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Teaching Vocational Oriented Foreign Language Reading to Future Oil Field Specialists

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Abstract

This article is aimed at considering the issue of teaching vocational oriented foreign language reading to engineering students (oil industry students in particular). Such reading skills are substantiated to be essential for future specialists. The concept of vocational oriented foreign language reading is introduced; some aspects of teaching this type of reading to enhance the efficiency of the learning process are explored, the feasibility of using authentic, vocational oriented foreign language text and developed exercises to them in the educational process is analyzed. In the course of the study, we used the following methods: conducting a survey, testing, quantitative and qualitative analysis of the data obtained, statistic data processing. Data processing and graphical representation were carried out using computer programs SPSS 17.0 (IBM) and Microsoft Office Excel 2017. The article covers a review of experimental training vocational oriented foreign language reading, as well as the results of this work, which show that vocational oriented foreign language reading makes the process of learning to read vocational texts more effective, leads students to better grasp of material in a foreign language and allows to increase students' motivation of foreign language learning. The outcome of the experimental learning included not only improvement of the skills of future oil field specialists in reading and understanding texts, but also revealed a number of problems in the educational process. Thus, our findings have implications for further research.

Keywords foreign language teaching, foreign language command, reading, vocational oriented reading.

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1. Introduction

The processes of integration and globalization that have taken place in the world economy during the last decade, have a significant impact on all the national spheres from changes in the operating conditions of industrial enterprises and resulting from these changes of the labor market requirements to creating global knowledge economy, which implies internationalization of universities and other higher education institutions and the curricula they offer (Litvinenko et al., 2022). Such international organizations as UNESCO, the Council of Europe, the European Union and conducted international Conferences on education, have concluded special international agreements on mutual recognition of diplomas, developed and implemented programs to assist Eastern European students to join already established educational system. Promoting the achievement of the strategic goal declared as universal education for the sustainable development of countries and society, UNESCO sought to create conditions for the formation of special competencies, views and values, necessary for learners (future specialists) to improve and strengthen international cooperation. Thus, employment of the most advanced foreign technologies by Russian oil companies resulted in new requirements to industry specialists for foreign language command, that is, a vocational oriented foreign language (Dashkina et al., 2022). This component has become an essential skill for a university graduate. A specialist demonstrating poor vocational oriented foreign language skills is not able to communicate with foreign colleagues, cannot either operate, maintain expensive equipment properly or handle documentation, i.e. demonstrates poor performance. In this regard, the current labor market is demanding for specialists with a good command of vocational foreign language. Acquiring these skills enables to perform proper operation of oil-and-gas equipment, which in its turn both reduces expenses for its maintenance, and facilitates implementation of innovations. Accordingly, the question arises – how to improve foreign language command and eliminate the discrepancy between its inadequate level that many graduates have nowadays and social order requirements to specialists imposed by the industry and the government. In our opinion, teaching a vocational oriented language through vocational oriented reading, can effectively contribute to solving this problem (Larionova, 2016).

The requirements to the oil field specialist are set by the Federal State Educational Standard (FSES) and assume the development of communicative foreign language competence (Bgantseva et al., 2019). This competence can be defined as the learners' ability to interact effectively in specific communicative situations and their ability to arrange communication, considering socio-cultural norms of behavior and communicative relevance of the message (Chuvileva, Murzo, 2021). Researchers' opinions on which competences are included in its body are divergent. But in most cases the following will stand out: language, speech, socio-cultural compensatory, educational and cognitive competences. We consider the speech competence as a priority competence as through it professional tasks are solved. Speech competence implies "the development of communicative skills in four main types of speech activity (speaking, listening, reading and writing)" (Zhidkova, Bobysheva, 2022). FSES provides for possessing a certain set of knowledge and skills as foreign language command: the skills of creating and editing professional texts; the skills of finding, processing and analyzing information; the skills of reviewing technical documentation; being aware of international practices and international standards; being able to analyze the state and prospects of industry abroad; knowing the rules of business correspondence and business negotiations; being aware of the language of standard requests, being able to draw up applications for equipment and so on (Prikaz Minobrnauki Rossii..., 2015). Therefore, we believe that the communicative foreign language competence should also comprise professional competence. And we consider it as the learner's ability to mobilize a system of cross-cutting vocationally significant skills (particular operational skills) and personal qualities required for effective professional problem solving. At the same time, the psychological basis of vocational competence is the learner's commitment to continuous improvement of his/her educational level (Rubtsova et al., 2021). Vocational orientation increases relevance of the acquired knowledge and skills. However, there is also the reverse process: a deep awareness of the urgent need for the studied material intensifies the emotional background of its perception, stimulates cognitive activity. When using a foreign language to acquire new vocationally relevant knowledge and to deepen his/her professional experience, a student improves his/her ability not only to solve professional problems, but also to understand better the status his/her profession takes in society (Gerasimova et al., 2022).

