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GRY FABULARNE W KSZTAŁTOWANIU I OCENIE KOMPETENCJI KOMUNIKACYJNYCH STUDENTÓW SPECJALISTYCZNEGO KURSU JĘZYKA ANGIELSKIEGO (ESP)

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Adnotacja. W artykule zbadano koncepcję języka angielskiego do zastosowań specjalnych (ESP) w kontekście nauczania języka angielskiego w zakresie mechaniki okrętowej. Zbadano wykorzystanie gier polegających na odgrywaniu ról jako skutecznego narzędzia poprawy znajomości języka angielskiego uczniów poprzez zanurzenie ich w realistycznych sytuacjach komunikacyjnych.

Autorka zastosowała jakościową metodę badawczą w celu określenia wpływu gier fabularnych w trakcie nauki języka angielskiego o tematyce morskiej na wyniki kształcenia studentów inżynierii morskiej. Dodatkowo w trakcie badania zwrócono uwagę na analizę korzyści płynących ze stosowania gier edukacyjnych w połączeniu z grami RPG w opanowaniu odpowiedniego słownictwa specjalistycznego.

W artykule przedstawiono przykład scenariusza polegającego na odgrywaniu ról w zakresie wyszukiwania i rozwiązywania problemów z okrętowym silnikiem Diesla z integracją gier edukacyjnych na etapach wstępnej nauki słownictwa, badania przyczyn i sposobów rozwiązywania problemów technicznych.

Autorka zauważa skuteczność gier RPG w ocenie umiejętności mówienia uczniów w realistycznych, praktycznych scenariuszach i postuluje szersze wprowadzenie gier w proces nauczania języka angielskiego do celów specjalnych (ESP).

Słowa kluczowe: angielski do celów specjalnych (ESP), gry fabularne, kompetencje komunikacyjne, gry edukacyjne, mechanika okrętowa, kontekst realistyczny.

ROLE-PLAYS IN DEVELOPING AND EVALUATING ESP STUDENTS' COMMUNICATIVE COMPETENCE

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Abstract. The article delves into the concept of English for Specific Purposes (ESP) in the context of teaching English to marine engineers. It considers the use of roleplays as an effective tool for enhancing students' English proficiency by immersing them in real-life communicative settings.

The author applied a qualitative research method to investigate how Maritime English course roleplays affect marine engineering students' learning outcomes. Additionally, the research focused on analyzing the benefits of using educational games in synergy with roleplays for the mastery of related specialized vocabulary.

The article presents an example roleplay scenario on troubleshooting the marine diesel engine with educational games integrated into the roleplay at the stages of pre-teaching vocabulary, exploring causes and remedies to the problems.

The author highlights the efficacy of roleplays in assessing students' language skills within practical realistic scenarios, advocating for the continued use of roleplays in ESP teaching.

Key words: english for Specific Purposes (ESP), roleplays, communicative competence, educational games, marine engineers, real-life contexts.

РОЛЬОВІ ІГРИ У ФОРМУВАННІ ТА ОЦІНЮВАННІ КОМУНІКАТИВНОЇ КОМПЕТЕНЦІЇ СТУДЕНТІВ КУРСУ СПЕЦІАЛІЗОВАНОЇ АНГЛІЙСЬКОЇ (ESP)

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Анотація. У статті розглядається концепція англійської для спеціальних цілей (ESP) у контексті викладання англійської мови для суднових механіків. Досліджується використання рольових ігор як ефективного інструменту для підвищення рівня володіння студентами англійською мовою через занурення їх у реалістичні комунікативні ситуації.

Автор використав якісний метод дослідження з метою визначення впливу рольових ігор в рамках курсу морської англійської на навчальні результати студентів морського інженерного напрямку. Крім того, під час дослідження було акцентовано увагу на аналізі переваг використання навчальних ігор у комбінації з рольовими іграми для опанування відповідною спеціалізованою лексикою.

