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An Overview of Metacognitive Strategies in Young learners' Vocabulary Learning

Judit Hardi
Institute of Foreign Languages and Further Education, Faculty of Teacher Training,
Kecskemét College, HUNGARY

Abstract: Young learners in a foreign language setting learn vocabulary in a variety of ways. They rely on memory, cognitive, social, and metacognitive strategies to learn vocabulary. Metacognitive strategies are used to evaluate and monitor vocabulary learning, to set up the constituents of vocabulary knowledge, and to search opportunities for learning vocabulary. Accordingly, metacognitive strategies can operate in and out of school activities to facilitate vocabulary learning. In this paper, I intend to provide an overview of young learners' metacognitive strategies by summarizing the use of evaluating and monitoring strategies, discussing young learners' understanding of their vocabulary knowledge, and identifying strategies directed to seek practice opportunities out of school. In the foreign language setting in Hungary out-of-school opportunities highly contribute to the success of vocabulary learning.

Keywords: vocabulary learning strategies, metacognition, evaluation and monitoring strategies, understanding vocabulary knowledge, out-of-school opportunities

1 Introduction

Hungarian primary school learners' self-regulated vocabulary learning consists of a variety of components, such as motivation, self-motivation, self-regulating capacity, vocabulary learning strategies, and metacognitive strategies. Among these components the use of metacognitive strategies plays a significant role in making vocabulary learning successful by raising learners' awareness of the importance of utilising practice opportunities, getting knowledge about the language, and helping learners define their actual stage in the learning process. Metacognitive strategies, as well as metacognitive thinking and understanding seem to be essential to succeed in language learning, and, thus, in vocabulary learning, too.

In this paper I provide an overview of young learners' (YLs) metacognitive strategies used for learning vocabulary in English as a Foreign Language (EFL). In a foreign language setting learners should look for opportunities to improve their vocabulary. Therefore, the use of learning strategies seems to be especially important, since the opportunities for practising English out-of-school are fairly limited. Metacognitive strategies directed to find practise opportunities out-of-school embrace activities, such as speaking, reading books, listening to music, watching films in English, and also visiting English internet pages, and playing computer games in the target language. Besides seeking out-of-school opportunities, metacognitive vocabulary learning is discussed in terms of using evaluating and monitoring strategies, and young learners' understanding of their vocabulary knowledge.

In the large-scale research, which provides data for this study based on young learners' self-report, strategies were elicited and investigated in the framework of self-regulated vocabulary learning. Although metacognitive strategies are often discussed as one component of vocabulary learning besides cognitive, memory, and social strategies, in order to underlie the importance of metacognition they have been analysed and discussed as an individual category in the basic research, and are examined individually here, as well. In the

following, after a short review of what is meant by metacognitive strategies, the research methodology and results will be discussed in terms of young learners' in and out-of-school vocabulary learning.

2 Metacognition and metacognitive strategies

Metacognition is a cognitive ability which highly determines the development of metamemory and metacognitive knowledge, and its development is life-long (Győri, Várnai, & Stefanik, 2004). Since the awareness of metacognition begins quite early, researchers seem to agree that children, irrespective of their proficiency level, are capable of describing their learning and thinking processes in depth. This fact ensures the success of research among YLs because it implies that they are able to report what they are doing when learning a foreign language.

The most important feature of strategic learning is not the specific strategies students employ when they learn a foreign language but rather the fact that they exert creative effort to make their own learning more efficient and successful (Tseng et al. 2006). A group of international strategy experts strongly agree that "overall metacognitive control must be present for a mental action to be 'strategic' and metacognitive strategies are the overarching strategies determining the cognitive strategies the learner will deploy" (Cohen, 2007, p. 32).

Metacognitive strategies are responsible for overviewing the processes of language use and language learning, and for planning and regulating these processes efficiently (O'Malley & Chamot, 1990). Metacognitive strategies seem to determine the quality of language learning. Nyikos and Fan when listing pedagogical implications of strategy use claim that "the combination of metacognitive and specific vocabulary learning strategies seems to work better than either in isolation" (2007, p. 273). This suggests that the use of any strategy must be complemented by a certain degree of metacognitive awareness, especially in the case of YLs, or else language learning becomes much less effective. Metacognition embraces strategies that only indirectly contribute to language learning, but their absence may result in lower level of effectiveness. Metacognition functions as a constituent of self-regulated behaviour whose importance in language learning has been highlighted in recent literature (Dörnyei, 2005; Tseng et al., 2006). According to Dörnyei, metacognitive strategies involve higher-order strategies aimed at analyzing, monitoring, evaluating, planning, and organizing one's own learning process (Dörnyei, 2005, p. 169). Metacognitive strategies in Oxford's (1990) taxonomy involve centering, arranging, planning, and evaluating learning. Further constituents of metacognitive learning are analysing, organizing, and monitoring.

