

## Pedagogical implications on interactive techniques of teaching non-linguistic students economic terminology

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### **Abstract**

*The current study aims to elaborate the methodology of using interactive technologies which provide students the knowledge of economic terms and the skills of appropriately using that vocabulary in speech. The paper highlights that interactive technologies are important factors which increase effectiveness of teaching economic terminology in the ESP course, create proper learning environment and evoke students' interest in studying. Pedagogical implications for teaching students economic terminology through utilizing interactive forms of work have been presented. The findings suggest that interactive performance in class will enhance the process of presenting, understanding meaning, memorizing and proper using economic terms in oral and written communication. Consequently, the research contributes to the study of forming linguistic competence with the students of economic specialties and elicits further research of scholars in the field of teaching terminology.*

**Key words:** Communication, economic discourse, terminology, learning special terms, teaching non-native learners of English, teaching methods.

### **Introduction**

Teaching English as a second language (ESL) in a broad context and teaching students professional terminology in the course of English for Specific Purposes (ESP) in particular has always been a subject of interest for researchers. This interest has been enhanced with the necessity to arm future specialists, namely in the field of International Economics, with the knowledge of special vocabulary and skills how to use it in practice. Gaining such knowledge and acquiring proper skills can be feasible if scholars and teachers of ESP use modern methodological approaches to teach specialized vocabulary and also develop their own appropriate ways of teaching terminology. Therefore, it is evident that scholars and teachers must find most effective ways to make students use their vocabulary load, to develop their language potential in close-to-real communication, which is or might be typical to future professional activity of ESP learners. Thus it can be stated that without mastering professional terminology students of economic and/or technical higher educational establishments will not be able to form their lexical competence as an integral part of communicative competence.

During the search for an effective method it became evident that interactive activity can enhance the process of acquiring professional terminology and ensure effective utilizing lexical competence in constructive communication that reflects the sphere of international economists' interest. Consequently, *the aim of this paper* is to analyze relevant pedagogical literature devoted to teaching students economic terminology in order to substantiate the theoretical foundation of the study and on this basis conduct an experiment to prove that interactive forms of work can considerably enrich students' load of economic vocabulary and promote its usage both in oral and written communication. So the following *thesis statement* can be formulated: the necessity to understand professional information while reading and/or listening to economic texts and the need to use economic terms in oral and/or written communication urge the students to master terminology, thus using interactive methods in the teaching

process can promote the process of studying/learning vocabulary and provide students with the knowledge of terms and skills to use special vocabulary in economic discourse.

Hence, this study aims to respond to the following research questions:

- Is there a direct relationship between using interactive technologies and students' ability to acquire economic terminology in interactive forms of work?
- How can interactive forms of work enhance vocabulary acquisition by learners?
- Which interactive activities and how should they be used with the purpose of expanding vocabulary knowledge and significantly increasing communicative skills of learners?

### **Review of Relevant Literature**

The problem of teaching students professional terminology in general and economic vocabulary in particular is not new in the practice of teaching English for professional communication. Ukrainian researchers, such as O. Tarnopolsky, O. Petrashchuk, L. Morska, N. Sayenko, E. Miroshnichenko, S. Amelina, continue the long-term and profound study of former Soviet school of methodologists and apply a rich experience of world-famous scientists (N. Schmitt, I. S. P. Nation, R. Ellis, J. Read, P. Ur) to elaborate their own theories concerning teaching/learning terminology. Up till now scientists have investigated different aspects of teaching/learning vocabulary by students who learn English as a second (foreign) language. In particular, scholars Ye. Passov, I. Batsenko, V. Korostylov, O. Dolmatovska, M. McCarthy, R. Gairns and L. Taylor: have suggested methods for disclosing meanings of foreign words in receptive activity; described the lexical mechanism in different types of speaking activity; studied the process of functional mastering vocabulary; designed various exercises on the basis of methodical typology of lexis; determined the criteria and described the procedure of selecting lexical units for creating a minimum glossary to be learned by students. Such researchers as V. Borshchovetska, M. Burlakov, N. Sayenko, N. Zhovtiuk, R. Day, M. Jonak, R. Holme have developed the ways of testing special vocabulary knowledge; studied the semantics of terminological units in German, French and other languages; offered cognate pairs in English and German as a means of figuring out unfamiliar words in English; researched the problems of forming lexical skills and using strategies of learning vocabulary on initial and intermediate levels.

Despite numerous works of foreign researchers, such as N. Schmitt, I. S. P. Nation, R. Ellis, B. Laufer, R. Carter, S. Webb, and considerable contribution of Ukrainian researchers to the methodology of teaching vocabulary, including terminology (V. Bukhbinder, O. Petrashchuk, Yu. Gnatkevych, O. Tarnopolsky, L. Morska), the question how to develop vocabulary range in the course of ESP remains vital. That is why it is necessary to do further research to provide teachers and learners of ESP with a sustainable theoretical foundation of the effective teaching/learning method and practical recommendations to enhance the quality of education. In this respect it is worth mentioning Widdowson (1990b) who claims that acquisition of linguistic skills does not seem to guarantee the consequent acquisition of communicative abilities in a language. In plain English, it is not enough for the student only

to learn this or that word by heart, to memorize it, but he/she must also know how to use learned vocabulary, how to apply acquired knowledge of new words in effective communication.

