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Teaching master students to read and interpret English academic journal articles

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Abstract

The article deals with the analysis of a strategy that promotes non-English speaking Master students' ability to read and interpret authentic English-language academic research articles. The authors have got a hypothesis that the effectiveness of teaching can be promoted if Master students read an academic article in its three versions – the first fully adapted version, the second partly adapted version and finally the same authentic scientific paper in full. Both qualitative and quantitative research methods are used. The theoretical part of the research involved the analysis of modern methodological, psychological and linguistic studies. The experimental part of the research consisted of two stages – ascertaining and formative. In order to conduct a formative experiment, all Master students of the same sample were split into 2 groups. Students who had demonstrated a higher level of receptive skills in the process of ascertaining experiment, became participants of the control group (CG), and students who had shown a lower level of the same skills – participants of the experimental group (EG). The ascertaining stage of the experiment has shown that most of the participants (nearly 75%) have significant difficulties in reading, understanding and interpreting academic journal articles. The hypothesis has been experimentally checked. The results for control and experimental groups, taking part in the formative experiment, prove that the introduced method has significant advantages in both learning scientific vocabulary, understanding authentic non-adapted research paper in English, oral retelling and scientific article interpreting.

Keywords: academic reading; interpretation; vocabulary; language; lexical items

1. Introduction

In recent years academic reading has become a popular issue in foreign language teaching. As far as English plays an important role in scientific communication, being the leading international language of academic research, most Ukrainian Master students of Pedagogical Universities are expected to represent their own scientific works both in a written form (annotations, research articles, grant proposals, course syllabuses, thesis) and orally (scientific reports, discussions at conferences and

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seminars). Learning to perform these genres in English effectively is impossible without developed academic reading and interpretation skills.

Academic reading is defined as purposeful and critical reading of a range of lengthy academic texts for completing the study of specific major subject areas (Baker et al., 2019). It is also a complex and critical skill that involves a dynamic interaction between the reader's contextual knowledge, the evidence gathered by means of the printed language, and the reading framework (Wahyono & Puspitasari, 2016). This type of reading differs greatly from other forms of reading because the readers are supposed to read, understand and interpret the views of different scholars on the issue under research, identify the author's purposes and intentions and analyze the results of their research in a brief scientific manner. This means that reading is not only the passive absorption of information but also an active and complex interpretation process that includes analyzing and criticizing (Sulaiman et al., 2020). Extensive academic reading is crucial for obtaining not only background knowledge, and finding a niche in the field, but also helps to construct a strong scientific argument (Kitchen, 2018).

According to the research results (Bogucka & Wood, 2009; Rahmawati, 2019; Maden, 2020) academic literacy of university students is considered to be quite low. Unfortunately, the number of students who read regularly has declined at an alarming rate (Sebolai, 2019). At the same time, non-English-speaking students face double challenges when reading scientific texts and especially authentic research, as well as reviewing and interpreting theoretical articles written in English. These difficulties are connected with students' inability to understand the form and structure of academic articles and adapt their reading strategies for different learning tasks (Whitten et al., 2016; Oducado et al., 2020; Shi et al., 2018; Irgatoğlu & Pakkan, 2020), to take a deep approach to reading (Strassman et al., 2019). In addition, some other researchers also point out interpretation of reading material, lack of English language proficiency, the intensity of reading (Kaur Mehar Singh, 2019), low motivation (Martínez et al., 2014), lack of availability of relevant journals (Heeren et al., 2020).

Analysis of the previous research on the topic illustrates a great interest of scholars towards teaching academic reading (Li & Cummins, 2019; Chen, 2017; Villamizar, 2018; Rossiter et al., 2013; Jin et al., 2020; Stander, 2020; Park, 2019; Sasirekha et al., 2018; Deane, 2020). Yet, not all the aspects of the problem have received a proper attention. In this article, we aim to introduce a strategy that promotes non-English speaking Master students' ability to read and interpret authentic English-language academic research articles. The practice proposed in this paper makes the following assumption: the effectiveness of teaching to read and interpret authentic research papers in English can be promoted in case Master students read an academic article in its three versions – the first fully adapted version of the original paper, the second partly adapted version of the same paper and finally the same authentic scientific paper in full.

The present study attempts to answer the following research questions:

1) are Master students able to read, understand and interpret English research articles related to their specialty;

2) what skills and abilities do Master students need to read, understand and interpret English research articles properly;

3) what methods and strategies can be used in order to teach Master students reading and interpreting English research articles on their specialty.

