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EFFICIENCY OF TEACHING ENGLISH MONOLOGUE PRODUCTION TO FUTURE MECHANICAL ENGINEERS BY MEANS OF PODCASTING

Abstract. The purpose of the given article is to prove the efficiency of teaching ESP monologue production to students majoring in mechanical engineering by means of podcasting. The efficiency of the methodology devised was verified in the process of an experiment conducted at the Institute of Mechanical Engineering, Igor Sikorsky Kyiv Polytechnic Institute in the academic year 2018 – 2019, from September to December. Three experimental groups, thirty-four students in total, studying in their final year of Bachelor’s studies, participated in the methodological experiment. The main stages of any methodological experiment that comprise its “nucleus” are: pre-experimental assessment; experimental teaching and post-experimental assessment. The obtained results of the pre-experimental assessment indicated an insufficient level of the participants’ communicative competence formation in monologue production, thus proving the significance of developing new teaching methodologies for the future mechanical engineers. The experimental teaching lasted for 28 hours and took place in three experimental groups on the basis of the suggested set of tasks. The set of tasks inferred implementation of information and communication technology and was performed both in class and out of class. Working out-of-class, students performed tasks on the podcasting terminal, arranged by the experimenter on the Internet on a special educational platform called *Canvas*. The purpose of the post-experimental assessment was to evaluate the participants’ communicative competence formation in monologue production after the experimental teaching, thus, verifying the efficiency of the methodology devised. The methodological experiment performed and the data processed by methods of mathematical statistics with its further qualitative and quantitative analysis have confirmed that the process of teaching ESP monologue production to future mechanical engineers is effective on condition that the set of tasks that envisages podcasting implementation is used.

Keywords: ESP monologue production teaching; efficiency verification; podcasting technology; podcasting terminal; set of tasks.

1. INTRODUCTION

Problem statement. Due to the rapid development, immanent to Ukrainian society at the current stage, and considering the country’s direction towards European integration, there appears the necessity to enhance the already existing relations and establish new productive connections with cross-border partners. The aforesaid may be facilitated by the domestic specialists’ engagement in various international scientific and practical conferences, round tables and workshops, foreign exchange programs and overseas practical trainings. Under such

circumstances, the question of educating future engineers who are able to speak a foreign language fluently is of the utmost importance.

Following the ESP Study Program [1, p. 2], a student graduating with a Bachelor's degree in science and engineering has to demonstrate the B2 level of communicative competence. In other words, as early as studying at university, students have to be able to deliver a speech or present a project; express, justify and prove their point of view on the topic; comment on the information perceived; give a detailed description, characteristic of a scientific product etc. According to the results of the research [2, p. 65], there has to be a minimum of 480 hours of the in-class activities to master a European language at the vantage level, to achieve the advanced level – not less than 1080 hours. At the same time, the number of hours dedicated to mastering English (4th semester) at the Institute of Mechanical Engineering, Igor Sikorsky Kyiv Polytechnic Institute equals to 36 hours of the in-class activities [3].

Hence, there appears an urge for development of advanced methodologies aiming at improvement of the educational process quality while teaching monologue production skills to future mechanical engineers.

Today, we can not imagine effective educational process without information and communication technologies (ICT). The potential of the ICT to enhance the language teaching process, encourage monologue production skills formation in particular, taking into consideration the existing time restrictions, can be determined by their distinctive qualities. Among these qualities the following are to be mentioned:

- certain degree of anonymity that conduces personal fulfilment and realization;
- availability of user-friendly content and interface;
- simplicity while using the already existing templates to create original web resources;
- use of versatile information messaging formats: text, graphics, audio, video etc.;
- possibility to collaborate in groups and pairs while devising a certain project;
- availability of the educational content irrespective of the time of day and the user's location.

Thereby, developing the methodology of teaching ESP monologue production to students majoring in mechanical engineering, one of the kinds of the ICT, namely podcasting, is to be used in our study.

