

## IMPROVING LISTENING COMPREHENSION SKILLS RELYING ON METACOGNITIVE STRATEGIES – FOCUS ON VOCABULARY AND SPECIFIC L2 INSTRUCTION

*Danica Jerotijević Tišma\**

Faculty of Philology and Arts, University of Kragujevac, Serbia

*Abstract.* The present paper aims at investigating the application of an instructional method specifically focused on the expansion of metacognitive awareness and its effect on Serbian EFL students' listening comprehension. The current study is a follow-up research of a similar study by Vandergrift and Tafaghodtari (2010). However, we sought to expand the previous research by investigating the relationship between the students' current level of L2 (target language) vocabulary and listening test scores. Our study likewise differed in the sample of participants, the target language, teaching and testing material used, and the duration of the very experiment. To answer the proposed research questions we conducted an experiment with 57 Serbian secondary school EFL (English as a Foreign Language) learners divided into experimental (n=27) and control group (n=30). The results of the pre- and post-tests of the two groups showed the beneficial effects of developing metacognitive strategies and the strong positive correlation between the level of vocabulary and listening comprehension. The paper underlines important pedagogical implications especially regarding the enhancement of metacognitive awareness and vocabulary proficiency of students in order to improve performance on listening comprehension tasks.

*Key words:* Serbian EFL learners, teaching method, metacognition, listening comprehension, vocabulary acquisition

### INTRODUCTION

The role of listening in everyday communication is undeniable, hence Nunan (1998) referred to it as one of the fundamental language learning skills requiring from listeners to decipher the conveyed meaning from both verbal and non-verbal cues. However, EFL students are often reluctant to take part in listening comprehension tasks for various reasons, which frequently causes lack

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\* E-mail: danica.jerotijevic.tisma@kg.ac.rs

of motivation, anxiety and, eventually, poor performance (Goh, 2000; Ghaderpanahi, 2012). Teachers are advised to vary authentic listening comprehension practice material and allow students to listen to songs, radio channels or watch TV shows and movies. However, the suggestions frequently disregard the accompanying strategies for teachers to explain to students, that could facilitate listening and follow-up tasks (Dey, 2014). Although studies found that language understanding is constant regardless of the chosen skill, (e.g. reading or listening since they are typically correlated in a mother tongue), L2 investigations concluded that there was a difference in comprehension in reading and listening tasks, therefore they are often explored separately (Lund, 1991).

Potential sources of problems for EFL learners regarding listening can stem from the inability to comprehend what is said, which may be the result of the quality of the recording, or the speed of talking of interlocutors (Atkins, Hailom & Nuru, 1995). Further causes for miscomprehension can be found in unfamiliarity with non-native speakers' accented speech, or with the particular variety of the native speakers (Derwing & Munro, 1997). Acquisition of suprasegmental features of L2 likewise facilitates understanding and the processing of information (Van Duzer, 1997).

### VOCABULARY PROFICIENCY AND LISTENING COMPREHENSION

One of the most frequent causes of students' anxiety related to performing tasks of listening comprehension, however, is the unfamiliar vocabulary (Hu & Nation, 2000). Even if they are not familiar with the given topic of the recording, students are reported to perform better if the vocabulary is well-known. Furthermore, students tend to focus on translating individual words instead of concentrating on the general idea of the recorded dialogues or discussions.

Papers exploring the effect of vocabulary proficiency on listening comprehension focused on both the breadth and depth of vocabulary knowledge (Nation, 1990), and showed that both aspects have significant roles in predicting listening comprehension test scores (Staehr, 2009). The breadth of vocabulary knowledge is related to the actual number of words known to some extent, while the depth is described by how well the various aspects of the meaning of the word are known.

English Language Teaching (ELT) methodology research in the world abounds in papers dealing with the relationship between target language vocabulary and listening comprehension, and it is claimed that vocabulary proficiency has an integral role in determining success on listening comprehension tasks (Kelly, 1991). Moreover, a multitude of papers explored the effects of raising metacognitive awareness in order to enhance listening comprehension skills (Field, 1998; Mendelsohn, 1995). Nevertheless, the situation is dif-

ferent regarding the number of papers investigating similar topics in Serbian scientific context, hence the present paper aims at further contributing to the field by providing possible insights into the correlation between vocabulary size and listening comprehension scores, as well as discovering whether a specially designed instruction could affect students' metacognitive awareness and the actual performance on listening comprehension tests.

