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The Psycholinguistic Standpoints in English Speech Activity

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Abstract: *The correlation between English speech activity and psycholinguistic standpoints of foreign language learning has been shown as well as the empirical analysis of their connection has been conducted. The purpose of the article is to identify the correlation between English speech activity and psycholinguistic standpoints. The theoretical, empirical, statistical methods have been used to reach the purpose. To check the effectiveness of applying psycholinguistic principles to English speech activity the empirical (diagnostic) methods such as testing (oral and written), observation, and discussion were used. The pedagogical experiment with the students of H.S.Skovoroda Kharkiv National Pedagogical University and Yaroslav Mudryi National Law University was also conducted. The pedagogical experiment showed the effectiveness of developing English speech activity based on the psycholinguistic standpoints. The statistical methods helped to evaluate the results of the pedagogical experiment. Apprehending the correlation between psycholinguistic standpoints and English speech activity (Speaking, Reading, Listening, and Writing) training is really topical since it helps to define the most effective methods of the foreign language teaching and learning. The psycholinguistic components (motivational and cognitive, analytical and technological, reflexive, emotional and evaluation ones) have been described from the standpoint of psycholinguistics. All types of English speech activity have been researched as for their correlation with psycholinguistic components.*

Keywords: *English speech activity; Speaking, Reading, Listening, and Writing; psycholinguistic standpoints; foreign language learning; students.*

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1. Introduction

As it is known, neuroscience is an interdisciplinary field of study for neural processes. Neuroscience includes a number of areas such as cognitive science, computer science, linguistics, medicine, psychology etc. The development of neuroscience creates new subdisciplines such as neurocommunications, neurolinguistics etc.

Neurolinguistics is a branch of psychological and linguistic science that studies the brain mechanisms of speech activity and changes in speech processes; it studies the system of higher mental functions and the correlations between linguistic systems and neurophysiologic violations in a linguistic behavior. Neurolinguistics considers speech as a system function. Neurolinguistics has much in common with psycholinguistics that studies the cognitive mechanisms of a language using theoretical and experimental methods of psychology and linguistics.

Modern psycholinguistics studies many issues: psycholinguistic units of speech perception, stages of generation and comprehension the speech utterance, perspectives on machine translation, problems of human and computer dialogue, aspects of foreign language learning etc. As for our research psycholinguistic problems are studied through the structure of foreign language development and perception as well as the correlation between speech and foreign language acquisition.

Nowadays the globalization process contributes to the study of the English language as an international one. We can see the rapid growth of intercultural contacts in all spheres of our life: a wide variety of intercultural communication situations such as international study, internship, experience exchange, the integration of world scientists, international conferences, international cultural events etc. Thus, learning English as an international language has become a matter of international importance. Therefore, the problems in our study have an international dimension as they show the increasing role of English speech activity.

Development of English speech activity has become one of the most necessary aspects for different languages learning and teaching. However, this appears to be not enough for foreign language instruction as it cannot override the issues of psycholinguistics. So, in order to choose the more effective ways for development of English speech activity it is vital to understand the relationship between its types and psycholinguistics if there is any.

2. Literature review

The research analysis has shown that among scholars the most popular issues are psycholinguistic perspectives of foreign language learning and teaching, they are 'psycholinguistic perspectives on language and its acquisition' by J. Hulstijn (2007); 'psycholinguistic perspectives on comprehension in SLA' (Second Language Acquisition) by P. Karimvand (2011); 'psycholinguistic and sociolinguistic perspectives on second language learning and teaching' by K. Drozdzial-Szelest and M. Pawlak (2013); "psycholinguistic perspectives and contributions of ELL and ELT" (English Language Learning and English Language Teaching) by M. Eghlidi, M. Talebinezhad, and Z. Fard (2017).

Some problems are connected with difficulties of foreign language learning and teaching, a foreign language and its acquisition, a foreign language comprehension. For example, N. Mačianskienė (2011) studied 'developing institutional language policy', focusing on foreign language learning in non-linguistic higher education. R. Oxford et al (2014) determined issues of 'the learning strategy prism: perspectives of learning strategy experts'. A. Flogie, B. Aberšek, and I. Pesek (2019) researched 'the impact of innovative learning environments on social competences of youth' in foreign language learning with information and communication technology.

However, the relationship of English speech activity and psycholinguistics for searching more efficient ways of developing both was not the investigation subject of a wide range of scholars.