Analysis of recent studies and publications. The subject of podcasting technology implementation in teaching different speech activities has been highlighted in the works by H. H. Solomatina (2011), O. Yu. Malushko (2013), N. H. Protazanova (2013), I. O. Yevstiehniceva (2013), P. V. Sysoiev (2014), M. M. Yevstiehnicev (2014), D. V. Dmytriiev, A. S. Meshchieriakov (2014), G. Stanley (2006), P. Edirsingha, G. Salmon, M. Nie (2008), A. Fox (2008), I. Waragai, T. Ohta, N. M. Raindl (2010) and others.

For instance, H. H. Solomatina (2011) and P. V. Sysoiev (2014) draw attention to the idea of improving speaking and listening skills by means of podcasting; O. Yu. Malushko (2013), focusing on teaching Master students majoring in Linguistics, proves the efficiency of the listening comprehension competence formation with the help of podcasting, N. H. Protazanova (2013) emphasizes the importance of using podcasting technology while teaching monologue production to future philologists.

In the course of our study we have devised and described a methodology of teaching ESP monologue production to future mechanical engineers, which involves podcasting technology. Specifically, general didactic and methodological study principles that comprise the basis of the methodology in question have been identified [4]; the main criteria of the educational materials'

selection have been highlighted and the selection procedure completed; the set of tasks has been devised [5], the model of the educational process organization with a perspective of its further implementation in the educational process has been suggested [6].

The next question, which requires certain attention at this point, is to prove the efficiency of the methodology proposed by means of conducting a methodological experiment. The stated defines the significance of the given article.

The purpose of the article is to prove the efficiency of the methodology aiming at teaching ESP monologue production by means of podcasting to future mechanical engineers. The objectives of the research are:

- to hold a pre-experimental assessment in three experimental groups to identify the initial level of the participants' communicative competence formation in monologue production;
- to hold an experimental teaching based on the suggested set of tasks to check the efficiency of the methodology;
- to hold a post-experimental assessment to evaluate the advance in the participants' communicative competence formation in monologue production at the end of the experiment;
- to process the data acquired in the course of the experiment by methods of mathematical statistics and to analyze the results.

2. METHODS OF THE RESEARCH

The following methods have been applied in the course of our empirical study: quantitative and qualitative analysis, observation, interpretation (reasoning and comparison), control and measuring (pre-experimental and post-experimental assessment), methods of processing data by means of mathematical statistics, surveys. It has to be added that a thorough analysis of the scientific and methodological studies concerning the use of podcasting technology in the process of second language acquisition has been conducted.

3. ORGANIZATION AND RESULTS OF THE RESEARCH

First and foremost, it is to be noted that the specificity of the methodology devised for teaching ESP monologue production to students majoring in mechanical engineering lies in the implementation of ICT, namely podcasting, which encourages more active English production skills development in class, as well as out of class.

In order to verify the efficiency of the given methodology a methodological experiment has been conducted. An experiment as a method of scientific research in Foreign Language Teaching is considered to be indispensable while assessing the efficacy of a certain method, approach, technology or methodological system on the whole. The works by P.B. Gurvych, V.P. Bepalko, E.A. Shtulman, V.O. Artemov, V.A. Buhbinder, V.I. Zagvyazynskyj, M.V. Lyahovytskyj, O.V. Sydorenko, I.M. Bronshtejn, K.A. Semendyayev served as a theoretical basis to be guided by in the process of laying the groundwork for the methodological experiment, its performance and further processing of the data acquired.

The aim of the performed methodological experiment was to verify the hypothesis according to which the process of teaching ESP monologue production to students majoring in

mechanical engineering (within the Subject Areas 131 Applied Mechanics and 133 Industrial Engineering in particular) will be effective, provided that a set of tasks, developed on the basis of the previously selected and properly arranged teaching materials, which involves podcasting technology is used.

The methodological experiment in question may be viewed, according to P.B. Gurvych [7], as vertical and horizontal. Verification of the hypothesis was carried out in the course of the methodological experiment performed at Igor Sikorsky Kyiv National Technical University in September – December 2018 – 2019 (7th semester). Three experimental groups (EG-1, EG-2, EG-3), thirty-four students in total studying in their final year of Bachelor’s studies at the Institute of Mechanical Engineering, took part in the methodological experiment. The main stages of the experiment that constitute its “nucleus” are: *pre-experimental assessment*; *experimental teaching* and *post-experimental assessment*.