Our study represents a follow-up research to a study by Vandergrift and Tafaghodtari (2010) which showed that the instruction related to metacognitive awareness could significantly enhance final listening comprehension performance. It likewise drew attention to the fact that skill-focused instruction could improve overall metacognitive awareness. The study further demonstrated that less proficient students would benefit more from acquiring metacognitive skills than the more proficient ones. Although the original study was dealing with similar issues, it differs from the current study in many respects, such as the proficiency level of participants, the target language they study, teaching and testing material, and the time span of the experimental period. Moreover, the present paper provides additional insight into the relationship between vocabulary level and listening comprehension skills. Hence, the current investigation does not represent a replica of the previous study on a different sample, but can be regarded as a continuation of the research in the similar field.

## METACOGNITIVE STRATEGIES AND LISTENING COMPREHENSION

Being able to control one's own mental processes while learning is one of the crucial skills teachers can equip their students with. Hence, scholars recommend that EFL teachers focus, not only on language learning and practice, but on the development of metacognitive strategies, as well (Anderson, 2002). The concept 'metacognitive knowledge' refers to the knowledge and control of personal cognitive and emotional states for the purpose of achieving a desired goal (Flavell, 1979), and 'metacognitive strategies' represent specific methods by which learners facilitate and understand what they learn, or think about their own thinking (Roberts & Erdos, 1993). Once internalized, metacognitive strategies can even compensate for the lack of knowledge in certain situations, which is particularly useful when it comes to listening comprehension (Schraw, 1994). Furthermore, the acquired strategies can be transferred to various aspects of life outside the classroom. Teaching metacognition is not a simple process, hence teachers are often advised to provide multiple opportunities for students to implement the required metacognitive strategies, so that they can adopt them to the point of automaticity. Teacher's feedback and monitoring is essential along the way.

When it comes to the application of metacognitive strategies in L2 teaching and learning, Cohen *et al.* (1996) found that metacognitive awareness

significantly improved speaking competence in the target language. Moreover, another study reported on the beneficial effects of metacognition on writing and on developing learners' autonomy and independence of the teacher (Macaro, 2001). The development of metacognitive strategies is likewise said to improve reading comprehension skills (Wenden, 1998; Zhang, 2008). McGruddy (1995) pointed to the beneficial effects of teaching metacognitive strategies on listening comprehension tests performance, and Thompson and Rubin (1996) likewise noticed improvement in listening comprehension within the group receiving metacognitive strategies instruction.

In the process of listening comprehension instruction, students should strive to develop the necessary strategies to direct their attention, comprehension, and ultimately correct responses (Vandergrift, 2003). The use of metacognitive strategies should help students learn how to think about their own thinking and restore lost attention (Oxford, 1990). Furthermore, the enhancement of metacognitive awareness could help students integrate the knowledge they receive and already possess, increase their self-confidence and willingness to share thoughts with partners and teachers, evaluate their own learning and analyze the mistakes they make throughout the tasks (Wenden, 1998).

## METHODOLOGY

*Aim and Rationale of the Current Study.* The principal aim of the present study was to determine the effect of a specifically designed instructional method for improving listening comprehension of Serbian EFL learners, based on the enhancement of metacognitive awareness. The instructional method was supposed to focus on metacognitive strategies deemed useful for facilitating better scores on listening comprehension tasks. Furthermore, the study aimed at investigating the actual effect of the students' current vocabulary level on L2 listening comprehension skills. The study represents an expanded follow-up research of a previously mentioned study by Vandergrift and Tafaghodtari (2010).

*Research Questions.* Taking the proposed goals into consideration, the present study was concentrated on the following research questions:

- What is the current state of metacognitive awareness of Serbian secondary school EFL learners, i.e. how familiar are the students with the metacognitive strategies that can be employed for improving listening comprehension skills?
- Can an instructional method focused on enhancing metacognitive strategies benefit the students' listening comprehension performance? Does the instructional method actually affect their metacognitive awareness?
- Is there a statistically significant correlation between students' attained vocabulary level and their performance on listening comprehension tasks?

*Participants.* A total of 57 third-year secondary school EFL students from “Svetozar Markovic” grammar school in Jagodina, divided into the experimental (n=27) and control group (n=30), participated in the study. The students were actually divided into the two groups because these were their regular school groups for attending English classes and they all agreed to take part in the experiment receiving course credit for participation. At the beginning of the school year the students underwent diagnostic testing of grammar<sup>1</sup>, with the majority scoring intermediate, yet there were also students who performed as upper-intermediate and lower-intermediate. Before the experiment we compared the scores on students’ grammar tests for the sake of eligibility and to make sure the students were on equal terms before the beginning of the treatment. The independent samples t-test showed no statistical difference, whatsoever ( $p=0.8674$ ,  $t=0.1677$  st. error of difference=3.158). The sample descriptives including the results of grammar diagnostic testing are shown in Table 1. Judging by the everyday classroom experience, students were reluctant to take part in listening comprehension tasks, usually avoided them and scored poorly.