У статті наведено приклад сценарію рольової гри щодо пошуку та усунення несправностей морського дизельного двигуна з інтеграцією навчальних ігор на етапах попереднього вивчення вокабуляру, дослідження причин та засобів вирішення технічних проблем.

Автор відзначає ефективність рольових ігор для оцінювання мовленнєвих навичок студентів в рамках реалістичних практичних сценаріїв і виступає за більш широке впровадження ігор у процес навчання англійської для спеціальних цілей (ESP).

Ключові слова: англійська мова для спеціальних цілей (ESP), рольові ігри, комунікативна компетенція, навчальні ігри, суднові механіки, реалістичний контекст.

Being a global language, English has permeated various fields, including business, politics, science, technology, education, and international relations. Multicultural working environment where individuals with different linguistic and cultural background need to successfully function in specific contexts has created the increased need of developing professionals' language proficiency in their specific domains. In this regard, the concept of English for Specific Purposes (ESP) aiming to teach English for particular professional contexts like engineering, medicine, law, and aviation has been much in focus in recent years.

ESP teaching aims to bolster students' communicative competence by instilling in them the requisite linguistic skills, including grammar, vocabulary, and discourse structures, to communicate effectively in their professional setting. Thus, the main objective of ESP teaching is to develop students' communicative competence, which entails the ability to produce and comprehend relevant language structures and utilize them effectively in specific professional contexts.

Theoretical background

Roleplays are considered a valuable tool for developing learners' communicative competence. They provide opportunities to practice and apply language skills in realistic contexts, such as job interviews, business meetings, and negotiations. Learners can practice language structures in a supportive environment where mistakes are acceptable, and feedback is provided, becoming more confident and proficient in using the language in real life.

The use of roleplays in ESP teaching stems from the Communicative Language Teaching (CLT) approach, which prioritizes communication in language learning. As Bachman, L. F. points out, «the main goal of language teaching is to help learners develop communicative competence» (Bachman, 1990:5). Brown, H. D. defines a communicative competence as «the ability to use language effectively and appropriately in a range of social contexts» (Brown, 2007:64). Roleplays simulate real-life situations and provide a unique opportunity to engage in social interaction and practice language use in specific contexts.

Furthermore, the use of roleplays is supported by the sociocultural theory, which highlights the importance of social interaction and context in learning. The effectiveness of using roleplays in ESP teaching has been proven by a number of studies. Roleplays improve students' speaking skills and increase their motivation to learn English, thus building students' confidence in using it. Liu, F. asserts that the effect of «memorization and application of new words is proved better than single practice of recitation» (Liu & Ding, 2009:142-143).

The significance of proficient and productive communication cannot be overestimated, particularly for seafarers as it is a crucial aspect of ensuring safety. For this reason, enhancing the communicative abilities of students in maritime educational establishments has always been an issue of inquiry and discussion. Roleplays have proven to be one of particularly effective and powerful methods aimed at developing future mariners' language skills. By immersing students in simulated real-life scenarios and providing them with opportunities to practice their language skills in practical settings, roleplays effectively enhance maritime students' learning outcomes and engagement.

Furthermore, roleplays can help students develop teamwork and collaboration skills which are essential for safe and productive work at sea. The studies proved the effectiveness of roleplays in teaching English to mariners, especially in the areas of communication, teamwork and practical skills, providing learners with authentic and engaging learning experiences (Liu & Ding, 2009:143).

Methodology

At the National University «Odessa Maritime Academy», we have extensively incorporated simulation activities to aid in the retention and mastery of professional vocabulary. The author conducted a comprehensive study on the use of educational games in teaching specialized vocabulary for marine engineering students discovering the games types that maximize productivity and student engagement. The idea of integrating educational games into Maritime English course roleplays was driven by the need of substantial grasp of specialized terminology intrinsically embedded into roleplay activities for marine engineers.

This research sought to explore how educational games incorporated into a roleplay affect students' language proficiency in practical contexts. The author hypothesized that integration of educational games at different stages of a roleplay mutually reinforce one another and can improve students' language proficiency, motivation, and engagement compared to traditional role-playing activities alone. Roleplays foster creativity and problem-solving skills, and the introduction of educational games enhances these benefits by providing a more engaging and interactive learning experience (Nikitakos, N. et al., 2016).

