Construction of the Questionnaire on Foreign Language Learning Strategies in Specific Croatian Context

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ABSTRACT

Learning strategies are special thoughts or behaviours that individuals use to understand, learn or retain new information, according to the point of view of O'Malley & Chamot. The other view, promoted by Oxford, believes learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, and more transferrable to new situations of language learning and use. The use of appropriate strategies ensures greater success in language learning. The aim of the research was to establish metric characteristics of the Questionnaire on learning strategies created by the author, in line with the template of the original SILL questionnaire (Strategy Inventory for Language Learning). The research was conducted at the Rochester Institute of Technology Croatia on a sample of 201 participants who learned German, Spanish, French and Italian as a foreign language. The results have shown that one-component latent dimensions which describe the space of foreign language learning strategies according to Oxford's classification, have metric characteristics which are low, but still satisfactory (reliability and validity). All dimensions of learning strategies appeared not to be adequately defined. Therefore, we excluded compensation strategies and merged social and affective strategies into social-affective strategies into the unique dimension. Overall, this version of Oxford's original questionnaire, based on Oxford's theoretical construct, applied on Croatian students, clearly shows that current version of the questionnaire has poor metric characteristics. One of the explanations of the results obtained could be positioned in multicultural context and intercultural dialogue. Namely, particular social, political and economic context in Croatia could shape even foreign language learning strategies.

Key words: *language learning strategies, construction of a questionnaire, metric characteristics, multicultural context, intercultural dialogue*

Introduction

Foreign language learning strategies are unique both for each specific foreign language and for population learning it, whereat culture of each population plays a very significant role. This article is an attempt to redefine the original metric instrument for establishing the representation of Rebecca Oxford's learning strategies[1], in terms of its adaptation for the population of Croatian learners (for the specific study conducted in English). In addition to the verification of metric characteristics of the version of original questionnaire, the purpose of this research is another verification of theoretical foundation of the construct in its basis (specific classification of foreign language learning strategies).

Foreign language learning strategies have been a subject of interest in scientific research discipline studying the process of second language acquisition for several decades. When learning a foreign language, learners use a number of different strategies that act as tools helping them to autonomously affect efficiency of foreign language learning[2–4]. The notion »strategy« is defined differently in the second language acquisition literature. Language learning strategies are specific behaviours or actions which learners use to make language learning more successful, self-directed and enjoyable[1]. Some authors think language strategies are specific ways of processing information that aid understanding, learning and retaining them[3]. Learning strategies assist learners in mastering the language forms and functions necessary for under-

standing and production in the process of language acquisition or language use[5], while they also affect achievement[2,3,6–14]. Stated researches indicate that more successful learners (as opposed to those less successful), use a greater number of strategies. The element of choice seems to be one of the key features of language learning strategies. Learners use strategies intentionally with the aim of making learning more successful. They consciously employ strategies that suit them most.

Features of language learning strategies

Many authors researching the field of learning strategies consider it is necessary to determine and analyse characteristics of learning strategies that define them more closely. Oxford[1] lists the basic features of learning strategies emphasizing that strategies are oriented towards the development of communication competence in a foreign language and include interaction between learners. The author[1] lists 12 basic features of a foreign language learning strategy: (1) strategies contribute to the main goal – communicative competence; (2) strategies allow learners to become more self-directed and to develop autonomous learning and take responsibility for their own learning; they affect the process of learning, the learner's success or failure in learning; (3) strategies expand the role of language teachers in a way that the traditional role of the teacher in the educational process changes and the teacher assumes the role of person facilitating the learning, helping, advising, diagnosing, coordinating learning, and participating in communication; (4) strategies are problem-oriented, i.e. oriented towards a specific language task; (5) strategies are specific actions taken by the learner; (6) strategies involve many other aspects of the learner, not just cognitive; (7) support learning both directly and indirectly; (8) strategies are not always observable, they can be concealed; (9) strategies are often conscious; (10) strategies can be changed, i.e. the existing ones can be adapted, new ones learnt and acquired, and unsuccessful ones abandoned; (11) strategies are flexible; (12) strategies are influenced by a variety of factors.