*Table 1: Descriptive Statistics for the Sample of Participants*

| Age           | Gender               | Number of Classes Per Week | Grammar Proficiency Level  |
|---------------|----------------------|----------------------------|--|
| Mean<br>17.61 | Male 32<br>Female 25 | 2 (lasting for 45 min.)    | Lower Intermediate 17 (29.82%)<br>Intermediate 30 (52.63%)<br>Upper Intermediate 10 (17.54%) |

*Instruments.* The nature of the research required several different sources of materials – both for the instruction, i.e. experiment, and for the testing. Materials used for the experiment were taken from the listening sections in the students’ textbook (Gude, Wildman & Duckworth, 2006) and the adapted online material from various sources. Most of the sample listening comprehension tests were taken from the websites designed for the preparation for the Cambridge FCE (First Certificate in English) level exam.

The students’ metacognitive awareness was measured using a specially designed Metacognitive Awareness Listening Questionnaire (MALQ) (Vandergrift, Goh, Mareschal & Tafaghodtari, 2006). The questionnaire contained 21 statements related to L2 listening comprehension revolving around five factors describing metacognitive strategies related to listening comprehension: (a) planning and evaluation, (b) problem solving, (c) directed attention, (d) mental translation and (e) person knowledge (Vandergrift & Tafaghodtari, 2010). Planning and evaluation is related to the preparation

<sup>1</sup> Oxford Practice Grammar Diagnostic test was taken from a CD-ROM accompanying the grammar practice book (Eastwood, 1999).

for the listening tasks and problem solving deals with how to cope with the messages that are not understood well. Directed attention is the factor that focuses on students' concentration and ability to direct their listening attention, and mental translation represents the ability to mentally translate in the most economical way possible. Finally, person knowledge is the factor dealing with students' preferred way of learning, the perceived success and difficulties related to listening comprehension. The answers to the statements are 6-point Likert scale categories ranging from strongly disagree (1) to strongly agree (6). The pre- and post-tests of listening comprehension were taken from an official FCE level sample test for listening comprehension<sup>2</sup>, and the level was chosen as appropriate because the students were at the end of their school year finishing with the textbook designed for intermediate level, i.e. recommended for B1-C1 levels of the Common European Framework of Reference (Gude, Wildman & Duckworth, 2006). Additionally, the students practised sample listening comprehension tests at the same level during the experimental period. The listening comprehension test contained 30 questions lasting for 40 minutes, and 1 mark was awarded for each correct answer. There were four sections in the listening test: multiple choice about the samples of conversations or monologues, sentence completion related to a monologue, multiple matching and multiple choice related to the conversation between two or more people. The topics were taken from answer phone messages, radio broadcasts, news, public announcements, stories, lectures or interacting speakers, etc. Two different tests were used for pre- and post-tests to avoid invalid results due to the familiarity with the test questions. Before the beginning of the experimental period all the students performed vocabulary level diagnostic testing (Laufer & Nation, 1999) and the scores on the vocabulary test were compared to the scores on the pre-tests for listening comprehension for both groups of participants to determine whether there is a correlation between students attained vocabulary knowledge and listening comprehension skills. The vocabulary test lasted for 45 minutes and the students scoring below 83% for each of the suggested levels were placed in the lower vocabulary range. There were three groups of students based on their performance on vocabulary tests below 2000, 2000–3000, and above 3000 words group.

*Procedure.* The experimental period lasted for five weeks (two times a week in 20/30-minute sessions) and it occurred during the last two months of the second term of the 2009/2010 school year, more precisely, it was the end of the students' third year. The experimental group underwent the listening instruction focusing on enhancing students' metacognitive strategies as recommended by Vandergrift and Tafaghodtari (2010), whereas the control group listened to the same texts and performed the same tasks, however, without any instruction pertaining to metacognitive awareness. At the beginning of

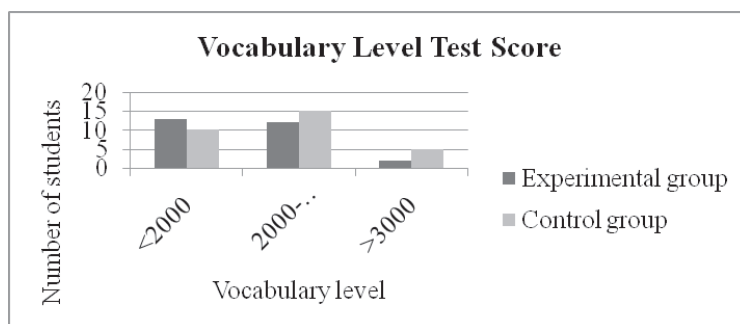
<sup>2</sup> Sample tests are available at <http://www.cambridgeenglish.org/exams/first/>.

