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L2 ENGLISH AND L3 GERMAN VOCABULARY LEARNING STRATEGIES

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Abstract

The focus of this paper is on investigating patterns of use ofvocabularyconsolidation strategies among high school students learning English as their first and German as their second foreign language. The students participating in this study had started learning English in the first grade of elementary school, as it is usually the case in Croatia, and German in the fourth grade of elementary school. A 25-item questionnaire was administered to examine the frequency of individual use of vocabulary consolidation strategies among those high school students. The aim of the study was to comparethe patterns of vocabulary learning strategy use in their first (L2) and second (L3) foreign language.It was expected that these patterns would overlap to a certain extent, i.e., that the frequency of strategy use in learning the first foreign languagewould be similar to the one in learning the second foreign language. Another assumption was that thestudents would use vocabulary consolidation strategies less frequently in German, their second foreign language, because they are less exposed to the German language and they have to approach it (manipulate it) differently.Based on results from research on vocabulary learning (memory) strategies, it was expected that there would be no correlation of school grades with the frequency of use of vocabulary consolidation strategies.

The results showed a significant positive correlation between the two questionnaires, i.e., the ways of learning the first and the second foreign language weresimilar. This means that the students who had been using vocabulary consolidation strategies frequently in one foreign language had also been using them frequently in the other foreign language. Also, those students who had been using vocabulary consolidation strategies less frequently when learning one language had also been using them less frequently in the other language. However, on a general level, the students had been using vocabulary consolidation strategies less frequently in their L3 (German). No overall correlation of school grades with the frequency of use of vocabulary consolidation strategies was found, but the frequency of use of several strategies from both questionnaires correlated with the students' grades in their second foreign language.

Key words: L2 English, L3 German, vocabulary learning strategies

1. Introduction

The concept of students as active learners is a *sine qua non* in education since the 1970s at the latest. The noun 'learner' itself is an action noun (nomen agentis) which vividly illustrates its meaning: a learner is someone who is "doing" the learning or more precisely "learning by doing". In a Piagetian mode (Berk, 2008), this type of learning is in fact discovery learning which includes manipulating the world around us (first the objects and then the more abstract concepts). If this principle is to be applied to the process of language learning, or more precisely to one important component of that process – vocabulary learning –, an interesting analogy arises: In the process of vocabulary learning, objects and concepts to be manipulated become words and their meanings, and the ways of manipulating them (in the sense of adjustment, adaptation and distinction) are numerous. Which ways of manipulating the foreign language material will be used by a learner very much depends on the combination of their individual learning styles and their distinctive language learning experience.

Humans adapt to and conquer new challenges in every aspect of their lives by relying on their previous experiences in similar situations, so it is safe to assume that language learning is not an exception to that rule. When learning a first foreign language, the tools language learners have to help them "crack" the code of that new language are experiences of the world around them they have acquired through and with their mother tongue. With the second foreign language the situation is usually much easier because there are more language learning experiences to resort to, i.e., the first foreign language becomes an additional source of information and is used as a valuable resource when approaching the process of language learning and processing the new language.

As the learners gain more experience as language learners, they accumulate a certain repertoire of strategies which facilitate and accelerate different aspects of the language learning process (e.g., reading newspapers in the foreign language, usinga special way of memorizing a spelling rule,or remembering new words and meanings).

An observation based on our personal experience is that students report that the most frequent way of learning new vocabulary on their own (when they are, for example, preparing for an exam) is rote learning or "learning by heart", by repetition in speech or writing.

This is one of the simplest and the most applicable learning strategies, but it does not necessarily have the quality of increasing the depth of processing new information (which is a prerequisite for long term retention of information), facilitating or enhancing the process of learning and remembering (retaining) new vocabulary.

The more additional information we add to a word in the process of learning it (how it is written, the kind of movement it is connected to, a situation we can imagine it in) and the more dimensions of memory we activate it in (morphological, syntactic, affective, semantic, etc.), the easier it will be to retain the word in our memory for a longer period of time and we will be able to retrieve it faster when we need it(Bohn, 2000).

The vocabulary learning strategies used in this study were vocabulary consolidation strategies (rote learning still being one of them) which enable the students to increase the already mentioned depth of processing the foreign language information when actively trying to remember vocabulary items.

2. Language learning strategies

Oxford and Green (1995, p. 262) describe language learning strategies as "specific actions or techniques that students use to improve their progress in developing L2 skills". O'Malley and Chamot (1999, p. 1) add that these special techniques help learners comprehend, learn or retain new information.As such, language learning strategies can be "conscious, potentially conscious or subconscious" (Pavičić Takač, 2008, p.55).

When faced with a specific language task, language learners will use any language learning strategy they find useful and applicable in a specific context and available to them at a given point in time. Therefore, it is possible to claim that a list of all possible language learning strategies could never be complete because of the creativity of the learners and the differences in their individual experiences and approaches to learning.

This is also what makes defining the "best" pattern of learning strategies for any sub-skill in language learning (or learning in general) very challenging and possibly not very purposeful, although this was one of the initial directions taken in early research of language learning strategies (Rubin, 1975; Stern, 1975).

If the learners are aware of the fact that they themselves are the facilitators of their learning process and that they are the ones who know how they can learn best, then it is to be expected that they will use a certain pattern of strategies for a specific type of learning tasks based on their learning styles. How heterogeneous this strategy repertoire will be and which strategies it will contain depends on many external factors, such as the learner's proficiency level and gender (Green &Oxford, 1995 and Hufeisen 1999, as cited in Fuková, 2011), their age (Harley, 2000), or their learning style and motivation (Oxford &Nyikos, 1989) and also teacher's expectations (Pavičić Takač, 2008).

With respect to age as one of the crucial factors in choosing language learning strategies, it is interesting to mention a conclusion presented by Pavičić Takač in her study with primary, secondary and university learners of English as a foreign language in Croatia in 1999/2000. The answers given by her participants have shown that the more advanced (and at the same time older) learners had been using vocabulary learning strategies more frequently than the less advanced, i.e., the younger ones (Pavičić Takač, 2008).

2.1. Classification of language learning strategies

The long list of possible language learning strategies and the fact that many of them as psychological phenomena are not directly observable are a part of the reason why researchers dealing with them have devised various types of criteria for grouping the strategies into categories.

Rubin (1987) (as cited in Šaban, 2004) decided to group language learning strategies into direct (learning) strategies and indirect (communicative and social) strategies. Rubin also breaks down the learning strategies into cognitive and metacognitive learning strategies. The cognitive strategies include direct analysis or synthesis of the language material and various types of language material transformation, i. e., manipulation of and direct contact with the language material.Metacognitive strategies, on the other hand, encompass the control over the learning process by planning, setting language learning goals and priorities by the learners.

Another well accepted taxonomy of language learning strategies was thought of by O'Malley and Chamot (1999). They formed three categories of language learning strategies (metacognitive, cognitive and social-affective strategies) based on the type of processing that is involved when they are used.

Similarly to Rubin, metacognitive strategies for O´Malley and Chamot also include planning and evaluating the process of language learning, while the cognitive strategies rely on manipulating and interacting with foreign language information through repetition, creating word groups based on various common features, using (mental or other) imagery or using the already existing linguistic knowledge and connecting it with the new pieces of linguistic information.

One of the most frequently applied categorizations of language learning strategies is the one suggested by Oxford (1990). Like Rubin, she divides the strategies into two main groups. Direct strategies (memory, cognitive and compensation strategies) are the ones directly involving the target language and indirect strategies (metacognitive, affective and social) include autonomous governing of the learning process by the learner.

 One of the reasons Oxford's categorization is so frequently used is the fact that it is accompanied by SILL, a questionnaire devised by Oxford according to her categorization mentioned above. It has been widely used in language learning strategies research and has proven to be valid and reliable (Schmitt, 1997; Sung, 2011).

One available questionnaire for vocabulary learning strategies research developed in the Croatian context is VOLSQES, or Vocabulary Learning Strategy Questionnaire for Elementary Schools. It was designed by Pavičić Takač for elementary school students and it encompasses strategies for formal, informal and incidental vocabulary learning. This means that the focus of the questionnaire is on the type of context the vocabulary is learned or acquired in, which is why this questionnaire was not suitable for this study, combined with the aforementioned fact that it was designed for elementary school students.

The boundaries of the groups of cognitive and memory strategies in the classifications devised by Oxford and O'Malley and Chamot are neither clear nor definite, yet it is evident that both groups involve analysis of the language material on several levels (meaning, form, sound, contrast with other languages, etc.).

For example, repeating the names of items or objects to be remembered and grouping words according to their semantic and syntactic attributes belong to two types of actions (rehearsal and organization) that O'Malley and Chamot identify as belonging to the group of cognitive strategies. Similarly, for Oxford, not cognitive, but memory strategies include creating mental linkages in various ways: through grouping of words into meaningful units, associating new with the old or placing words into a meaningful context.

According to Oxford, applying images and sounds (creating imagery and representing sounds in memory) combined with reviewing well and employing action (acting out, relating words to a sensation or writing words on cards) also belong to the category of memory strategies. When it comes to cognitive strategies, Oxford explains how these include practicing (repeating) combined with analyzing and reasoning, which are evident in applying general rules to new situations, breaking down new words into parts (prefixes, suffixes) and contrastively analyzing the language material in the sense of comparing foreign language elements – sounds, vocabulary and grammar – with elements in the mother tongue. Translating (into the mother tongue) and transferring, which Oxford explains as applying the knowledge of words, concepts and structures from one language to another to understand the new language, are two additional cognitive processes that she lists as important parts of the strategies inventory. The last but not least important group of actions Oxford adds to the group of cognitive learning strategies is creating structure for input and output which includes highlighting, underlining or color-coding the learning material (Oxford, 1990; Oxford, 2003).