2. Materials and methods

Theoretical part of the research involved the analysis of modern methodological, psychological and linguistic studies. The experimental part of the research consisted of two stages – ascertaining and

formative. During the ascertaining stage of the experiment, we decided to find out whether the students were able to read, understand and interpret authentic research articles related to their specialty. The aim of the formative experiment stage was to check the hypothesis of the study in practice. The obtained experimental data were analyzed quantitatively and qualitatively. The sample consisted of four groups of Master students of South Ukrainian National Pedagogical University named after K.D. Ushynsky (58 students in total) and four groups of Master students of Bohdan Khmelnytsky Melitopol State Pedagogical University (53 students in total). Thus, 111 students participated in the ascertainment experiment. In order to conduct the ascertaining stage of the experiment we involved Master students of non-linguistic specialties such as "Primary Education", "Musical Art", "Practical Psychology", "Social Pedagogy". These students have so far studied English as a foreign language, but at the same time have developed proficiency in reading professionally-oriented texts on their specialty. All the participants were novice readers of research articles in English.

The compulsory English language program for all of these students was tantamount, the instruction time was the same, and equaled 90 contact hours during the academic year. The teaching methodology also did not differ. We determined that there was no significant difference between the participants regarding their academic experience. Therefore, in order to test objectively students' knowledge of the language material and their skills to operate it while reading and interpreting authentic research articles, we offered to use two criteria: 1) speaking criterion and 2) interpretation criterion.

The first criterion had to check students' ability to understand authentic professional text. Its indicators corresponded to four levels: high, sufficient, satisfactory and low. The tested receptive skills were considered to be of a high level in case if the participants were able to understand of 25-23 items out of 25 items of basic information in a scientific text; sufficient level – 22-18 items; satisfactory level – 17-12 items; low level – less than 12 items. The participants were assigned to read a research journal article on the general pedagogical topic such as the article by R.M. Felder and R. Brent (2005). We reduced the volume of experimental research articles up to 4150 characters in order to organize experimental time more effectively. Thus, students were given 20 minutes to complete the test tasks.

The second criterion had to check students' ability to interpret the authentic professional text. Its indicators corresponded to four levels: high, sufficient, satisfactory and low. The tested productive skills were considered to be of a high level in case if the participants were able to interpret orally 10-9 facts from the text they had read (the same research article by R.M. Felder and R. Brent (2005)); sufficient level – 8-7 facts; satisfactory level – 6-4 facts; low level – less than 4 facts. The participants were assigned to read the article by R.M. Felder and R. Brent (2005) once again and to present the facts from the text orally, giving their own interpretation of the information in the article (e.g., they pointed out the title and the author of the article correctly, expressed the main idea of the text and commented on it, paraphrased the main thoughts of the author, named the advantages and disadvantages of the content they had read and proved their point of view). The students had to complete this test task in 30 minutes.

In order to conduct a formative experiment, all Master students of the same sample were split into 2 groups. Students who had demonstrated a higher level of receptive skills in the process of ascertaining experiment, became participants of the control group (CG), and students who had shown a lower level of the same skills – participants of the experimental group (EG). In order to identify students of KG and EG for the formative experiment we have the results of ascertaining the experiment on the basis of the following formula:

$$\% KQ = (Nh + Ns) \times 100\% \div N, \quad (1)$$

where % KQ – the percentage of knowledge quality; Nh – a number of students with a high level of knowledge (skills development); Ns – a number of students with a sufficient level of knowledge (skills development); N – a total number of students in the group.

Thus, the average indicator of the quality of language acquisition at the receptive level in group I – 18%, in group II – 23%, in group III – 20%, in group IV – 25%, in group V – 38%, in group VI – 50%, in group VII – 19%, in group VIII – 25%.

If summarily students in the group had shown 25% and more of the quality of language acquisition, they became the participants of the CG, and, correspondently, if students had demonstrated less than 25% of the quality of language acquisition, they became the participants of the EG. As a result, CG included 53 persons of the following groups: IV, V, VI, VIII, and EG consisted of 58 students of groups I, II, III, VII.

Experimental training in CG and EG had common features according to the following parameters:

1) number of contact hours (90 hours);
2) topics and texts for reading and interpretation (the following topics were submitted for study: topic 1 "Teaching Tolerance to Schoolchildren" and topic 2 "Teaching Patriotism and Love for the Country You Live in");
3) general pedagogical and scientific vocabulary for active learning (300 lexical units);
4) criteria for assessment the results;
5) level of professional training of teachers working with students of CG and EG;
6) access to additional sources of information (the choice of additional texts for reading was made by teachers);
7) awareness of students of CG and EG of the course of experimental work and the conditions for checking its effectiveness.

The only one difference between teaching Master students of KG and EG to read and interpret English scientific articles was the methodology. In order to assess the results of the formative experiment, the following criteria were proposed. The first criterion – knowledge of vocabulary: new terminology and phraseological units from the non-adapted (third) version of the scientific text – was assessed at:

– high level, if students could correctly translate 100-95% of the given phrases and sentences containing new and previously studied vocabulary: a) from English into mother tongue; b) from the mother tongue into a foreign language;

– sufficient level, if students could correctly translate 94-80% of the given phrases and sentences containing new and previously studied vocabulary: a) from English into mother tongue; b) from the mother tongue into a foreign language;

– satisfactory level, if students could correctly translate 79-50% of the given phrases and sentences containing new and previously learned vocabulary: a) from English into mother tongue; b) from the mother tongue into a foreign language;

– low level, if students could correctly translate 49% or less of the given phrases and sentences containing new and previously learned vocabulary: a) from English into mother tongue; b) from the mother tongue into a foreign language.