Many researchers have emphasised that application of learning strategies depends on a number of factors: the level of language competency influences their choice [2,6,10,15-21], level of consciousness[,1,3,21-24], learner's age[10,16,17,25-33], gender[2,7,9,10,16,17,34-37], nationality and ethnic background[38], specific cultural background and learning environment[39–43], learning context and the way of teaching[44,45]. In this context, it is also worth noting that language aptitude has considerable impact in the choice of learning strategies[46]. General (cognitive) learning style may also influence the choice of learning strategies[47,48] as well as previous language learning experience, level of education i.e. profession and level of motivation[2,47–53]. It is important to stress that affective factors, like language anxiety[54], significantly impact choice and application of learning strategies. Choice of learning strategies is also affected by personality traits[55], intelligence[56], learner's personal beliefs[57-,63] as well as presumptions about language learning[6].

The connection between learning strategies and learning styles and other individual differences between learners is not only useful but necessary, and the data about learners' variables and learning context and variables referring to teachers should be compared with learning strategies i.e. their interaction should be analysed[47]. Systematic nature of strategies i.e. the fact that learners do not discover a good strategy incidentally, instead, they use their knowledge and systematically apply strategies, and that strategies are »finite« i.e. that it is possible to determine a limited number of strategies since they are not an idiosyncratic creation of every learner[47,64].

The taxonomy of learning strategies

The American psychologist Rebecca Oxford constructed one of the most popular instruments for measuring learning strategies, the so-called SILL (Strategy Inventory for Language Learning), which was validated in numerous languages and cultures around the world. The taxonomy of learning strategies proposed by Oxford[1] comprised six categories of learning strategies and the author classified them into direct and indirect strategies. The author included memory, cognitive and compensation strategies into the category of direct strategies, while the indirect strategies include metacognitive, affective and social strategies. Indirect strategies do not directly affect the target language, but have a significant role in language learning.

Nowadays the most widely accepted classification of learning strategies was offered by O'Malley and Chamot[3], which is actually similar to the classification proposed by Oxford[1]. The aforementioned classification comprises three major groups: cognitive, metacognitive and affective strategies. According to these authors, cognitive strategies refer to mental processes learner uses when learning a language and are limited to specific learning tasks (e.g. repetition, translation, grouping, writing notes, deduction, induction, determining key words, contextualisation, concluding). Cognitive strategies help learners understand their course material, including interaction with course contents as well as usage of the certain techniques in solving language tasks. They refer to direct and indirect tasks in learning process, and include direct manipulation or transformation of learning material. Unlike cognitive strategies, the authors claim that metacognitive strategies include executive functions e.g. focusing attention to relevant contents, selective attention; functional planning of the learning process, supervision and evaluation of what has been learnt[3]. As opposed to cognitive and metacognitive strategies, they highlight that social-affective strategies enable interaction with other learners i.e. cooperation with other participants of the teaching process with the aim of completing language task[3].

We can conclude that the existing typology of strategies proposed by aforementioned authors[1,3] is highly compatible, but some of the authors[65] emphasized that the compatibility would be greater if three changes were made, namely if communication strategies were excluded from the framework of learning strategies, if Oxford memory

strategy and cognitive strategy were combined, and if social/affective strategies were separated.[3,65] This is why Dörnyei[65] proposes a typology of strategies that includes four main components of strategies: cognitive strategies (1) that include a specific manipulation or transformation of material to be learned, i.e.language input, such as repetition of material, summarizing of information, use of mnemonics, etc.; metacognitive strategies (2) as higher-order strategies which comprise analysis, monitoring, evaluation, planning and organizing one's own learning process; social strategies (3) which include interaction with other learners, the goal of which is to increase the amount of L2 communication and practice in a foreign language (initiating interaction with native speakers, cooperation with peers); affective strategies (4) which include the user's control over one's own emotions and experiences that reflect the user's subjective involvement in the learning process. According to the interpretations of researchers there is no clear boundary between the meta-cognitive and cognitive strategies; therefore, most researchers agree that the metacognitive strategies are executive and cognitive strategies are operational strategies.[3]

Metric characteristics of SILL questionnaire

Mentioned overview of universal strategies, proposed by Oxford[1], indicates the existence of some shortcomings. Namely, strategies evidently overlap and some of them repeat i.e. there are no clearly established boundaries between them, which presents a difficulty in their classification. On the other hand, Oxford points out that existing system of strategies creates only a descriptive framework that should be further examined in practical use in future researches.