2.2. Overview of research on language learning strategies in first foreign language (L2)

A quite extensive part of research on language learning strategies available on various data bases focuses on the first foreign language (L2), i.e., the participants learning only one foreign language are identified as the target group of many research projects in this area of interest, so this part of the paper will serve as a brief overview of relevant research findings from that field.

Kostić-Bobanović and Ambrosi-Randić (2006) present some findings from the Croatian EFL context. On the level of the whole sample (their participants were primary, secondary and university students), elementary school learners participating in the study have reported using memory strategies more frequently than the high school or university students. Elementary school learners had also been using more strategies than the other groups on a general level - a result diametrically opposed to the one by Pavičić Takač (2008) who reported that the elementary school learners had been using fewer vocabulary learning strategies than the older learners.One of the conclusions the authors have made was that strategy choices of their participants had been affected by the number of years spent learning a language and by personality factors including the academic self-concept, previous learning experience and language learning anxiety.

Teachers are an important factor in shaping the students' approach to vocabulary learning, but a study on vocabulary learning strategies from the Croatian EFL context by Pavičić Takač(2008) has shown how vocabulary teaching strategies employed by the teachers did not seem to influence the learners' use of strategies for vocabulary learning.

Green and Oxford (1995) report that the findings of their study confirm previous results and assumptions about language learning strategies: more successful learners among their participants had been using more language learning strategies than the unsuccessful ones.

At the same time, the female participants in their study had been using more language learning strategies than the male participants, a finding which is in line with the results of a study by Oxford and Nyikos (1989).

Oxford and Nyikos (1989) also found a connection between the number of years spent studying a foreign language and the type of strategies used (the category of communication strategies). Mochizuki (1999, as cited in Psaltou-Joycey &Kantaridou, 2009) found that the more proficient level students had been using cognitive and metacognitive strategies more frequently than the less proficient students. Still, Psaltou-Joycey and Kantaridou (2009) reported that there weresome studies showing low or negative correlations between proficiency and the use of (meta)cognitive strategies, or even no correlation at all.

The results of a study by Mihaljević Djigunović (1999) in which a group of Croatian learners of English reported on their learning strategies have shown that the correlation coefficient for SILL and EFL achievement was statistically significant, which indicated that a higher EFL achievement level correlated positively with a greater number of strategies the learners had been using.More precisely, the results have shown that the EFL achievement correlated positively with the communicative, metacognitive and cognitive strategies, whereas it correlated negatively with the socio-affective strategies (Mihaljević Djigunović, 1999).

Mihaljević Djigunović noted that the socio-affective strategies seemed to have a "remedial function" and had been used by learners who had some difficulties in coping with the EFL(Mihaljević Djigunović, 1999).Unlike in the study by Green and Oxford (1995), in this study memory strategies and comprehension strategies did not correlate with students' achievement.

Another interesting finding by Pavičić Takač comes from a study comparing the vocabulary learning strategies used by primary school learners of German and primary school learners of English. She reported that the learners of German in her sample approached the task of language learning in a traditional way typical of formal language instruction in schools. This traditional way included the use of memory strategies.

English learners were more spontaneous and had been using more social strategies, such as using their opportunities for incidental vocabulary acquisition (Pavičić Takač, 2008). Still, the main conclusion of this comparison was that the position of the foreign language in the social context of the learners affects their use of language learning strategies. This would mean that the greater presence of English language and culture (music, books, movies or customs) enables the learners to be more active language learners even outside of the school context.

2.3. Research on language learning strategies in second foreign language (L3)

Only a limited number of studies on the patterns of language learning strategies were done with multilingual speakers.

Jessner (2008) stated that a number of studies on multilingualism had shownthat there were differences between the first and the second foreign language learning and that these can be related to an increased level of metalinguistic awareness in multilingual learners. One of the studies confirming this conclusion is certainly Kemp's (2007) study about the processing strategies in grammar learning which indicated that the learners who knew more languages had been using learning strategies more often and had been using more of them. Also, the more languages the participants knew, the more likely it was they would add their own grammar learning strategies to the questionnaire they were given.

The pilot research to Kemp's study indicated thatmost of the multilingual participants had been using the same strategies across all of their languages, basically showing that they applied the strategies they had learned in one language to their other languages (Kemp, 2007).

 If we consider the fact that using language learning strategies requires the learners to "try them out" and to use the methodof "success or failure", it even seems logical to expect some kind of strategy transfer between the foreign languages the learners know, simply because it is in human nature to try to produce the best result while investing minimal amounts of energy (language economy).

Toubkin and Aronin (2002) investigated language interference and language learning techniques transfer in L2 and L3 immersion programs. When asked to respond to the question "Who taught you techniques?",over 54% of their participants replied they did it themselves, and 48% of them reported they had learned it at school. The authors concluded that there was a possibility that L1 learning styles and techniques, if embedded systematically in earlier stages of life, could influence the learning of other languages (L2, L3, etc.) later in life (Toubkin &Aronin, 2007).

A study by Talebi (2013) on cross-linguistic transfer ofreading strategies showed that reading strategies instruction in the first foreign language can improve the awareness about strategies

and increase their use, while at the same time positively influencing the reading abilities in both the first and the second foreign language.

Even though this study was only concerned with reading strategies, Talebi concludedthat this result might be the indicator of the effect of the first foreign language strategy use on the second foreign language strategy use in general. This conclusion can be connected with the hypothesis by McLaughlin and Nayak (1989, as cited in Psaltou-Joycey &Kantaridou, 2009) who propose the idea that multilinguals can transfer successful strategy use from previous language learning to the learning of a new language.

Psaltou-Joycey and Kantaridou's study (2009) on plurilingualism and language learning strategy use and learning style preferences has shown that trilingual students participating in the research study had been using more strategies than bilinguals and that they hadbeen using them more frequently.

Also, the trilinguals who were more advanced in their use of languages had more frequently been using cognitive or metacognitive strategies (Psyltou-Joycey &Kantaridou, 2009).The researchers concluded that plurilinguals had a significant advantage over monolinguals in learning a new language and that it also seemed that their use of strategies increased with the number of languages they knew.

More precisely, they concluded that bilinguals and trilinguals had been making different use of strategies and that the trilinguals had outperformed bilinguals in the use of strategies that promote cognitive skills (Psaltou-Joycey &Kantaridou, 2009).

3. The study

In the following part of the paper we first present the aims of the study, describe the procedure of collecting data and the language learning profile of the participants.Then the qualitative and quantitative analysis of the study results is presented in terms of frequency of strategy use and the correlation of students' use of vocabulary consolidation strategies with their school grades in foreign language classes.

3.1. Aims

The main aim of this study was to compare the patterns of use of vocabulary learning strategies in the first (L2) and the second (L3) foreign language of the participants, i.e., in English and in German, respectively.It was expected that these patterns wouldoverlap to a certain extent, i.e., that the ways of learning the first foreign language would be similar to the ways of learning the second foreign language.

The strategies selected for the study were cognitive strategies which were meant to focus on the process of being aware of the way a language functions, establishing connections between the new and the old pieces of information and ways of permanently storing new words or meanings into the long term memory but with a temporal dimension, in the sense of the time when the students are consciously trying to remember the word they have already encountered (e.g., when learning for an exam). Therefore, the strategies in question could be called cognitive vocabulary consolidation strategies.The reason for choosing cognitive vocabulary consolidation strategies was the age of the language learners (high school) and their language learning experience, as research shows that more proficient language learners tend to use cognitive and metacognitive learning strategies more often than some other types of strategies. In addition to that, cognitive strategies are well suited to the stage of learning vocabulary which is in the focus of the study: consolidation and storing of meaning.

As already mentioned, students approach (language) learning tasks with strategies they already know and deem productive in a certain context. These strategies are drawn from their past experience and the participants in this study had a certain amount of experience as

multilingual learners, insofar as they had been "juggling" with two foreign languages for at least seven years.

It was possible to expect that they would then show a relatively unified (stable) pattern of language learning strategies in both languages, i.e., that their results on both questionnaires (for the English and the German language)would not differ muchand that there would be a positive correlation between those results(H1). We also hypothesized that the participants could show a lower frequency of vocabulary learning strategy use in the German language(H2).The rationale behind this assumption was that the English language is predominant in the Croatian society and the amount of foreign language input the students get in their everyday lives in English and in German is incomparable. The German language is less available to the students, so they have much less language material they can manipulate and interact with (and therefore have to interact with it in a slightly different way). The linguistic knowledge they canresort to in German is less diverse than it is the case with the English language which is present in commercials, movies, music, onpackaging of goods, on mobile phones (through various applications), in video games and in expressions used in everyday speech.

The use of language learning strategies is, as already mentioned, always connected to the students'proficiency in a given language. Therefore, thecorrelation of school grades and the frequency of use of vocabulary learning strategies wasalso taken as a dimension of obtained data worth analyzing. The basic assumption was that the school grades in English classeswould not correlate with the frequency of strategy use in English and that theschool grades in German classes would not correlate with the frequency of strategy use in German. This assumption was based on research results from the Croatian context where Mihaljević Djigunović (1999) found no correlation of memory strategies with the participants' school grades in foreign language classes and a positive correlation betweenthe school grades and the cognitive language learning strategies from SILL.