Researchers in methods of teaching ESP relate their studies to the findings in Linguistics, Pedagogy, Psychology and other branches of science to understand the nature of foreign words, learn psychological prerequisites of teaching/learning process and thus apply the most progressive results of such studies in practice. Linguists (G. Akhmanova, A. Superanskaya, A. Dyakov, T. Kiyak, A. Myasnikov, D. Lotte) have researched the structure, semantics, pragmatics of economic terms, the ways of their formation and functioning in economic discourse. A term has been defined as an integral linguistic unit which is used to define a special concept in a certain professional domain. A term has its own terminological meaning and usage in different branches of science, including economics. Terms belong to the general language system and therefore have all syntagmatic and paradigmatic relations which exist in the language. Consequently, the basis of economic terms is vocabulary from general language. Also, there is some relationship between words from general language and terminological words: when combined with terms, general language words acquire the terminological meaning (*budget surplus, capital gains, market equilibrium, transfer payment*). On the other hand, in case of combining general language words (*absolute advantage, current account, durable goods*) there appear more or less “stable formations of scientific metalanguage” (Akhmanova et. al., 1980). The result of such interaction of a term shows the tendency to express a single meaning in the framework of a certain terminological system, thus defining each concept. So after studying linguistic characteristics of economic terms (Semenchuk & Nychko, 2012) we can deduce that they have their peculiarities, some of which make learning economic terms easier (for example, international words) and some terms are complicated to be easily acquired by students of economic faculties. Knowledge of linguistic peculiarities of economic terms will help select a necessary minimum, classify selected terms to be practiced in exercises and activities.

Being preoccupied with the task of finding an effective method of teaching students economic terms, an idea that interactive teaching can be a proper mechanism for students' vocabulary development has been put forward. Interaction helps involve students in performing activities with economic terms, and such activities can enhance vocabulary acquisition and promote the development of lexical skills. Interactive teaching has long been used in the practice of foreign language education, but applying interactive methods of teaching/learning vocabulary, in particular economic terms with students of the 4th year of study majoring in International Economics, is new. A great number of foreign and Ukrainian researchers contributed to the research of interactive teaching (I. Bim, N. Borysko, L. Zagrekova, G. Kitaigorodskaya, R. Millrood, Ye. Passov, O. Pometun, V. Safonova, G. Selevko, S. Sysoyeva, I. Smoliuk, N. Brieger, D. Cotton, D. Nunan, L. Jones, W. Rivers). Arends (2000) highlights such interactive aspects of teaching: presentation, direct instruction, concept teaching, cooperative learning, problem-based instruction, and classroom discussion. Interactive teaching, which presupposes using role plays, solving specific problems (case studies), doing simulations, having discussions, has been considered like co-teaching, in which a teacher and a student are equal partners in the educational process. Therefore, interactive teaching is an adequate didactic means

for the development students' skills of producing and presenting products of their common activity. It also provides comfortable conditions for making projects, conducting educational processes, achieving "high results in professional competence and development of student's personality" (Chernylevsky, 2002, 53). Using modern multimedia also helps to provide interactive cooperation, constant communication of students and allows the teachers to lead students' work aimed at mastering a foreign language. Besides, interacting with foreign speaking partners through multimedia (chats, emails, etc.), students acquire the experience in cross-cultural competence, which is essential in the modern globalized economy. As it has been proved by O. Frolova, forming cross-cultural competence with students-economists is a basic factor of a successful communication and an essential part of professional preparation of future specialists as participants of the dialogue of cultures (Frolova, 2002).

The importance of using interactive activity which can take different forms in the classroom has been proved by H.G. Widdowson, N. Brieger, M. Ellis, Ch. Johnson, J.M. Dobson, J. Comfort, D. Nunan. In this context it is worth mentioning, for example, the name of W. Rivers (1996), who emphasizes the effectiveness of cooperative learning which implies full participation of both teacher and student in a classroom work. A student interacts with his/her fellow student with the purpose of planning (classroom and independent work), making effective choices (of words relevant to future profession), helping the teacher (to organize vocabulary, to draw lexical charts, to build "semantic networks" (Nunan, 1998) of the words). W. Rivers (1996) remarks, cooperative learning also implies small-group activity, large group instruction, interacting in pairs, sharing information, etc., while the teacher becomes an advisor, guide, helper, supporter, and partner in cooperative venture. According to M. Williams and R. Burden (1997), learners in the language classroom can be treated as partners by involving them in decisions about what activities to carry out, asking them what topics they are interested in or allowing them to select books to read.

Speaking about the students' participation in selecting relevant to their needs vocabulary, R. Gairns and R. Stuart (1989) admit that ESP students "may be in a much stronger position whether an item is worth acquiring productively." On the other hand, if the learners do not perceive the "vital personal relevance" of the selected words for their productive vocabulary, which is particularly true in the case of ESP students, they will consciously or subconsciously reject items which the teacher is trying to teach them. Such an approach to teacher-student relations can ensure mutual respect and responsibility for the results of studying, provide information for discussions and filling information gaps, which all together promote interaction as a powerful means of forming communicative competence and successful language learning. Interaction in the classroom can be established and stimulated if the teacher creates "friendly relationships and supportive atmosphere, in which students feel free to communicate using the target language" (Seifu & Gebru, 2012). Such friendly environment helps learn vocabulary in the process of meaningful and appropriate to the context communication in accordance with the student-oriented approach to foreign language teaching.