The second criterion - the ability to read and demonstrate an understanding of the non-adapted (third) version of the scientific text – was assessed at:

– high level, if students chose 35-33 correct answers from each of the 35 given tests, covering the entire content of the reading material;

– sufficient level, if students chose 32-29 correct answers from each of the 35 tests, covering the entire content of the reading material;

– satisfactory level, if students chose 28-21 correct answers from each of the 35 tests, covering the entire content of the reading material;

– low level, if students chose less than 21 correct answers from each of the 35 tests, covering the entire content of the reading material.

The third criterion – the ability to give oral retelling of the information they had read, presented in the non-adapted (third) version of the scientific text – was assessed at:

– high level, if students retold 100-95% of the content of the material they had read in their oral retelling;

– sufficient level, if students retold 94-80% of the content of the material they had read in their oral retelling;

– satisfactory level, if students retold 79-50% of the content of the material they had read in their oral retelling;

– low level, if students retold less than 50% of the content of the material they had read in their oral retelling.

The fourth criterion – the ability to interpret what was read – was assessed at:

– high level, if students presented 7-6 facts from the information they had read in their own version;

– sufficient level, if students presented 5-4 facts from the information they had read in their own version;

– satisfactory level, if students presented 3-2 facts from the information they had read in their own version;

– low level, if students presented less than 2 facts from the information they had read in their own version.

3. Results and discussion

The results of the ascertaining stage of the experiment are given in Tables 1 and 2.

Table 1. Receptive speech skills of Master students

Number of students	Number of information items	Receptive level of speaking skills
48	less than 12	low
35	17-12	satisfactory
27	22-18	sufficient
1	25-23	high

The percentage of the whole number of information items that students had understood correctly during the ascertaining stage of the experiment was calculated. According to the experiment results, 48 Master students, representing 43.2%, did not understand the basic content of the authentic article and showed a low level of receptive speech skills, 35 students (31.5%) showed a satisfactory level, 27 students (24.3%) – sufficient level, 1 student (1%) – high level.

Table 2. Productive speech skills of Master students

Number of students	Number of interpreted facts	Productive level of speaking skills
49	less than 4	low
41	6-4	satisfactory
20	8-7	sufficient
1	10-9	high

The percentage of the whole number of facts that students had interpreted correctly was calculated. According to the experiment results, 49 Master students, representing 44.1%, we're unable to interpret the basic content of the authentic article and showed a low level of productive speech skills, 41 students (36.9 %) showed a satisfactory level, 20 students (18%) – sufficient level, 1 student (1%) – high level.

The obtained results point to the following explanation:

1) lack of knowledge of scientific vocabulary interferes the understanding of academic texts in which it is used;

2) reading adapted professionally-oriented texts promotes the development of reading skills only, but deprives students from mastering authentic scientific discourse;

3) lack of previous experience in scientific article interpretation proves the fact that this skill needs to be taught by means of an especially organized sequence of activities;

4) mismatch in academic writing styles of different countries is resulted in students' inability to successfully comprehend and interpret the reading material in English.

A few words of comment are necessary here to explain the last point. In our opinion, the mentioned mismatch happens because students' native (Ukrainian or Russian) scientific style of writing differs greatly from English academic writing. The language of the English research article has its own unique spirit of presentation, style of thinking and composition. Compared to Ukrainian and Russian scientific discourse, it is more compact, simple, active, casual, emotional and conversational.

Thus, taking into account the data obtained in the ascertaining experiment stage and all the identified shortcomings it becomes clear that another method of teaching Master students to read and interpret scientific research papers should be introduced. In this respect, we have made an assumption that it is more comfortable for students firstly to read authentic scientific texts with simple linguistic and semantic filling and then proceed to more complicated ones. We suggest teaching to read one and the same scientific research paper in its different versions: from fully adapted, that contains vocabulary familiar to students, to partly adapted, that integrates familiar vocabulary with a new part of linguistic scientific phenomena difficult to understand, and finally - to the same original authentic scientific paper in full. At this point, we fully agree with J. Marinkovich et al. (2016) that discipline-specific literacy needs to be taught and not assumed by academics.

We consider the first version of an authentic scientific article to be an original text in English which doesn't contain any lexical items difficult for semantization. Thereby, we adapt the text both in the linguistic aspect, retaining only previously learned vocabulary and in the professional aspect, preserving the author's main scientific thoughts. In this case, students do not experience any challenges in the article comprehension. On the contrary, we imply that most students will feel no difficulties to get used to academic discourse. In order to activate the necessary scientific vocabulary

in their oral speech and get ready to retell a research paper students are asked to do the following activities (examples of the activities are given below).