each listening session students from the experimental group were instructed to brainstorm on the ideas related to the listening topic both with peers and, eventually, on their own. The predictions were followed by discussions in pairs or groups related to the accuracy of their predictions after they heard the recording for the first time. The students were likewise asked to expand their lists of predictions and to mark the areas they need to pay special attention to during the second listening to the recording. The second listening allowed students to correct and add more information to their answers and it was also the time for the instructor to enter the discussion related to the given answers and queries. The third listening was enabled for completing the tasks and misheard answers. In the final tasks the students had to write down personal observations and opinions about the activities and to note the strategies they were to implement next time. The author of the paper was the participants' regular English school teacher at the time and the instructor for the experimental period, thus avoiding students' inconvenience and reluctance to participate due to the unfamiliarity with the instructor. The time devoted to the experimental period was shorter than in the aforementioned study due to the curriculum requirements and limitations. The chosen material was different from the original study, as well, because it was adapted to the proficiency level and interest of the current sample of participants. All the students were tested before the experiment for vocabulary level, metacognitive awareness and listening comprehension using the previously described testing instruments. The collected results were later quantitatively and qualitatively analyzed.

*Statistical Data Processing.* The descriptive statistics, percentage counts, correlations, 2x2 repeated measures ANOVA and t-testing were performed using a statistical software SPSS version 20.0.

## RESULTS AND DISCUSSION

Before the beginning of the experimental period we sought to determine whether the attained vocabulary level correlated with and significantly affected the performance on listening comprehension tests, hence we tested the students and performed statistical analysis of the obtained results (Graph 1).

*Graph 1: Results of Vocabulary Level Testing*

Vocabulary testing showed alarming results for EFL teachers since only 12.3% achieved vocabulary proficiency above 3000 words. Of course, the testing design might have caused the outcome, nonetheless, students were expected to score higher. The situation may have arisen from the fact that students usually study before the actual test, hence their vocabulary or grammatical knowledge is not constant. Furthermore, the results may point to the previous teachers' teaching approaches oriented towards teaching grammar and paying less attention to vocabulary. Having in mind the suggestions from previous research that about 2000-3000 vocabulary range is necessary for successfully completing listening comprehension tasks (Zeeland & Schmitt, 2013), or the higher 6000-7000 words range proposed by Nation (2006), our results seem discouraging. Even if we disregard the previous and accept Laufer's observation that the actual high-school students' vocabulary range is from 1000-4000 (Laufer, 2000), it goes without saying that our students need to work on their vocabulary proficiency.

The results of Pearson correlation statistical test ( $r=0.909$ ;  $p=0.001$ ) showed strong positive correlation between the level of vocabulary and listening comprehension scores, i.e. the higher the vocabulary level the higher the score on listening comprehension tests. Consequently, vocabulary level can be regarded as a significant factor affecting the listening comprehension test scores, which is logical in a way, since extensive vocabulary knowledge can facilitate understanding of the listening samples and decrease students' anxiety regarding the potential misinterpretation of the messages, or individual words and phrases. Our results agree with the previous studies investigating the effect of vocabulary on listening comprehension (Kelly, 1991; Staehr, 2009).

Having the interrelationship between vocabulary level and listening comprehension scores in mind, we tested the experimental and control group for the differences in attained vocabulary level to make sure that the two groups were similar in performance before the beginning of the experimental treat-



ment. The independent samples t-test showed no statistical significance whatsoever in the vocabulary level achievements ( $p=0.18$ ;  $t=1.355$ ;  $df=55$  st. error of difference 0.178). The results obtained in our study point to the importance of emphasizing the expansion of vocabulary in everyday EFL classrooms, by perhaps increasing the number of activities related to vocabulary enhancement and providing different sources and modes of practice, since it can be beneficial, not only for successful completion of demanding tasks, such as listening comprehension, but to the development of overall communicative competence, as well.

Considering the fact that listening comprehension notoriously represents a demanding skill for Serbian EFL learners and students are often unwilling to participate, we attempted at providing a possible explanation by estimating the implementation of metacognitive strategies designed to facilitate L2 listening comprehension. Therefore, we conducted a questionnaire with the participants before and after the experimental period, firstly, to measure the actual metacognitive awareness of the students, and secondly, to investigate whether the applied instructional method could have positive impact on the enhancement if metacognitive awareness among students in the experimental group. For the sake of clarity, the mean scores of students' answers to the items in the questionnaire are presented in Table 2 as a whole, without separately regarding the two groups since we wanted to obtain the entire image of students' metacognitive awareness. A more detailed account with the individual factors of the questionnaire analyzed and discussed will be presented in the ensuing segments of the paper.