Applying theoretical findings of the abovementioned scholars and developing our own theory concerning interactive teaching of English economic vocabulary, we have defined the essence of interactive vocabulary teaching

as the means of effective forming lexical competence through organizing interaction of students in pairs, mini-groups and as the whole class while performing creative, problematic and communicative tasks aimed at learning economic terms and acquiring the ability to use them in writing and orally. Following the requirements of Common European Framework of Reference for Languages: Learning, Teaching, Assessment, we have suggested the following interactive activities to be used in the process of teaching students economic terms: discussions, role plays, simulations, writing reports and their presentations. On the basis of our long-term experience and observations it can be assumed that these types of activities, done in interactive format of the studying process, will provide students with sufficient knowledge of economic terms and proper skills of their usage in communicative situations, tasks and exercises, specially worked-out with that purpose.

Now we move to the analysis of pedagogical literature in the part of teaching/learning vocabulary. Well-known scholars have paid considerable attention to teaching students different facets of foreign language terminology. In particular, Berman (1970) indicated close relations between teaching special terminology and teaching students their professional disciplines. He emphasized a wide range of techniques for disclosing the meaning of receptive (passive) vocabulary: (a) translating with a parallel explaining new words and searching for adequate equivalents of such terms in the students' mother tongue; (b) guessing the meaning from the context; (c) revealing the meaning of a word by analyzing its word-building elements, etc. The scientist claims, it is important that learning new vocabulary and fixing it in the student's memory should be not only contextual, but must be conducted with the help of sufficient examples which show different collocations of new words and their variety of meanings in different contexts. Bukhbinder (1980), who studied how to make the process of teaching vocabulary purposeful, communicative and effective, analyzed the work of lexical mechanism in receptive and reproductive types of speaking activity. The researcher considers perceptive activity to be a sequence of three operations: reception of the form to differentiate one lexical unit from another, reception of the whole lexical unit on the basis of internal reconstruction, and semantization. During reproduction activity the following operations take place: actualization of lexical units, lexical situational varying and realization in speaking. Learning vocabulary "functionally", learners form their "verbal networks" (Korostylov, 1990), which function as a basis for keeping words in the memory and as a condition of their reproduction in speech. In this respect a psychologist Zimniaya (1992) wrote that having acquired reproductive skills, which are mainly based on the work of memory, students move on to producing their own patterns of speech, thus involving not only memory, but developing their thinking. Applying this postulate to teaching/learning vocabulary, it can be deduced that reproductive activity allows students to memorize new words only, but if students want to have skills of using these words, they need to be preoccupied with creative activities which develop their thinking and promote acquiring new vocabulary.

The above-mentioned scientists formed the methodological basis for further research in the field of teaching terminology in the framework of ESP, as the result of which we can witness a significant progress described in numerous works of modern methodologists. For example, Tarnopolsky (1979) in his thesis "The Intensification of

Teaching English Vocabulary in Non-linguistic University”, and later in plenty of research papers, books, and conference proceedings (Tarnopolsky, 2010) focused on problems of ESP teaching, including teaching business vocabulary in economic universities. His followers, such as V. Borshchovetska, N. Sayenko, I. Lipska, Z. Korneva, L. Morska, O. Petrashchuk, considerably enriched and developed the methodology of teaching foreign language terminology of different branches: medicine, economics, engineering, transport, sport, music, construction, etc. The abovementioned and other researchers:

- (a) described the principles of selecting terminology and suggested lists of special terms to be acquired by students of different specialties;
- (b) offered methodology of teaching/learning terms in different types of speaking activity;
- (c) paid attention to the ways of translating and disclosing meanings of such lexical units;
- (d) analyzed different strategies for memorizing and applying terms in oral and written communication;
- (e) studied the effectiveness of using computers and special training programs in teaching/learning vocabulary;
- (f) elaborated complexes and systems of exercises for learning and brushing up professional vocabulary while reading and/or listening to different authentic professionally oriented texts.

Such scientific works, which help teachers of ESP conduct the process of teaching special vocabulary, play a significant role in the classroom activity and especially in organizing the self-study work of students, because according to Widdowson (1990a), “learning is now seen as a self-generating process by learners themselves.” Self-learning ability will help students, who are now considered to be partners of teachers, learn new words from their field of concern and acquire practical skills of their usage and proper application in business oriented discourse. Consequently, having acquired linguistic competence (in our case, a lexical competence) in the process of interactive work with the help of specific teaching strategies, such as, for example, using dictionary, applying morphemic and contextual analysis, mnemonics (Diamond & Gutlohn, 2006), students will be able to develop their communicative competence as an utmost goal of ESP teaching/learning.

American and West European researchers of the problem under discussion (Schmitt (2000), Carter and McCarthy (1988), Ellis (2003), Gairns and Stuart (1989), Gardner (2004), Lewis (1997), Nation and Coady (1988), Taylor (1990), Diamond and Gutlohn (2006)) have also contributed to the methodology of teaching/learning professional vocabulary, and the results of their studies have been widely used by Ukrainian theoreticians and practitioners of ESP. In this respect it is worth mentioning Schmitt (2000), who determined and described vocabulary learning strategies, such as: determination, social, memory, cognitive, metacognitive. He also proved the necessity of using them concurrently by good learners to structure their vocabulary learning, review and practice target words,

define semantic relationships between new and previously learned words so that students can be conscious of their learning and can take steps to regulate it. Consequently, the abovementioned researcher assumes that “vocabulary acquisition is an incremental process, and the teachers must concentrate not only on introducing new words, but also on enhancing learners’ knowledge of previously presented words.” Nattinger (1988) stresses that comprehension of vocabulary relies on strategies that permit learners to understand words and store them, to commit them to memory, while production concerns strategies that activate one’s storage by retrieving these words from memory, and using them in appropriate situations. Nation (2002) underlines two important factors affecting productive vocabulary use: knowledge and motivation. Productive knowledge of vocabulary requires more learning efforts than receptive knowledge, the researcher claims. In that respect we agree with Schmitt (2000), who states that patterns of strategy use can change over time as a learner either matures or becomes more proficient in the target language.