The *purpose* of the article is to identify the correlation between English speech activity and psycholinguistic standpoints.

The *tasks* of the paper are 1) to analyze the main types of English speech activity such as Speaking, Reading, Listening, and Writing while a foreign language learning, which correlate with psycholinguistic standpoints; 2) to find out psycholinguistic components connected with speech activity; 3) to check experimentally efficiency of English speech activity (Speaking, Reading, Listening, and Writing) teaching and learning based on its connection with main psycholinguistic components.

3. Methodology

There were three groups of methods used for achieving the purpose and tasks of the research. They are theoretical, empirical and statistical methods. So, among general theoretical methods we have chosen analysis

and synthesis of psycholinguistic, linguistic, psychological and pedagogical literature since they helped to study and describe main types of English speech activity and psycholinguistic components connected with it, as well as to make conclusion not only about their correlation but also about importance of applying this information for effective English speech learning and teaching. The *empirical* (diagnostic) methods, namely testing, observation and discussion were used in the pedagogical experiment where we have been checking the correlation between English speech activity and psycholinguistics in language learning and teaching. The *statistical* methods (such as Student's t-test) were needed to evaluate the experiment results.

4. Results

In order to find a correlation (if there is any) between English speech activity and psycholinguistics we decided to decompose the studied phenomena into components and highlight those that may have common ground. Thus, talking about English speech activity (which is considered as an active, purposeful process of production and perception of words and expressions that is carried out with linguistic means during people interaction in different speech situations) Speaking, Reading, Listening, and Writing must be distinguished (while studying the peculiarities of speech activity training we will pay particular attention to these types).

Firstly, all types of English speech activity are necessary for communication. All the components of psycholinguistics, in general, they are language and speech (Lyons, & Le Page, 1981; Miller, 1990; Sapir, 1921), 'activity and consciousness' (Leontyev, 2009), 'language, thought and consciousness' (Carruthers, 1998), 'language, mind and world' (Steinberg, Nagata, & Aline, 2013) serve for communication purpose. As the main aim of foreign language learning is an ability to communicate, this common feature is significant for our research so we studied it carefully and discovered that from psycholinguistic point of view, communication may include the following components: the motivational and cognitive component, the analytical and technological component, the integrative and personal component, the socio-cultural component, the reflexive component, the emotional and evaluation component. To understand theoretically the correlation between speech activity and psycholinguistics it is offered to analyze some psycholinguistic components.

The motivational and cognitive component, which should be understood both as a set of knowledge about a particular subject and the ways of speech activity that ensure the knowledge application (the latter, in terms of language learning, applies not only to knowledge of speech activity,

communicative units and linguistic clichés, but also to the possibility or impossibility of their use in general, as well as in a specific professionally oriented situation), and as a set of motives and internal conditions that determine, direct and regulate the process of speech activity and communicative interaction. Definitely, it reflects in speaking and writing.

This component, analyzed through the prism of psycholinguistics, is necessary for development socio-cultural, intercultural, professionally oriented foreign language competences and skills, because it provides the quality of speech activity and communicative behaviour. Concerning the connection of the motivational and cognitive component with the psycholinguistic principles of language learning, its interpretation may be understood as an awareness of the ultimate goal of speech activity, an interest in the process of creativity while building a sentence or a statement, the desire for success in speech activity and solving communicative tasks (which should lead to the achievement of professional goals), raising the level of cognitive interests and needs in language learning, the desire to find the additional information, the desire for communication, especially in a team work.

The analytical and technological component is an analysis of the effectiveness of speech activity and communication with a foreign partner, forecasting the possible ways of solving communicative problems and communicative tasks through speech activity while speaking and writing; actualization and productive realization of communication, humanitarian and socio-cultural competences that are relevant to the goals and communicative situations. The analytical thinking is used as well in reading, listening to comprehend both.

The reflexive component involves the purposeful development of individual responsibility for speech activity and actions, the ability to analyze the possible consequences of statements which is especially important for negotiating with foreign partners. It reflects in speaking and writing. The reflexive component also involves the assessment and correction of statements and actions. From psychological and pedagogical standpoints, it can be linked to the development of self-processes, such as self-control, self-examination, and critical self-esteem.