Reading is a receptive type of speech aimed at extracting, perceiving, understanding information; it forms the basis for the development of productive skills and abilities to produce

foreign speech (speaking, writing). As any other type of activity reading comprises motive, purpose, conditions, and outcome. The motive here is communication by means of printing; the purpose-obtaining information (Sveshnikova et al., 2022). Conditions include acquiring the graphic system of the foreign language and techniques for obtaining information (Pushmina, 2021). The outcome reflects the degree of understanding information (accuracy and depth may vary). The main aim is to teach students techniques to obtain information required for solving a specific problem (Matskevich, 2019). Those techniques correspond to the types of reading offered by the standard classification: browsing, searching, extensive and analytical reading. The classification is based on communicative goals, determining the depth and accuracy degree when perceiving the text (Tabueva, 2014). Browsing type of reading provides general understanding of the text and answers the question whether it is worth reading in detail. This type of reading assumes the abilities:

- to define the theme;
- to see the most important points;
- to break the text into logical parts;
- to determine the author's main idea.

Searching type of reading is devoted to finding required information in a short time.

Essential abilities here are:

- to see the logical structure of the text;
- to select and handle the necessary pieces of information.

Extensive reading, the most common one, is aimed at total coverage of content of a newspaper article, a book etc. This type of reading suggests that the reader should have the skills of

- defining the theme;
- comprehension of context;
- prediction of a possible sequel;
- evaluating the text read.

Analytical reading is based on a comprehensive and accurate understanding of all the content and critical thinking. Information gained from the text is supposed to be memorized and then used in other types of activities (for preparing reports, course papers etc.). Readers require the skills:

- to perceive and interpret linguistic means adequately;
- to obtain complete information;
- to comprehend obtained information.

Vocational oriented reading is a complex type of speech, due to informative needs of future specialists, aimed at perception and comprehension of a foreign text, learning vocationally significant vocabulary, communication in the vocational sphere. Problems of teaching reading were regularly considered by researchers (Tabueva, 2014). But still we face the problems which should be taken into account when arranging the process of teaching. These include:

- limited amount of curriculum hours allocated to the subject and the high requirements imposed by FSES;
- growing information flow, which demands that future specialists develop the skills of vocationally oriented reading to solve professional problems, and low level of these skills development among undergraduates;
- lack of adequate support materials that would reflect the specifics of interdisciplinary students' training;
- mixing students of different specialties in one training group.

Therefore, the problem of teaching students – future oil and gas specialists to perceive and understand foreign vocationally oriented texts to satisfy their informational needs in obtaining new knowledge and solving professional problems, has not been settled yet.

Textual material, being a part of the educational content, represents the subject content of foreign vocational-oriented communication (Boyko et al., 2022). The text is a communicative unit of educational material, possessing unity of meaning and speech, characterized by a certain completeness of content, the author's attitude to the message (Murzo et al., 2019). The educational foreign text is defined by researchers as a component of the system of a textbook on a discipline, specially selected, aimed at a certain year and direction of training student, subject to the level of their language command, focused on comprehension and assimilation of information, has a structural and language organization (Root, 2022). Such texts are usually characterized by the following features:

- completeness (appears as content meaningfulness, drawing conclusions, evaluation);
- informativeness (suggests the information to be relevant for the reader);
- coherence (implies the interdependence of all text elements);
- integrity (correlation of the text with one object that forms its message)
- consistency (enables the reader to draw on his or her background knowledge to interpret texts);
- pragmatism (the characteristic that encourages various types of the reader's response – passive/perception or active/action).