Since all of the cognitive vocabulary consolidation strategies used in this study could be interpreted as memory strategies because of their primary purpose - facilitating the retention of individual vocabulary items - it was expected that there would be no correlation between the participants' school grades in foreign language classes and the frequencies of strategy use in each language.

The hypotheses set for the study were as follows:

H1:There will be a positive correlation between the frequency of strategy use in the English and in the German language.

H2:Students will use vocabulary learning strategies less frequently in German, their second foreign language.

H3: There will be no correlation between the school grades in English and in German and the frequency of strategy use in that language, respectively.

3.2. Research method (instrument description)

One of the most frequently used methods in research on language learning strategies are questionnaires and the reason for their wide application lies in the fact that they are an extremely time-efficient research instrument which enables uniformity of research conditions for all of the participants and reduces the duration of the research process itself to a shorter time period.

As already mentioned, the questionnaire used in this study (Appendix I) consists of items which focus on a particular type of language learning strategies: cognitive vocabulary consolidation strategies.It should be noted that the participants were asked to answer the questions about strategy use in terms of frequency, not effectiveness.

The first part of the instrument was a background questionnaire covering age, gender and a short language biography of the students. The participants reported about their mother tongue and the language(s) they speak at home or learn at school. The questionnaire also included items in which the participants reported on the years of studying both their first and their second foreign language (in state schools or in schools for foreign languages). They were also asked to write down their final grades from the previous year (both in L2 and L3).

The other two parts of the instrument were designed as one questionnaire (used twice) with a list of 24 items, or 24 vocabulary learning strategies. Those items were paired with a five-point Likert scale.

The list was based onSchmitt´s (1997)[1] taxonomy with memory and cognitive strategies, which heavily relies on Oxford's classificationof learning strategies. The choice of strategies was also guided by guidelines for language learning strategies on the transition from L2 to L3 learning listed by Rampillon (2003) as reference points pointing out the competences the learners should develop on the transition from L2 to L3 language learning. Rampillon proposes the L3 learners should develop the following competences: recognizing and using the regularities of word building, comparing the languages one is familiar with and imagining contexts for new words.All of these competences are added to the competences or strategies the learners had been using in their first foreign language, for example, learning words with the help of word cards and pictures, building word groups or using mime to remember new words and expressions. Rampillon (2003) also stresses the importance of analyzing the new language material and connecting it to the already existing linguistic knowledge.

The strategies listed in the questionnaire used in this studyare strategies focusing on the process of consolidation, i.e.,storing of meaning into the long term memory. According to Oxford's classification (1990), these strategies would belong to the group of direct strategies and the subgroup of memory and cognitive strategies.The selection of strategies was made among the items proposed by Oxford (1990) and Schmitt (1997) and several items were added by the author. Memory strategies are not separated in a group which would be parallel to the group of cognitive strategies, but are rather taken as a part of that group, i.e., they are also seen as simply cognitive strategies, and the "memory" is contained in the word "consolidation" which means ensuring retention, i.e., memorization.

Oxford and Schmitt used partially different criteria for grouping the strategies. Oxford focused on the way of processing the new language material, and Schmitt on the way of processing and the moment or purpose of processing the language material (long term retention). The reason for compiling a new questionnaire while recycling particular strategies from some existing ones was that Oxford's SILL was not adequate enough for the research focus. Although SILL is comprehensible, systematically organized and applicable to variouscombinations of the mother tongue and foreign language(s)of the learners(Oxford & Nyikos, 1989; Schmitt, 1997), it seems not to be the best possible solution when dealing specifically with vocabulary learning strategies.

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[1]Table 1 in Appendix II, Taxonomy of Vocabulary Learning Strategies (taken from Schmitt, 1997, Table 1A).

Schmitt (1997)argues that some of the strategies crucial for the process of vocabulary learning are not represented in SILL. He also proposed a taxonomy of vocabulary learning strategies and based its structure on the system developed by Oxford (1990), but he chose to add a temporal system for analyzing vocabulary learning strategies.Schmitt differentiates between determination strategies (used by the learners when encountering a new word for the first time) and consolidation strategies (used to remember that word and its meaning). It is important to mention that almost all consolidation strategies can be used as determination strategies, but in this study they were explicitly put in the context of remembering vocabulary that is already familiar, and the context finally defines the way a strategy is used.

The strategies taken from Schmitt which were also used in SILL are the following items: (The wording is sometimes changed and some words are added, but the basic concept is the same.)

Item 1: I learn new words with the help of visual materials (graphical marks, pictures, photographs…). (Schmitt MEM 1, SILL part A, 3)

Item 2: I remember the meaning of a word as a "mental image" I create. (Schmitt MEM 2, SILL part A, 4)

Item 3: I connect new words with what I already know through the process of association. (Schmitt MEM 3, SILL A,1)

Item 4: I remember new words "photographically", i.e., I know where the word was written. (Schmitt, MEM 4, SILL A,9)

Item 7: I use new English words in a sentence so I can remember them. (Schmitt MEM 12, SILL part A,2)

Items 9, 10, 11: I say or write new English words several times. (This item was broken down into three components). (Schmitt COG 1,2, SILL part B 10,12)

Item 15: I paraphrase the meaning of new words to remember them. (Schmitt MEM 23, SILL part C, 29)

Item 18: I look for words in my own language that are similar to new words in English. (Schmitt MEM 24, SILL part B, 19)

I compare new words in the foreign language with words in my mother tongue. (Gnjidić)

Item 20: I physically act out new English words (mimes, gestures) to remember them. (Schmitt MEM 26, SILL part A, 7)

Item 23: I remember a new English word by making a mental picture of a situation in which the word might be used or by sticking post-its on real objects so as to remember a new word. (Schmitt MEM 2 + COG 8, SILL part A, 4)

Item 24: I use flashcards to remember new English words. (Schmitt COG 4, SILL part A, 6)

Six items were taken from Schmitt's taxonomy of vocabulary learning strategies and were not present in SILL (Schmitt 1997). Items 5 and 6 focus on structuring the language material and finding similarities and connections among the new words and item 8 focuses on creating meaningful context for remembering the meaning of words. Items 12 and 13 are aimed at remembering the morphology of a word (a string of letters that make the word) and item 19 refers to the ways of remembering word units (phrases, idioms).

Item 5: I connect words into groups (according to their sound, meaning, graphical pictures). (Schmitt, MEM 10)

Item 6: I connect new words with their synonyms and antonyms. (Schmitt, MEM 5)

Item 8: I connect new words into meaningful stories to remember them more easily.(Schmitt, MEM 13)

Item 12: I remember the written form of the word as a 'mental image'. (Schmitt, MEM 17)

Item 13: If I underline the first letter of the new word, I will remember it more easily.(Schmitt, MEM 18)

Item 19: I try to remember idioms as a whole. (Schmitt, MEM 25)

Oxford (1990) mentions the importance of translating (into the mother tongue) and connecting the mother tongue with the foreign language being learned, but these elements are not present in her 1990 version of SILL. She only cautiously approaches translation saying how it can often do more damage than good ("I try not to translate word for word.", SILL part B, 22).

Although cross-linguistic strategies or strategies which involve employing the existing linguistic knowledge when learning a new language in all possible directions (inter- and intra-lingual) are not in the center of the questionnaire used in our study, they should be developed and usedin class so the students would be able to recognize and maximize the potential of their linguistic knowledge. This knowledge should not be understood as only semantic knowledge of foreign languages and a mother tongue, but rather as a combination of all levels of knowledge about a word: how it sounds (phonological), how it is written (graphic), how it is created (morphological), when it is used (pragmatic, contextual), which dimensions of meaning it has (metaphorical extensions), etc. To give a brief example, if one wishes to remember the word "malleable", one can resort to the origin of this English word. It comes from the Latin word "malleus" meaning "a hammer", and it is the quality of someone or something that can easily be influenced or changed, pressed into different shapes without being broken[2]. The Latin word for a hammer ("malleus") may activate a phonological association with the Croatian word "malj" (also connected to the aforementioned Latin form), meaning a tool also used for hitting or shaping something. That waya stronger association trigger and a connection in the mental vocabulary network are created through the use of several languages and some existing elements of the linguistic knowledge from both of those languages. It is then to be expected that one will be able to retrieve the English word more easily by using their mother tongue (in this case) and a language learned at school than by trying to remember only what that word means without creating associations.

We added fouritems to the questionnaire to include this cross-linguistic dimension of vocabulary learning strategies (one of them was only expanded from an item by Oxford), items 14,16,17 and 22.

Item 14:I find the meaning of an English word by dividing it into parts that I understand. (Oxford, part B, item 21)

When remembering a new word, I rely on my knowledge of word formation in a foreign language (suffixes for nouns, adjectives, prefixes from Latin, Greek). (Gnjidić)

Item 16: I compare the new word in the foreign language with other words from that language that I already know.(Sound, way of writing, meaning)

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[2]malleable [Def. 1 &2]. (n.d.).In Oxford Advanced Learner's Dictionary, Retrieved May 10, 2016, from http://www.oxfordlearnersdictionaries.com/definition/english/malleable.

Item 17: I compare the new word in the foreign language with other words in other languages I know.