Activity 1. Make up sentences with the following words and word combinations from the table:

		investigate		
		explore		
		focus their attention on	particular	activities.
Educators		express their attitude towards	multicultural	projects.
Teachers	actively	extend the study of	cultural	goals.
Scientists		participate in discussing	pedagogical	problems.
		state their point of view on	diverse	

Activity 2. Read the following sentences and expand them with the information given underline below.

1. Teaching tolerance is important.
2. Teachers must have the ability to motivate students.
3. This paper explores several questions.

_____

1. The author believes that, with diverse skin colour, understand their particular needs, express interest, and positive attitude.

2. As the ability to care, extremely, in the US schools.

3. Pedagogical, which arise from the discussion of the particular cultural activities outlined above.

Activity 3. Read the text, give answers to the questions below and retell it.

The English educator Thomas Arnold (1795–1842) was a schoolmaster and historian, head of Rugby School from 1828 to 1841. His activity and pedagogical ideas made the school popular throughout the Western world. In 1828 Thomas Arnold became headmaster of Rugby School. Though he introduced history, mathematics and modern languages, he based his teaching on the classic languages. Physical science unit was not taught, since in Arnold's view "it must either take the chief place in the school curriculum, or it must be left out altogether". Arnold was not an innovator in teaching methods; his goal was to reform Rugby by making it a school for gentlemen. He extended its curriculum, reformed athletics programme, and social structure. He also represented a new educational system, where older boys cared of younger boys: discipline was kept in the school by the top, sixth, form students. In 1841 Arnold was named Regius Professor of Modern History at Oxford. By the time of his death Rugby school became famous for its successful graduates.

1. What was Thomas Arnold famous for?

2. What do you know about his teaching method and goals?

3. What subjects were represented in Rugby school curriculum?

4. What Arnold’s teaching ideas do you agree with? Can they be used in modern elementary schools?

Activity 4. Agree or disagree with the statements below. Prove your point of view.

E.g.: Teachers used physical punishment in Medieval elementary schools to keep discipline. – I believe that in modern elementary schools physical punishment can not keep discipline, it would only cause violence. Punishment should not be physical.

1. Extended physical education should be a necessary component of the national curriculum.
2. An ability to care for others is not important at present.
3. Students should not use laptops at school because laptops distract them, and do not develop their learning abilities.

Activity 5. Read fully adapted extract from the scientific article "Teaching Tolerance and Social Justice One Child at a Time" by Andrea Zakin (2012), that corresponds to its first version, taken from American scientific journal "Child-hood Education", and answer the questions. Retell the text using the questions as an outline.

Thus, working with the first version of a scientific paper students learn to read, answer the questions and retell it.

The second version of an authentic scientific article is an original text in English which contains a part of lexical items difficult for semantization. This version is much closer to the original source. When reading it students combine learning new lexical vocabulary with previously studied lexical material from the first version. It should be noted that before reading the second and the third versions of the article students have to study a new part of unfamiliar lexical items, do different types of pre-reading activities in order to master new scientific terminology at the pretextual level. In this case, unfamiliar linguistic phenomena will not prevent students from decoding textual meaning. The examples of these activities are given below.

Activity 1. Study the new words from the box.

ability empathy to care
to reveal to be aware of tolerance

Activity 2. Read the sentences changing the words and word combinations in brackets for their English equivalents:

(Empatiya – tse zdatnist') to put yourself in someone else's shoes, so you can understand how they feel; a wish (pikluvatysya) and treat others with (tolerantnistyu). It is also (vvazhayut' zdatnistyu usvidomlyuvaty) other people emotions and feelings.

Activity 3. Answer the questions and make a generalization:

1. What is the goal of teaching tolerance?
2. What are the differences between tolerance and social justice?
3. How does teaching empathy promote instruction in tolerance?
4. Do you consider it expedient to include teaching tolerance and social justice into a new school curriculum? Why?
5. What does tolerance mean to you?

What is tolerance? (make a generalization)

Activity 4. Read partly adapted extract from the scientific article "Teaching Tolerance and Social Justice One Child at a Time" by Andrea Zakin (2012), that corresponds to its second version and complete sentences 1-4. Then retell the text.

1. Many educators believe that tolerance is …

2. Teaching tolerance and social justice is best initiated when children are young because …

3. Multicultural art education teaches students …

4. The author of the article extended the multicultural color-mixing exercise in a variety of concrete ways …

Further post-reading activities can be used to help students, on one hand, to expand their professional knowledge and, on the other hand, to enrich their vocabulary with specific scientific terms and academic expressions:

Activity 5. Read the second version of a scientific paper and render the information that:

a) refutes the fact that

- art does not promote instruction in tolerance and social justice;
- the first step in teaching tolerance is reading age-appropriate books on the topic;
- preschool children aren't aware of differences in skin colour;
- a particular skin colour can be better or worse than any other;

b) confirms the fact that

- it is expedient to teach tolerance in conjunction with social justice;
- it is expedient to start teaching tolerance and social justice to preschool children;
- young children are interested in and enjoy exploring difference;
- the project participants benefited from participation in the project.