Vocational oriented texts are aimed at broadening the professional outlook, demonstrating the features of intercultural communication, solving project problems, conducting research. From the point of view of mastering foreign language skills these texts introduce "ready speech and composition forms" of a certain speech register, style, genre (Timkina, 2017). The task facing the teacher is to teach vocational oriented reading, namely, to teach how to translate texts on specialty both with and without dictionaries; to foster the ability to perform this type of activity to solve professional problems.

As the practice of working in a non-language university shows, the work with a bilingual dictionary often causes significant difficulties. This happens because students' skill to use a bilingual dictionary is often quite low (Tokareva, Evdokimov, 2022). The main mistake is choosing the wrong meaning of the word when translating (the choice of meaning occurs out of context) (Skornyakova, Vinogradova, 2021). The teacher's task is to explain the ways of working with the dictionary, strategies for choosing the meaning of a word.

When organizing the training process for future specialists, the specifics of students should be considered. It is customary to attribute to the features of adult students, firstly, the previous experience of language learning (often negative) (Koltsova, Boyko, 2022). Reading special texts can be complicated by ignorance or misunderstanding of the linguistic phenomena inherent in a foreign language (Pushmina, Karter, 2021). Therefore, the teacher's task is to minimize grammatical, lexical and phonetic difficulties as much as possible (Yang, 2018). Secondly, high motivation for learning. This category of students is deeply aware of the reasons for learning, the scope of application of the knowledge received what predetermines their strong wish to obtain practical knowledge and skills that can help solve vocational problems and achieve particular goals. Therefore, future specialists are willingly involved in the process of training vocational oriented reading, only if it meets and satisfies their professional needs (Grigoryeva et al., 2015). Therefore, the process of teaching vocational oriented reading is effective providing that the text is informative, relevant, with highly specialized terminology included. Thirdly, adult thinking patterns. If we compare memories of an average school student and adult, we will find out that an adult's memory is less voluminous. Besides an adult tires out faster, and he is hard to concentrate for long periods of time. Meanwhile, the adult's thinking abilities are well developed. For that very reason, the process of adult training requires much greater clarity and thoroughness in the definition of concepts, structuring of course content, its systematic presentation. Another important feature of the adult to be taken into account while organizing the teaching process is the zone of proximal development. It is the gap between what a learner has mastered and what they can potentially master with support and assistance. The psychological difference between adults and children is that adults can create the conditions for themselves to overcome difficulties. They are capable of setting the zone of their own proximal development and building a professional trajectory. Moreover, when the adult accepts assistance, unlike children, he or she cooperates with the one assisting, instead of shifting his or her duties to him or her. The future specialist needs to learn how to work with texts independently. The text should contain grammatical and lexical structures of the studied language to match the knowledge level of the students. The teacher supervises the independent activity of the student, seeks to form the skills and abilities necessary for reading (Andreeva, 2015). Consideration of these features makes it possible to maximize the effect of teaching by including the strongest points of adult learners into training process.

A system of criteria for selecting texts for educational purposes has developed in the methodology of teaching a foreign language in higher education. The fundamental criteria for selecting vocational oriented educational texts are: authenticity, professional-informative value, genre diversity, presence of sociocultural markers, consideration of the level of language and professional training, and problem orientation (Timkina, 2017). We consider authenticity as original non-adapted texts, not pursuing educational goals, created by native speakers.