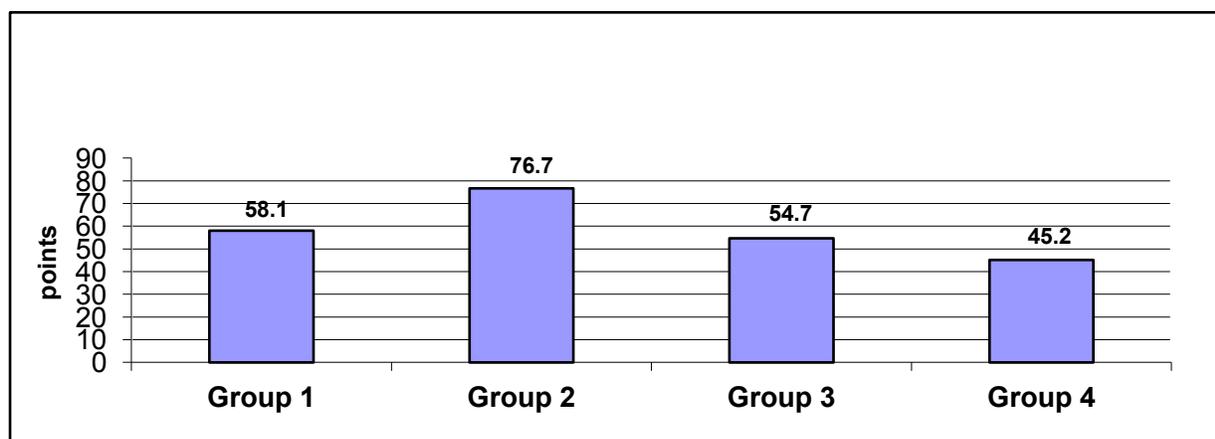
Having considered such inferences of these and other scholars and having taken into account works of such psychologists as L.Vygotsky, S. Rubinshtein, V. Davydov, L. Zankov, I. Zimniaya, H. Kostiuk, a number of educational strategies, namely stimulating, social, mnemonic, cognitive and metacognitive, as well as compensatory strategies to be used in teaching/learning target words, has been analyzed (Semenchuk, 2008; Borshchovetska & Semenchuk, 2009). According to R. Oxford (2003), strategies are “specific behaviors or thoughts learners use to enhance their language learning.” It has been defined by researchers (A. Shamov, E. Selivanova, L. Peskova) that a studying strategy is like a knowledge of a program what to do with the word, like an approach or a skill a student uses in his/her effort to master vocabulary. A strategy is used to mobilize student’s resources in order to satisfy his/her communicative needs, to plan one’s own learning style. The necessity of applying abovementioned strategies to educational process has been substantiated as these strategies help learners to perceive words, memorize them, and use words in a proper context. It has been proved that using appropriate strategies while reading and translating economic texts, while participating in after-reading discussions and dramatizing different business situations, learners were able to enrich significantly their vocabulary load, develop their intellectual abilities, and increase interest to mastering a foreign language. Also, students form confidence by properly using this or that term while communicating professionally, and in general they enhance their ability to “manage, direct, regulate, guide their learning, i.e. planning, monitoring and evaluating” (Wenden, 1998). Hence, the reviewed literature and our experience allow us to create a theoretical foundation to our research.

### **Methodology**

To investigate whether interactive forms of work with special economic terms can significantly influence students’ level of vocabulary knowledge and their communicative skills we undertook the first part of the experiment with four groups of the 4<sup>th</sup> year students who specialized in International Economics at Ternopil National Economic University (Ukraine). The material for that part of the experiment was a series of exercises and tasks with the emphasis on interactive performance. The exercises and tasks were worked out on the basis of authentic materials from foreign books on International Economics and consisted of three groups of activities: pre-reading, reading and post-reading.

The participants of the first part of the experiment were four groups of students (14 or 15 students in each group – altogether 57 participants) and four teachers of the English Department. Thus the purpose of that part of the experiment was to check whether suggested exercises and tasks when done in interactive forms of work could enhance the acquisition of economic terminology by students majoring in International Economics. At the beginning we put forward the following working hypothesis: students' knowledge of vocabulary and their ability to use it in communication will increase if we apply interactive forms of work while doing different exercises and fulfilling various tasks, specially elaborated by the researcher. Thus the object of the first part of our experiment was the series of interactive and communicative exercises and tasks to be used in interactive format of teaching/learning. Following the recommendations of the Common European Framework of Reference for Languages, we chose such interactive techniques as discussions, role plays, simulations and presentations for oral communication and short (up to 5 pages) reports for written communication.

To check the initial level of students' lexical competence (knowledge of the words which they had already learned during the previous semester) we prepared a multiple-choice test consisting of 50 tasks. The students had to



take the test choosing one correct variant of the word to be filled in the sentences with gaps. To figure out the average grade we added all grades in the group and divided the sum into the number of participants. The results of this test are shown in Fig.1 below.