The emotional and evaluation component, which is aimed to developing such personal traits as curiosity, openness in speech activity and communication, critical evaluation of information extracted from speech activity, positive perception of information necessary for comprehension. It reflects in reading and listening. And sometimes emotions are necessary for

speaking and writing for solving communicative problems in speech activity (speech production).

All the described components brought us to another correlation between the researched phenomena.

So, studying correlation between psycholinguistic standpoints and English speech activity two important elements may be taken into consideration. So, from psycholinguistics point of view, speech activity can be apprehended as product or result. Since the product is creation as while speaking or writing and the result is perception as when reading or listening, there is another reflection of the idea of connection between the types of speech activity (through its product and result) and psycholinguistics.

Let us consider the first important element of speech activity such as its product. It is in the product the speech activity is materialized and brought to real life and communication (Adler, Rosenfeld & Proctor, 2001). In psycholinguistics, sometimes instead of the term 'product', the term 'speech utterance' may function (Sadagopan & Smith, 2008). Since the term 'speech utterance' is a fairly widespread concept in psycholinguistics, it is worth noting that in this context the speech utterance may be defined as a finished, ready to use form.

The product of speaking and writing is an utterance (text). If the product of speech activity (such as speaking and writing) is a complete, expanded expression (text), then the speech actions involved in creating that product are separate phrases, sentences, statements, that is, separate utterances in the form of relatively complete communicative logical semantic units. In a text, the whole set of psychological conditions of speech activity and individual peculiarities of its subject are objectified.

The second important element of speech activity is its result. The result of perception activities (reading, listening) is understanding the semantic content of the speech utterance and, accordingly, further subsequent speaking, writing or any other non-speech activity of another participant of speech communication (Marx, Heppt & Henschel, 2017). The result of productive activities (speaking, writing) is the nature of perception of speech by other people.

Speaking about speech activity, on the one hand, it is realized in the field of communication, it influences different psycholinguistic components, provides the language interaction, communication from psycholinguistic standpoints. On the other hand, we interpret it as the combination of "skills or practical language competences which reflect a person's ability to use the foreign language as a tool to adapt to the English language environment and

solve the range of tasks involving the use of a foreign language" (Kostikova et al., 2019).

Therefore, speech activity is the main and universal means of communication between people in the human environment. Thanks to perceptive speech activity, a person acquires social and historical experience. Definitely, it is the main means of perception the world around a person, the prerequisite for person's cognitive activity. Finally, speech activity plays a significant role in person's mental intellectual activity, participating in the processes of cognition, creativity, and all kinds of thinking.

All of the features of speech activity mentioned above and its correlation with psycholinguistic standpoints make it possible, firstly, to take a fresh look at the problem. In particular, speech activity is not just a speech action, speech practice, a process of using the language individually and not communicating in general. This is a very special structural and substantive phenomenon that determines the nature of people interaction in the process of their speech communication. In other words, speech activity performs the function of a purposeful, motivated, active, lively process of receiving or reproducing a message organized by the means such as speech and language in forming and formulating thoughts with the purpose of people communication. Secondly, the theoretical research has helped us to apprehend the importance of equal attention and parallel development of all types of speech activity, not giving preference to any of them. We may suggest that if we follow these ideas our students will acquire better speaking skills and get better academic results.

In order to solve the research task the pedagogical experiment was carried out in H. S. Skovoroda Kharkiv National Pedagogical University and Yaroslav Mudryi National Law University (Kharkiv, Ukraine) in 2018/2019. The groups of 46 third- and fourth-year students, who were attending the additional FCE (Cambridge English: First) preparation course, were investigated in order to develop English speech activity.

The students run some placement tests at the beginning of the experiment including Speaking, Reading, Listening, and Writing, which allowed us to define their level of the main types of English speech activity. After the training course at the end of the experiment the students were tested as well.

Speaking was tested by our own offered proposals. We created a Facebook page to give students speaking tasks; they discussed different pictures in English on that Facebook page. The main tasks were to offer two photos for comparison and questions to them which were expected to be commented by the students. After the students' comments we provided the

model of the answer and gave an analysis of comments, posted the recommended lists of vocabulary for use. Reading, Listening were tested on the computer-based coursebook "Say it! FCE". The computer-based course book "Say it! FCE" allowed us to define students' level in Reading, some tests were done. The computer-based course book "Say it! FCE" allowed us to define students' level in Listening, some tests were done.