Item 22: I translate new words into my mother tongue to remember them better.

Another strategy expanded from an item by Oxford(SILL) was item 21: I physically act out new English words. (Oxford, part A, item 7)

I use gestures to remember the graphical form of the new word (how the word looks like in writing, the string of letters that make the word). (Gnjidić)

It is once again important to mention that the overall selection of strategies from the above mentioned sources (Schmitt and Oxford) was based on our personal impression of significance and usefulness of individual strategies.

One "blank" item was added to the questionnaire to enable the students to add further strategies they used and which were not listed in the questionnaire.The result was a 25-item questionnaire focusing on strategies for learning and retaining vocabulary - cognitive vocabulary consolidation strategies.

The same questionnaire was used twice, in order to examine the students' use of strategies in English and in German. Cronbach's Alpha reliability coefficient amounts to 0.82 for the English questionnaire and 0.85 for the German questionnaire. Therefore, it shows a good internal consistency of both questionnaires.

3.3. Participants

The questionnaires were administered in a grammar school in Županja. All 47[3] participants (35 girls and 12 boys) were third grade students who had been learning English (their first foreign language) for ten years, i.e., since the first grade of elementary school, and their second foreign language (German)for seven years on average (most of them started learning it in the fourth grade of elementary school). The average age of the participants was 17 years.

It is also important to mention that almost 95% of the students had never studied German in a foreign language school and the situation is similar with the English language as well: 82% of the participants never took an English course in a foreign language school. One of the reasons for that might simply be the unavailability of such courses to children from the more rural areas and even to those living in the town itself (Županja) because foreign language schools in the town are practically nonexistent. As far as the out-of-school contact with the foreign language is concerned, it does not come as a surprise that over 90% of students got English input through movies or series on TV, on *Facebook or Youtube*, or, as one student phrased it, "everywhere". The situation with the German language is quite different: the foreign language input through modern technologies (the Internet and television) added up to 45%, whereas relatives were in 20% of the cases listed as the main out-of-school source of the German language input for the students. Also, 20% of the students wrote they did not encounter the German language anywhere but in the school context. The average grade of the students was a 4.02 in English and a 3.38 in German classes.

3.4. Quantitative and qualitative analysis of study results

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[3]Participants 28 and 41 had to be excluded from the statistical data analysis due to uncomplete questionnaires.

3.4.1. Frequency of strategy use

Pearson's correlation coefficient of 0.86 (p=.000) indicated that there was a strong positive correlation between the means for the whole questionnaire in English and German, meaning that the frequencies of strategy use in English and in German were similar. Based on this result, it was possible to conclude that the strategy inventories of the participants interacted. This means that the students who had been using vocabulary consolidation strategies frequently in one language had also been using them frequently in the other foreign language.

Also, the students who had been using vocabulary consolidation strategies less frequently when learning one language had also been using them less frequently in the other language.

This finding confirms the first hypothesis of this study (H1) that there would be a positive correlation between the frequency of strategy use in the English and in the German language.

On a general level it can be noticed that 75 percent of students had a higher result on the English questionnaire for vocabularylearning strategies, i.e., that they had been using the listed vocabulary learning strategies more frequently when learning their first foreign language (English) than in learning their second foreign language (German). Only 25 percent of the participants had been using the given vocabulary learning strategies more frequently when learning their second foreign language (compare Table 2 in the Appendix II).

This result confirms the second hypothesis of this study (H2) that students would use language learning strategies less frequently in German, their second foreign language.

The reasons for such results can be numerous. It is possible that the students weremore capable of manipulating the language material in the language they were more proficient in. Thereforethey were able to employ different types of strategies based on the type of the language task or the nature of the word they were trying to remember. In German, their second foreign language,they did not have as much language material at hand due to weaker exposure to German outside of the school context.

That way some strategies the students use in English might not be as useful to them in German as they are in English, for example paraphrasing, using words in a meaningful story or using synonyms and antonyms to remember the meaning of words.

This difference in the frequency of use of vocabulary consolidation strategieswas also statistically significant because there was a significant difference between the means of students' results on the English (M=73.38, SD=12.56) and the German questionnaire (M=69.04, SD=13.29); conditions t(44)=2.66, p=0.011).

Furthermore, based on the summative results on each questionnaireit was possible to devise three categories showing different levels of frequency of strategy use: high, medium and low.

It must be noted that the threshold levels for the English language are somewhat higher than for the German language so the tables are not fully comparable, but they give a good insight into the average strategy use.

As it is presented in Table 3a, most students had been using vocabulary learning strategies with medium frequency, both in English and in German. The expanded version of the table in Appendix II gives more detailed information on the placement of individual participants.

Table 3a: Frequency distribution table: level of strategy use in both questionnaires (English and German)

Categories of frequency	Use of strategies in English	Use of strategies in German	Categories of Frequency
HIGH (>83)	11	11	HIGH (>80)
MEDIUM (68-82)	18	19	MEDIUM (64-79)
LOW (<68)	16	15	LOW (<63)

In comparison, Table 4 gives another comparative overview of the mean values for all items in both questionnaires. It also serves to show which strategies students reported using most and least frequently when learning foreign language vocabulary.

The mean value higher than 3.5 was taken as the lower limit indicating a high frequency of strategy use and the mean values lower than 2.5 were interpreted as a low frequency of use of individual vocabulary learning strategies.

Table 4. Group results: mean (frequency of use)

Question (English)	Mean (English)	Mean (German)	Question (German)

Q1A	**2.42**	3.11	Q1B[4]
Q2A	3.33	2.82	Q2B
Q3A	**3.58**	3.18	Q3B
Q4A	**3.62**	**3.53**	Q4B
Q5A	2.96	2.73	Q5B
Q6A	2.93	**2.18**	Q6B
Q7A	3.18	2.51	Q7B
Q8A	2.56	**2.18**	Q8B
Q9A	**3.53**	**3.80**	Q9B
Q10A	**4.42**	**4.31**	Q10B
Q11A	**3.67**	**3.84**	Q11B
Q12A	3.24	2.98	Q12B
Q13A	**1.51**	**1.69**	Q13B
Q14A	2.62	2.64	Q14B
Q15A	3.04	**2.16**	Q15B
Q16A	2.78	2.62	Q16B
Q17A	2.96	3.02	Q17B
Q18A	3.76	3.44	Q18B
Q19A	2.87	**2.29**	Q19B
Q20A	2.73	2.47	Q20B
Q21A	2.53	2.76	Q21B
Q22A	**4.20**	**4.13**	Q22B
Q23A	3.13	2.89	Q23B
Q24A	**1.82**	**1.84**	Q24B

The most frequently used strategy was hearing the word being pronounced several times (10 A[5], B), followed by using translation into the mother tongue to remember a new word more easily (22 A, B). The students also often pronounced a new word several times (out loud) to remember it (11 B, A), wrote it down (9 B, A) (muscle memory) or remembered the word photographically (where it was written down) (4 A,B). They alsoused associations to connect new words to what they already know quite frequently (3A).

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[4]Table interpretation: purple fields = items with higher frequency of use; English questionnaire (A) or German questionnaire (B). Green digits = high frequency of use. Orange digits = low frequency of use.
[5]Questionnaire A (English language), Questionnaire B (German language)

The least frequently used strategies were learning new words with visual aids (1 A), underlining the first letter of a new word (13 A, B) or using quizlets and flashcards with individual words on them (24 A, B). Participants reported using many of the least used strategies that way only in the German language: one of those rarely used strategies was connecting new words with their antonyms or synonyms (6 B), followed by using new words in a meaningful story (8 B) and learning new words through paraphrasing (15 B). Strategy 19 B (learning idioms as a whole) also belongs to this group.[6]

Almost all of the least frequently used strategies were found to be used so by the students when learning German. Also, the strategies most frequently used in German were quite common, with the exception of using visual aids to remember the meanings of new words. Since the students had predominantly been using those common vocabulary consolidation strategies (mechanical repetition) when learning German, one might assume that the way of teaching German is also different from the way of teaching English (or even less innovative). However, this is not necessarily so, since research shows (Pavičić Takač, 2008) that the vocabulary learning strategies the teachers use and demonstrate in classes do not have to be accepted by the students only because they were exposed to them. Additionally, all of the most frequently used strategies in the general sample could also be characterized as quite common cognitive strategies which rely on mechanical manipulation of language through repetition: listening, pronouncing and writing a word down several times.

The strategies the participants had been using most when learning German vocabulary were writing down the new word several times, underlining the first letter of the word to remember it better, pronouncing the word out loud, using visual aids to remember new words (graphical marks, pictures, photographs) or using gestures to remember the graphical form of the new word (how it looks in writing).

As already mentioned, the simplest technique of rote learning can easily be applied to the learning of new vocabulary, but when the process of storing a new word into our mental

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[6]In retrospect, this strategy does not seem to fit so well into the whole concept of the questionnaire, so maybe it would have been better to replace it with an item addressing highlighting and colour- marking the learning material (vocabulary).

lexicon is not going according to our plan or as easy as we would like it, we use other strategies to amplify the capacity of our memory and retention.At the same time it is important to keep in mind that not all words are equally suitable for all of the vocabulary consolidation strategies: some can be visualized more easily, some can easily be connected to some language elements the learner knows from other languages and some are easily remembered when used in a sentence or paired with a phonologically similar word in the mother tongue or another foreign language, etc.This means that words have different potentials in the sense of being suitable for individual learning strategies. Therefore, more strategies could be available to the students in their first foreign language because of the broader linguistic basis they have in that foreign language (English). The more familiar one is with the language, the easier it gets to "shape" it in a way that will help one make it "fit" into their mental lexicon.