Figure 1. **Initial (pre-experiment) results of students' level of lexical competence**

As it can be seen, the overall level of students' knowledge of economic terminology only in group 2 was average while in three other groups this level was far from sufficient (less than 0.7). This can be explained by the fact that students had a break between semesters and perhaps felt some psychological discontent having to do the test at the beginning of a new semester.

After conducting the above mentioned test at the beginning of a new semester students started learning economic vocabulary using exercises and tasks which were communicatively oriented and were supposed to be done in interactive forms of work.

That part of the experiment lasted for one semester (total 48 hours, among which 24 hours in class, 8 hours of individual work with the teacher, and 16 hours for self-study independent work). In the end students' achievements were assessed to establish their level of lexical competence by doing another multiple-choice test, which included terminology learned during the experimental study. Results of this test are given in Fig. 2 below.

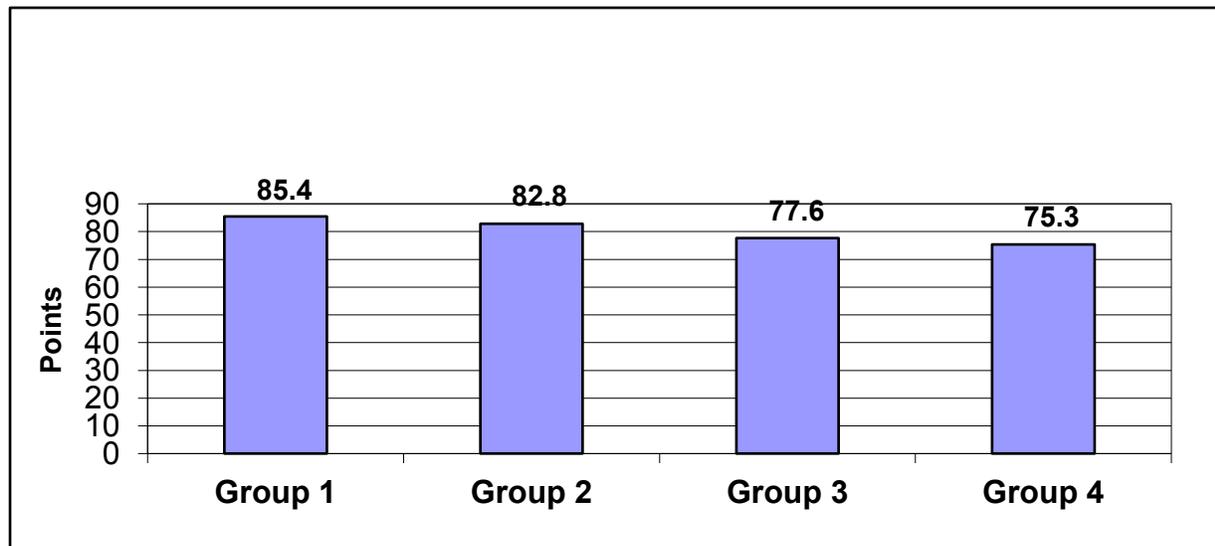


Figure 2. Final (post-experiment) results of students' level of lexical competence

Looking at these results one can see that students of all groups achieved a sufficient level of knowledge of special vocabulary (more than 0.7) and it was due to the use of interactive forms of work. In Table 1 below there are comparative results of two tests, showing students' achievements in forming lexical competence as an essential part of communicative competence at the beginning and at the end of the first part of the experiment.

Table 1: Correlation analysis of initial and final levels of lexical competence

	Group 1	Group 2	Group 3	Group 4	MEAN
Results:					
Pre-experiment test	58,1	76,7	54,7	45,2	58,6
Post-experiment test	85,4	82,8	77,6	75,3	80,2
Increase	27,3	6,1	22,9	30,1	21,6

A survey conducted by the researcher among students, who participated in the experiment, showed that in the result of interactive teaching/learning, ten and a half per cent of interviewed admitted a remarkable increase of their knowledge of terminology. A considerable number of students who participated in the experiment (43.8%) pointed out that they in general improved their knowledge of economic vocabulary. Also 52.6% of respondents remarked that authentic texts and offered exercises as well as interactive forms of work helped them to gain professional knowledge and achieve sufficient level of lexical competence (Semenchuk, 2006, p. 145).

Having proved the effectiveness of our interactive exercises and tasks, we started preparation for the second phase of the experiment. Further research was needed to check not only students' knowledge of economic

vocabulary, but their skills to use that vocabulary in communication, because lexical competence of students requires both knowledge and skills in using acquired vocabulary. Thus the purpose of the second part of our experiment was to prove that interactive activities applied in the process of vocabulary teaching/learning can promote students' success in mastering their lexical competence. At the beginning of a new semester two new groups of the 4th year students consisting of 20 students each were formed. The duration of the second part of the experiment was 54 hours (27 – practical classes, 9 – individual work, 18 – independent self-study). The variables for the second part of the experiment with two groups were interactive forms of work, applied in oral and written tasks aimed at acquiring economic terminology during the experiment (Group 1), and teaching/learning vocabulary on the basis of similar exercises and tasks from the English textbook for economists, but without a consistent and deliberate use of interactive forms of work during the experiment (Group 2). So the dependant factors were (1) interactive activities applied in the course of vocabulary teaching on the basis of worked-out by the author exercises and (2) lack of such activities when students were doing exercises from a textbook, i.e. students learned vocabulary mainly without participating in discussions, role plays, simulations and presentations of reports and/or projects. The independent factors were participants of the experiment, criteria of evaluation of results, duration of the experiment. So to establish the level of students' lexical competence we had to control their knowledge of economic terminology and the skills of using it in oral and written communication.