One of the main objections of Oxford's taxonomy is the fact it is not based on factor analysis and scientific achievements of cognitive psychology[66]. With that in mind, some authors pointed out issues of separating cognitive strategies from memory strategies in the classification offered by Oxford[65], and emphasised that it is not possible to single out memory strategies as an independent group of strategies because they constitute only a sub-group of cognitive strategies[66]. Therefore, some researchers highlighted that cognitive strategies proposed by O'Malley and Chamot[3] correspond to Oxford's memory and cognitive strategies, metacognitive strategies are actually direct equivalent to the system proposed by Oxford, while social and affective strategies match Oxford's social, affective and communication strategies[65]. Empirical analysis conducted by Hsiao and Oxford[67] has indicated that explanatory power of the model proposed by O'Malley and Chamot increases if social-affective strategies are classified as separate groups of strategies, which are nowadays most often classified in the literature as common group of strategies[65]. Apart from that, some researchers invested additional effort in forming generally acceptable taxonomy of learning strategies by conducting further statistical analyses aimed at improving the quality of measuring instrument[67]. In an attempt to metrically validate the

questionnaire, they have established that taxonomy, which includes six present factors, is the most acceptable and consistent one, and as such it represents the foundation of the learning strategies classification according to Oxford[67]. Some authors have pointed out to the fact that construct validity of the questionnaire, determined by the application of the confirmatory factor analysis, failed to prove as consistent, and has resulted in different factor structures in different learning contexts[16,68–71]. Results of the research among university students in Puerto Rico have shown existence of 9 and 10 factor structures of the questionnaire[16], some authors established presence of 6 factor structures of the questionnaire by examining university students in Taiwan[71] and some researchers found 5 factor structures among respondents in Korea and America[69]. Although SILL questionnaire is the most popular instrument for measuring learning strategies all around the world, the results of explanatory and confirmatory factor analyses in numerous researches, conducted up to present day, have proven difficulties in validation of metric instrument[72]. This is why the researchers have stressed the need to conduct further examinations of psychometric characteristics of the questionnaire and testing of construct validity of the instrument[72].

In line with the stated theoretical settings and mentioned researches, the main objective of this research was to establish metric characteristics of the Questionnaire on learning strategies constructed by the authors, according to the classification and template of the original questionnaire[1], that essentially refer to determination of reliability and validity of metric instrument. We have presumed the existence of latent dimensions that could be used to help decrease the preliminary version of the questionnaire, containing 55 items, to smaller number of dimensions, which at the same time represent different learning strategies according to Oxford's classification.

Methodology

Sample

A total of 201 respondents from the Rochester Institute of Technology Croatia learning German, Spanish, Italian and French as a foreign language participated in this research. Out of the total number of respondents, 81 respondents (40%) were male, while 120 (60%) were female. As regards their success in second language learning, 65 respondents (32.3%) were at elementary level (level A2), while 136 (67.7%) were at middle level (level B1) in line with the Common European Framework of Reference for Languages[73].

Instrument

The application of learning strategies was examined with a questionnaire on learning strategies that were constructed by the author for the purpose of this research using modified items from Oxford's (1990) SILL (Strategy Inventory for Language Learning) questionnaire. The questionnaire on learning strategies contained 55 items

corresponding with specific strategies regarding grammar learning, where an assessment scale of 1 to 3 was used (1-I never do that, 3-I always or almost always do that). Questionnaire was also used to collect respondents' demographic data (gender, age, level of language learning, native language and grade). Bearing in mind present criticism that compensation strategies do not belong to the group of learning strategies, items comprising this dimension were left out from the questionnaire used in this research.

Data were collected during regular foreign language classes at the Rochester Institute of Technology Croatia. Respondents were not previously informed of the research. The questionnaire was applied anonymously so that respondents would be as honest as possible in their answers. (TABLE 1)

Statistical data analysis

In statistical data analysis we have used statistical package SPSS 11.0 with methods of descriptive statistics (mean, standard deviation and Kolmogorov-Smirnov test of distribution normality) for certain questionnaire items, and we have also determined basic metric characteristics of the questionnaire dimensions, reliability and construct validity. In order to establish the structure of dimensions that are elementary parts of different research variable groups, several versions of factor analysis under component and factor model with different orthogonal and skew rotations were conducted. However, it was proven that selected procedures do not adequately interpret the area of learning strategies as a unique theoretical construct comprising five main components (original Oxford's dimensions of learning strategies except compensation strategy).