*Table 2: Results of the Questionnaire Related to Metacognitive Awareness*

| Statement  | Pre-test   |                    | Post-test  |                    |
|--|------------|--------------------|------------|--------------------|
|  | Mean score | Standard deviation | Mean score | Standard deviation |
| 1. Before I start to listen, I have a plan in my head for how I am going to listen.                  | 1.91       | 1.11               | 3.07       | 1.55               |
| 2. I focus harder on the text when I have trouble understanding.                                     | 4.08       | 1.34               | 4.70       | 1.22               |
| 3. I find that listening in English is more difficult than reading, speaking, or writing in English. | 3.44       | 1.00               | 3.79       | 1.06               |
| 4. I translate in my head as I listen.   | 4.60       | 1.36               | 4.35       | 1.59               |
| 5. I use the words I understand to guess the meaning of the words I don't understand.                | 3.40       | 0.82               | 3.68       | 1.23               |

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|  |      |      |      |      |
|--|------|------|------|------|
| 6. When my mind wanders, I recover my concentration right away.  | 2.07 | 0.68 | 2.18 | 0.91 |
| 7. As I listen, I compare what I understand with what I know about the topic.  | 3.42 | 1.07 | 3.96 | 1.43 |
| 8. I feel that listening comprehension in English is a challenge for me.   | 4.75 | 1.18 | 4.47 | 1.34 |
| 9. I use my experience and knowledge to help me understand.  | 4.02 | 0.83 | 4.96 | 1.02 |
| 10. Before listening, I think of similar texts that I may have listened to.  | 2.46 | 1.02 | 3.63 | 1.22 |
| 11. I translate key words as I listen.   | 4.32 | 1.21 | 4.89 | 1.41 |
| 12. I try to get back on track when I lose concentration.  | 3.04 | 1.05 | 4.21 | 1.56 |
| 13. As I listen, I quickly adjust my interpretation if I realize that it is not correct.                                   | 1.68 | 0.98 | 2.72 | 1.31 |
| 14. After listening, I think back to how I listened, and about what I might do differently next time.                      | 1.74 | 0.74 | 2.88 | 1.79 |
| 15. I don't feel nervous when I listen to English.   | 2.72 | 1.16 | 3.79 | 1.18 |
| 16. When I have difficulty understanding what I hear, I give up and stop listening.  | 4.33 | 0.97 | 3.67 | 1.60 |
| 17. I use the general idea of the text to help me guess the meaning of the words that I don't understand.                  | 2.40 | 0.70 | 3.54 | 1.44 |
| 18. I translate word by word, as I listen.   | 4.18 | 1.18 | 3.04 | 1.51 |
| 19. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense. | 1.84 | 1.22 | 2.56 | 1.48 |
| 20. As I listen, I periodically ask myself if I am satisfied with my level of comprehension.                               | 2.32 | 0.78 | 2.37 | 1.26 |
| 21. I have a goal in mind as I listen.   | 2.21 | 0.53 | 2.68 | 1.34 |

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Overall, students in both groups showed notable deficiency of metacognitive awareness, which is especially evident from the results of the pre-test. Namely, students were not familiar with the strategies related to planning and evaluation (statements 1, 10, 14, 20, 21), i.e. they did not plan how they were going to listen or have any goals set, or how to relate what they were listening to what they already knew. The situation was similar with problem solving (5, 7, 9, 13, 17, 19), yet slightly more favorable probably due to the previous instruction that was similar for other skills. The strategies related to how to approach the understanding of the meaning of the recordings, whether to search for the meanings of individual words and phrases, or the meaning of the listening sample as a whole, seemed to pose the greatest challenge for our participants. Directed attention (2, 6, 12, 16), i.e. knowing how to recover lost concentration, or how to keep their minds set on a particular task proved to be an important factor presenting difficulty for our students, which is one of the commonest problems for teachers at secondary schools, due to students' age and related lack of interest and rebellious behavior. Mental translation (4, 11, 18) was a problematic factor for those students who reported to be translating each individual word from the listening sample. Finally, person knowledge (3, 8, 15) was one of the factors directly related to students' motivation and self-confidence, and it showed that the students from our study found listening to be one of the most demanding language skills, and regarded it as a challenge and the source of anxiety, which is an important implication for teachers to work on overcoming the issues related to anxiety and reluctance towards listening comprehension, possibly by altering the activities, providing more interesting and relatable topics, perhaps even changing personal attitude towards teaching listening, if necessary.

Table 3 shows the results of independent samples t-testing for each of the factors from the questionnaire. There was no statistically significant difference in the responses between the two groups before the experimental period for either of the factors described by the statements in the questionnaire ( $p > 0.05$ ). This means that the experimental and control group did not differ in terms of the employment of metacognitive strategies before the experimental treatment.