In Oxford's classification (1990) seeking practice opportunities represents a group of metacognitive strategies within the subgroup of arranging and planning language learning. Metacognitve strategies which involve seeking practice opportunities out-of-school are especially useful in a foreign language setting, since from informal and enjoyable activities learners are able to learn considerable amounts of vocabulary (Milton, 2009; Józsa & Imre, 2013). However, learners are able to exploit opportunities for learning if they are autonomous and self-regulated language learners (Csizér & Kormos, 2012). Since the components of metacognition are closely related to self-regulated language learning, metacognition seems to override the vague boundaries of learning strategies (Tseng & Schmitt, 2008) and can be handled as an individual entity chiefly assisting the process of language learning. Learners who are metacognitively aware can have some knowledge about when and how to use particular strategies for learning or for problem solving. Therefore, YLs' metacognitive strategic thinking is examined as a single category of self-regulated vocabulary learning.

In the present paper metacognitive strategies are discussed from two perspectives.

First, evaluation and monitoring strategies are analysed, and then the strategy of seeking practice opportunities is discussed in detail. The reason for differentiating is that while evaluation and monitoring strategies infiltrate the whole process, the strategy of seeking practice opportunities refers mainly to out-of-school activities in learning EFL.

3 Methodology

3.1 Participants and settings

Hungarian primary school learners from grades 3 to 8[1] took part in the large-scale research from where metacognitive strategies have been taken on. Participation was voluntary throughout the research; learners who were willing to participate were chosen at random by their language teachers. All of the participants were learning English as a foreign language in a school setting. Since metacognitive abilities appear at the age of 8-10 and they develop with age (Gósy, 1999), the youngest participants who took part in the investigation were third graders, i.e. 8 or 9 year-old pupils. They started learning EFL in grade 3, and it was supposed that they had developed a certain level of metacognitive thinking and understanding (Chamot, & El-Dinary, 1999) that allowed them to intelligently verbalize their learning process. Throughout the research, the participants were informed about the primary purpose of data collecting, and anonymity was guaranteed.

The whole research was conducted in six elementary schools in Kecskemét, Hungary. Five of them were state schools situated in residential areas, and one was a religious primary school situated in the middle of the town centre. Children in all these schools were learning English as a foreign language and had different number of classes a week depending on whether they were specialised in learning English or not. Those who were specialised had 4 or 5 lessons, and who were not had 2 or 3 lessons a week. Since my intention was to include a wide range of children in the investigation, the differences in the schools, in the number of lessons, and the different level of specialisation supported the diversity of data and helped to create a comprehensive picture of young learners' self-regulated vocabulary learning.

3.2 The instrument

The instrument used for the investigation was a four-point Likert-type rating scale which was developed in the large-scale research, and in which 1 meant 'I don't agree', 2 'I partly agree', 3 'I agree', and 4 meant 'I strongly agree'. Offering a four-point scale was supposed to result in more refined answers than using three options, since participants were not offered to take a middle position, but 'forced' to choose between the options. The metacognitive strategies overviewed in this paper are based on the data of a large-scale research which investigated the self-regulated and strategic vocabulary learning of YLs. Since metacognition was investigated as a primary component of self-regulated vocabulary learning and represented one category, it can be analysed independently from the other components. Data processing was done by SPSS (Statistical Package for the Social Sciences) version 20.

3.3 Results and discussion

The metacognitive strategies which were elicited in the large-scale research based on YLs'

[1] Children in Hungary start primary school studies at the age of 6 or 7, thus in the third grade they are 8 or 9 years old, and in grade 8 (when they finish primary school studies) they are around 14 or 15.

self-report are discussed along two lines. First, evaluating and monitoring strategies and then metacognitive strategies involving out-of-school practice opportunities for vocabulary learning are presented and discussed.

3.3.1 Metacognitive strategies of evaluating and monitoring

The analysis of evaluating and monitoring strategies can also be found in the proceedings of the 6th international scientific and expert conference of the international TEAM society (Hardi, 2014b). Table 1 shows evaluating and monitoring strategies. Three strategies belong to self-evaluation, five to knowing about language and two to self-monitoring.