The author applied a qualitative research method that enables to get thorough understanding of students' attitudes to a survey subject, detailed interactions and communication dynamics. The questions raised were as follows:

1. How does the use of a roleplay in teaching Maritime English impact students' efficiency in using their English language skills in real-life settings? In the context of this research, the author intended to evaluate students' ability to identify causes and suggest remedies to the marine diesel engine problems.

2. Do students engaged in educational games demonstrate better knowledge of the related terminology compared to those in the roleplay alone?

3. Do students enjoy taking part in Maritime English course roleplays and how does it impact their overall ability to learn and utilize professional vocabulary?

The research comprised 3 groups, 4 persons each. The participants were doing their 3rd-year bachelor course in Marine Engineering department of NU OMA. The experimental (1st) group was engaged in the role play augmented with educational games, the second group role played the same scenario without educational games, while the control group received instruction on the identical topic using conventional materials.

The data were collected through a pre-test, a post-test and a questionnaire. Before engaging in the learning process, all groups were given a brief written pre-test to assess their understanding of marine diesel engine functions, components and related vocabulary. The pre-test was important to make sure that there was no difference in the prior knowledge among the students engaged in the study. The pre-test revealed no difference in the knowledge level between the groups.

Post-test meant to evaluate learning outcomes of all the groups after the learning process. It included the assessment of terminology knowledge and students' ability to apply their knowledge to practical scenarios and problem-solving situations. The results of post-tests analysis accorded with other researches outcomes and proved the effectiveness of using roleplays in teaching Maritime English in particular. The students of the groups engaged in roleplaying demonstrated deep understanding of diesel engine components and operation and were more skillful in diagnosing and finding solutions to problem tasks compared to the third group participants who lacked practical understanding of the topic. The use of educational games at vocabulary teaching stages contributed to better memorization and appropriate use of the related vocabulary which was evidenced by better learning outcomes of the experimental (1st) group students.

After completing the assessment, the participants were asked to reflect on their performance and share their perspectives on the questionnaire, offering their insights into learning, challenges and usefulness of the experience. The students actively participating in the roleplays noted a sense of enjoyment and satisfaction throughout the learning process. The integration of educational games into various phases of the roleplay added an extra layer of fun, as highlighted by the students of the experimental (1st) group.

Incorporating educational games into the roleplay

An educational game can be incorporated into different stages of a roleplay, depending on the specific learning objectives and design of the game. Here are a few possible stages where an educational game could be integrated:

1. Introduction: An educational game could be used at the beginning of a roleplay to introduce students to the scenario or theme. In the context of English for marine engineering students, an interactive storyline could set the background for a roleplay that explores these concepts in greater depth.

2. Exploration: During the exploration phase of a roleplay, students may be asked to investigate a problem or scenario in more detail. An educational game could be used to provide additional resources, such as virtual tours or simulations, to help students better understand the topic and make connections between concepts.

3. Challenge: In many roleplays, students are presented with a challenge or a problem to solve. An educational game could be used to provide a fun and engaging way for students to work together to solve the challenge. For example, a game that requires students to use problem-solving or critical thinking skills could be used as a supplement to the roleplay itself.

4. Reflection: After a roleplay, students may be asked to reflect on what they learned and how they could apply it in real life.

Educational games introducing the required vocabulary and grammar can be integrated into various stages of a roleplay, depending on the design of the roleplay.

Here's scenario of a roleplay on the topic «Troubleshooting a Marine Diesel Engine That Refuses to Start» with educational games integrated at the stage of pre-teaching the vocabulary, exploring the possible causes and their analysis.

Synopsis:

You and your team are on board a ship that is experiencing difficulty starting its marine diesel engine. Your task is to diagnose the problem by analyzing the signs and symptoms of the engine's behavior.

Possible causes: no fuel; starting air pressure too low; air in fuel line or pump; injection nozzles not working; compression low; viscosity of oil too high; cylinder too cold; injection timing wrong.