*Table 3: Pre-test and Post-test Mean Scores for Both Groups and T-testing Results for Factors Underlying the Survey Questions*

| Factor              | Experimental G. Mean Score |      | Control G. Mean Score |      | T-test Results Pre-experimental  | T-test Results Post-experimental                        |
|---------------------|----------------------------|------|-----------------------|------|--|---|
|                     | Pre                        | Post | Pre                   | Post |  |   |
| Planning/evaluation | 2.08                       | 3.74 | 2.17                  | 2.19 | p=0.73<br>t=0.358<br>df <sup>3</sup> =9<br>SD <sup>4</sup> =1.17<br>s.e.o.d. <sup>5</sup> =0.229 | p=0.68<br>t=2.111<br>df=9<br>SD=0.014<br>s.e.o.d.=0.572 |
| Problem Solving     | 2.59                       | 4.14 | 2.75                  | 3.02 | p=0.74<br>t=0.337<br>df=10<br>SD=1.096<br>s.e.o.d.=0.559   | p=0.05<br>t=2.165<br>df=10<br>SD=0.19<br>s.e.o.d.=0.523 |
| Person Knowledge    | 3.51                       | 4.27 | 3.76                  | 3.73 | p=0.79<br>t=0.282<br>df=5<br>SD=0.54<br>s.e.o.d.=0.887   | p=0.22<br>t=1.449<br>df=5<br>SD=0.02<br>s.e.o.d.=0.377  |

<sup>3</sup> An abbreviation for degrees of freedom.

<sup>4</sup> An abbreviation for standard deviation.

<sup>5</sup> An abbreviation for Standard Error of Difference.

| Factor             | Experimental G.<br>Mean Score |      | Control G.<br>Mean Score |      | T-test Results<br>Pre-experimental                     | T-test Results Post-experimental                        |
|--------------------|-------------------------------|------|--------------------------|------|--|---|
|                    | Pre                           | Post | Pre                      | Post |  |   |
| Directed Attention | 3.31                          | 3.95 | 3.42                     | 3.45 | p=0.88<br>t=0.152<br>df=7<br>SD=0.45<br>s.e.o.d.=0.723 | p=0.62<br>t=0.524<br>df=7<br>SD=0.02<br>s.e.o.d.=0.963  |
| Mental Translation | 4.5                           | 3.96 | 4.23                     | 4.21 | p=0.78<br>t=0.297<br>df=5<br>SD=0.38<br>s.e.o.d.=0.842 | p=0.25<br>t=1.337<br>df=5<br>SD=0.014<br>s.e.o.d.=0.202 |

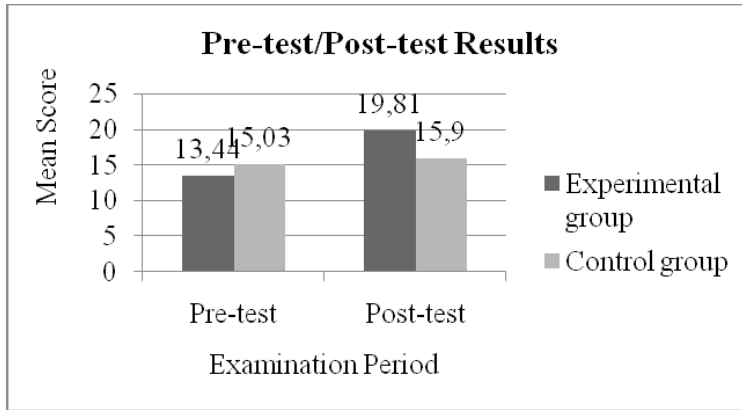
When it comes to the comparison of the results of the two groups on post-test examinations, we notice an almost statistically significant difference in the problem solving section ( $p=0.05$ ), which means that the experimental group improved their metacognitive strategies related to the problem solving factor, as opposed to the control group in which we notice negligible improvement. Furthermore, even though we did not find actual statistical significance, we notice that the  $p$  value is relatively close to the statistically significant range, especially for mental translation and person knowledge factors, which reflects the beneficial effect of the experimental treatment. The difference is even more evident if we take each individual statement into consideration, however, having in mind that certain statements are altogether related to the particular factor, we did not want to regard them exclusively. The fact that the applied instructional method leads to even this slight improvement in the implementation of metacognitive strategies after a relatively short period of time such as five weeks, may serve as an incentive for EFL teachers to attempt at implementing the method more often in everyday classrooms, since it could potentially help students cope with the difficulties related to how to approach listening comprehension exercises. The ability to apply metacognitive strategies in a way that would facilitate understanding of the recordings could be useful, since it could result in successful completion of the tasks.

One of the fundamental research questions of the present paper was whether the instructional method focusing on the enhancement of metacognitive strategies could positively affect listening comprehension performance. Thus we conducted the required testing before and after the experiment actually occurred, and the results of the tests are presented in Table 4 and Graph 2, for the sake of clarity.