Activity 6. Read the sentences below, selected from the article "Teaching Tolerance and Social Justice One Child at a Time" by Andrea Zakin (2012) in the American scientific journal "Childhood Education". Paraphrase them according to the model (see the right column of the table):

Sentence from the article	*Paraphrase*
Many educators (Cohen, 2006, 2007; Jones, 2004; Stevens & Charles, 2005) believe that teaching tolerance is a pedagogical imperative.	Educators consider teaching tolerance to be necessary and significant.
In early childhood, possessing tolerance would refer to children's burgeoning awareness of themselves in relation to others.	
Perhaps it is more appropriate to teach preschool children tolerance in conjunction with social justice, the principles and habits of mind that guide individuals to actively treat others with fairness, respect, and responsibility.	

Activity 7. Read the second version of a scientific paper again and interpret it orally using the following scientific speech patterns:

1. I (completely/absolutely) agree with the author when he writes that …

2. The author is certainly correct when he says that …

3. I support the researcher's viewpoint in the part …

4. I consider this point to be expedient because …

5. It is only partly true that ...

6. I would agree with that only with reservation …

7. I cannot accept this point in conjunction with ….

8. The study calls little attention to …

9. A reason for rejecting the idea that … is …

10. Another weakness of the research is that we are given no explanation of how…

Thus, working with the second version of a scientific paper students learn to read, answer the questions, retell and interpret it using paraphrase, explanation of basic scientific concepts, and scientific speech patterns.

The third version of an authentic scientific article is an original English text in full linguistic and semantic volume, which corresponds to the genuine authentic scientific paper created by the scholar. It contains the last part of lexical items difficult for semantization. When teaching to read it we use all the mentioned above activities adding activities that promote oral interpretation and giving comments:

Activity 1. Give answers to the questions below. Then make a generalization.

1. Have you ever experienced teacher's inappropriate behaviour when studying at school?

2. Describe a situation, based on your experience, where students had a strong emotional reaction to an event (for example, a holiday, bad news, or a fight) that had potential to break classroom discipline at the beginning of the lesson.

3. What kind of behaviour did the students display? Were they angry, sad, excited, shouting, or actively discussing the event?

4. What was the teacher's reaction to students' misbehaviour? Was his/her attitude expedient?

5. Was the teacher able to start his lesson and introduce a new learning activity? In what words did he/she express his irritation? (for example: "What is wrong with this class? You better start paying attention! Why does it take you forever to open your textbooks? How do you expect to learn anything if you take up half the morning talking?")

6. What were the outcomes of your teacher's negative reaction? Did it help students to concentrate and connect with their teacher?

Activity 2. Read the third version of a scientific paper and render pedagogical ideas that you support/don't support using the following scientific speech patterns: The author is certainly correct when he says that …, I support the researcher's viewpoint in the part …, It is only partly true that ..., We cannot accept this point in conjunction with …, A reason for rejecting this idea is …

Activity 3. Find in the text (the third version of the paper) the information proving that tolerance and social justice should be included in preschool and school curricula. Render the information in your own pedagogical vision. Suggest your own solutions to the identified problem.

Activity 4. Explore the quotes on tolerance below and interpret them.

1. The highest result of education is tolerance (Helen Keller).

2. What is tolerance? It is the consequence of humanity. We are all formed of frailty and error; let us pardon reciprocally each other's folly – that is the first law of nature (Voltaire).

3. The responsibility of tolerance lies with those who have the wider vision (George Eliot).

Activity 5. Read the following statements and a) prove their legitimacy with the help of famous scientists' quotations; b) add your own comments (see example).

1. Teaching children to think for themselves is a pedagogical imperative.

2. A teacher can support his students' attention by introducing diverse types of activity.

3. Children learn by solving problems with the help of the teacher, who models and directs processes for them in a classroom environment.

E.g.:

a. Teaching children to think for themselves is a pedagogical imperative. – "It must be remembered that the purpose of education is not to fill the minds of students with facts … it is to teach them to think, and always to think for themselves." Robert Hutchins, American educational philosopher, (1899-1977).

b. Although teachers often focus their attention on teaching students what to think, not how to think, promoting independent thinking is eminently important today. It helps students to make greater progress and allows them to develop a deeper understanding. Students need to be able to think critically and solve problems for themselves. These skills can be developed if children: first, aren't dependent on teacher's opinion; then, think before they respond; next, try to relate new information to their prior knowledge and experience; and finally, learn to cooperate and work in groups.

At the same time, we do not insist on three versions of a scientific text: fully adapted, partly adapted and original (unadapted). The number of versions of a scientific article can be determined by a teacher because it depends on students' English language skills and the development of their discipline-specific and professional literacy.