The statements of results contained detailed information about the performance of every student, which has given the opportunity of analyzing this data and to determine the best learning strategies to develop speech activity to facilitate the process of learning acquisition. Having obtained the data of students' performance in all main types of speech activity, we managed to compare average scores and to state with some degree of confidence that the obtained difference between the scores of the sample group is big enough to be a chance event, and to define that the difference exists.

Speaking was tested with the evaluation criteria such as complete expression; expanded text; correct speech actions such separate phrases, sentences, statements, utterances; complete communicative units; logical and semantic units.

The most of other evaluation criteria are based on the computer-based course book "Say it! FCE". As for Reading it was tested with the evaluation criteria of different types of texts for reading comprehension. Listening was tested with the evaluation criteria in the computer-based course book as well; the criteria were different types of texts for listening comprehension.

Writing was tested with the evaluation criteria as well. The criteria were a complete text; separate utterances as complete communicative logical semantic units.

The Mean ± Standard Deviation/ Standard Error of the Mean (M ± SD / SEM) are represented as the results. The distribution was normal and confirmed, to define differences between results a t-test for dependent samples was done. The results were analyzed with the licensed Microsoft EXEL computer program. The considerable levels for tests were set at $P \leq 0.05$.

In table 1 it is shown the difference with Mean standing for standard scores for example population, t for t-value measuring the diversity to the difference in the sample data, p for p-value that shows tough evidence against the null hypothesis at the beginning of the course and their performance at the end of the course and overall performance in general.

Table 1. Students' Academic Results at the Course Beginning and its End

Types of speech activity	At the beginning of the course	At the end of the course	Average Progress (%)	t	p
	Mean ± SD	Mean ± SD			
Speaking	164.1 ± 3.8	170.9 ± 5.08	4.1	4.7	≤ 0.001
Reading	163.3 ± 3.9	168.5 ± 4.9	3.2	3.2	≤ 0.01
Listening	162.3 ± 3.46	166.5 ± 2.7	2.6	3.1	≤ 0.01
Writing	162.7 ± 3.16	166.8 ± 3.25	2.5	4.09	≤ 0.001
Overall Performance	163.1	168.18	3.1	–	–

So, the students improved their results in all types of English speech activity as average group progress is 3.1%; the most significant progress has been in Speaking as 4.1%. The progress in Reading has been 3.2%, in Listening it has been 2.6%, the least advance has been in Writing with 2.5%.

5. Limits and Discussions

The research data can be explained by the fact that despite we tried to pay equal attention to all types of speech activity, Speaking and Reading appeared to be the most frequent activities applied in almost all textbooks, all tests. Also Speaking, Reading are done regularly as a part of students' usual class work and homework. To our mind, Listening and Writing were trained unfortunately not so often as Speaking and Reading; moreover, it can be connected to the individual abilities of English speech activity and foreign speech acquisition. Thus, the t-value result ranged from 3.1 to 4.7, the average progress is 3.1%, it lets us state that there is the difference, it is proved statistically by the obtained results.

It is evident the experimental results can be extrapolated for other researchers' data. The results could be in comparison with other competences. For instance, if there is an English speaking environment in students' country, or students travel a lot to the English speaking countries, or communicate a lot with native speakers in English Listening and Speaking results will increase more. If students have a lot of writing and reading tasks, they write a lot of English essays, compositions, write a lot for students'

writing contests in English, read a lot in English, read or write academic English Writing and Reading results will increase more.

So, Speaking, Writing as types of English speech activity are reflected and correlated with motivational and cognitive, analytical and technological psycholinguistic components as well as with reflexive, emotional and evaluation ones. Reading and Listening are correlated with analytical and technological, emotional and evaluation psycholinguistic components, analytical and technological component too. The statement that English speech activity really correlates psycholinguistic points could be of interest for worldwide readers.

6. Conclusions

Thus, the research results allow us to illustrate the conclusions. The English speech activity does correlate psycholinguistic points for language learning as problems of the psycholinguistic basics actualized in all types of English speech activity. The main types of English speech activity such as Speaking, Reading, Listening, and Writing are connected with psycholinguistic components (motivational and cognitive, analytical and technological, reflexive, emotional and evaluation ones), which are directly correlated to the theory of psycholinguistics. The test results at the experiment beginning and at the end approved the development of all types of English speech activity while speech activity (Speaking, Reading, Listening, and Writing) teaching and learning based on its connection with main psycholinguistic components.

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