*Table 4: Results of Pre-test and Post-test Listening Comprehension Examinations (2x2 repeated measures ANOVA)*

| Testing   | Experimental Group | Control Group | Repeated Measures ANOVA Results  |
|-----------|--------------------|---------------|--|
| Pre-test  | Mean 13.44         | Mean 15.03    | Wilk's Lambda=0.317 F<br>(1,55)=118.390<br>p=0.005<br>partial $\eta^2=0.683$ observed<br>power=1.0 |
|           | Min. 5             | Min. 5        |  |
|           | Max. 28            | Max.27        |  |
|           | SD 5.18            | SD 5.99       |  |
| Post-test | N=27               | N=30          |  |
|           | Mean 19.81         | Mean 15.9     |  |
|           | Min. 12            | Min. 7        |  |
|           | Max. 26            | Max.27        |  |
|           | SD 4.22            | SD 5.37       |  |
|           | N=27               | N=30          |  |

Graph 2: Results of Pre-test and Post-test Listening Comprehension Examinations



To ensure the validity and eligibility of the two groups undergoing the experiment, we conducted initial listening comprehension pre-test and the results showed that the difference in performance between the experimental and control groups was not statistically significant, even though we noticed a slightly higher mean score within the control group.

Having assured that the assumptions necessary for performing repeated measures ANOVA were not violated, including the test of sphericity ( $p=0.005$ ; Mauchly's  $W=1.002$ ), we obtained the results of repeated measures ANOVA with pre- and post-test scores coded as within factor variables, and control and experimental groups as 2-level between factor variables.

Comparing the results of the two groups after the five-week experimental period, in which the experimental group received the instruction relying on the enhancement of metacognitive awareness and control group only received traditional listening comprehension practice without any practical guidance, we detected statistically significant interaction (Wilki's  $\Lambda=0.317$ ;  $F=118.390$ ;  $p<0.05$ ) with large effect size (partial  $\eta^2=0.683$  observed power=1.0, which means that 68.3% of variance can be accounted for by instructional intervention) and considerable improvement related to the experimental group (pre-test 13.44 mean score as opposed to 19.81 in the post-test). The control group exhibited slight improvement, yet imperceptible in relation to the experimental group. Pairwise comparisons (adjustment for multiple comparisons: Bonferroni) confirm the statistical significance of the difference between control and experimental groups ( $p=0.002$ ; st. error=0.333). Accordingly, we can conclude that the difference in scores was not due to mere chance, but due to the effectiveness of the implemented instructional method. The obtained results mostly agree to the conclusions from the previous studies (McGruddy, 1995; Vandergrift & Tafaghodtari, 2010).

## CONCLUSION

The results of the current study showed beneficial effects of the implemented instructional method on the improvement of listening comprehension test scores, as well as on the enhancement of metacognitive awareness of the experimental group students after only five weeks of training. Moreover, the study demonstrated statistically significant positive correlation between vocabulary knowledge and listening comprehension performance. The findings thus confirmed previous conclusions (Kelly, 1991; Staehr, 2009; Vandergrift & Tafaghodtari, 2010) underscoring several important pedagogical implications. Namely, having in mind that the increase in vocabulary leads to better performance on listening comprehension tasks, teachers should emphasize the importance of vocabulary learning and introduce novel and attention grabbing activities and include materials that would provide opportunities for vocabulary expansion. The results likewise indicate important pedagogical implications for Serbian secondary school EFL classrooms especially. Having in mind that the implementation of instruction focusing on the development of metacognitive awareness proved to be effective based on the findings in our study, more frequent application in everyday EFL classrooms is advised in order to avoid listening comprehension anxiety and reluctance, as well as to improve students' actual performance on the tasks in question. Even the group with lower scores could presumably benefit from this type of instruction and surpass the achievement of the group with initially higher marks. This is especially important motivation-wise since it does not discourage the under-achievers, but does exactly the opposite. Further research is necessary to estimate whether students with higher scores implement metacognitive strategies more frequently than the students with lower scores on listening comprehension tests, so that we could confirm the findings of some previous studies (Chamot, 2005) with more reliability.

Taking the results of our study into consideration, the ones related to the effect of the applied instructional method on listening comprehension improvement especially, working on the enhancement of metacognitive awareness of students may lead to the increase of motivation and self-confidence, and eventually higher scores on listening comprehension tasks. Further research dealing with the differences in the implementation of metacognitive strategies between higher and lower level students is necessary to reach more reliable conclusions. Hence, the possible limitations of the present study may lie in the short time devoted to the actual experiment and the number of participants, yet we were bound by the school curriculum requirements and time limitations. Perhaps longer time devoted to the enhancement of metacognitive awareness would have yielded more positive results related to students' implementation of the required strategies. Even though the groups had the same number of classes per week and underwent the same curriculum, there are certain intervening factors that should be taken into consideration as pos-



sible limitations. Namely, the difference between the groups might have resulted from the general motivational issues among the participants, as well as language learning attitudes and outside school language experience. Future research might investigate and control these factors.