Activity:

1. Form teams of 3-4 students.
2. Educational game 1 pre-teaches the required technical vocabulary: match the word to its definition (see *Educational game 1* below).
3. Each team will be assigned an option specifying the condition of the main engine (see *Options for teams* below).
4. Educational game 2 (analysis of the information available and making suppositions): each team has to suggest probable aftereffects of the given conditions, then match the signs relating to a particular cause (see *Educational game 2* below).
5. Each team will analyze the available signs and symptoms to diagnose the cause of the problem.
6. Each team will present their diagnosis to the class. They shall suggest the remedy. (See *Educational game 3* below.)
7. The class will discuss the presented diagnoses and solutions to the problem.

Educational game 1 (at the stage of pre-teaching vocabulary).

Match the terms to their definitions:

Terms: a) fuel systems; b) starting air system; c) injection nozzles; d) compression; e) viscosity; f) air receiver; g) fuel injection pump; h) ignition; i) lubricating oil; j) troubleshooting; k) crankshaft; l) temperature sensor.

Definitions:

1. The reduction in volume and increase in pressure of a gas or air-fuel mixture in an engine cylinder before ignition.
2. The components of an engine that store and deliver fuel to the combustion chamber for ignition.
3. A component of the fuel system that delivers fuel to the engine cylinders at the correct pressure and timing.
4. A component of the fuel system that atomizes the fuel and injects it into the combustion chamber.
5. Compressed air that is used to start a diesel engine.
6. A container used to store compressed air.
7. The rotating shaft in an engine that converts reciprocating motion to rotational motion.
8. Oil used in engines to reduce friction and wear between moving parts.
9. The measure of a fluid's resistance to flow.
10. A device used to measure the temperature of a fluid or component.
11. The process of starting combustion in an engine by supplying a spark or heat to the air-fuel mixture.
12. The process of identifying and solving problems in a mechanical or electrical system.

Keys: a-2, b-5, c-4, d-1, e-9, f-6, g-3, h-11, i-8, j-12, k-7, l-10.

Options for teams:

1. The engine cranks but doesn't start: no sound of fuel delivery; no black smoke from exhaust; air pressure gauge shows normal reading. (Key: Possible causes can be no fuel; air in the fuel line or pump; injection nozzles are not working.)
2. Engine starts but runs irregularly: exhaust colour changes from white to black and back; engine RPM fluctuates or surges; air pressure gauge shows normal reading. (Key: Possible causes can be air in fuel line or pump; injection nozzles not working; compression low.)
3. The engine cranks but starts after several attempts: black smoke from exhaust during cranking; engine RPM fluctuates during starting; air pressure gauge shows normal reading. (Key: Possible causes can be air in fuel line or pump; injection nozzles not working; compression low.)
4. Engine starts but shuts immediately: the engine shakes and makes knocking noise; white or black smoke from exhaust; air pressure gauge shows normal reading. (Key: Possible causes can be injection nozzles not working; compression low; viscosity of oil too high.)
5. Engine starts but runs at low power: engine RPM is significantly lower than usual; no black smoke from exhaust; air pressure gauge shows normal reading. (Key: Possible causes can be compression low; cylinder too cold; injection timing wrong)

Educational game 2:

A. Suggest the aftereffects at the following conditions:

1. No fuel (Key: Probable aftereffect is an empty or low fuel tank or an issue with the fuel system)
2. No fuel (Key: Probable aftereffect is an empty or low fuel tank or an issue with the fuel system)
3. Starting air pressure is too low. (Key: Probable aftereffect is insufficient starting air pressure for turning the engine over)
4. Air in fuel line or pump. (Key: Probable aftereffect is air in the fuel system that prevents the engine from starting)
5. Injection nozzles are not working. (Key: Probable aftereffect is clogging of fuel injection nozzles or their incorrect functioning)

6. Compression is low. (Key: Probable aftereffect is insufficient pressure from the engine cylinders.)
7. Viscosity of oil is too high. (Key: Probable aftereffect is too thick engine oil for proper circulation.)
8. Cylinder too cold. (Key: Probable aftereffect is that the engine cylinders are too cold to start.)
9. Injection timing is wrong. (Key: Probable aftereffect is incorrect fuel injection timing which caused issues with combustion.)