At the beginning of the last week of the first semester there was a control assessment of knowledge of general pedagogical and scientific vocabulary and ability to use it while reading and interpreting English scientific and pedagogical articles on the following two topics: "Teaching Tolerance to School Children" and "Teaching Patriotism and Love for the Country You Live in". The level of knowledge and skills of students of CG and EG was assessed by means of using the following tasks:

1) students of CG and EG received the cards with the following task: to write a translation of 15 words, phrases and sentences with the vocabulary they had learnt on the topics "Teaching Tolerance to School Children" and "Teaching Patriotism and Love for the Country You Live in" from the mother tongue into English for the specified period of time. Thus, each card contained 30 words and expressions of general pedagogical vocabulary and 30 words and expressions of scientific vocabulary. In the process of assessment, 6 variants of cards, containing all the vocabulary studied on the indicated topics, were used;

2) students of CG and EG received cards with the following task: to read an unfamiliar scientific-pedagogical text (a shortened version of an authentic scientific article (Avery et al., 1997), which in its content was close to the educational authentic scientific articles that students had studied during the semester, but not adapted to their language level. The aim was to identify the level of students' understanding of the text by performing 35 test tasks covering the entire content of the text they had read. The length of the text was 7260 printable characters.

3) students of CG and EG received a card with the task to present an oral retelling of the same scientific-pedagogical text, using the proposed clarifying questions. Here is an example of such a card: Task 3. Read the extract from the article "Teaching for Tolerance of Diverse Beliefs" by P.G. Avery, J.L. Sullivan and S.L. Wood (1997) and render its content using the questions given below:

- What do the authors of the article study?
- What is the goal of a secondary curriculum designed by the authors? What way does it differ from the traditional civics curriculum?
- What does the article describe?
- Why do the authors of the article believe that tolerance for diverse beliefs must be taught?

- What is the structure of the curriculum?
- What questions does the curriculum include?
- What emphasis is the curriculum characterized by?
- Why should students learn to acknowledge the rights of others to hold opposing viewpoints?

4) students of CG and EG were given the task to interpret what was read, using the proposed template:

- The title of the article is ...
- The author(s) of the article is (are) …
- Key words: …….. (5-7 key words)
- The main idea of the article is …
- The article is about ...
- The author(s) come(s) to the conclusion that ....
- Your opinion of/on the article.

Each of the four mentioned above tasks was performed during a certain period of time, after which it was required to start working with the next task. All students of CG and EG were given 2 hours to perform these tasks. The results of the assessment are shown in Table 3.

According to the first criterion, a high receptive level of learning vocabulary was identified among 2 students of CG (3.8%) and 5 students (8.6%) of EG; sufficient level: in CG – 9 students (17%), in EG – 11 students (19%); satisfactory level: 22 students (41.5%) of CG and 28 students (48.3%) of EG; low level: 20 students (37.7%) of CG and 14 students (24.1%) of EG. Thus, the number of students who mastered the language material at a high and sufficient level is 6.8% higher in EG than in CG.

Table 3. The results of the formative experiment

	Knowledge of the vocabulary				Understanding of the text			
	Receptive level				Receptive level			
	high	sufficient	satisfactory	low	high	sufficient	satisfactory	low
Number of students	2 CG 5 EG	9 CG 11 EG	22 CG 28 EG	20 CG 14 EG	4 CG 8 EG	14 CG 16 EG	21 CG 29 EG	14 CG 5 EG
	Ability to retell the text they had read				Ability to interpret the text they had read			
	Reproductive level				Productive level			
	high	sufficient	satisfactory	low	high	sufficient	satisfactory	low
Number of students	2 CG 5 EG	7 CG 14 EG	19 CG 29 EG	25 CG 10 EG	3 CG 8 EG	8 CG 9 EG	22 CG 32 EG	20 CG 9 EG

According to the second criterion, a high receptive level of understanding of a non-adapted scientific text was identified among 4 students (7.5%) of CG and 8 students (13.8%) of EG; sufficient level: 14 students (26.4%) of CG and 16 students (27.6%) of EG; satisfactory level: 21 students (39.6%) of CG and 29 students (50%) of EG; low level: 14 students (26.4%) of CG and 5 students (8.6%) of EG. Thus, the number of students who understood the non-adapted scientific text at a high and sufficient level is 7.4% higher in EG than in CG.

According to the third criterion, a high reproductive level of development of language skills necessary for the oral retelling of the text was identified among 2 students (3.8%) of CG and 5

students (8.6%) of EG; sufficient level: 7 students (13.2%) of CG and 14 students (24.1%) of EG; satisfactory level: 19 (35.8%) of CG and 29 students (50%) of EG; low level: 25 students (47.2%) of CG and 10 students (17.2%) of EG. Thus, the number of students who were able to retell orally the content of the scientific text they had read at a high and sufficient level was 15.8% higher in EG than in CG. According to the fourth criterion, a high productive level of the development of language skills, necessary to interpret the non-adapted scientific text, was identified among 3 students (5.7%) of CG and 8 students (13.8%) of EG; sufficient level: 8 students (15.1%) of CG and 9 students (15.5%) of EG; satisfactory level: 22 students (41.5%) of CG and 32 students (55.2%) of EG; low level: 20 students (37.7%) of CG and 9 students (15.5%) of EG. Thus, the number of students who were able to interpret the content of the scientific text they had read at a high and sufficient level is 8.5% higher in EG than in CG.