It can be noticed that the strategies which require a more engaged approach to language learning were neither among the most nor among the least frequentlyused vocabulary learning strategies. Such strategies would be items 20, 23 and 24, which focus on using concrete objects (post-its, flashcards, quizlet) or movements (gesticulation, mime) when trying to remember new vocabulary.

Items 14, 16 and 17, which rely on multilingual competence and analytical knowledge about how languages work, belonged to the lower middle category based on the frequency of their use. This result indicated that the students did not seem to see their knowledge of the language (as a system) as potentially helpful in learning new vocabulary. Students did not seem to compare or combine their overall language knowledge of Croatian, German, English and possibly some other language in the vocabulary learning process very often.

Structuringor enhancing the structure of their mental lexicon through the use of antonyms, synonyms or grouping new words with the ones they already know was also not frequently used.

The correlation between the means of frequency of use of all items was statistically significant - with the exception of items 1 ("I learn new words with the help of visual materials (graphical marks, pictures, photographs…)") and 8 ("I connect new words into meaningful stories to remember them more easily."). This shows the tendency that the more frequently the students had been using one strategy when learning their L2, the more likely they were to use it more frequently in their L3 and the other way around. However, the differences in the frequency of use were significant only in several items. These results are presented in Table 5.

Table 5. T-TEST values for individual items + correlation among items.

Item number	r	p	m (English), m(German)	t	p
Item 1	**.11**	**.474**	**2.42, 3.11**	**t= -3.10**	**.003**
Item 2	**.71**	**.000**	**3.33, 2.82**	**t=3.46**	**.001**
Item 3	**.40**	**.006**	**3.58, 3.18**	**t=2.12**	**.040**
Item 4	.39	.008	3.62, 3.53	t=0.45	.652
Item 5	.36	.016	2.96, 2.73	t=1.18	.243
Item 6	**.63**	**.000**	**2.93, 2.18**	**t=5.43**	**.000**
Item 7	**.36**	**.015**	**3.18, 2.51**	**t=3.45**	**.001**
Item 8	.486	.486	2.56, 2.18	t=1.73	.091
Item 9	.75	.000	3.53, 3.80	t=-1.81	.077
Item 10	.62	.000	4.42, 4.31	t=1.00	.323
Item 11	.79	.000	3.67, 3.84	t=-1.48	.146
Item 12	.59	.000	3.24, 2.98	t=1.55	.129
Item 13	.76	.000	1.51, 1.69	t= -1.66	.103
Item 14	.48	.001	2.62, 2.64	t= -.11	.910
Item 15	**.38**	**.011**	**3.04, 2.16**	**t=4.25**	**.000**
Item 16	.44	.002	2.78, 2.62	t=.93	.360
Item 17	.41	.005	2.96, 3.02	t= -.33	.746

Item 18	.38	.010	3.76, 3.44	t= 1.59	.119
Item 19	**.31**	**.040**	**2.87, 2.29**	**t=3.14**	**.003**
Item 20	.62	.000	2.73, 2.47	t=1.47	.148
Item 21	.66	.000	2.53, 2.76	t=-1.32	.192
Item 22	.57	.000	4.20, 4.13	t=.52	.607
Item 23	.49	.001	3.13, 2.89	t=1.23	.226
Item 24	.65	.000	1.82, 1.84	t=- .15	.878

As it can be seen in table 5, there was a statistically significant difference between the frequencies of use of the following items from both questionnaires:

Item 1: I learn new words with the help of visual materials (graphical marks, pictures, photographs…).

Item 2: I remember the meaning of a word as a "mental image" I create.

Item 3: I connect new words with what I already know through the process of association.

Item 6: I connect new words with their synonyms and antonyms.

Item 7: I use new English/German words in a sentence so I can remember them.

Item 15: I paraphrase the meaning of new words to remember them.

Item 19: I try to remember idioms as a whole.

The significant differences mentioned above can be seen in Figure 1 which shows the frequency of use (mean value) of individual strategies on both questionnaires, for English and for German

Means comparison (individual items)
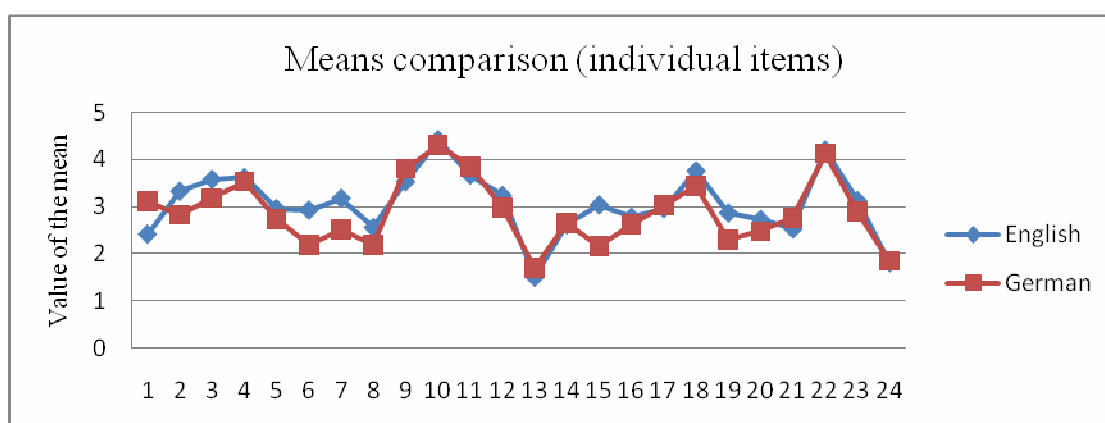
n. In favor of the German language was only the frequency of use of item 1. All other items were more frequently used in English.

Figure 1: Comparison of means for individual items from the English and the German questionnaire

This could potentially indicate that using the strategy of memorizing vocabulary with the help of visual materials(Item 1) might be most useful with the language we are less proficient in and are less exposed to. That language (material) is not accessible enough to the students to be used as the material for manipulation in the same number of ways as it is the case with the language they are much more familiar with (English). Still, students had been using a similar, but a bit more abstract strategy more frequently when learning the English language: they remembered the meaning of a word as a mental image they would create (item 2), showing again that with the first foreign language they were less attached to some kind of physical aids and that they used visuals on a purely mental level (without drawing or using pictures).

Newer research shows that the reason for the intensity or efficiency of visual impulses in vocabulary learning partially lies in the fact that the brain regions in which the verbal and the visual information are stored work together very closely (Meerhol-Härle, 2013).

 Visual impulses are attention grasping, more noticeable and easier to decode than "bare" strings of letters forming foreign language words, simply because they are multidimensional impulses, a myriad times stronger than the word image alone.

That is so because we already have many dimensions of meaning attached to a picture in our brains and we process it through our mother tongue and our experience of the world (events, people connected to a term/thing, emotions…).

As Manfred Spitzer (2012) explains (and illustrates) it in his lecture on how children learn, forming such connections with prior knowledge creates new neural paths which are bridged over many already established ones thus forming stronger connections (synapses) inside the brain lexicon.

Item 3 ("I connect new words with what I already know through the process of association.") was more frequently used in the English language. We could only assume that the process of association requires the "trigger" to be clear, i.e., always available. It would then be possible to conclude that the connection between the triggers for new German words used for the association (formed in the mother tongue or first foreign language) and the words themselves (in German) might not be strong enough because those two elements are not paired with enough additional dimensions of the meaning of the new word (context in which the German word is encountered, sound of the German word, the string of letters that make up the word).

If this is so, we could imagine a situation in which the student could remember the trigger but not the exact letters forming the word they want to remember or retrieve. We can only speculate that the reason the students were using this strategy more frequently when learning English is that somehow it waseasier for the students to connect the "triggers" with new words from the first foreign language.

Items 6,7, 15 and 19 were more frequently used by the students in the English language;the language they were more proficient in and which they had been learning for a longer period of time. They include using new words in meaningful sentences (7), connecting new words with their synonyms or antonyms (6), paraphrasing (15) and learning the meaning of idioms as a whole (19).These strategies seem to be connected with the general accessibility of language material since they require a certain level of proficiency and a vocabulary basis broad enough for their use (for example, being familiar with synonyms and antonyms of a new word).

3.4.2. Correlation of students'use of vocabulary learning strategies with school grades in foreign language classes

No significant overall correlation of the school grades with the means of the summative resultsthe students had on both questionnaires was present in this sample (English: r=.03, p=.836, German: r=.11, p=.472), which confirms the third hypothesis (H3) of this study that there would be no correlation between the school grades in English and in German and the frequency of strategy use in that language, respectively. It seems useful to mention once again the study by Mihaljević Djigunović (1999) where she found no correlation between memory strategies and the achievement of the students participating in her research.

However, some significant correlations of individual items with the students' grades were present which might shed more light on the dynamics of use of vocabulary consolidation strategies by the participants of the study.

Items 14, 18, and 22 in the questionnaire for the German language correlated positively with the grades the students had in German classes. This means that the more proficient the students were in German, the more frequently they had been using the following strategies:

Item 14: When remembering a new word, I rely on my knowledge of word formation in a foreign language (suffixes for nouns, adjectives, prefixes from Latin, Greek).