B. Match the signs to the possible causes of engine failing to start:

Signs: 1) no fuel; 2) low starting air pressure; 3) air in fuel line or pump; 4) injection nozzles don't work; 5) low compression; 6) high oil viscosity; 7) cylinder is too cold; 8) incorrect injector timing.

Possible causes:

a) Fuel gauge shows an empty or low level; b) air pressure gauge shows a low reading; c) the engine cranks but does not start; d) engine starts but runs roughly; e) absence of fuel smell in the engine room; f) air bubbles visible in the fuel lines or filters; g) the engine fails to start in cold conditions; h) air compressor may be making unusual noises or sounds; i) rough idling or vibration; j) the engine is not cranking or starting when the starter is engaged; k) hissing sound from the exhaust; l) the engine does not start or show signs of life; m) reduced engine power and efficiency; n) abnormal engine noise in cold weather; o) engine misfires when starting; p) fuel pressure gauge shows fluctuation or instability; r) reduced engine power; s) excessive smoking from the engine; t) increased engine temperature; u) black smoke from the engine; v) fuel leaks at the nozzle; w) difficulty in starting the engine; x) increased engine noise.

Keys: 1) – a), e), l); 2) – b), j), h); 3) – c), f), p); 4) – d), s), v); 5) – k), c), r); 6) – w), t), x); 7) – g), n), o); 8) – i), u), m).

Educational game 3 is aimed at mastering the proper use of common verbs being part of collocations required to explore and diagnose the causes of the roleplay problem.

Choose the appropriate remedy for each cause and the verb that fits. You'll get a ready phrase to use. The verbs to be used are as follows: check; check for; refill; use; contact; repair; adjust; change; clear.

1. No fuel.

- _____ fuel levels and _____, if necessary.
- _____ blockages in fuel lines or filters.
- _____ fuel pump, if necessary.
- _____ shore support for fuel delivery.

2. Starting air pressure is too low:

- _____ air compressor.
- _____ air storage tanks and _____, if necessary.
- _____ any leaks in the air lines.
- _____ emergency starting air bottles, if available.

3. There is air in fuel line or pump:

- _____ the fuel system to remove air.
- _____ any leaks in the fuel lines and _____, if necessary.
- _____ fuel filters.
- _____ manual hand pump to prime fuel system, if available.

4. Injection nozzles are not working:

- _____ the injection system.
- _____ the injection nozzles, if necessary.
- _____ fuel pump settings to compensate for faulty nozzles.

5. Compression is low:

- _____ the engine's cylinder head and piston rings and _____ as necessary.
- _____ the valves and valve seats and _____ as necessary.
- _____ engine load to compensate for reduced power output.

6. Viscosity of oil is too high:

- _____ to a lower viscosity oil, if available.
- _____ any blockages in oil lines or filters and _____ them.
- _____ engine heating devices to warm up oil, if available.
- _____ the engine's coolant system.

7. Cylinder is too cold:

- _____ the engine's coolant system.
- _____ the thermostat and _____, if necessary.
- _____ emergency heating devices, such as hot water or steam, if available.

8. Injection timing is wrong:

- _____ the injection timing to the correct setting.
- _____ the engine's fuel system for any blockages or malfunctions that could be affecting injection timing.
- _____ emergency fuel system adjustments, such as manual pump adjustments, if available.

Keys: 1. Check, refill; clear; use. 2. Use; check, refill; clear; use. 3. Check; clear, refill; change; use. 4. Check; repair; adjust. 5. Check, adjust; check, adjust; adjust. 6. Change; clear, adjust; use; adjust. 7. Adjust; adjust, refill; use. 8. Adjust; check; adjust.

