, but what is truly beneficial, those stories and reports content coverage is much wider making students revise their knowledge of the Maritime English syllabus and refer to their life experience. With this format of extensive reading, a flipped classroom method is effectively used: students are notified about the extensive reading lesson well ahead to have time for individual reading, clarifying the meaning of certain phrases, think the proposed questions over and express their personal attitude to the events in the story.

The younger students' knowledge of General and Maritime English is rather low, so the activities for reading and discussing sea stories by them are limited: general discussion, comprehension check, your ideas (mostly presented as questions), and creative task. Except for the comprehension check, all the other tasks are focused on application of HOTS. To provide an example, the sea story "Drama in Real Life" to the module "Life-Saving Appliances" (Welcome Aboard, 2021) is preceded by a discussion "What hazards can happen to a seafarer lost far at sea?" and followed by such questions as "Why could the crew panic instead of preparing to abandon the ship (analyzing)?" "How efficient were the life-saving appliances used by the crew (assessing)?" etc.

Extracts from maritime accident reports are meant for increasing students' ability to apply their knowledge and skills to tackling critical situations at sea. The list of tasks is longer, and those requiring HOTS are as follows: critical understanding of facts, making assumptions, stating the problem, analyzing facts concerning the problem, generating and assessing alternatives, and developing an action plan. Besides the activities used for the above mentioned purposes, teachers have an ample choice of strategies to engage their students into; the most appreciated, though, are group strategies (think-pair-share, quescussion), reasoning strategies (debate, four corners), and instructional strategies (Socratic questioning).

Another element featuring in active learning is student reflection. In common teaching practice, students are suggested to revise some previous aspects of learning or work at review lessons on the least mastered knowledge and skills. Reflection is a different approach. It means students analyse and assess their learning including their achievements and failures, the effectiveness of some activities for their learning. The success of reflection activities is directly related to the students' mentality peculiarities, their personal preferences and their attitude to sharing personal opinions. The same is true about the teachers: whether they are open to knowing the students' thoughts, especially about the impact of certain activities on their learning (Kudryavtseva V., Barsuk S., 2021). We consider that reflection strategies can be divided into three types:

1) whole group reflection in oral form organized on the teacher's initiative at the end of the lesson, module, or semester when students are asked questions like "What did you understand best/worst of all? What was the most interesting task?" or comment on how they worked through a certain activity while collaborating within a group or come up with their suggestions on ways of improving their skills;

2) individual reflection in written form taking up the format of one-minute papers, exit slips the teacher / students write a comment on the same issue/activity;

3) individual reflection in written form following students' topical essays.

In our effort to implement reflection strategies, we have come upon initial students' unwillingness and inability either to participate in them or respond specifically. Also, this depends on whether their reflection is oral or written. Most students do well with anonymous exit slips, more likely if they become aware of the teacher's positive reaction to their comments.

Special attention has been paid to the essays by first-year students. On an electronic forum, students wrote their two-hundred-word essays built on a video, suggested title, or individually chosen topic. For the second time, they had to correct their mistakes or the essay structure by themselves or with the peers' assistance. And their final reflection was done after the teacher's comments written below the essay. The lessons learnt are: 85% of students appreciated this type of individual work with them; they became visually aware of their typical mistakes and tried to eliminate them in speaking; about 30% of students disliked the process after the second step; about 40% were eager to continue composing essays connected with the module they were learning; reflecting on essays is time-consuming, especially for the teacher.

Active learning strategies may be applied at online lessons of Maritime English with some limitations for intense regret 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;

- pair and group work can be done only on few learning platforms, e.g. Zoom, Microsoft Teams where students have the possibility to work in separate rooms;

- the most applicable forms of interaction in learning Maritime English (pair and small group work) 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.

HOTS can be improved by regular progressive practice. Much depends on teachers' enthusiasm due to the unfortunate situation that the main concerns of official assessment for learning are knowledge, proficiency and competence with no reference to higher order thinking which is, therefore, logically implied and may be taken into consideration.

Data analysis

The learning process has been constantly monitored, two methodologies were executed to determine student attitudes and perceptions to active learning as pedagogical instructional strategy. The first method involved the usage of standardized tests (Stop and Check) to

measure academic achievement. Thus, learning progress was explored in terms of traditional criteria, such as grammar accuracy, vocabulary appropriateness, and professional competency. Whereas the second method involved students' and teachers' interviewing as the participants of learning process. To increase the findings validity, the results were compared with the Moodle database analysis set on the complex assessment of students' engagement in the course.

The survey group comprises 60 participants, who are the first-year students studying at Navigation Department of Kherson State Maritime Academy and attending Maritime English course as part of their professional training. The majority of them are native citizens (40 persons) as well as foreigners (20 persons), who are mostly representatives of Egypt, Nigeria and Lebanon. Also, 15 teachers of the English Language Department for Deck Officers were interviewed on some key aspects of active learning strategies to get their feedback on pros and cons of this approach applied in their daily practice and to make teaching/learning a more productive and enjoyable experience.