The aim of the *pre-experimental assessment* was to identify the level of the participants’ communicative competence formation in monologue production. Devising the structure for the given assessment, we took into account a number of internationally recognized tests of English as a Foreign Language (Cambridge PET, FCE, CAE, IELTS, BEC, CELS and others), conducting at the same time a thorough analysis of the academic works by foreign researchers [8], [9], [10].

The *performance assessment procedure* was held in accordance with the following *criteria*: the communicative intention relevance, structural completeness, sufficiency and adequacy of the professional terminology used, accuracy of the language means, coherence and cohesion, speech rate and its duration.

Table 1

Points allocation in accordance with the speech assessment criteria

№	Speech assessment criteria	Maximum points
1.	Communicative intention relevance	20
2.	Structural completeness of the speech	15
3.	Sufficiency and adequacy of the professional terminology used	15
4.	Accuracy of the language means	15
5.	Coherence and cohesion	15
6.	Speech rate	10
7.	Speech duration	10
Total		100

Average results of the students’ performance by every criterion and the achievement rate (its mean value) depending on the experimental group (EG- 1, EG- 2, EG- 3) are stated in Table 2. The achievement rate is calculated by the formula: $R_{ach} = N/P$, where N is the number of points received by a student, and P is a maximum number of points.

Having analyzed the data received in the course of the pre-experimental assessment, we inferred that not every participant of the experiment was able to realize the communicative intention successfully: their speech did not always correlate with the topic, not all the aspects were covered extensively.

Table 2

**Average results of pre-experimental assessment in the experimental groups
EG- 1, EG- 2, EG- 3**

Assessment criteria Experimental group	Communicative intention relevance	Structural completeness	Sufficiency and adequacy of the professional terminology used	Accuracy of the language means	Coherence and cohesion	Speech rate	Speech duration	Points	Achievement rate
EG-1	11,36	8,45	8,64	7,18	7,00	7,55	7,64	57,82	0,58
EG-2	12,8	8,5	8,2	7,5	8,2	7,5	7,3	60	0,6
EG-3	14,08	8,23	8,54	7,77	8,38	7,15	6,92	61,08	0,61
Mean value	12,75	8,39	8,46	7,48	7,83	7,4	7,29	59,63	0,6
Maximum points	20	15	15	15	15	10	10	100	1

Students also found it difficult to adhere to the basic structural elements of the monologue speech: one could observe a lack of proper introduction, containing the statement of the problem; the main body was frequently deficient in description, explication and argumentation; a tendency to leave the speech unclosed (total or partial absence of conclusions, generalization) could be noticed. Considerable difficulties occurred while structuring the speech: insufficient coherence and cohesion, absence of the cause-effect relation, inexpediency of the given examples. All in all, having demonstrated certain awareness of the professional terminology, most students failed to demonstrate the pertinence and sufficiency of its usage.

Assessing the students' performance in accordance with such "additional" criteria as the speech tempo and duration, a positive tendency was noted. A slight disadvantage, though, was the presence of hesitation pauses, lasting longer than 6 seconds, thus resulting in the speech tempo slowdown.

To draw a conclusion from the pre-experimental assessment results, an insufficient level of the participants' communicative competence formation in monologue production was to be stated. The aforementioned proves the need for new teaching methodologies for future mechanical engineers and experimental justification of their efficacy with the aim of subsequent implementation in the educational process.

Let us proceed with the description of the main part of the experiment – *the experimental teaching*. The experimental teaching lasted for 28 hours (14 of which were devoted to the out-of-

-class activities) and took place in three experimental groups on the basis of the suggested set of tasks within the thematic module *Planning of Machine Building Technological Process* and its units. It took from 45 to 50 minutes of every class to complete the tasks of the given set. The rest of the time was dedicated to studying by the coursebook recommended by the syllabus.