Item 18: I translate new words into my mother tongue to remember them better.

Item 22:I compare new words in the foreign language with words in my mother tongue.

These correlations are presented in table 6.

Table 6.Significant correlations between the means of frequency of use for items in the German questionnaire and the school grade in German language classes

Item no.	r	p	t (44)	p	$M_{\text{(grade German, freq. of use for the item in the German questionnaire)}}$	s_D (grade,item)
14B	r=.30	p=.044	t=3.82	p=.000	M (3.38, 2.64)	s_D(.94, 1.21)
18B	r=.31	p=.036	t= -3.7	p=.714	M (3.38, 3.44)	s_D (.94, 1.21)
22B	r=.35	p=.017	t= -4.74	p=.000	M (3.38, 4.13)	s_D (.94, .94)

Jessner (2008) mentions how an increased level of metalinguistic awareness is typical for multilingual learners and this claim can be connected to the aforementioned results. The strategies for learning vocabulary in the second foreign language (German) which correlated positively with the grades the students had in those language classeswere strategies which focus on analyzing the language material and comparing it to the mother tongue. Therefore, they require a certain level of metalinguistic awareness as a prerequisite to their use.

There is a significant difference in the nature of foreign language input the students get with English and with German. They are exposed to English mostly through series, moviesor different kinds of Internet content (e.g., music) which provides them with a meaningful (situations presenting "real life") and a multilayered context (images, movement, ambience, facial expressions of actors, politicians, etc.).

The presence of such a type of input (and in such quantities) in the German language is rare, so the students use their mother tongue as a resource more often when remembering new language material in that language (German).

Significant correlations between the frequency of use of two items in the English questionnaire and the grades the students had in their second foreign language classes (German) were also evident in the results and are shown in Table 8.

Table 8. Significant correlations between the means of frequency of use for items in the English questionnaire and the school grade in German language classes

Item no.	r	p	t(44)	p	M (grade German, freq. of use for the item in the English questionnaire)	$s_{D\ (grade,\ item)}$
17A	r=.32	p=.032	t= 2.06	p=.045	M (3.38, 2.96)	s_D(.94,1.35)
18A	r=.34	p=.023	t= - 2.00	p=.052	M (3.38, 3.76)	s_D(.94, 1.23)

Item 17: I compare the new word in the foreign language with other words in *other foreign languages I know*.

Item 18:I compare new words in the foreign language with words in my mother tongue.

However, only the correlation between the frequency of use of item 17 in learning English and the grade in German classes was statistically significant, i.e., there was a significant difference between the means for both values. This result might indicate that the more proficient learners of German had been using their multilingual language competence more actively and had also possibly been using their knowledge of (mostly) German and Latin when learning English.

5. Conclusion

The results of this study presented a strong positive correlation (r=0.86, p=.000) between the results on both questionnaires which indicated that the patterns of strategy use in English and in German were similar. Based on this result, it was possible to conclude that the strategies used frequently in one language had also been frequently used in the other language and the other way around. This result is in line with previous research proposing the idea that strategy transfer among languages does happen and that multilinguals will make use of the strategies they are familiar with from the context of their first foreign language in the process of learning their second foreign language. Therefore, the first hypothesis of this research study (H1), proposing that there would be a positive correlation between the frequency of strategy use in the English and in the German language, was confirmed.

As much as 75 percent of students had a higher result on the English questionnaire for vocabularylearning strategies, i.e., they had been using the listed vocabulary learning strategies more often when learning their first foreign language (English) than in learning their second foreign language (German). Only 25 percent of the participants had been using the given vocabulary learning strategies more frequently when learning their second foreign language,which confirms the second hypothesis presented in the study (H2), that the students would use vocabulary consolidation strategies less frequently in their second foreign language (German).

No significant overall correlation of the school grades with the means of the summative results the students had on both questionnaires was present in the sample (English: r=.03, p=.836, German: r=.11, p=.472), which confirms the third hypothesis (H3) of this study that there would be no correlation between the school grades in English and in German and the frequency of strategy use in that language, respectively.

However, several individual items from both questionnaires correlated with the students´ grades in their second foreign language (German).

Most frequently used vocabulary consolidation strategies could be characterized as common, including some kind of mechanical repetition: pronouncing the new word out loud several times (item 11), hearing a word being pronounced several times (item 10), translating the new word into the mother tongue (item 22), or writing the new word down several times (item 9).

As far as the general frequency of strategy use is concerned, most students had been using vocabulary consolidation strategies with medium frequency, both in English and in German.

4. Suggestions for further research

Self-report, observations, journals or think-aloud protocols might seem as a better solution if one wishes to get a more precise image of the reasons why and steps how distinct language learning strategies are used, but all of these techniques are also very subjective and can only be noted in writing with a temporal distance from the thinking process itself, while also being dependent on the perception of the situation by the participant at a given point in time. Although the questionnaire used in this study shows good internal consistency, one might wish to change the choice of strategies made in the questionnaire or add some additional items to it (or remove some from it) to make it more complete or unified.

It would be interesting to see whether results and correlations similar to those presented in this study would be present with a greater number of participants. Also, it would be particularly intriguing to add the age factor to the already existing variables of English as the first and German as the second foreign language of the participants in the research concept in order to see whether the participants' age at the starting point of learning the second foreign language influences their use of strategies after several years of learning both languages, i.e., how do the consolidation strategies differ in students who have less multilingual experience, but have started learning the second foreign language with a higher level of cognitive maturity and the students who have started learning their second foreign language sooner, but at a lower level of thought development (due to their younger age).

5.Implications for teaching

Since there are so many language learning strategies and various combinations of learning styles among the learners, it would be useful if the teachers considered encouraging language learners of any age to "try out" and to use a variety of vocabulary learning strategies. Such an approach could strengthen the students' motivation and make them think about how they can facilitate their learning process. By presenting and emphasizing some of the possible ways of vocabulary learning, teachers could offer alternatives to mechanical rote learning of word lists, which students report using most frequently. This kind of learning by mechanical repetitionseems to be the simplest strategy that is the most applicable not only in learning a language, but other skills as well. Rote learning is definitely an efficient learning strategy, but at the same time it cannot be described as especially motivating, or more importantly, it does not require or provide a greater depth of information processing -a prerequisite for long term retention of the learned vocabulary items, which should be one of the central aims of language learners and their teachers. In other words, teachers should teach the students how to think as language learners who are aware of the language potentials they have so they could optimize the vocabulary learning strategies they use and the way they analyze the 'language world' around them.

In the context of multilingualism and third language learning in schools, the teachers should always try to raise awareness about the potential of other languages the students know or understand as facilitators of the process of learning or understanding new language material. Furthermore, such interlingual incentive would also teach the students to activate the knowledge they have acquired not just by formal means of education, but also through informal channels such as watching soap operas and movies or listening to music in Spanish, Italian, French or Portuguese.

Additionally, by promoting "multilingual learning", teachers could raise the cross-cultural awareness of the students and influence the development of their linguistic sensitivity (Szczęśniak, 2013).

The strategies the students learn (or create) in foreign language classes should also be applicable to learning in general and serve the purpose of getting to know various learning styles and options for learning.

Teaching the students how to use (language) learning strategies and how to become aware of their learning type should be present across the curriculum.That way the students would have a broader "practice space" for developing their learning competence(Denker, 2009).

To give some practical examples, the teachers could invent a mnemonic together with their students to help them remember an important list of items, a grammatical rule or the meaning of a word. For example, the adverb 'surreptitiously' could be used in a sentence with a strong visual impulse: I'm surreptitiously eating a cake under the table. The teachers could also direct the students towards the etymology of a word or a connection with another language they are familiar with, in order to make the meaning of a new word easier to grasp and access.

The benefits of such an approach have been confirmed in a team teaching project by Spöttl and Hinger (2001) which has shown that activities which were designed to stress the cross-linguistic connections in more than two languages had had a facilitative effect on multilingual vocabulary acquisition. Furthermore, with instruction in specific vocabulary learning strategies, the multilingual vocabulary retention of the participants improved, especially in the "weaker" language, where the proficiency level of the students was lower. Students learning English and German (or similar language combinations) might benefit from such an approach in teaching and learning insofar as it would make the task of learning new vocabulary easier and the process of "storing" meaning more permanent for the students.

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Sažetak rada na hrvatskom jeziku:

U ovom se radu istražuju uzorci korištenja strategija učenja vokabulara u svrhu konsolidacije znanja o riječima (prvenstveno značenja). Ispitanici su učenici trećeg razreda gimnazije u Županji kojima je engleski drugi, a njemački treći strani jezik. Učenici su engleski počeli učiti u prvom razredu osnovne škole, kako je u Hrvatskoj uobičajeno (a i zakonski regulirano), a njemački nakon engleskog, većinom u četvrtom razredu osnovne škole. Ispitanici su ispunili upitnik s 25 pitanja koji je za cilj imao prikupiti informacije o učestalosti upotrebe strategija učenja vokabulara među ispitanicima u svrhu uspoređivanja uzorka korištenja strategija učenja vokabulara u njihovom prvom (L2) i drugom (L3) stranom jeziku.