At the beginning of the second part of the experiment students took tests aimed at checking their initial level of lexical competence. The test consisted of 20 tasks (multiple and alternative choice, transformation) to check the knowledge of special vocabulary they learned before the experiment. Each correct answer was estimated with 5 points, so the maximum grade was 100. Analysis of the results showed that students had difficulties in proper choosing words, their differentiation and transformation. For example, students failed to differentiate such terms as *economic and economical, borrow and lend, network and framework, discount and rebate*. The average results of this test were 63.8 points in Group 1 and 69.8 points in Group 2. To check students' skills to use terms in writing we offered a test of 40 tasks to write a term correctly after reading its definition, to form the term using derivatives, to construct a term using given letters. The maximum grade for this test was 100. The average results were the following: Group 1 – 64 points, Group 2 – 62.6 points. The major mistakes were the following: students failed to transform the terms *produce – producers, plan – planning, employ – employed*, to define the terms (*economics, employee, manager*). To check students' initial abilities to use proper terms in oral speech the following test was offered: *Which of the following would motivate you to work harder: higher salary, good team, job security, holidays, opportunities to travel, good working conditions, promotion opportunities? Rank them in order of priority and explain your choice*. The answers were evaluated according to the following criteria: 1) adequate use of economic terms in a particular situation; 2) pace and speed of speaking (fluency); 3) grammatical correctness; 4) coherency of utterance; 5) sufficiency of speech to reveal the topic (15-20 phrases). Maximum grade for each answer in the test was 100. The average results were the following: Group 1 – 66.5 points, Group 2 – 65.9 points. Analysis of students' answers

showed that they could not use relevant terms in the proper situation, had difficulties with spontaneous speaking, and lacked logical grounding. Thus all average results of the initial (pre-experiment) test can be seen in Table 2 below.

**Table 2: Pre-experiment results of the test to check students' skills in using terms**

Group	Knowledge of vocabulary	Skills to use vocabulary		Average grade
		In writing	In speaking	
Group 1	63.8	64	66.5	64,76
Group 2	69.3	62.6	65.9	66.08

So the results testified that students needed to increase their lexical competence level as the average results in both groups were less than sufficient (below 0.7). It is necessary to remark that we didn't check separately their skills in using terms while doing listening comprehension test because speaking is closely connected with listening and we think if students react properly and respond properly during conversation, they have adequate listening skills. Nevertheless on the basis of analyzed approaches of methodologists to forming listening comprehension competence and our own experience in teaching future international economists we developed a series of interactive exercises and tests which were used later when performing listening comprehension tasks with the purpose of teaching students economic terms (Semenchuk, 2013). Thus our experimental teaching started – the researcher in Group 1, which used worked out series of interactive exercises and tasks, and another teacher from the English department – in Group 2, which used similar exercises from a regular textbook, but without deliberate use of indicated above interactive activities.

The exercises, prepared by the author, were based on previously chosen from different sources authentic economic texts, and the students had to do pre-reading, reading and post-reading activities, aimed at choosing economic terms, transforming them, deriving their meaning, applying these terms in different combinations firstly on the level of one word, then phrase and after that a complete utterance. For instance, working with the text *The Business Cycle*, students had to do exercises in pairs, in the groups of 3 or 4 to find the necessary term in the text and guess its meaning using context or visual aids; match the given terms to make collocations and apply these phrases in a proper situation; arrange jumbled words into sentences and use them for commenting, agreeing or disagreeing, etc. Also students matched terms and their definitions, transformed terms using derivatives and applying suitable grammar constructions. For example, during the pre-reading activity the following task was offered: *The text you are going to read is entitled "The Business Cycle." What might this text be about? Read the text and suggest your own variants of its title. While you read try to understand the supply-demand imbalances and be ready to explain the graph "Macro Equilibrium" after reading the text.* To do post-reading activities students had to ask each other and answer the questions, correct the statements from the text, comment on some ideas proving their points of view by means of facts and examples from the text they had read. In pairs students performed the roles of interpreters translating given terms into their native tongue, took part in discussions and disputes on the given topic, analyzed and compared some economic laws and phenomena with the same in their own country. For example, as a post-reading activity students had to study the given chart "Changes in real GNP in Ukraine" and do the following task:

*Look at the chart depicting the changes in real GNP in Ukraine. How does it characterize the development of national economy in Ukraine? What are your predictions for the next year? Give arguments to prove your statements. As a home task students were offered the following: Browse relevant web-sites on the Internet and find information from other reliable sources about the GNP of other countries. How does it differ from that of Ukraine? Give your comments on the figures and found data. Illustrate your report with charts or diagrams.*

In the course of interactive teaching/learning students were motivated to participate in different activities not only in class, but also in out-of-class work, such as taking part in contests, Olympiads, scientific conferences for students and young researchers. To prepare for such events students were engaged in project activities while writing short reports and getting ready for future presentations. The topics of such reports reflected the following problems: *Forces which cause instability in the world economy; The best macroeconomic policy to promote steady economic growth; The influence of economic growth on people's standard of living; The causes and effects of inflation; The impact of unemployment on the economy; The role of banks in modern society; The cooperation of government and business, etc.* To stimulate inter-group communication students were offered tasks which caused disagreement, provoked different points of view on the given problem, forced students to investigate the case, find proper means to back up their assumptions and prove their opinions with cogent arguments. Having such tasks, students tried to find actual information, statistic data to prove their statements; they prepared visual aids to present their ideas and elicit feedback from their group-mates. It was interesting to record students' presentations and later on analyze all positive and also negative sides of that activity.