The set of tasks in question involved the use of ICT and was performed in class as well as out of class. Working in class, students comprehended authentic podcasts and completed the tasks to improve their skills in speech structuring, lexical and grammar skills; tasks on semantic analysis of a podcast; tasks on partial and detailed reproduction; tasks on identification, analysis, explication, generalization and taking down the information while trying to find suitable solutions of the problem in groups; tasks, requiring speech presentation in various professional situations with subsequent discussion. Out-of-class activity envisaged students' work in podosphere that is on the podcasting terminal, previously arranged by the experimenter in the World Wide Web on a special educational platform called *Canvas*. Upon critical assessment of the information from the podcast, students were to produce and deliver their own speech. Tasks that required problem solving, ensuing speech production and its upload to the podcasting terminal were also included.

The screenshot of the tasks published on the podcasting terminal is shown in Figure 1. The screenshot of a particular task is depicted in Figure 2.

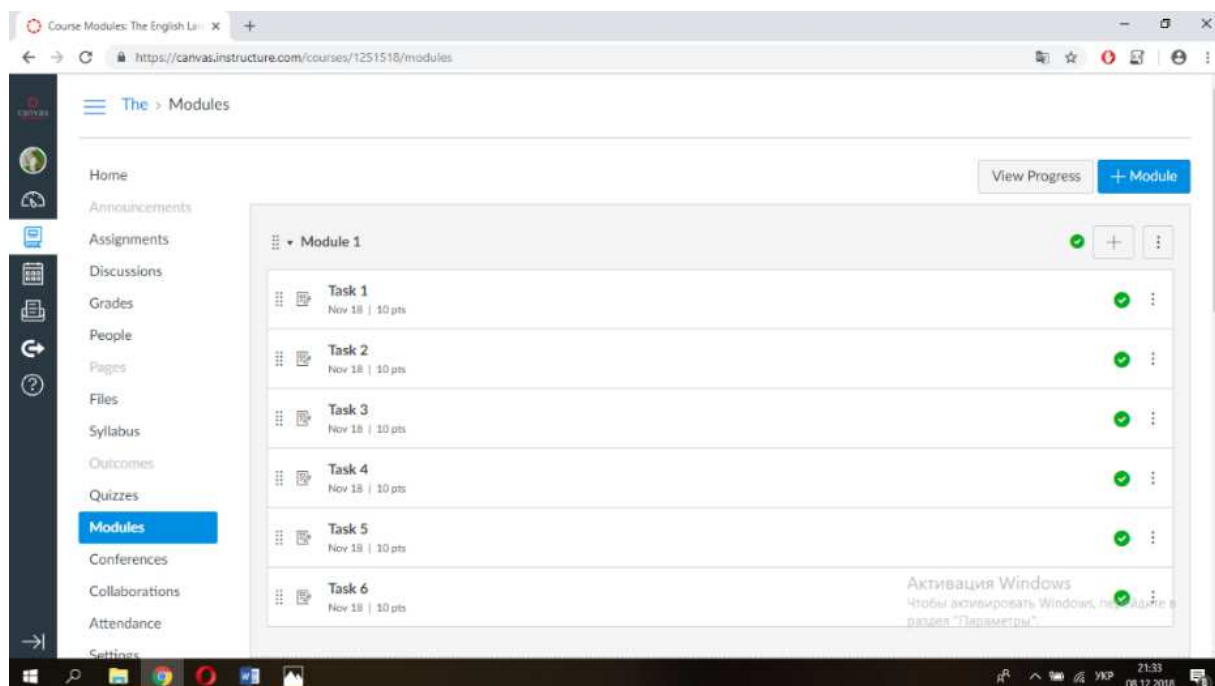


Figure 1. Tasks published on the podcasting terminal

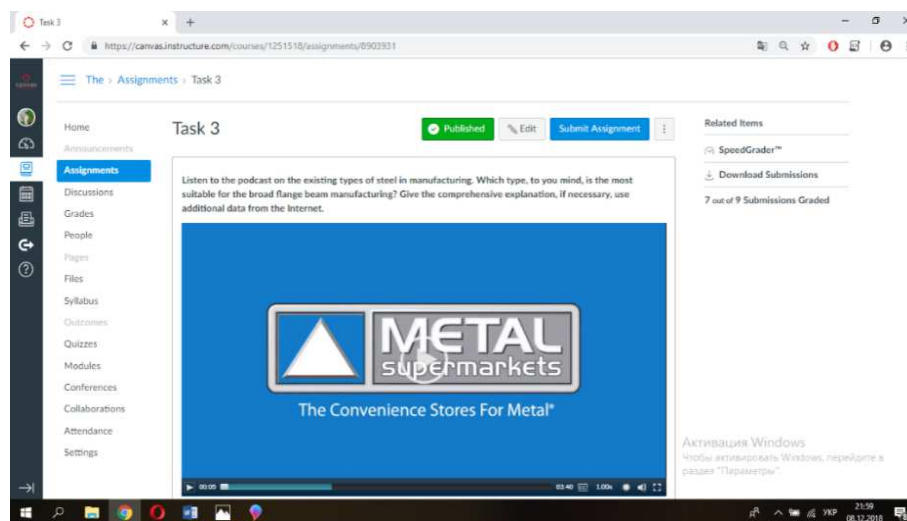


Figure 2. Particular task on the podcasting terminal

Working in the podosphere out of class, students created their own user profile (Figure 3), comprehended the podcasts on the terminal, completed the tasks proposed; produced, edited and uploaded their own speech.

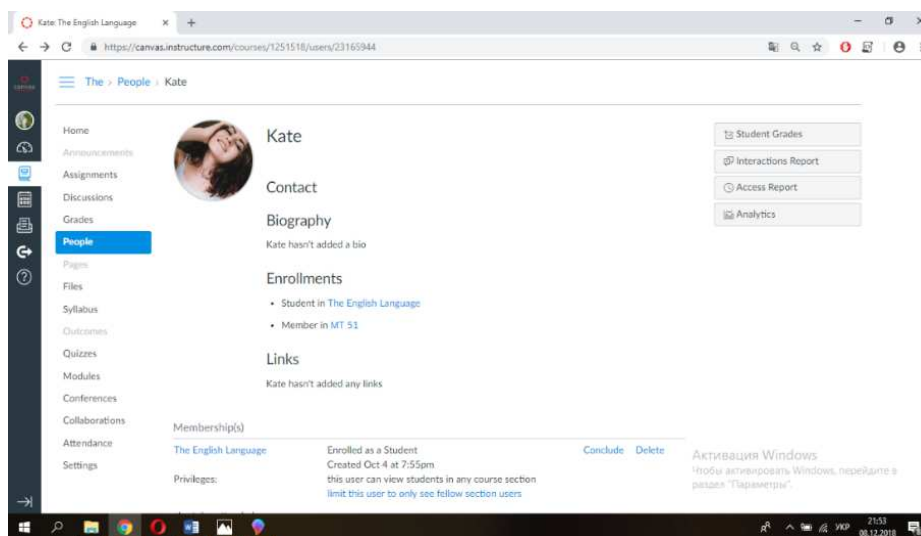


Figure 3. User interface on the podcasting terminal

The examples of the tasks published by the experimenter on the podcasting terminal are given below:

Task 1. Listen to the podcast on the existing types of steel in manufacturing. Which type, to you mind, is the most suitable for the broad flange beam manufacturing? Give the comprehensive explanation, if necessary; use additional data from the Internet.

Task 2. Listen to the podcast. Give examples of the workpieces where slugs are produced under such conditions. Describe the peculiarities of these workpieces manufacturing, state crucial differences if available. If necessary, use additional information from the Internet.

Task 3. Listen to the podcast. Make assessment of the solution suggested in the podcast. Correlate the given information with the existing professional knowledge and personal experience and suggest other ways to tackle the aforementioned issue. Use additional information from the Internet if necessary.

The next step of the methodological experiment involved *the post-experimental assessment*. The purpose of the assessment in question was to evaluate the advance in the participants' communicative competence formation in monologue production upon completion of the experimental teaching, thus, verifying the efficiency of the methodology devised.

The structure of the post-experimental test resembled closely the structure of the test at the beginning of the methodological experiment, with the only difference that, reflecting the specificity of the proposed methodology, it involved the use of authentic podcasts selected from the TED and CNBC International news websites.