Očekuje se da će se ti uzorci u određenoj mjeri preklapati, odnosno da će učestalost korištenja strategija za pamćenje vokabulara u prvom stranom jeziku biti vrlo sličnaučestalosti korištenja strategija za pamćenje vokabulara u drugom stranom jeziku. Sljedeća je pretpostavka da će učenici rjeđe koristiti strategije za učenje vokabulara pri učenju njemačkog kao drugog stranog jezika jer su tom jeziku manje izloženi u izvanškolskom okruženju te stoga učenju vokabulara u tom jeziku moraju pristupiti drugačije, odnosno neke im strategije nisu dostupne zbog manjeg opsega jezičnog materijala kojim raspolažu u tom jeziku. Na temelju rezultata istraživanja strategija učenja (pamćenja) vokabulara postavljena je pretpostavka da neće biti korelacije školskih ocjena s učestalošću upotrebe strategija za konsolidaciju vokabulara.

Rezultati ovog istraživanja pokazuju pozitivnu korelaciju između dva upitnika, što znači da učenici koji strategije za konsolidaciju vokabulara često koriste u učenju jednog stranog jezika sličnom učestalošću strategije koriste i u učenju drugog stranog jezika i obrnuto: učenici koji rijetko koriste strategije za konsolidaciju vokabulara u jednom stranom jeziku rijetko ih koriste i u drugom stranom jeziku. Učenici su rjeđe koristili strategije pri učenju njemačkog nego pri učenju engleskog jezika. Nije bilo korelacije školskih ocjena s učestalošću korištenja strategija pamćenja vokabulara, no učestalost korištenja pojedinih strategija u prvom i drugom stranom jeziku bila je u korelaciji saškolskim ocjenama iz drugog stranog jezika.

Ključne riječi: Engleski kao prvi strani jezik, njemački kao drugi strani jezik, strategije učenja vokabulara.

Appendix I

(Instrument: Questionnaire)

UPITNIK

Molim Vas da ispunite ovaj upitnik koji je sastavni dio istraživanja strategija učenja vokabulara u nastavi stranih jezika i čiji će se rezultati koristiti isključivo za izradu diplomskog rada na Odsjeku za anglistiku Filozofskog fakulteta u Zagrebu. Vaši su odgovori anonimni, odnosno u radu neće biti povezani s Vašim imenom i prezimenom.

Hvala Vam unaprijed na uloženom trudu i vremenu! ☺

Vedrana Gnjidić
Filozofski fakultet u Zagrebu

Molim, popunite ove podatke o sebi:

Dob:___   Spol: M/Ž   Materinski jezik:_____

Jezik koji govorim kod kuće:_____

Ocjena iz njemačkog jezika koju sam imao/imala prošle školske godine: _____

Ocjena iz engleskog jezika koju sam imao/imala prošle školske godine: _____

Njemački jezik u školi učim _____ godina/e, a engleski _____ godina/e.

S njemačkim se, osim u školi, susrećem

_____ (na televiziji, kroz radio, YouTube, prijatelje,

rodbinu…)

S engleskim se, osim u školi, susrećem_____

Učio/la sam ili učim njemački u školi stranih jezika. da /ne (trajanje: _____)
Učio/la sam ili učim engleski u školi stranih jezika. da/ne   (trajanje: _____)

UPITNIK

U ovom dijelu nema točnih odgovora, nemojte odgovarati onako kako mislite da treba učiti ili kako mislite da drugi uče, nego onako kako Vi učite kada učite vokabular za test ili odgovaranje.

Prvi dio upitnika odnosi se na engleski jezik, a drugi dio na njemački. Pokušajte zaista razmisliti kako učite jedan, a kako drugi jezik i zaokružite svoj odgovor ovisno o tome koliko često koristite neku od ovih strategija.

1= nikad 2=rijetko 3=ponekad 4=često 5=vrlo često

ENGLESKI JEZIK: STRATEGIJE UČENJA VOKABULARA

43

1. Nove riječi učim uz pomoć slikovnog materijala (grafičke oznake, slike, fotografije…)   1 2 3 4 5

2. Značenje nove riječi pamtim kao „mentalnu sliku" koju si sam/a stvorim.
   1 2 3 4 5

3. Asocijacijama povezujem nove riječi s predznanjem.   1 2 3 4 5

4. Novu riječ pamtim „fotografski", odnosno znam gdje je bila napisana. 1 2 3 4 5

5. Povezujem riječi u grupe (prema „slici riječi", zvuku, značenju).   1 2 3 4 5

6. Nove riječi povezujem s njihovim sinonimima i antonimima.   1 2 3 4 5

7. Trudim se osmisliti kontekst za nove riječi, odnosno upotrijebiti ih u rečenici.

   1 2 3 4 5

8. Nove riječi ću povezati u smislenu priču u kojoj ću ih upotrijebiti i tako ih zapamtiti.
   1 2 3 4 5

9. Zapamtit ću novu riječ ako ju više puta napišem.   1 2 3 4 5

10. Zapamtit ću novu riječ ako ju više puta čujem.   1 2 3 4 5

11. Novu ću riječ izgovoriti naglas nekoliko puta kako bih ju zapamtio/la. 1 2 3 4 5

12. Pisani oblik riječi pamtim kao „mentalnu sliku".   1 2 3 4 5

13. Ako podcrtam prvo slovo nove riječi, bolje ću ju zapamtiti.   1 2 3 4 5

14. U pamćenju značenja neke riječi oslanjam se na svoje znanje o tvorbi riječi u stranom jeziku. (Nastavci za imenice, pridjeve; prefiksi, sufiksi iz latinskog, grčkog)
    1 2 3 4 5

15. Novu riječ učim kroz parafraze (opišem značenje nove riječi drugim riječima).
    1 2 3 4 5

16. Novu riječ u stranom jeziku uspoređujem s ostalim riječima koje poznajem u tom jeziku.   (Kako zvuče, kako se pišu, što znače)1 2 3 4 5

17. Novu riječ u stranom jeziku uspoređujem s ostalim riječima u drugim stranim jezicima koje poznajem.   1 2 3 4 5

18. Novu riječ u stranom jeziku uspoređujem s riječima u materinskom jeziku.
     1 2 3 4 5

19. Idiome učim „u komadu" (kao cjelinu).   1 2 3 4 5

20. Koristim mimiku/gestikulaciju kako bih lakše zapamtio/la značenje neke riječi.
    1 2 3 4 5

21. Gestikulacijom si pomažem zapamtiti *grafički oblik nove riječi* (kako riječ izgleda napisana).   1 2 3 4 5

22. Nove riječi prevodim na svoj materinski jezik kako bih ih bolje/lakše zapamtio/la.
1 2 3 4 5

23. Riječi povezujem s konkretnim predmetima kako bih ih zapamtio/la. (npr. lijepljenjem „post it" papirića na predmete ili zamišljanjem stvarnog događaja/radnje/predmeta).
1 2 3 4 5

24. Nove riječi pišem na kartice koje koristim za učenje. (flashcards, quizlet)
1 2 3 4 5

(Ako koristim kartice, na njih pišem novu riječ na stranom jeziku i _sinonime_, _prijevod_, rečenicu u kojoj je riječ upotrijebljena_, crtež_, _____, _____...)

25. _____

_____

_____

NJEMAČKI JEZIK: STRATEGIJE UČENJA VOKABULARA

1. Nove riječi učim uz pomoć slikovnog materijala (grafičke oznake, slike, fotografije…)   1 2 3 4 5

2. Značenje nove riječi pamtim kao „mentalnu sliku" koju si sam/a stvorim.
1 2 3 4 5

3. Asocijacijama povezujem nove riječi s predznanjem.   1 2 3 4 5

4. Novu riječ pamtim „fotografski", odnosno znam gdje je bila napisana. 1 2 3 4 5

5. Povezujem riječi u grupe (prema „slici riječi", zvuku, značenju).   1 2 3 4 5

6. Nove riječi povezujem s njihovim sinonimima i antonimima.   1 2 3 4 5

7. Trudim se osmisliti kontekst za nove riječi, odnosno upotrijebiti ih u rečenici.
1 2 3 4 5

8. Nove riječi ću povezati u smislenu priču u kojoj ću ih upotrijebiti i tako ih zapamtiti.
1 2 3 4 5

9. Zapamtit ću novu riječ ako ju više puta napišem.   1 2 3 4 5

10. Zapamtit ću novu riječ ako ju više puta čujem.   1 2 3 4 5

11. Novu ću riječ izgovoriti naglas nekoliko puta kako bih ju zapamtio/la. 1 2 3 4 5

12. Pisani oblik riječi pamtim kao „mentalnu sliku".   1 2 3 4 5

13. Ako podcrtam prvo slovo nove riječi, bolje ću ju zapamtiti. 1 2 3 4 5

14. U pamćenju značenja neke riječi oslanjam se na svoje znanje o tvorbi riječi u stranom jeziku. (Nastavci za imenice, pridjeve; prefiksi, sufiksi iz latinskog, grčkog)

    1 2 3 4 5

15. Novu riječ učim kroz parafraze (opišem značenje nove riječi drugim riječima).

    1 2 3 4 5

16. Novu riječ u stranom jeziku uspoređujem s ostalim riječima koje poznajem u tom jeziku (Kako zvuče, kako se pišu, što znače) 1 2 3 4 5

17. Novu riječ u stranom jeziku uspoređujem s ostalim riječima u drugim stranim jezicima koje poznajem. 1 2 3 4 5

18. Novu riječ u stranom jeziku uspoređujem s riječima u materinskom jeziku. 1 2 3 4 5

19. Idiome učim „u komadu" (kao cjelinu). 1 2 3 4 5

20. Koristim mimiku/gestikulaciju kako bih lakše zapamtio/la značenje neke riječi.
    1 2 3 4 5

21. Gestikulacijom si pomažem zapamtiti *grafički oblik nove riječi* (kako riječ izgleda napisana). 1 2 3 4 5

22. Nove riječi prevodim na svoj materinski jezik kako bih ih bolje/lakše zapamtio/la.
    1 2 3 4 5

23. Riječi povezujem s konkretnim predmetima kako bih ih zapamtio/la. (npr. lijepljenjem „post it" papirića na predmete ili zamišljanjem stvarnog događaja/radnje/predmeta).
    1 2 3 4 5

24. Nove riječi pišem na kartice koje koristim za učenje. (flashcards, quizlet)
    1 2 3 4 5
    (Ako koristim kartice, na njih pišem novu riječ na stranom jeziku i _sinonime_, _prijevod_, rečenicu u kojoj je riječ upotrijebljena_, crtež_, _____, _____...)