Metacognition Evaluation – Self-evaluation
1. I can *express** myself in English.
2. I can make myself *understood* in English.
10. I *have to learn* a lot of words to succeed in English.
Metacognition Monitoring – Knowing about language
3. I know a word if I can *use it in a sentence*.
4. I know a word if I can *say it correctly*.
5. I know a word if I can *write it correctly*.
6. I know a word if I can always *recall* it when I have to use it.
7. I know a word if I *know its meaning*.
Metacognition Monitoring – Self-monitoring
8. I often *review* the English words in order not to forget them.
9. I am able to *form* more and more *sentences*, because I know more and more words.

* The keywords of each strategy are put in italics and in the following noted under the tables in which they occur in order to make interpreting the results easier.

Table 1: Metacognitive strategies in YLs' self-report

First, inferential statistical results are presented to provide a general view and then the results of descriptive statistics will be illustrated for specific information. The correlation matrix (Table 2) shows that almost all the items of metacognitive strategies significantly correlate with one another meaning that there is a strong connection between the uses of these strategies in young learners' self-report. The only exception is strategy 1 in the case of which the correlation is not significant with many other strategies.

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
2	0.56**								
3	0.00	0.03							
4	0.12*	0.12*	0.28**						
5	0.08	0.08	0.31**	0.40**					
6	0.10	0.18**	0.30**	0.20**	0.29**				
7	0.09	0.12*	0.14**	0.18**	0.27**	0.23**			
8	0.13*	0.12*	0.21**	0.23**	0.25**	0.17**	0.20**		
9	0.29**	0.30**	0.20**	0.15**	0.12*	0.21**	0.21**	0.29**	
10	-0.14**	-0.10	0.24**	0.11*	0.18**	0.27**	0.23**	0.19**	0.16**

* Correlation is significant at the 0.05 level
** Correlation is significant at the 0.01 level
1.express, 2 make oneself understood, 3 use in sentences, 4 say correctly,
5 write correctly, 6 recall, 7 know meaning, 8 review, 9 form sentences, 10 have to learn a lot

Table 2: Inter-item correlation matrix of metacognitive strategies

Moreover, there is a strong negative correlation between strategies 1 and 10, which suggests that those children who think they can express themselves in English do not think they have to learn a lot of words to succeed. The correlation is also negative between items 2 and 10, which can mean that those who can make themselves understood in English do not think that they should learn a lot of words to be able to do it. The negative correlations between these items imply that the YLs who took part in the investigation think if they reach a certain level of vocabulary that makes it possible to succeed they do not have to learn a lot more words, or they can succeed with a relatively low level of vocabulary.

The correlations with the exception of strategy 4 are not significant between strategy 1 and the strategies of 'finding out about language learning' (strategies 5, 6, and 7) implying that those who think they can express themselves in the target language do not consider most of the aspects of knowing a word important. It implies that YLs who think they are be able to express themselves are aware that they have to say words correctly, but they do not think that using a word in a sentence or knowing how to write it, and recall it whenever it is needed or knowing its meaning are essential for being able to express themselves. In the case of strategy 2 I found the same only between strategies 3 and 5 implying that YLs think they can make themselves understood without being able to use words in a sentence or writing them correctly. The correlations let us conclude that the perspective of vocabulary learning should change, since children's opinion on the importance of knowing a particular aspect of a word may rely on the false belief that knowing word meaning is enough for being able to express themselves or make themselves understood. The reason for this false view may come from teaching and testing techniques, which facilitate word meaning without concentrating on contextual issues.

All in all, the significant correlations between these items show the importance of metacognition in learning foreign language vocabulary. Based on the database, the reliability coefficient of metacognitive strategies was relatively high (Cronbach's Alpha 0.70) and the item-total statistics proved that the investigated items reliably constitute the metacognitive strategy use of YLs. This finding means that the learners who took part in the research recalled metacognitive strategies that facilitate vocabulary learning.

Factor analysis reinforces the categories of metacognition. The KMO index of sampling adequacy was 0.74 which indicates that the data factors well. Three components were extracted in the analysis (Table 3), which clearly represent the main types of metacognitive strategies YLs reported to use in the sample. These are the strategies of self-evaluation, self-monitoring, and knowing about language. The strategies that chiefly represent each factor are in bold.

	Component		
	1	**2**	**3**
1	0.37	**0.76**	-0.05
2	0.41	**0.73**	0.00
3	**0.55**	-0.31	-0.13
4	**0.56**	-0.10	-0.56
5	**0.61**	-0.23	-0.44
6	**0.59**	-0.13	0.11
7	**0.52**	-0.10	0.22
8	0.55	-0.03	**0.12**
9	0.56	0.27	**0.42**
10	0.40	**-0.52**	0.47

Extraction Method: Principal Component Analysis.
3 components extracted.