So after the experimental study of the two groups, which lasted for nine weeks, students did the tests similar to those they had at the beginning of the experiment but with different lexical material. Namely, the tests were designed to check students' knowledge of economic terminology and their skills to use it in oral and written communication. The test to check their knowledge of vocabulary again consisted of 20 tasks and was verified using the keys. As it was mentioned before, the criteria for evaluating students' oral speech were the following: 1) adequate use of economic terms in a particular situation; 2) pace and speed of speaking (fluency); 3) grammatical correctness; 4) coherency of utterance; 5) sufficiency of speech to reveal the topic (15-20 phrases). The maximum amount of points for oral speech was 100. The criteria for evaluating written tasks (reports) were the following: 1) conformity of the paper with the given topic; 2) adequacy of format and style; 3) grammatical correctness; 4) coherency of the text; 5) design. The maximum amount of points for written tasks was 100.

Analysis of the results of the post-experiment tests showed that students improved their abilities in using economic terms and enriched their vocabulary load in both groups, but the results in Group 1 were better as students of this group used interactive forms of work while learning economic terms. In particular, students improved their abilities to choose the proper term, to transform it, to use in the correct context. At the same time recorded answers of students testified the necessity to improve their pronunciation of some terms (especially the stress in some words – *export, increase, monopoly, dividend and others*). Typical mistakes of students from Group 2 were the following:

wrong differentiation of some terms (*concentration ratio, market share, price leadership, market power etc.*), incorrect logical connection of their utterances, and numerous hesitations during their conversations. The average results of the tests are shown in Table 3 below.

**Table 3: Post-experiment results of the test to check students' skills in using terms**

Group	Knowledge of vocabulary	Skills to use vocabulary		Average grade
		In writing	In speaking	
Group 1	84.5	83.75	81.4	83.21
Group 2	81.9	74.95	78.9	78.58

So it can be seen that after the experimental study students managed to increase their level of lexical competence (above 0.7), but students of Group 1 showed better results as they applied interactive activities during studying and it helped them learn new vocabulary better. The comparative data are given in Table 4 below.

**Table 4: Comparative data of pre-experiment and post-experiment results**

Group	Pre-experimental results	Post-experimental results	Increase
Group 1	64,76	83,21	18,45
Group 2	66.08	78.58	12.5

In the process of experimental teaching it was possible to notice that performing such tasks in interactive mode of work students could easier memorize active vocabulary, learned to use proper grammar forms of the needed terms, and produced their pieces of communication which were professionally oriented and task-based. Besides, students also acquired some information of socio-cultural character, for example, about economic welfare, the role of social decisions, standards of life, the effects of inflation and unemployment, functions of money and the role of banks in market economies, etc., which is also important for those who major in International Economics.

## Discussion

Experimental teaching helped us to receive answers to our research questions: Students demonstrated good results while learning terminology in professionally oriented and meaningful tasks which were interactive by their origin, such as discussions, role plays, simulations and presentations of their written reports. There is a direct relationship between using interactive technologies and quality of education: the more we use interactive activities, the better results. Different interactive forms of work can be used in the teaching/learning process, but we focused on utilizing discussions, role plays, simulations, presentations of reports done by students individually and/or in cooperation within the framework of doing projects. As it has been shown during the experiment, these forms of interactive work should be used systematically in all types of speaking activity which can provide effective acquisition of learning material (economic terminology in our case) and also increase students' ability to use economic terms in oral and written communication. So it can be stated that there is a necessity in applying interactive forms of work to increase

students' motivation to study and develop their ability to acquire economic terminology in the course of ESP. Results of the experiment as well as students' interviews and our observations show that interactive teaching, based on authentic materials, produce a sense of achievement in learning vocabulary and develop communicative skills. Such interactive activities enhance not only vocabulary acquisition by learners but develop their memory, teach them to be tolerant when interacting with each other, to make proper decisions in close-to-life real situations. Suggested interactive exercises and tasks helped in implicit learning special economic terms, promoted increasing vocabulary load of students and in general favorably influenced the effectiveness of lexical and communicative competence formation.

Thus in our experiment the necessity of using interactive activities as a powerful means of stimulating learning vocabulary through communication has been proved. We support M. Lewis' point of view (1997), who contrasts activities, which are usually best done co-operatively in the classroom, and have both non-linguistic and linguistic outcomes, and exercises for reflective class time or homework, which are usually solitary, paper-based and have an exclusively linguistic focus. Interactive activities of different kinds ensure "learning by doing" principle and are crucial in triggering the speaking mechanism of the learners, when they start producing their own pieces of speech, crammed with the active vocabulary. It goes without saying that vocabulary development may take place and be conducted in all types of speaking activities aimed at language acquisition, namely, reading, writing, speaking, and listening. Despite possible language mistakes in utterances (such as incorrect grammar forms, mispronunciation, etc., which do not hinder, or distort effective communication) learners in their activities like to experiment with building word-combinations and "word families", prepare lists of collocations and transform words using derivatives. They definitely expand their vocabulary storage when expressing their own judgments as to the problems described in the before-read authentic professionally oriented text or while participating in the whole class post-reading discussions, based on communicative situations. It is worth saying that learners in such activities do not learn single words, do not memorize texts as speech patterns, but they create their own texts, mobilizing their efforts aimed at retrieving necessary words from their long-term memory, processing and transforming lexical units, organizing their speech patterns into meaningful communication.