The results obtained show that less successful students of EG not only achieved the same level of understanding of the non-adapted scientific text and demonstrated the same level of the development of language skills as their more successful peers, but also surpassed them, which gives the ground to believe that the developed methodology is an effective one. The obtained results prove the effectiveness of the developed methodology, and hence the legitimacy of all provisions of the hypothesis.

4. Conclusions

The analysis of the results obtained in the ascertaining stage of the experiment proved that most of the participants (nearly 75%) had significant difficulties in reading, understanding and interpreting academic journal articles in English. This fact can be explained by the lack of scientific vocabulary, absence of proficiency in reading and interpreting English research articles and a certain mismatch in English and Ukrainian academic writing style. In other words, Master students have little practice in reading and interpreting academic research papers in English, so, these skills can be taught.

The authors propose to overcome the mentioned above difficulties by teaching Master students to read one and the same scientific research article in its three different versions: from fully adapted to partly adapted, and finally – to the same original authentic scientific paper in full. This hypothesis was experimentally checked. Comparing results for control and experimental groups, taking part in the formative experiment stage, we came to the conclusion that the introduced experimental method has significant advantages in both learning scientific vocabulary, understanding authentic non-adapted research paper in English, oral retelling and scientific article interpreting.

However, the fact that only 8.6% of EG students achieved a high level of oral retelling of the non-adapted scientific text suggests the need to improve the developed methodology. We see the perspectives of the methodology improvement in the following:

1. Diversification of methodological approaches to learning and teaching pedagogical and scientific vocabulary by means of compiling secondary scientific texts, analysis of the pedagogical characteristics of students' actions in the process of their interpersonal contacts and solution of educational and upbringing tasks.
2. Introduction of additional tasks and extracurricular activities for self-study, in particular, home reading of scientific articles and pedagogical texts with their further discussion and their usage as a basis for students' scientific and thematic reports at conferences, as well as for the scientific communication with foreign teachers working in our country.

A separate study should be undertaken to highlight the relation between participants' use of the suggested reading strategy and students' ability to write their own scientific report on the basis of an

academic journal article they have read. Also, we see a further perspective of the research in designing a sequence of activities for teaching Master students to write this kind of scientific report.

References

Avery, P.G., Sullivan, J.L., Wood, S.L. (1997). Teaching for tolerance of diverse beliefs. *Theory into Practice*, *36*(1), 32-38.

Baker, S., Bangeni, B., Burke, R., Hunma, A. (2019). The invisibility of academic reading as social practice and its implications for equity in higher education: a scoping study. *Higher Education Research and Development*, *38*(1), 142-156.

Bogucka, R., Wood, E. (2009). How to read scientific research articles: a hands-on classroom exercise. *Issues in Science and Technology Librarianship*, *59*, 4-13.

Chen, K.T. (2017). An explanatory study of NNES graduate students' reading comprehension of English journal articles. *Reading in a Foreign Language*, *29*(1), 20-35.

Deane, P. (2020). Building and justifying interpretations of texts: a key practice in the English language arts. *ETS Research Report Series*, 2020(1), 1-53.

Felder, R.M., Brent, R. (2005). Understanding student differences. *Journal of Engineering Education*, *94*(1), 57-72.

Heeren, J., Speelman, D., De Wachter, L. (2020). A practical academic reading and vocabulary screening test as a predictor of achievement in first-year university students: implications for test purpose and use. *International Journal of Bilingual Education and Bilingualism*, 1-16.

Irgatoğlu, A., Pakkan, G. (2020). The awareness of ELL students about their 21st century skills. *Journal of Language and Linguistic Studies, 16*(4), 1921-1938.

Jin, T., Liu, X., Lei, J. (2020). Developing an effective three-stage teaching method for collaborative academic reading: evidence from Chinese first-year college students. *Journal of English for Academic Purposes*, 45, Article number 100853.

Kaur Mehar Singh, M. (2019). Academic reading and writing challenges among international EFL master's students in a Malaysian University. *Journal of International Students*, *9*(4), 972-992.

Kitchen, M. (2018). Second-language learning and teaching: When lived experience and second-language acquisition knowledge collide. *Curriculum Matters*, *14*, 87-101.

Li, J., Cummins, J. (2019). Effect of using texting on vocabulary instruction for English learners. *Language Learning and Technology*, *23*(2), 43-64.

Maden, A. (2020). Comparison of student attitudes towards printed and digital dictionary use: A case of middle school. *Journal of Language and Linguistic Studies, 16*(2), 835-848.

Marinkovich, J., Velásquez, M., Córdova, A., Cid, C. (2016). Academic literacy and genres in university learning communities. *Journal of English Language, Literatures in English and Cultural Studies, 69*(3), 96-113.

Martínez, R.S., Harris B., McClain, M.B. (2014). Practices that promote English reading for English learners (ELs). *Journal of Educational and Psychological Consultation*, *24*(2), 128-148.