Table 3: Factor analysis: Component matrix

In factor 1 the items from 3 to 7 represent the coherence of the strategies of knowing about language. The components belonging to the strategy of self-evaluation formulate factor 2. Whereas items 1 and 2 strongly represent the strategy of self-evaluation, item 10 negatively signifies this strategy group. This finding confirms the finding of correlation analysis in which strategy 10 had a negative correlation with strategies 1 and 2. In factor 3 there are items 8 and 9 with relatively high values which signify the strategies of self-monitoring. The finding that the three factors clearly represent the evaluation and monitoring strategies of metacognition supports the structure of YLs' metacognitive strategies.

The tables below (Tables 4, 5, 6 and 7) show the descriptive statistics of metacognitive strategies. Table 4 shows the means and standard deviation of the strategy items. The total mean value (M=3.07) indicates that YLs normally agreed on using these strategies of metacognition for learning vocabulary. The lowest mean is in the case of strategy 1 (M=2.87) '*I can express myself in English.*', and the highest is in strategy 7 (M=3.49) '*I know a word if I know its meaning*'. It means that most of the children who took part in the investigation agreed that they could not express themselves in English. This result is supported by the lowest value of standard deviation belonging to strategy 1. However, most of the children agreed that they know a word if they know its meaning. This finding implies that YLs think the most important aspect of word knowledge is meaning, and they also agreed that the ability of recalling meaning (strategy 6, M=3.19) is important. Children also agreed on strategies 9 and 10 (M=3.38), i.e. that they are able to form more and more sentences, because they know more and more words, and that they have to learn a lot of words to succeed in English.

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**
Mean	**2.87**	2.93	2.79	2.88	2.90	3.19	**3.49**	2.98	3.38	3.38	**3.07**
Std. Dev.	**0.60**	0.64	0.99	0.91	0.89	0.85	0.65	0.85	0.68	0.73	**0.41**

N=331
1.express, 2 make oneself understood, 3 use in sentences, 4 say correctly,
5 write correctly, 6 recall, 7 know meaning, 8 review, 9 form sentences, 10 have to learn a lot

Table 4: Means of metacognitive strategies

Table 5 presents the mean values of age-related differences in YLs' answers of using

the strategies of metacognition. The highest and lowest means are in boldface type in the table in order to illustrate the differences in strategy use between the classes. Children in classes 3 and 5 gave the lowest scores to strategy 1 implying that they cannot really express themselves in English. Fourth graders, however, gave a higher score to this strategy. They gave the lowest score to strategy 5 (M=2.61) '*I know a word if I can write it correctly*', which means that they do not agree with this statement. Forth and fifth graders gave the highest scores to strategy 9 (M=3.57, M=3.53) '*I am able to form more and more sentences, because I know more and more words*', which implies that they are aware of the importance of vocabulary knowledge both at word and sentence level. YLs in grades 6 and 7 gave the lowest scores to strategy 4 (M=2.56, M=2.69) '*I know a word if I can say it correctly*' and the highest to strategy 7 (M=3.52) '*I know a word if I know its meaning*' implying that children in these classes think that word meaning is more important than correct pronunciation. Strategy 7 scored the highest by children in classes 8 (M=3.35), as well. Although eighth graders scored the lowest in strategy 3 (M=2.46) '*I know a word if I can use it in a sentence*' implying that they do not think that they need to know how to use words in a sentence, they agreed with the statement '*I am able to form more and more sentences, because I know more and more words*' (strategy 9, M=3.09). All in all, considering age-related differences, strategies 7 and 9 got the highest scores, which suggests that meaning is the most important aspect of word knowledge among YLs in each class and that YLs are aware that knowing more and more words can result in being able to form more sentences.

Class/N	1	2	3	4	5	6	7	8	9	10
3 N=45	**2.91**	3.09	3.11	3.64	3.42	3.51	**3.80**	3.22	3.60	3.60
4 N=28	3.25	3.29	2.89	3.00	**2.61**	3.36	3.36	3.46	**3.57**	3.29
5 N=60	**2.83**	2.92	2.92	3.03	2.95	3.22	3.40	3.05	**3.53**	3.50
6 N=71	2.70	2.82	2.70	**2.56**	2.75	2.97	**3.52**	3.07	3.25	3.30
7 N=58	2.90	2.91	2.88	**2.69**	3.00	3.34	**3.52**	2.95	3.47	3.41
8 N=69	2.87	2.84	**2.46**	2.67	2.70	2.99	**3.35**	2.49	3.09	3.25

1.express, 2 make oneself understood, 3 use in sentences, 4 say correctly,
5 write correctly, 6 recall, 7 know meaning, 8 review, 9 form sentences, 10 have to learn a lot