Professional-informative value is the information (content, speech), relating to general professional or narrow professional activity field. Genre diversity implies the use of texts of different genres, for example, reference materials, graphic images, scientific and popular texts, scientific papers, legislation, technical documentation, etc. Sociocultural markers (sociocultural realities, patterns of speech behavior) include elements of a foreign-language culture in the general professional or narrow professional sphere. Consideration of the level of language and professional training: the text may contain general scientific or highly specialized terminology, simpler or more complex grammar structures, etc. Problem orientation is associated with the solution of reproductive, productive or creative tasks while reading the text. Educational texts are usually followed by specially arranged assignments. Pre-text exercises are aimed at relieving learners' language and speech difficulties. Besides they may provide a comprehensive review of lexical and grammatical material previously acquired. Text exercises proper to dividing material into semantic parts, identifying the key idea of the text, finding the information required, rephrasing and etc. Post-text exercises are targeted at checking understanding, identifying the text's cognitive value and preparing learners for speaking or writing.

Based on the above, we assume that vocational reading will be more effective if the following conditions are met:

- the use of authentic vocational texts;
- relevance of the texts, their saturation with specialized terminology;
- specially arranged text assignments;
- teaching students techniques to obtain information required for solving a specific problem;
- resolving professional problems when reading.

2. Materials and methods

The experiment was carried out on the basis of St. Petersburg Mining University. Pedagogical experiment including the ascertaining, forming and control stages was conducted. The study involved 42 second-year oil students. 20 of them formed the control group, 22 formed the experimental group. At different experimental stages the following methods were used: conducting a survey, testing, quantitative and qualitative analysis of the data obtained, statistic data processing. Data processing and graphical representation were carried out using computer programs SPSS 17.0 (IBM) and Microsoft Office Excel 2017.

3. Findings

Ascertaining stage.

The ascertaining stage included a survey to identify the patterns of vocational texts use during language lessons. The questionnaire contained three groups of questions, which allowed to reveal the level of vocational vocabulary acquisition; frequency of using vocational oriented texts during language lessons; motivation (of students) to use vocational oriented texts for learning the language. Quantitative and qualitative analysis of the survey data showed that 68 % of future oil field specialists have low vocabulary level in their specialty. 44 % noted the lack of practice and 41 % – considerable difficulties in reading foreign language vocational oriented texts, all of them having admitted the purposefulness of such texts, as they are saturated with vocabulary that is vocationally relevant. 52 % replied that performing tasks based on authentic, vocational oriented texts would increase their motivation for learning a foreign language (reading in particular).

The results obtained during the ascertaining stage were taken into account when composing the training tasks for the forming stage.

Forming stage.

At the second stage, during the formative experiment, the initial level of students' reading skills of vocational oriented texts was tested. As a diagnostic test, students were asked to study a small excerpt from some vocational oriented texts (Cocchi, Mazzeo, 2022), for example "The Role of Natural Gas in the Energy Transition Phase" and others. This is an authentic text designed for future specialists in this field, dedicated to their professional activities and saturated with various vocational terms.

After reading the text, students were asked to answer a number of questions to the text, which were supposed to control the understanding of the text during reading:

- a) perception of language means;
- b) extracting information from the text;

c) comprehension of the extracted information.

According to the test results (Figure 1), a general low level of students' skills in reading foreign language vocational oriented texts was revealed: a) perception of language means: control group – $X = 2,4$, experimental group – $X = 2,82$; b) extraction of information from the text: control group – $X = 4,6$, experimental group – $X = 4,41$; c) comprehension of extracted information: control group – $X = 3,6$, experimental group – $X = 3,23$. Thus, the level of knowledge should be considered insufficient.