Oducado, R.M.F., Sotelo, M.G., Ramirez, L.M.M., Habaña, M.P., Belo-Delariarte, R.G. (2020). English language proficiency and its relationship with academic performance and the nurse licensure examination. *Nurse Media Journal of Nursing, 10*(1), 46-56.

Park, S. (2019). Disentangling language from disability: teacher implementation of tier 1 English language development policies for ELs with suspected disabilities. *Teaching and Teacher Education, 80,* 227-240.

Rahmawati, H. (2019). The Students' perception on academic reading log for essay writing literacy: some influential points. *Journal of English Education Society, 4*(1), 66-70.

Rossiter, M.J., Abbott, M.L., Hatami, S. (2013). Enhancing the reading of peer-reviewed research articles in the teaching English as a second language community. *Alberta Journal of Educational Research, 59*(4), 674-692.

Sasirekha, K., Rathiga, K., Sarpparaje, M., Suresh, G.S. (2018). English language pedagogy for engineering students through domain specific literature – classroom experiments and experience. *Asian ESP Journal, 14*(7), 229-250.

Sebolai, K. (2019). Validating the performance standards set for language assessments of academic readiness: the case of stellenbosch university. *Stellenbosch Papers in Linguistics Plus, 56,* 79-95.

Shi, L., Fazel, I., Kowkabi, N. (2018). Paraphrasing to transform knowledge in advanced graduate student writing. *English for Specific Purposes, 51,* 31-44.

Stander, M. (2020). Strategies to help university students avoid plagiarism: a focus on translation as an intervention strategy. *Journal of Further and Higher Education, 44*(2), 156-169.

Strassman, B.K., Marashian, K., Memon, Z. (2019). Teaching academic language to d/deaf students: does research offer evidence for practice? *American Annals of the Deaf, 163*(5), 501-533.

Sulaiman, N.A., Salehuddin, K., Khairuddin, R. (2020). Reading english academic texts: evidence from ESL undergraduates' eye movement data. *3L: Language, Linguistics, Literature, 26*(1), 60-78.

Villamizar, A.G. (2018). Examining intersections between visual literacy and digital technologies in English language programs for higher education. *Journal of Visual Literacy, 37*(4), 276-293.

Wahyono, E., Puspitasari, D. (2016). Students' need analysis of English reading skills for academic purposes. *Prosiding ICTTE FKIP UNS 2015, 1*(1), 1007-1014.

Whitten, Ch., Labby, S., Sullivan, S.L. (2016). The impact of pleasure reading on academic success. *The Journal of Multidisciplinary Graduate Research, 2*(4), 48-64.

Zakin, A. (2012). Hand to hand: teaching tolerance and social justice one child at a time. *Childhood Education, 88*(1), 3-13.

Yüksek lisans öğrencilerine İngilizce akademik dergilerdeki makaleleri okumayı ve yorumlamayı öğretim

Özet

Makale, İngilizce bilmeyen yüksek lisans öğrencilerinin özgün İngilizce konuşulan akademik araştırma makalelerini okuma ve yorumlama becerilerinin geliştirilmesine katkıda bulunan bir stratejinin analizine odaklanmaktadır. Yazarlar, eğer yüksek lisans öğrencileri bir akademik makaleyi üç versiyonunda okursa öğretimin etkililiğinin arttırılabileceğini varsaydılar - ilk tamamen uyarlanmış versiyon, ikinci kısmen uyarlanmış versiyon ve son olarak, aynı otantik bilimsel makale tam olarak. Hem kalitatif hem de kantitatif araştırma yöntemleri kullanıldı. Araştırmanın teorik kısmı, modern metodolojik, psikolojik ve dilbilimsel araştırmanın bir analizini içeriyordu. Çalışmanın deneysel kısmı iki aşamadan oluşuyordu - belirleme ve biçimlendirme. Biçimlendirme denemesi için, bir örneğin tüm yüksek lisans öğrencileri 2 gruba ayrıldı. Belirleme deneyi sürecinde daha yüksek düzeyde alıcı beceriler sergileyen öğrenciler kontrol grubuna (KG), aynı becerileri daha düşük düzeyde gösteren öğrenciler deney grubuna (DG) katılmışlardır. Deneyin kesinleştirme aşaması, katılımcıların çoğunluğunun (neredeyse% 75'inin) akademik derginin makalelerini okumakta, anlamakta ve yorumlamakta önemli zorluklar yaşadığını göstermiştir. Hipotez deneysel olarak doğrulandı. Biçimlendirici deneye katılan kontrol ve deney gruplarının sonuçları, önerilen yöntemin hem bilimsel kelime dağarcığı çalışmasında hem de İngilizce özgün uyumsuz araştırma çalışmasının anlaşılmasında, sözlü yeniden anlatım ve bilimsel makalelerin yorumlanmasında önemli avantajlara sahip olduğunu kanıtlamaktadır.

Anahtar sözcükler: akademik okuma; yorumlama; kelime hazinesi; dil; sözcük birimleri.

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