Incorporating roleplays into assessment

It's worth noting that roleplays can be used both to develop and assess students' communicative competence. Traditional testing methods, such as multiple-choice or fill-in-the-blank tests, do not reflect the complexity of communicative competence. Roleplays, on the other hand, provide a more authentic and realistic way of assessing learners' ability to use language in a variety of social contexts. As Dudley-Evans, T. argues, «authenticity is a key factor in ESP teaching, and assessment should reflect the real-world use of language» (Dudley-Evans, 1998:139).

To incorporate roleplays into assessment, activities shall reflect the specific language skills and social contexts in the framework of the learners' field of study. The use of roleplays in assessment has a potential to provide a more authentic evaluation of the student's language proficiency and can foster the development of crucial communication skills. Roleplays allow students to apply the language skills learned in a real-life context, which can more accurately reflect their ability to use the language in practical settings.

By participating in roleplays, students must engage in conversations, negotiations, and problem-solving, all of which require strong communication skills. These skills are essential for professionals in various fields, such as business, medicine, and engineering, where effective communication can be crucial for success. In addition, roleplays can help students overcome their fear of public speaking and boost their confidence in using the language.

Another important factor is providing clear guidelines and instructions for the roleplay scenario. The instructions should include the roles assigned to each student, the objectives of the scenario, and the evaluation criteria. This ensures that the assessment is fair and transparent and that students understand what they are expected to do. As Schewe, S. points out, «effective roleplaying requires clear guidelines and objectives to ensure that learners stay focused and on-task» (Schewe, 2018:106).

Conclusion. Roleplays offer real-world scenarios mirroring working contexts students can face in their professional career, allowing them to practice their language skills in particular contexts and develop their language competence. Furthermore, roleplays can serve as an effective tool for assessing students' language proficiency and revealing the areas for improvement. The study proved that roleplays in the framework of Maritime English course enhance students' engagement and motivation and build their interest in the subject matter. Moreover, they noticeably improve students' learning outcomes and ability to creatively approach problem-solving tasks. It should be noted that roleplays can be adapted to suit different language levels and a wide range of topics. Additionally, roleplays help to develop students' cultural awareness and understanding of different communication styles and social norms, particularly in cross-cultural communication contexts. The use of roleplays in Maritime English classes create real-like working situations enabling students to try on their professional roles and gain a deeper understanding of marine engineering basics. The synergy between roleplays and educational games proved to be an efficient method of equipping students with specialized vocabulary crucial for successful communication at sea, building their confidence and improving communicative competence.

References:

1. Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford University Press. <http://doi.org/10.1093/elt/44.4.342>
2. Brown, H. D. (2007). *Principles of language learning and teaching*. Pearson Education. Retrieved from http://www.academia.edu/15979341/Principles_of_Language_Learning_and_Teaching_Fourth_Edition_Douglas_Brown
3. Dudley-Evans, T., & St. John, M.J. (1998). *Developments in ESP: A multi-disciplinary approach*. Cambridge University Press. Retrieved from: https://www.academia.edu/22895053/Developments_in_English_for_specific_purposes_a_multi_disciplinary_approach_Tony_Dudley_Evans_and_Maggie_Jo_St_John_Cambridge_Cambridge_University_Press_1998_301_pp
4. Nikitakos, N., Sirris, I., Dimitrios, D., Papachristos, D. & Tsoukalas, V. (2017). Game-based learning for maritime education and training: The case of Trader of the World. *WMU Journal of Maritime Affairs*, 16(2), 265–291. <http://dx.doi.org/10.1007/s13437-016-0119-3>
5. Schewe, S. (2018). Role-playing and the acquisition of communicative competence. In Long, M.H. & Doughty, C.J. (Eds.), *The Handbook of Second Language Acquisition* (pp. 105–121).
6. Liu, Feng & Ding, Yun. (2009). Roleplays in English language teaching. *Asian Social Science*, 5(10), 140–143. <http://doi.org/10.5539/ass.v5n10p140> Retrieved from: https://www.researchgate.net/publication/41846705_Role-play_in_English_Language_Teaching