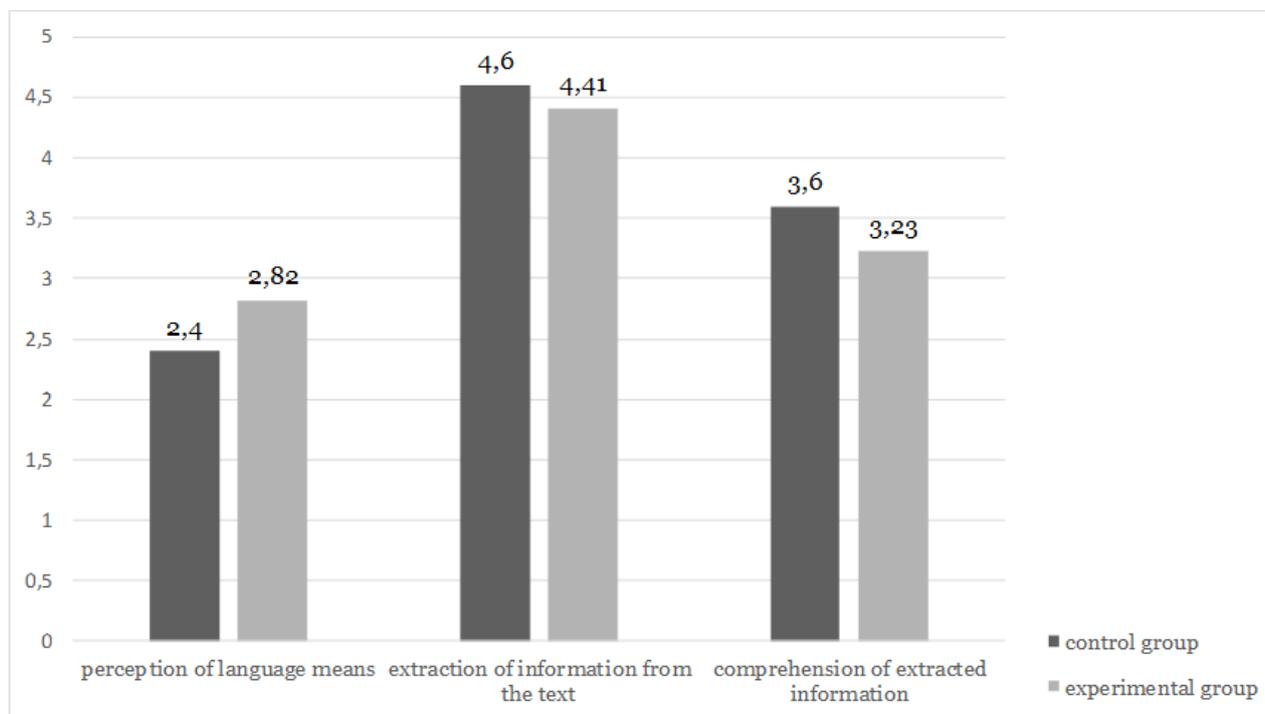


Fig. 1. Results of diagnostic test

In the control group, textbook "English for oil workers" (Serikbai, 2009) and some additional articles were used (Dvoynikov et al., 2022; Shatalova et al., 2022; Yurak et al., 2020; Ulanov, Skorobogatko, 2022). The articles and the texts of this textbook give an idea of the most important aspects of the oil industry and provide material for mastering oil field terminology. Though these texts are vocational oriented, they all are not authentic. In addition, the number of exercises to the text is insufficient to improve the reading skills of foreign language vocational oriented texts.

The experimental group used vocational oriented texts with developed sets of exercises. Each set of developed tasks consists of three stages: pre-text, text and post-text. As an example, let's consider one of the texts and a set of exercises for it. "Oil & Gas business Relevant Technologies" (Amorin, 2021) is an authentic scientific text from a foreign journal in the oil and gas field.

Pre-text assignments contain questions aimed at predicting the content of the text and appealing to the general scientific knowledge of students. For example: "What key challenges is oil and gas industry facing right now?"; "Is the need for large-scale, cutting-edge innovation in oil and gas industry high? If yes, why?"; «What technologies are at the forefront of today's evolving oil and gas sector?»; «Why are oil and gas companies investing in renewables supporting the global energy transition to a greener, cleaner future?».

Meanwhile, these questions don't concern the content of the text in order to avoid repetitions. From the assignment, students can find out not only the main subject of the text, but also identify the style of the declared material, the key features of the style of the presented text, according to which students will be able to determine vocational oriented texts in the future.

Next, students proceed to text exercises, which contain the following main tasks: to define terms in the text, to find definitions for them; to find in the text synonyms to the words proposed in the exercise; to correctly use these words while filling in gaps in sentences; to title paragraphs of the text, etc.