Average results of the students' performance according to every criterion depending on the experimental group (EG- 1, EG- 2, EG- 3) are stated in Table 3.

Table 3

Average results of post-experimental assessment in the experimental groups EG- 1, EG- 2, EG- 3

Assessment criteria Experimental group	Communicative intention relevance	Structural completeness	Sufficiency and adequacy of the professional terminology used	Accuracy of the language means	Coherence and cohesion	Speech rate	Speech duration	Points	Achievement rate
EG-1	15,64	11,36	11,00	10,18	11,45	8,73	8,36	76,73	0,77
EG-2	16,3	12,2	11,8	11,9	12,2	8,5	8,9	81,8	0,82
EG-3	16,92	13,38	12,54	12,15	12,08	8,85	8,85	84,77	0,85
Mean value	16,29	12,31	11,81	11,41	11,91	8,69	8,70	81,1	0,81
Maximum points	20	15	15	15	15	10	10	100	1

Having acquired the data on completion of the experimental teaching, we further processed them by means of mathematical statistics, qualitative and quantitative analysis.

The statistical criterion ϕ^* – Fisher z-transformation, which was used to compare two samplings in terms of a certain effect's frequency identification, served as the *mathematical apparatus* in this regard. The effect implies students' achievement of $\geq 0,7$, which is considered

to be sufficient by V.P. Bepalko [11]. Fisher z-transformation is referred to as a multifunctional statistical criterion that accounts for its applicability to juxtapose both dependent and independent samplings.

Table 4, indicating the percentage of students demonstrating sufficient/insufficient achievement rate, is presented below.

Table 4

Correlation of the pre-experimental and post-experimental results accordant with the achievement rate $\geq 0,7$

	Achievement rate $\geq 0,7$		Achievement rate $< 0,7$		Total number of students
	Number of students	%	Number of students	%	
After the experiment	28	82,35%	6	17,65%	34
Before the experiment	13	38,2%	21	61,8%	34
Total	41		27		68

Two hypotheses are to be formulated.

H_0 : The number of students that achieved $\geq 0,7$ after the experiment *does not exceed* the number of students achieving the rate before the experiment.

H_1 : The number of students that achieved $\geq 0,7$ after the experiment *exceeds* the number of students achieving the rate before the experiment.

The values of φ_1 and φ_2 , corresponding to the percentage from every sampling, were defined by the table [12, p 330].

$$\varphi_1 (82,35\%) = 2,275; \varphi_2 (38,2\%) = 1,333.$$

The reference value – φ^* empirical is to be calculated:

$$\varphi_{emp}^* = (\varphi_1 - \varphi_2) \cdot \sqrt{\frac{n_1 \times n_2}{n_1 + n_2}} = (2,275 - 1,333) \cdot \sqrt{\frac{34 \times 34}{34 + 34}} = 3,88 \quad (1)$$

where $n_1 = n_2$ – the number of students participating in the experiment.

The following values are adopted as critical (φ^*_{cr}) [12, p 162]:

$$\varphi_{cr}^* = \begin{cases} 1,64 (p \leq 0,05) \\ 2,31 (p \leq 0,01) \end{cases} \quad (2)$$

As long as $\varphi^*_{emp} < \varphi^*_{cr}$, the hypothesis H_0 is taken, otherwise the hypothesis H_1 is to be accepted. The results are demonstrated on the value axis (Figure 4).

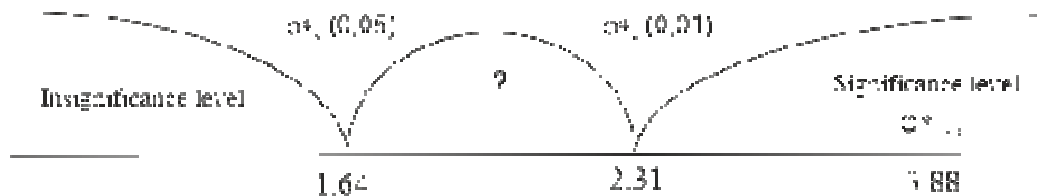


Figure 4. Value axis demonstrating the results

As is seen from the axis in Figure 4, the received value φ^*_{emp} (3,88) exceeds φ^*_{cr} and falls to the zone of statistical significance. Thus, the hypothesis H_0 is rejected and the hypothesis H_1 , implying that the number of students with the rate $\geq 0,7$ after the experiment is higher than the

number before the experiment, is accepted. Therefore, we can infer that the suggested methodology of teaching ESP monologue production to students majoring in mechanical engineering is effective.