Future research may focus on establishing and comparing the preference of metacognitive strategies used by more and less proficient students, perhaps even expanding the list of existing strategies by a newly introduced factor specific for Serbian EFL learners, that might be defined after a specific survey on, e.g., Serbian EFL learners' cultural and historical awareness.

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УНАПРЕЂИВАЊЕ ВЕШТИНЕ СЛУШАЊА УПОТРЕБОМ  
МЕТАКОГНИТИВНИХ СТРАТЕГИЈА СА ПОСЕБНИМ ОСВРТОМ  
НА ВОКАБУЛАР И СПЕЦИФИЧНУ НАСТАВУ СТРАНОГ ЈЕЗИКА

*Даница Јеротијевић Тишма*

Филолошко-уметнички факултет, Универзитет у Крагујевцу, Србија

*Апстракт*

У раду се испитује ефекат примене посебно осмишљеног наставног метода, који се базира на ширењу метакогнитивне свести ученика, на успешност размевања слушаног говора на страном, у нашем случају, енглеском језику. Истраживање је инспирисано сличном студијом Вандергрифта и Тафаготаријеве (Vandergrift & Tafaghodtari, 2010), али смо дато истраживање проширили додатним испитивањем односа познавања вокабулара циљног језика и успеха на тестовима слушања. Наш рад се такође разликује и по одабраном узорку, нивоу постигнућа испитаника и коришћеном материјалу за наставу и тестирање. Како бисмо одговорили на постављена истраживачка питања, спровели смо експеримент у коме је учествовало 57 ученика средње школе који су били подељени у две групе: експериментална (n=27) и контролна (n=30) група. Експериментална група је похађала наставу слушања према препорукама из наведене студије у трајању од пет недеља. Упоредени и анализирани резултати спроведених претестова и пост-тестова показују позитивне ефекте наставе која инсистира на развијању метакогнитивних стратегија, као и статистички значајну позитивну корелацију нивоа вокабулара и постигнућа на тесту размевања слушањем. У закључку се указује на педагошке импликације истраживања које се односе на повећање нивоа метакогнитивне свести ученика из Србије који уче енглески језик, као и на чињеницу да је неопходно проширивати вокабулара како би се успешније обављали задаци и тестови разумевања слушањем.

*Кључне речи:* ученици из Србије, енглески као страни језик, наставни метод, метакогниција, размевање слушањем, усвајање вокабулара.

УСОВЕРШЕНСТВОВАНИЕ УМЕНИЙ АУДИРОВАНИЯ  
ПРИ ПОМОЩИ МЕТАКОГНИТИВНЫХ СТРАТЕГИЙ С ОСОБЫМ  
УЧЕТОМ СЛОВАРНОГО ЗАПАСА И СПЕЦИФИЧЕСКОГО ОБУЧЕНИЯ  
ИНОСТРАННОМУ ЯЗЫКУ

*Даница Еротиевич Тишма*  
Филологический и факультет художеств,  
Крагуевацкий университет, Сербия

*Аннотация*

В работе исследуется эффект применения особо осмысленного учебного метода, базирующегося на расширении метакогнитивного сознания учащихся, на успешность понимания прослушанной речи на иностранном, в нашем случае, английском языке. Исследование было предпринято с учетом подобного исследования Вандергрифта и Тафаготариевой, проведенного (Vandergrift & Tafaghodtari, 2010), но с дополнительным рассмотрением отношения между владением лексическим фондом иностранного языка и постижениями на тестах аудирования. Наша работа отличается от вышеприведенной и по корпусу, уровню постижений испытуемых и материалу, отобранному для обучения и тестирования. В целях получения ответов на поставленные нами вопросы, мы провели эксперимент, в котором участвовали 57 учащихся средних школ, которые были разделены на две группы: экспериментальную (n=27) и контрольную (n=30). Экспериментальная группа аудированию пять недель обучалась по рекомендациям, данным в работе Вандергрифта и Тафаготариевой. Сравнение и анализ результатов проведенных пред-тестов и пост-тестов показывают положительные эффекты обучения, которое настаивает на развитии метакогнитивных стратегий, а также статистически значимую положительную корреляцию между объемом лексического запаса и постижениями на тесте аудирования. В заключении указывается на педагогические выводы исследования, относящиеся на повышение уровня метакогнитивного сознания учащихся из Сербии, которые овладевают английским языком, а также на факт, что необходимо расширять лексический запас в целях более успешного выполнения задач и тестов аудирования.

*Ключевые слова:* учащиеся из Сербии, английский язык как иностранный, метод обучения, метакогниция, аудирование, овладение словарным запасом.