As an example, let's consider one of the text exercises. The methodology of teaching a foreign language has accumulated a large arsenal of various means, techniques and ways of revealing the content of incomprehensible and obscure words, including terms. Using such methods and techniques, you can make reading vocational oriented texts not only understandable, but also fascinating. One of these methods is the use of definitions. Definition is a unique logical and linguistic phenomenon in which language and thinking interact, improving each other. The definition can be called a kind of "bridge of mutual understanding", since it connects old knowledge with new, participates in the transfer of experience from generation to generation, helps communication of specialists in all fields of knowledge, contributes to the effectiveness and success of human cognitive activity. The simplest, most stable and logically rigorous type of concept deployment is the definition. The more actively operational memory is involved in the course of semantic processing of information and the higher the mental activity in identifying the features of linguistic phenomena functioning, the more linguistic information settles in permanent memory. This technique is most often used in writing, as a rule, at the stage of introducing a new vocabulary. For example (Table 1):

Table 1. Exercise. Complete definitions 1-9 with words and phrases taken from the text

enterprise producing intelligence	mature basin	pH scale
business intelligence platform	apace	marketing analytics
carbonic acid gas	workhorse	gas sweetening

1. ... - at a fast speed
2. ... is technology that helps businesses gather, understand, and visualize their data.
3. ... is business intelligence for production management, aimed at analyzing contextualized production data to extract actionable knowledge and drive business results.
4. ... is the practice of using data to evaluate the effectiveness and success of marketing activities. It allows you to gather deeper consumer insights, optimize your marketing objectives, and get a better return on investment.
5. ... have well-known reservoirs and well-defined geologic characteristics.
6. ... measures how acidic or basic a substance is.
7. a machine, piece of equipment, or vehicle that you can trust to work well and that you can use to do a lot of work.
8. ... is the process of removing Hydrogen Sulfides, Carbon Dioxide, and Mercaptans from natural gas to make it suitable for transport and sale.
9. ... is a heavy odorless colorless gas formed during respiration and by the decomposition of organic substances; absorbed from the air by plants in photosynthesis.

So, the exercise presented above was used to semanticize lexical units, train rapid correlation of concepts and their definitions.

Post-text exercises complete the work with foreign language vocational oriented text. Their purpose is to control the degree of students' understanding of the studied text. Post-text exercises can be offered in the form of: building a logical sequence of the text; building a logical chain of action development; searching in the text for answers to questions by underlining or voicing; answers to questions about the content of the text; a brief or detailed retelling of the text with mandatory additional task; test tasks.

As an example, let's consider one of the post-text exercises. The ability to make an abstract and perform an abstract translation is of great practical importance for future specialists as one of the ways of semantic analysis of the content of foreign scientific and technical literature. Knowledge of the rules for abstract's writing contributes to the ability to adequately extract the main provisions of the source on the topic of research and formalize them in accordance with the requirements of regulatory documents.

Writing an abstract is the final stage of working with the text and is carried out independently or in pairs, depending on the level of foreign language proficiency in the study group. Since students have never had to write abstracts to vocational oriented articles before, the teacher gives them recommendations: what the volume, what language features should be observed,

for example, to state the main points very clearly and concisely, avoid repetition, observe the unity of terms and definitions, etc. Then the teacher offers useful phrases (presented in the exercise) that will help to convey the content of the article more accurately (Table 2):

Table 2. Exercise. Write an abstract to the text according to the following structure

	The Scheme of Annotation of the Article/Text	Useful phrases
1	The title of the article, the author, where and when it was published.	1.The title of the article is .../The headline of the article, I have read, is.../The article is headlined... 2. The article is written by.../The author of the article is ... 3. The article was published in .../The text was printed in.../The text was taken from...
2	The main idea of the article.	The main idea of the text is.../The keynote of the article is.../The article is devoted to.../The purpose of the article is to give the reader some information about...
3	The contents of the text (some facts, names, figures).	The author starts by telling the reader that .../The author writes (states, declares, stresses, thinks, points out) that.../It is stated in the article that.../Further the author reports that.../The article goes on to say that.../The article describes (reports on, informs of, comments on) that...
4	The author's conclusion and your opinion of the article.	In conclusion.../The author comes to the conclusion that.../As far as I can judge.../ It should be noted (mentioned, observed, pointed out) that.../I found the article interesting (important, serious, dull, too hard to understand, rather useful) for .../The article is of great value (of no value) for me.