Table 5: The means of metacognitive strategies in the classes

Table 6 shows the means of YLs' metacognitive strategy use in the framework of their marks in English. Based on the marks strategy 3 (M=2.80) '*I know a word if I can use it in a sentence*' got the lowest and strategy 7 (M=3.47) '*I know a word if I know its meaning*' the highest scores. Children whose marks were 2 seemed not to agree on strategy 8 (M=2.19) '*I often review the English words in order not to forget them*', but agreed on strategy 10 (M=3.31) '*I have to learn a lot of words to succeed in English'*. This finding implies that although the learners with the worst mark are aware that they have to learn a lot of words to succeed, they do not review vocabulary. The reason for this can either be their low level of motivation or the inadequate testing practices, which reinforce immediate word knowledge without taking vocabulary retention as a focal point.

Those learners whose mark was 5 gave relatively high scores to each strategy. Interestingly, strategy 4 (M=2.93) '*I know a word if I can say it correctly*' was scored the lowest by learners with mark 5 in English, which finding reinforces that learners do not think that correct pronunciation is too much important. The reason for this, as I have mentioned before, can be the lack of oral communication in the English lesson, and inadequate testing practices which besides concentrating on meaning facilitate orthographical knowledge of words. Strategy 9 '*I am able to form more and more sentences, because I know more and*

more words' got the highest scores (M=3.61) from learners with mark 5, which can be an indicative of their vocabulary knowledge and their motivation.

Mark/N	1	2	3	4	5	6	7	8	9	10
2 N=16	2.31	2.50	2.44	2.37	2.69	2.94	3.13	**2.19**	2.69	**3.31**
3 N=26	**2.72**	**2.75**	2.78	2.83	2.92	3.08	**3.44**	3.08	3.19	3.39
4 N=140	2.84	2.83	**2.74**	2.78	2.81	3.16	**3.46**	2.99	3.29	3.44
5 N=111	3.08	3.21	2.94	**2.93**	2.97	3.25	3.53	3.01	**3.61**	3.26
Total N=303	2.88	2.94	**2.80**	2.82	2.87	3.17	**3.47**	2.97	3.37	3.36

1.express, 2 make oneself understood, 3 use in sentences, 4 say correctly,
5 write correctly, 6 recall, 7 know meaning, 8 review, 9 form sentences, 10 have to learn a lot

Table 6: The means of metacognitive strategies and YLs' marks in EFL

Another important signifier of metacognitive strategy use is the liking of English. YLs who took part in the investigation were asked to score their liking of English on a scale where 1 meant 'I hate it', 2 'I don't like it', 3 'so-so', 4 'I like it', and 5 'I like it very much'. Table 7 shows the results of metacognitive strategy use relating to YLs' liking of English. Learners who hate English scored the strategies of metacognition very low. Strategy 8 '*I often review the English words in order not to forget them*' got the lowest score (M=1.86) among all. This finding resembles the results of children with mark 2. It seems that those who hate English or get bad marks do not review words. Strategies 9 '*I am able to form more and more sentences, because I know more and more words*' and 10 '*I have to learn a lot of words to succeed in English*' got quite high scores (M=3.29) from children who hate English. These results imply that children are aware that they have to learn more to be able to form sentences and, thus, to communicate.

It is interesting that children who like English very much also gave strategy 9 (M=3.74) the highest scores, which can be the indication of their success and not only their expectation. Strategy 7 '*I know a word if I know its meaning*' got the highest scores among most of the children who do not like English (M=3.33), quite like it (M=3.50), or like it (M=3.45), which can also be a sign of meaning-centeredness in vocabulary learning. Strategy 3 '*I know a word if I can use it in a sentence*' is worth mentioning in respect of liking English. This strategy got the lowest scores among those who do not like English (M=2.40) and those who like it (M=2.69), which means that children irrespective of their liking of English do not think that being able to use words in a sentence is an important aspect of vocabulary knowledge. This finding may also be the outcome of traditional teaching and testing practices which rely on word-level meaning and do not care for contextual communication.