Different activities promote a desire for students to interact with each other, with the teacher, with the textbook or computer, and also involve learners in productive work on building their vocabulary stock and effectively using lexical units adequately to communicative situation or prescribed task. Learning in activities provides implicit acquiring vocabulary through doing creative tasks. Also it allows practice target words subconsciously within the framework of integrated speech system, reduces tension and uncertainty among learners which is in contrast to explicit teaching/learning vocabulary and/or acquisition of separate words in the process of language training. Though S. Webb (2008) remarks that "explicit vocabulary learning might lead to deeper knowledge of meaning and greater gains in productive knowledge than might typically occur with incidental vocabulary learning," we state that only adherence of teachers to task-based teaching, when students in the classroom "act in the belief that they can

learn the language indirectly through communicating in it rather than directly through studying it" (Rod, 2003), can create opportunities for learners to demonstrate productive and effective utilization of their linguistic resources.

As it has been proved, researchers suggest different types of activities be used in class, analyze their strong points, emphasize the positive effects they bring for students in the process of vocabulary learning. For example, Rivers (1996) states that students can and should perform their studying activities in role playing, simulation games, and small-group discussions. According to Ur (2002), in simulations the individual participants speak and react as themselves, but the group role, situation and task they are given is an imaginary one, while participants in role plays are given a situation plus problem or task, as in simulations, but they are also allotted individual roles. Other researchers single out plenty of other activities, such as work in pairs or small groups of three or four students, presentations and disputes, professionally oriented role plays and case studies, etc. No doubt, all these activities proved to be useful and must be practiced in classroom as they promote communication which in its turn enhances learning vocabulary as the major building material of any language. Such an approach to interactive teaching/learning vocabulary concentrates less on the words and sentence models, but pays considerable attention to communication, to doing things with language elements, to carrying out communicative functions, such as asking and rejecting, agreeing and denying, and the like. Participating in meaningful communication, students choose activities they best satisfy their needs as communicators in different social and professional (or rather quasi-professional) roles. Pointing out interactive forms of activity as the most efficient in acquiring foreign language professional terminology, teachers can provide students with a powerful means and technology to form their lexical competence as an inseparable element of communicative competence.

### **Conclusions and recommendations**

The purpose of this paper was to investigate the effects of using interactive forms of work in teaching/learning professional terminology. Our experiment showed that interactive teaching/learning was an effective means for extending vocabulary range of students. Nobody can object that vocabulary is of major importance for ESP learners, because knowledge of it and the ability to process certain vocabulary storage allow them to retrieve and properly comprehend information from professional texts after reading and/or listening, to express their thoughts both in oral and written forms when interacting and communicating with specialists (native and non-native speakers). That is why we recommend using interactive performance in class for enhancing vocabulary development and enrichment; propose applying effective strategies for acquiring skills in using words proper to the context and communicative situation. Consequently, this paper also contributes to numerous studies in the field of teaching/learning vocabulary, in particular, a special terminology for future economists. It may be reasonably inferred that ESP vocabulary teaching/learning must be conducted with interaction which provides meaningful professionally oriented communication in class. Participating in different activities, such as role-plays, simulations, discussions, etc., being involved in close-to-real communication, based on the materials from authentic texts for reading and/or listening,

having strong motivation for multiple repetition of new words in different contexts, students can acquire professional terminology and form their lexical competence.

Taking into account the elaborated theoretical premises and results of our experiment, we submit some practical implications for interactive performance on special vocabulary acquisition by students:

1. Vocabulary knowledge is an inseparable part of mastering foreign language proficiency, so teachers should concentrate their efforts on creating conditions for using interactive means of teaching vocabulary. Students must be motivated to master lexical material in interactive forms of work by facilitating vocabulary learning, giving guidance how to enrich vocabulary range, involving students into creating their style of learning by means of different educational strategies mentioned above.
2. Implicit teaching vocabulary with the help of role-plays, simulations, projects, case studies, discussions of professionally oriented texts and elaborated communicative situations has proved to be more effective than explicit teaching vocabulary.
3. The process of vocabulary development can be enhanced if the teacher encourages free exchange of students' opinions, if there is a friendly and business-like atmosphere in the classroom environment, if there is a mutual respect and trust. A student must be in the center of educational process, which means being a partner of the teacher, his/her supporter and also a kind of consultant in case of ESP teaching.
4. The success of vocabulary acquisition can be achieved if students are properly motivated, which is possible if they believe that their professional needs have been studied and taken into account while elaborating working programs, selecting studying materials or textbooks, compiling lists of words and phrases typically used in their branch of training. Students must be confident that what they are learning now, especially lexical input, will be necessary for their future work.
5. The last but not least is a proper use of the affluent studying resources and technical means, such as Internet, Skype, e-mail, and plenty of others. Such technologies can engage students' interests, provide excellent opportunities for individual, cooperative and class activities with vocabulary, and also allow to evaluate, monitor and regulate the process of using language material for communicative purposes.

Thus in our research we have formulated theoretical foundations for the methodology of teaching students economic terminology with the help of interactive techniques, which can be applied both in class and out of class activities. Based on the findings, it is possible to conclude that interactive teaching/learning techniques help students to gain experience in using economic terminology through context, and their knowledge of special terminology is a necessary precondition for applying it into practice while communicating. It is recommended that other factors, such as socio-cultural peculiarities of economic discourse and its influence on students' lexical competence formation require further research.

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