The main data collection tool is a questionnaire, that consists of two parts. The first one comprises 25 statements and examines the reliability of the four teaching/learning domains: focus on HOTS as learning objectives, personalized learning strategies application, students' attitude to collaboration types and to mistakes, sharing responsibility for learning achievements. Students indicate their responses on a four-point scale ranging from strongly disagree to strongly agree (closed questionnaire multiple choice).

The first set of statements is designed to investigate the students value of HOTS training as learning objectives in the course. All the students recognize the positive impact of HOTS development on knowledge perception and their ability to apply it to a different context.

The second group has 8 clauses relating to active learning strategies and students' preferences. Students responses indicate that collaborative work and inquiry-based learning as well as self-reflection papers enhance their learning and train self-studying skills.

To reflect on language performance and attitude to mistakes correction the students respond to the third set of questions. The answers analysis shows that all the students perceive their learning experience as positive and enjoyable, recognizing mistakes as an essential part of the process and peer-correction as the most appropriate way.

The first part of the questionnaire finishes with the statements to reflect on the teacher's role and the extent to which students take responsibility for their learning. The analysis indicates that most students perceive the teacher as "a sage on the stage" being the main source of knowledge presented in class (85%). They also appreciate feedback on their

performance as a valuable tool for improvement (97%); about half of the responders believe their progress depends on the teacher's regular checks (45%). However, 85% of students demonstrate their readiness to share responsibility for learning results and importance of out-of-class learning.

The second part of the student questionnaire consists of two ranking tasks and four open questions designed to examine portions of data from the questionnaire. Ranking tasks overlap previous questions and provide more precise information on learning objectives and outcomes as well as the skills trained. Thus, all the students have chosen knowledge understanding as primary learning objective as well as applying knowledge to different situations (40%), and information analysis and facts investigation (40%). Active learning strategies contribute to development of communication skills (100% of responders), critical thinking skills (60%), teamwork skills (60%), leadership (40%), and decision making skills (25%).

The open questionnaire is designed to collect data on students' preferences referring to learning activities, self-study strategies, and their motives for learning. The results analysis shows that such activities as case-study, role-play, working tasks simulation, project work, directed to engage students in group work interaction and focus on creating the best solution / searching for information and its analysis / performing job-oriented duties / developing a group project are among their favourite ones (75%).

The question to investigate the students' motives to study suggested some options to choose and an open answer. All the students have chosen intrinsic motivation, such as personal development as a main motive to study language, as for external motivation the responses vary from employer's requirement (60%) to academic success (20%).

To sum up the findings from the students' questionnaire, we can characterize their responses as generally positive, often relating to success of embedding active learning in Maritime English course.

To develop insights into the students learning and reflect on active learning strategies implementation, a questionnaire was designed for teachers, who teach Maritime English for students of different years of study. The questionnaire contains five multiple choice questions with open answers to evaluate the results, identify potential problems, and discuss possible solutions to modify teaching practices.

Thus, to determine the problems the teachers encountered, 53% of them notify that students of lower language level are not ready to work independently; some students are reluctant to participate evenly in group work (40%); it is difficult to create criteria to assess HOTS levels of development (40%). Among the assessment techniques the teachers use most

often are teacher's developed tests (66%), self-assessment and peer-assessment based on the criteria familiar for students (50%), and group work performance (40%). To examine learning strategies of frequent use, the teachers focus on simplified-inquiry tasks (projects) and role play / simulation (73%), and a minute paper as a reflection on learning (67%) as the most efficient ones. These strategies require tasks accomplishing, active engagement and sharing personalized information, they provide valuable input for further discussion to evolve knowledge and skills training. Reviewing their practices, the teachers name such benefits of active learning approach as training of effective collaboration and team work skills (86%), development of creativity (66%), speaking skills improvement (60%), and critical thinking skills development (53%). To evolve their practice and overcome the problems they experienced the teachers believe that students learn better when they are actively engaged in the learning processes. To increase students' involvement and make their learning more personalized, students might be involved in course materials development by choosing the topics for discussion and the ways to demonstrate their achievements (73%). It is also a good idea to encourage students to reflect on the course material, the implemented learning strategies and the lessons outcomes (60%).

Conclusion and recommendations

This paper is designed to highlight advantages and problematic areas of active learning strategies implementation into Maritime English course and may lead to general recommendations on the course development. Based on deeper learning approaches (inquiry-based learning, personalized instruction, flipped classes) active learning strategies focus on training HOTS and develop decision-making and critical thinking skills, which contribute greatly in communication skills improving and, as a result, general learning enhancing.

In this respect, some recommendations are suggested:

1) students' reflection on their performance, course material, learning strategies is welcomed in order to make study personalized;

2) self-correction and self-assessment are encouraged to increase self-awareness and learning efficiency;

3) effective collaboration in groups should be the main type of students' interaction that leads to development of HOTS and communication skills.

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