Liking/N	1	2	3	4	5	6	7	8	9	10
1 N=7	2.00	2.43	2.71	2.00	2.00	2.71	3.00	**1.86**	**3.29**	**3.29**
2 N=15	2.33	2.80	**2.40**	2.67	2.87	2.80	**3.33**	2.27	2.53	3.27
3 N=82	2.71	**2.67**	2.77	2.79	2.85	3.07	**3.50**	2.76	3.10	3.44
4 N=131	2.86	2.90	**2.69**	2.88	2.85	3.24	**3.45**	3.05	3.40	3.35
5 N=96	3.17	3.26	**3.03**	3.04	3.07	3.32	3.58	3.27	**3.74**	3.41

Liking: 1. I hate it, 2. I don't like it, 3. so-so, 4. I like it, 5. I like it very much
1.express, 2 make oneself understood, 3 use in sentences, 4 say correctly,
5 write correctly, 6 recall, 7 know meaning, 8 review, 9 form sentences, 10 have to learn a lot

Table 7: The means of metacognitive strategies and YLs' liking of English

3.3.2 Metacognitive strategies of seeking practise opportunities

In the following metacognitive strategies are discussed in terms of seeking practice opportunities out-of-school. The reason for investigating these strategies separately from the metacognitive strategies of evaluating and monitoring is that they mainly involve learning activities out of school, and, thus, are supposed to highly facilitate language learning in a foreign language context. Out-of-school language learning was also discussed in Hardi (2014a). Table 8 presents YLs' out-of-school vocabulary learning strategies (VLS).

Strategy	N	Min.	Max.	Mean	SD	Median
Speaking	331	1	4	**3.12**	0.70	3.00
Listening to music	331	1	4	**3.12**	0.91	3.00
Watching films	331	1	4	2.63	1.02	3.00
Reading	331	1	4	2.44	0.89	2.00
Computer games	331	1	4	2.38	1.11	2.00
Internet use	331	1	4	2.31	1.03	2.00

Table 8: Out-of-school vocabulary learning strategies

The importance of speaking with the highest mean values is at the first place in children's answer, while internet use is the strategy least used by YLs. This result may reflect a kind of order of importance or whishing list set by pupils and not the actual order of strategy use. This supposition can be supported by the finding that the self-evaluation strategy no. 1 '*I can express myself in English.*' got the lowest mean (M=2.87).

Table 9 presents the connection between out-of-school vocabulary learning strategies. The relation is the strongest between speaking and reading which suggest that YLs who think that speaking is important to learn vocabulary out-of-school also think that reading is important. The connection is the weakest, though not significant, between reading and playing computer games suggesting that those who think reading is important do not think that vocabulary can be improved by playing computer games. However, the correlation is very high between internet use and computer games, which can imply that those who use computer think that games can be useful for vocabulary learning.

	Speaking	Reading	Music	Internet	Film	C. games
Speaking	1					
Reading	**0.44****	1				
Music	0.17**	0.20**	1			
Internet	0.13*	0.22**	0.09	1		
Film	0.29**	0.31**	0.19**	0.18**	1	
Computer games	-0.01	**-0.03**	-0.01	0.26**	0.03	1

Pearson Correlation Sig. (2-tailed)
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 9: Out-of-school vocabulary learning strategies (Correlation matrix)

Age-related differences in out-of-school vocabulary learning

Since it has been supposed that primary school learners' out-of-school vocabulary learning varies with the age, strategies are examined in relation to the ages. Three age groups have been formulated in order to deal with a grater number of learners in each age group. Age-

related investigation can provide a deeper understanding of certain trends in out-of-school vocabulary learning. Table 10 presents the order of out-of-school activities used for vocabulary learning. In each age group the most important strategies are speaking and listening to music. In case of the first two age groups speaking is at the first place which is preceded by music in age group 3. While reading and watching films are the next activities for the youngest learners, students in the upper section of the primary school seem to be in favour of computer games and the internet.

Age group	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**
1. grades 3 and 4	**Speaking**	**Music**	Reading	Film	Internet	C. game
2. grades 5 and 6	**Speaking**	**Music**	**Film**	**C. game**	**Reading**	**Internet**
3. grades 7 and 8	Music	Speaking	**Film**	**C. game**	**Reading**	**Internet**

Table 10: The order of out-of-school vocabulary learning strategies

The distribution of out-of-school activities used for vocabulary learning is illustrated in Figure 1. The highest means were produced by the first age group, 3rd and 4th graders (M=2.81), followed by age groups 3 (M=2.70) and 2 (M=2.55).