As a result of the work done, it turned out that writing an abstract for vocational oriented text is a complex and painstaking work that requires certain knowledge of vocabulary in the specialty and skills to work with vocational oriented text. This work, being very time-consuming, arouses a certain interest among students. The accumulated vocabulary will be useful to them in their further professional activities, will help not only in reading articles, but also in communicating with foreign colleagues and participating in international projects and conferences.

Control stage.

Finally, a control stage was carried out in order to verify the effectiveness of the developed set of exercises. Repeated testing was carried out (using the same parameters as before).

To assess the type of distribution of features, the indicators of asymmetry and kurtosis characterizing the shape of the distribution curve were used. The values are represented as $M \pm SD$, where M is the sample mean and SD is the sample standard deviation.

Since the distribution of features corresponds to the normal law, and the variances are equal, the Student's t-test was used to compare the averages. The Student's paired t-test was used to compare related samples. The equality of variances was evaluated by Fischer's F-criterion.

The differences were considered statistically significant at $p < 0.05$, where p is the probability of a first-kind error when testing the null hypothesis. In all cases, two-sided versions of the criteria were used (Table 3).

Table 3. Statistical characteristics in control and experimental groups according to the results of diagnostic and repeated testing

Statistical characteristics	Perception of language means			Extraction of information from the text			Comprehension of extracted information		
	Diagnostic testing	Repeated testing	Mean difference	Diagnostic testing	Repeated testing	Mean difference	Diagnostic testing	Repeated testing	Mean difference
Control group(n=20)									
M	2,40	5,20	117 %	4,60	6,60	43 %	3,60	6,40	78 %
SD	0,75	0,41	-46 %	2,91	1,10	-62 %	2,37	3,07	29 %
P1-2	<0,001			0,014			0,005		
Pf1-2	0,011			<0,001			0,270		
Experimental group (n=22)									
M	2,82	7,00	148 %	4,41	8,18	86 %	3,23	7,82	142 %
SD	1,71	1,02	-40 %	2,30	0,96	-58 %	1,41	1,22	-14 %
P1-2	<0,001			<0,001			<0,001		
Pf1-2	0,023			<0,001			0,510		
Pc-e	0,306	<0,001	-	0,814	<0,001	-	0,545	0,065	-

Note: P1-2 is the statistical significance of the difference in averages between the diagnostic and repeated test; Pf1-2 is the statistical significance of the difference in variances between the diagnostic and repeated test according to the Fisher criterion; Pc-e is the statistical significance of the difference in averages between the control and experimental groups.

Statistical analysis of the data showed that at the initial testing stage, the averages of control and experimental groups in all three aspects did not differ statistically significantly ($Pc-e > 0.05$).

Mean values of the retesting results in all three aspects increased statistically significantly ($P1-2 < 0.05$), both in the control and in the experimental group.

At the same time, at the stage of repeated testing, the average value for "Perception of language means" in the experimental group became statistically significant ($Pc-e < 0.001$) by 1.35 times more than in the control group. The average value for "Extracting information from text" in the experimental group was statistically significantly 1.24 times higher than in the control group. The average value for "Comprehension of extracted information" had a statistically insignificant tendency to prevail in the experimental group by 1.22 times ($Pc-e = 0.065$).

The variance in the control group for "Perception of language means" decreased by 46 % ($Pf1-2 = 0.011$), for "Extraction of information from text" decreased by 62 % ($Pf1-2 < 0.001$), for "Comprehension of extracted information" had a statistically insignificant tendency to increase by 29 % ($Pf1-2 = 0.270$).