Having proven the efficiency of the methodology in question by means of mathematical and statistical methods, let us proceed with the question of alterations (regarding the assessment criteria) that fostered the achievement rate increase on the experimental teaching completion.

Average results in accordance with the highlighted criteria in all three experimental groups before and after the experimental teaching and the percentage of the increase can be seen in Table 5.

Table 5

Average increase by every criterion before and after the experimental teaching

Assessment criteria	Communicative intention relevance	Structural completeness	Sufficiency and adequacy of the professional terminology used	Accuracy of the language means	Coherence and cohesion	Speech rate	Speech duration
Average result by the criterion before the experimental teaching	12,75	8,39	8,46	7,48	7,83	7,4	7,29
Average result by the criterion after the experimental teaching	16,29	12,31	11,81	11,41	11,91	8,69	8,70
Increase (%)	27,76	46,72	39,60	52,54	52,11	17,43	19,34

As can be seen from the table, the informativity of the speech produced by the students increased by 27,76%. This can be explained by a more competent initial thesis verbalization, which, consequently, led to a substantial decrease in the information that did not correspond to the topic. An increase (more than 52,11% comparing with the results of the pre-experimental assessment) is also reported while analyzing the participants' monologue production by the criterion of coherence and cohesion. The vast majority of the students demonstrated an active use of linking words and phrases, constructing the speech consistently and effectively.

A greater number of students (an increase by 46,72%) were able to construct their speech in compliance with the obligatory structural components: the introduction encompassed the problem description and its significance; the main body comprised assumptions, arguments, reasoning and personal judgements, enforced by facts and examples; the conclusions were quite informative and served as a logical closing of the speech.

The received results of the post-experimental assessment (testing) also serve as an evidence of the speech quality improvement in terms of sufficiency and adequacy of the professional terminology used (an increase by 39,60%). A positive effect is equally noted regarding the participants' skills to operate the range of language means accurately and apply more complex syntactic structures (growth by 52,54%). The improvements in articulation, expressiveness, speech tempo and duration are also observed.

4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

To draw a conclusion, the performed methodological experiment and the received data processing by methods of mathematical statistics with its further qualitative and quantitative analysis have confirmed the hypothesis of the study: the process of teaching ESP monologue production to future mechanical engineers is effective as long as a set of tasks, developed on the basis of the previously selected and properly arranged education materials, which envisages podcasting technology implementation is used. The participants' competence in structuring and delivering their own speech has undergone positive changes; the overwhelming majority of students demonstrated a substantial increase in their achievement level as a result of studying by the author's methodology.

The prospects for further research may lie in developing methodological recommendations for the implementation of the devised methodology into the educational process.

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ЕФЕКТИВНІСТЬ НАВЧАННЯ МАЙБУТНІХ ІНЖЕНЕРІВ-МЕХАНІКІВ АНГЛІЙСЬКОГО ПРОФЕСІЙНО ОРІЄНТОВАНОГО МОНОЛОГІЧНОГО МОВЛЕННЯ З ВИКОРИСТАННЯМ ПОДКАСТИНГУ