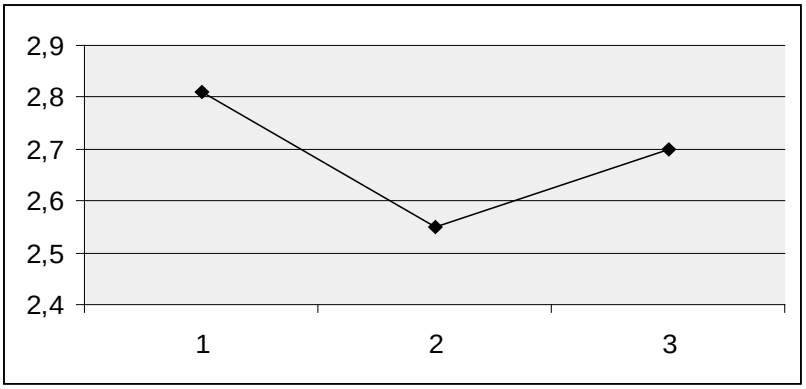

Figure 1: The distribution of out-of-school VLS in the age groups

This result reflects the high motivation level of the youngest language learners, and illustrates age-related differences, as well. The reason for the change can be the high level of initial motivation that decreases in the language learning process until it has reached an optimal level. Initial motivation can easily be facilitated and maintained by good practices and lower requirements at the beginning of language teaching. However, the change in teaching practices and the incremental nature of vocabulary can result in lower motivation in the upper section. Later, the higher level of language knowledge, the success attached to it, and the recognition of the importance of language knowledge can raise motivation. All in all, the mean of out-of-school vocabulary learning strategies is quite low (M=2.66), which is an important issue in teaching EFL.

Age group 1

Table 11 presents the out-of-school vocabulary learning strategies of 3rd and 4th graders.

Strategy	N	Min.	Max.	Mean	SD
Speaking	73	2	4	3.41	0.72
Music	73	1	4	3.11	0.98
Reading	73	1	4	2.93	0.96
Film	73	1	4	2.78	1.08
Internet	73	1	4	2.49	**1.15**
Computer game	73	1	4	2.18	1.12

Table 11: Out-of-school vocabulary learning strategies: grades 3 and 4

Age-related differences can be best seen in the internet use of YLs (SD=1.15). There are children in the first age group who use internet and are aware of its usefulness in vocabulary learning, while others seem not to use this form of out-of-school vocabulary learning at all.

In table 12 the correlations of the out-of-school vocabulary learning strategies of age group 1 is presented. The strongest the connection is between speaking and reading, while there is a negative correlation between listening to music and playing computer games, or using the internet and watching films. This finding suggests the youngest language learners either listen to music or watch films, or use the internet or play computer games, but may not do both activities to learn vocabulary.

	Speaking	Reading	Music	Internet	Film	C. game
Speaking	1					
Reading	**0.60****	1				
Music	0.32**	0.33**	1			
Internet	0.18	0.30*	0.22	1		
Film	0.32**	0.27	0.08	**-0.05**	1	
C. game	0.02	0.05	**-0.05**	0.38**	0.23*	1

Pearson Correlation Sig. (2-tailed
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 12: Out-of-school vocabulary learning strategies: grades 3 and 4 (correlation matrix)

Age group 2

Table 13 presents the out-of-school vocabulary learning strategies of 5th and 6th graders. The most important finding in this age group is that computer games divide this age group (SD=1.11) followed by using the internet for learning vocabulary (SD=0.96). The high standard deviation and the low means of internet use suggest that students' opinion and actual internet use is quite different.

Strategy	N	Min.	Max.	Mean	SD
Speaking	131	1	4	3.08	0.66
Music	131	1	4	3.05	0.92
Film	131	1	4	2.50	1.01
Computer game	131	1	4	2.37	**1.11**
Reading	131	1	4	2.19	0.84
Internet	131	1	4	2.11	**0.96**

Table 13: Out-of-school vocabulary learning strategies: grades 5 and 6

Table 14 presents correlations between the out-of-school vocabulary learning strategies of 5th and 6th graders. The correlation is the highest between speaking and reading in this age group, and there is a negative connection between reading and playing computer gamers, which draws the attention to the different use of these strategies.

	Speaking	Reading	Music	Internet	Film	C. game
Speaking	1					
Reading	**0.36****	1				
Music	0.09	0.15	1			
Internet	0.08	0.23**	0.02	1		
Film	0.32**	0.33**	0.09	0.26**	1	
C. game	0.07	**-0.02**	0.06	0.29**	0.13	1

Pearson Correlation Sig. (2-tailed
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 14: Out-of-school vocabulary learning strategies: grades 5 and 6 (correlation matrix)

Age group 3

The out-of-school vocabulary learning strategies of 5th and 6th graders can be seen in Table 13. The first vocabulary learning strategy used out-of-school in this age group is listening to music, which suggests that the oldest primary school learners keep this activity more important than speaking. This can be explained with the change in the behaviour in adolescents and the interest towards the language or slang appearing in the lyrics of music. The opinion of this age group is also rather divided in the use of playing computer games for vocabulary learning (SD=1.09).