The variance in the experimental group for "Perception of language means" decreased by 40 % ($Pf1-2 = 0.023$), for "Extraction of information from text" decreased by 58 % ($Pf1-2 < 0.001$), for "Comprehension of extracted information" had a statistically insignificant tendency to decrease by 14 % ($Pf1-2 = 0.510$). A decrease in variance (SD squared) indicates a decrease in variability, variability of the studied features.

5. Discussion

The results obtained by the authors are consistent with the results of the study by S.V. Krupskaya, L.R. Nurtdinova (Krutskaya, Nurtdinova, 2016): improving skills of vocational oriented reading is one of the pivotal tools when learning a foreign language. This is due to the demand for reading during professional growth and development: we agree with O.A. Larionova (Larionova, 2016) that future specialists in the oil field are currently following new technologies and most often turn to reading texts in a foreign language.

Although we agree with the opinion of E.N. Nikonova, K.M. Yakhyaeva (Nikonova, Yakhyaeva, 2020) that learning to read vocational oriented foreign language texts implies students' understanding of oral and written texts, we also note the complexity of a vocational oriented text for oral perception. If future oil field specialists attend a conference where they listen to speeches in a language that is not native to them, they are more likely to turn to the written version of the report or article for a deeper understanding of the problem. This is also due to another additional factor: many speakers at such conferences are not native English speakers themselves and speak English with a fairly noticeable accent, which does not detract from their achievements, but makes their speeches difficult to perceive by ear.

As a result of the combination of the above factors, improving reading skills of vocational oriented texts is crucial for future oil field specialists' professional development in relation to learning a foreign language. Thus, we agree with Y. Timkina (Timkina, 2017) that a teacher should pay special attention to the selection of texts, taking into account both the initial training of students, their specialization, and numerous factors of diversification – various initial conditions for language acquisition and working conditions of future specialists in the oil field.

Teaching process of future oil field specialists should take into account their emotional comfort and needs. Reading vocational oriented texts in English had a positive effect on the psychological climate in the group: students were more interested in mastering texts, there was a tendency to mutual assistance which is consistent with the results of studies by O.L. Mohova (Mohova, 2016), Y.V. Borisova, A.Y. Maevskaya, E.R. Skornyakova (Borisova et al., 2020).

Our research showed that usage of authentic vocational oriented texts and sets of exercises developed for them can improve quality and effectiveness of vocational oriented language learning, since, comparing the data obtained during the diagnostic and control tests, we can see that the number of positive ratings has increased in both groups, but in experimental group this increase is more significant.

The experiment made it possible to improve the skills of future oil field specialists in reading and understanding texts, and at the same time revealed a number of problems. The study of texts showed that the difference in the initial level of language proficiency forces us to resort to collective reading, which is not very popular when reading the text in real life. The question of the admissibility of the use of electronic translators and dictionaries by students remains debatable. In general, the issue should be resolved positively rather than negatively: as experiments with various texts have shown, students easily understand the difference between translations made by an electronic translator and translations made by a person, and quite agree with the idea that without knowledge of the foreign language, it is hardly possible to understand the specifics of the text and the construction used. These revealed problems will become part of further research.

6. Conclusion

Reading with the aim of a complete and accurate understanding of the information contained in a foreign language text is an integral part of future oil field specialists' professional growth due to the fact that this specialty is at the international level, facilitating the exchange of professional experience among specialists from different countries. Electronic text translation is not able to provide 100 % of future oil field specialists needs in the analysis of new research in their specialty. In addition, electronic translation will not help in speaking at conferences and in oral communication with foreign colleagues. Thus, students are motivated to develop and improve skills for reading vocational oriented texts. Also, our study has revealed that teaching reading of vocational oriented texts is rarely used in foreign language classes at a non-linguistic university and students have difficulties in learning to read vocational oriented texts in a foreign language.

Experimental training was conducted using authentic, vocational oriented texts and exercises to them. The analysis of the experimental data proved that the use of specially developed exercises for teaching reading vocational oriented texts will lead students to better grasp of material in a foreign language and makes the process of learning to read vocational texts more effective. In addition, teaching how to read vocational oriented texts allows to increase students' motivation of foreign language learning. Therefore, teaching reading texts related to students' future profession improves their professional competence.

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