25. _____

    _____

    _____

Appendix II

Tables and figures

Table 1.Taxonomy of Vocabulary Learning Strategies (taken from Schmitt, 1997, Table 1A)

Strategy Group	Strategy	Use %	Helpful %
Strategies for the Discovery of a New Word's Meaning			
DET	Analyze part of speech	32	75
DET	Analyze affixes and roots	15	69
DET	Check for L1 cognate	11	40
DET	Analyze any available pictures or gestures	47	84
DET	Guess from textual context	74	73
DET	Bilingual dictionary	85	95
DET	Monolingual dictionary	35	77
DET	Word lists	--	--
DET	Flash cards	--	--
SOC	Ask teacher for an L1 translation	45	61
SOC	Ask teacher for paraphrase or synonym of new word	42	86
SOC	Ask teacher for a sentence including the new word	24	78
SOC	Ask classmates for meaning	73	65
SOC	Discover new meaning through group work activity	35	65
Strategies for Consolidating a Word Once it has been Encountered			
SOC	Study and practice meaning in a group	30	51
SOC	Teacher checks students' flash cards or word lists for	3	39

accuracy

SOC Interact with native-speakers	--	--
MEM Study word with a pictorial representation of its meaning	--	--
MEM Image word's meaning	50	38
MEM Connect word to a personal experience	37	62
MEM Associate the word with its coordinates	13	54
MEM Connect the word to its synonyms and antonyms	41	88
MEM Use Semantic maps	9	47
MEM Use 'scales' for gradable adjectives	16	62
MEM Peg Method	--	--
MEM Loci Method	--	--
MEM Group words together to study them	--	--
MEM Group words together spatially on a page	--	--
MEM Use new word in sentences	18	82
MEM Group words together within a storyline	--	--
MEM Study the spelling of a word	74	87
MEM Study the sound of a word	60	81
MEM Say new word aloud when studying	69	91
MEM Image word form	32	22
MEM Underline initial letter of the word	--	--
MEM Configuration	--	--
MEM Use Keyword Method	13	31
MEM Affixes and Roots (remembering)	14	61
MEM Part of Speech (remembering)	30	73
MEM Paraphrase the words meaning	40	77

MEM Use cognates in study		10	34
MEM Learn the words of an idiom together		48	77
MEM Use Physical action when learning a word		13	49
MEM Use semantic feature grids		--	--
COG Verbal repetition		76	84
COG Written Repetition		76	91
COG Word Lists		54	67
COG Flash Cards		25	65
COG Take notes in class		64	84
COG Use the vocabulary section in your textbook		48	76
COG Listen to tape of word lists		--	--
COG Put English labels on physical objects		--	--
COG Keep a vocabulary notebook		--	--

Figure 2: Comparison of summative results of every participant in English and German
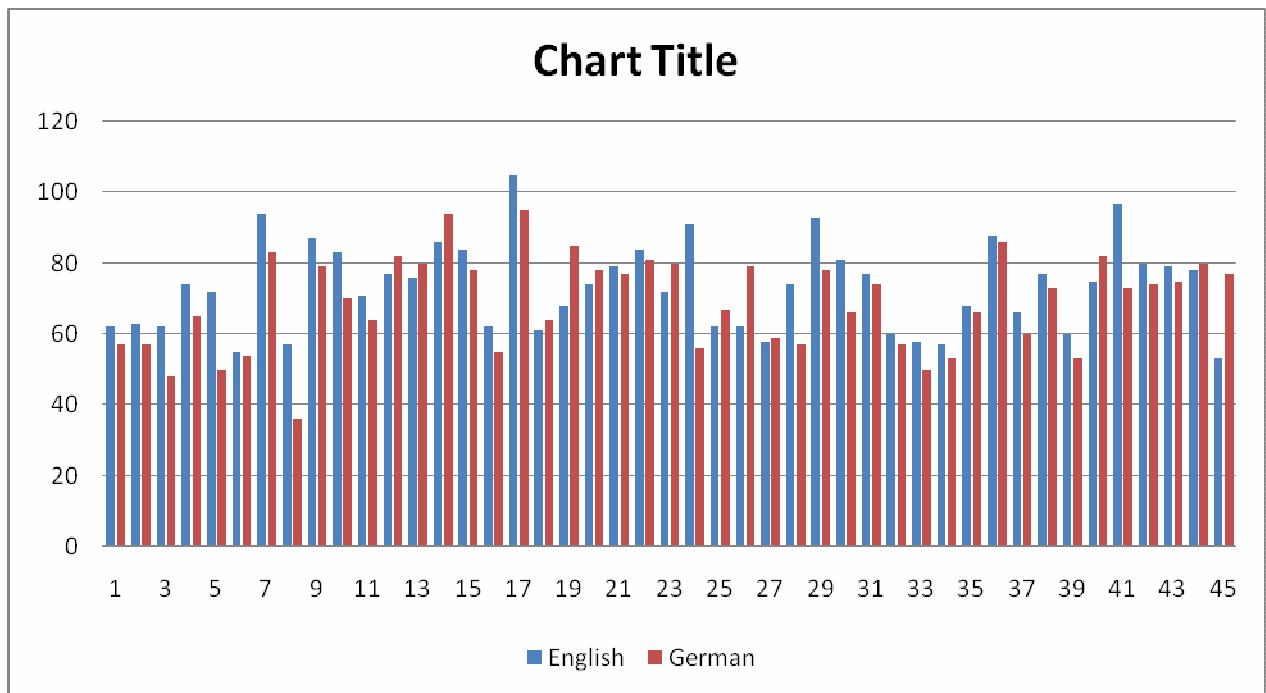questionnaire

Table 2: Individual students' results on theEnglish and the German questionnaire and students' grades

No.	English_SummA	Grade English	German_SummB	Grade German
1	62	5	57	3
2	63	5	57	4
3	62	4	48	2
4	74	5	65	5
5	72	4	50	4
6	55	5	54	5
7	94	4	83	4
8	57	4	36	2
9	87	3	79	3
10	83	5	70	5
11	71	5	64	4
12	77	3	82	2
13	76	4	80	4
14	86	3	94	3
15	84	3	78	2
16	62	4	55	5
17	105	5	95	5
18	61	5	64	4
19	68	2	85	3
20	74	5	78	5
21	79	4	77	2
22	84	3	81	3
23	72	4	80	4
24	91	4	56	3
25	62	4	67	4
26	62	4	79	3
27	58	2	59	2
28	74	5	57	3
29	93	5	78	4
30	81	5	66	4
31	77	3	74	2
32	60	3	57	3
33	58	4	50	3
34	57	5	53	2
35	68	5	66	4
36	88	3	86	3
37	66	4	60	3
38	77	4	73	3
39	60	3	53	3
40	75	3	82	3
41	97	5	73	3
42	80	4	74	3
43	79	5	75	4
44	78	3	80	3
45	53	4	77	4

Table 3b: Frequency distribution table: level of strategy use in both questionnaires (English and German)

Categories of frequency	Use of strategies in English	Use of strategies in German	Categories of frequency
HIGH (>83)	P7 (94), P9 (87), P10 (83), P14 (86), P15 (84), P17 (105), P22 (84), P24 (91), P29 (93), P36 (88), P41 (97)	P7(83),P12(82), P13(80),P14(94), P17 (95), P19(85),P22 (81), P23(80),P36 (86), P40(82), P44(80)	HIGH (>80)
MEDIUM (68-82)	P4 (74), P5 (72), P11 (71), P12 (77), P13 (76), P19 (68), P20 (74), P21 (79), P23 (72), P28 (74), P30 (81), P31 (77), P35 (68), P38 (77), P40 (75), P42 (80), P43 (79), P44 (78)	P4(65),P9(79),P10(70), P11 (64), P15(78), P20(78),P21(77),P25(67),P26(79), P29(78),P30(66),P31(74),P35(66), P37(60),P38(73),P41(73),P42(74), P43(75),P45(77)	MEDIUM (64-79)
LOW (<68)	P1 (62), P2 (63), P3 (62), P6 (55), P8 (57), P16 (62), P18 (61), P25 (62), P26 (62), P27 (58), P32 (60), P33 (58),P34 (57), P37(66), P39 (60), P45 (53)	P1 (57), P2 (57), P3 (48), P5 (50), P6 (54),P8(36),P16(55),P18(64),P24(56),P27(59),P28(57), P32(57),P33(50), P34(53),P39(53)	LOW (<63)