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Анотація. Статтю присвячено питанню перевірки ефективності запропонованої методики навчання англійського професійно орієнтованого монологічного мовлення із використанням технології подкастингу майбутніх інженерів-механіків. Ефективність окресленої методики перевірялась у ході проведення методичного експерименту на базі Національного технічного університету України «Київський політехнічний інститут імені Ігоря Сікорського» у вересні – грудні 2018 – 2019 навчального року. У методичному експерименті взяли участь 34 студенти IV курсу механіко-машинобудівного інституту, які навчались за спеціальностями 131 Прикладна механіка та 133 Галузеве машинобудування. Серед основних компонентів методичного експерименту, які складають його ядро, виділяємо: передекспериментальний зріз, власне експериментальне навчання та післяекспериментальний зріз. Результати передекспериментального зрізу дозволили констатувати недостатній рівень розвитку у студентів умінь англійського професійно орієнтованого монологічного мовлення, що й підтвердило доцільність розробки нових методик навчання. Експериментальне навчання загальною тривалістю 28 годин проводилося на базі розробленого комплексу вправ. Він містить вправи, які передбачали використання технології подкастингу та виконувались у межах аудиторної та позааудиторної роботи студентів. Навчання в позааудиторний час характеризувалося роботою студентів із сервісом подкастів, який був організований експериментатором в мережі Інтернет на навчальній платформі Canvas. Проведення післяекспериментального зрізу мало на меті встановлення вихідного рівня сформованості іншомовної комунікативної компетентності в монологічному мовленні та, відповідно, виявлення ефективності методики, що пропонується. Проведений нами методичний експеримент та обробка отриманих даних методами математичної статистики з їх подальшим якісним та кількісним аналізом підтвердили основну гіпотезу нашого дослідження: навчання англійського професійно орієнтованого монологічного мовлення майбутніх інженерів-механіків буде ефективним за умови використання комплексу вправ, розробленого на основі попередньо відібраних та упорядкованих належним чином навчальних матеріалів, що передбачає залучення технології подкастингу.

Ключові слова: навчання англійського професійно орієнтованого монологічного мовлення; перевірка ефективності; технологія подкастингу; сервіс подкастів; комплекс вправ.

ЭФФЕКТИВНОСТЬ ОБУЧЕНИЯ БУДУЩИХ ИНЖЕНЕРОВ-МЕХАНИКОВ АНГЛИЙСКОЙ ПРОФЕССИОНАЛЬНО ОРИЕНТИРОВАННОЙ МОНОЛОГИЧЕСКОЙ РЕЧИ С ИСПОЛЬЗОВАНИЕМ ПОДКАСТИНГА

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Аннотация. Статья посвящена вопросу проверки эффективности предложенной методики обучения английской профессионально ориентированной монологической речи с использованием технологии подкастинга будущих инженеров-механиков. Эффективность методики была проверена в ходе методического эксперимента на базе Национального технического университета Украины “Киевский политехнический институт имени Игоря Сикорского” в сентябре – декабре 2018 – 2019 учебного года. В эксперименте приняли участие 34 студента IV курса механико-машиностроительного института, которые обучались по специальностям 131 Прикладная механика и 133 Отраслевое машиностроение. Среди основных компонентов методического эксперимента, которые составляют его ядро, выделяем: доэкспериментальный срез, собственно экспериментальное обучение и послеэкспериментальный срез. Результаты доэкспериментального среза позволили констатировать недостаточный уровень развития у студентов – будущих инженеров-механиков умений английской профессионально ориентированной монологической речи, что и подтвердило необходимость разработки новых методик обучения. Экспериментальное обучение, длительностью в 28 часов, проводилось на основе разработанного комплекса упражнений. В комплекс упражнений входили упражнения, предусматривающие использование технологии подкастинга, и выполнялись как во время аудиторной, так и внеаудиторной работы студентов. Процесс обучения вне аудитории заключался в работе студентов на сервисе подкастов, организованном в сети Интернет на учебной платформе Canvas. Целью послеэкспериментального среза было установить уровень сформированности у студентов иноязычной коммуникативной компетентности в монологической речи на выходе, и, таким образом, проверить эффективность разработанной методики. Проведенный эксперимент и обработка полученных данных методами математической статистики, их качественный и количественный анализ подтвердили основную гипотезу исследования: обучение будущих инженеров-механиков английской профессионально ориентированной монологической речи будет эффективным при использовании комплекса упражнений, разработанного на основе предварительно отобранного и организованного учебного материала, который предусматривает применение технологии подкастинга.

Ключевые слова: обучение английской профессионально ориентированной монологической речи; проверка эффективности; технология подкастинга; сервис подкастов; комплекс упражнений.



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