Strategy	N	Min.	Max.	Mean	SD
Music	127	1	4	**3.20**	0.85
Speaking	127	1	4	3.00	0.70
Film	127	1	4	2.68	0.98
Computer game	127	1	4	2.50	**1.09**
Reading	127	1	4	2.42	0.80
Internet	127	1	4	2.40	0.99

Table 15: Out-of-school vocabulary learning strategies: grades 7 and 8

The correlations between the out-of-school vocabulary learning strategies of 5th and 6th graders are presented in Table 16. Just like in the other two age groups, the connection is the strongest between speaking and reading, meaning that those who think one of these activities is important are also aware of the importance of the other activity. The only significant negative correlation can be found in this age group between watching films and playing computer games, which reinforces the idea that the usefulness of the two activities is rarely considered to be equally important for vocabulary learning.

	Speaking	Reading	Music	Internet	Film	C. game
Speaking	1					
Reading	**0.33****	1				
Music	0.17	0.18*	1			
Internet	0.13	0.05	0.06	1		
Film	0.21*	0.28**	0.38**	0.08	1	
C. game	-0.06	-0.03	-0.08	0.17	**-0.18***	1

Pearson Correlation Sig. (2-tailed
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 16: Out-of-school vocabulary learning strategies: grades 7 and 8 (correlation matrix)

4 Conclusions

The overview of metacognitive strategies provided a deeper understanding of YLs vocabulary learning. Based on the findings a number of serious issues have been raised. First of all, YLs are aware of their language learning, and their self-reflective thinking on metacognitive strategies reflects teaching and learning practices. One of the most important issues is that YLs need to learn more to be able to express themselves and communicate. Although knowing word meaning is a principal aspect of word knowledge, it is not the only one. Besides knowing what a particular word mean learners should know about the orthographical, phonetic, phonological, morphological, syntactical, and pragmatic features of vocabulary to be able to use words creatively in written and oral communication.

The ability to recall words should be improved in order to fulfil the needs of satisfactory communication. This ability can develop by reviewing words and using them in evocative situations. The class differences in metacognitive strategies pointed at the fact that the participants thought that word meaning is more important than correct pronunciation. Although meaning-centred education is welcome in teaching English as a foreign language, this finding draws attention to the issue of testing practices. The traditional methods of writing word tests require knowing word meaning and orthography, but do not facilitate real life-like communication, which seem to be lost in foreign language education. English lessons do not seem to provide enough opportunities for oral and written communication, and do not facilitate reviewing vocabulary in a creative way.

YLs' opinion on metacognitive strategies reflecting their marks and liking English indicates that learners should be motivated to learn and review vocabulary. It is a serious issue that those who get bad marks or do not like English seem not to review words. Besides motivating these learners, alternative methods for vocabulary testing should be introduced instead of the traditional method of writing word tests based on listwise memorising. Viable methods, which facilitate real life-like communication that should be the outmost goal of language learning and language teaching, should rely on contextual options, such as comprehensive memorisation, associated repetition, and sensible revision.

Out-of-school opportunities provide a fertile ground for learning EFL. A number of activities can improve vocabulary if learners are actively involved. Although YLs seem to be aware of the importance of vocabulary learning besides school setting, the means of strategies participants reported to use for vocabulary learning are quite low. This suggests that learners should be motivated to seek these opportunities and out-of-school learning should be facilitated. Out-of-school activities do not only improve learners' vocabulary, but make teachers' work easier and language learning more efficient. Researchers suggest that by the involvement of a favourite out-of-school activity in the learning process learners get closer to

the language and its speakers' culture, and the positive attitudes help to become more successful language learners (Józsa and Imre, 2013). An important implication of the present study is that learners should be promoted to employ out-of-school practice opportunities.

The significance of self-initiative vocabulary learning is inevitable both in and out-of-school context, since together with spontaneous vocabulary learning it seems that it constitutes the basis of the whole learning process (Livingston, 1997 p. 100). Therefore learning vocabulary should override the boundaries of formal instruction and it should be seen from a broader perspective. One possible way of doing this is to integrate out-of-school learning in formal education, and the responsibility of language teachers should exceed formal school tasks. Integrating out-of-school vocabulary learning opportunities in the school practice would move language learning out of the narrow formal boundaries by giving way of a more comprehensive and natural learning form, the goal of which is not only getting knowledge but actually using the language.

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Author data

Dr. Judit Hardi PhD: Institute of Foreign Languages and Further Education, Kecskemét College Teacher Training Faculty, 6-14, Kaszap St., Hungary. E-mail: hardi.judit@tfk.kefo.hu