TABLE 1
DESCRIPTIVE STATISTICS FOR ALL ITEMS OF THE QUESTIONNAIRE ON GRAMMAR LEARNING STRATEGIES

Statements	M	SD	Kolmogorov-Smirnov test
When I learn grammar, I link new forms to those I already know.	2.38	.55	$p<.01$
I memorise a new grammar form when I use it in a sentence.	2.37	.59	$p<.01$
I connect a new grammar form with its meaning to remember it more easily.	2.59	.59	$p<.01$
I connect a new grammar form with its form in my native language or some other languages I know, and analyse their similarities and differences.	2.10	.73	$p<.01$
I write down a new grammar form to remember it more easily.	2.11	.76	$p<.01$
The easiest way for me to remember a new grammar form is to underline it in the text with a different colour or highlight it.	2.09	.78	$p<.01$
The easiest way for me to remember a new grammar form is to come upon it several times.	2.71	.50	$p<.01$
I memorise a new grammar form more easily when a teacher repeats it several times.	2.69	.51	$p<.01$
I memorise a new grammar form more easily when I know where it is located in my work material or a notebook.	2.30	.66	$p<.01$
I memorise a new grammar form more easily when the teacher corrects me if I use it incorrectly.	2.56	.56	$p<.01$
At home, I regularly repeat grammar that we have learnt in the class.	1.77	.56	$p<.01$
At the beginning I repeat new grammar forms more frequently, then less frequently.	2.09	.63	$p<.01$
I try to remember the things I have previously learnt about this.	2.30	.57	$p<.01$
I try to use grammar forms that I learn as soon as possible in spoken or written form.	2.21	.61	$p<.01$
When I learn grammar, I write down the list of verb forms and their connotations with various examples to understand their meaning more easily.	1.83	.74	$p<.01$
I examine myself to check if I have remembered new grammar forms.	2.19	.67	$p<.01$
I use already familiar grammar forms in new situations to remember them.	2.17	.57	$p<.01$
When I am uncertain of the use of a grammar form, I look for an explanation in the grammar outline.	1.97	.74	$p<.01$
I memorise similar grammar forms more easily.	2.40	.64	$p<.01$
When I hear a new grammar form in a foreign language, I immediately write it down.	1.71	.70	$p<.01$
I like it when somebody corrects me if I formulate the sentence incorrectly.	2.62	.59	$p<.01$
I note new grammar forms when I read a book or some foreign magazine.	1.48	.66	$p<.01$
I write down grammar forms on special cards.	1.41	.67	$p<.01$
It is easier for me to memorise a grammar form if it is written.	2.56	.60	$p<.01$
I try to use a grammar form in a sentence correctly.	2.62	.54	$p<.01$
I leaf through a grammar outline several times to learn some new forms.	1.74	.65	$p<.01$
It is easier for me to remember 'complicated' forms and exceptions because they stand out.	2.02	.69	$p<.01$

If I cannot remember a grammar form in L2, I use gestures/body language to describe it.	2.30	.67	p<.01
I translate grammar form to my native language to comprehend its meaning.	2.35	.69	p<.01
I memorise grammar forms in groups (e.g. conjugation).	1.93	.71	p<.01
I try to guess the meaning of a new grammar form from context.	2.54	.56	p<.01
I notice that I memorise grammar forms while reading books or magazines in L2.	2.04	.70	p<.01
When I learn new irregular grammar forms, I try to memorise two or three of them before switching to a new group of irregular forms.	2.04	.61	p<.01
It is easier for me to remember a grammar form if I call to mind situation or sentence in which I have heard it.	2.48	.58	p<.01
It is easier for me to memorise a grammar form if I like it.	2.55	.58	p<.01
I use grammar explanation teacher makes available online.	2.32	.64	p<.01
I note grammar forms in a special notebook intended only for grammar.	1.51	.77	p<.01
When I test my knowledge of verbs, I cover the column with forms in L2 and check my knowledge.	2.31	.73	p<.01
I pronounce a new grammar form several times out loud to remember it.	2.37	.64	p<.01
I mimic teacher's pronunciation of grammar forms.	1.81	.74	p<.01
I discover grammar rules in L2 myself.	1.66	.65	p<.01
If I cannot remember correct grammar form in a conversation, I ask my interlocutor.	2.35	.57	p<.01
I create a plan how to study grammar in advance.	1.50	.65	p<.01
I try to study and practice L2 grammar regularly.	1.88	.61	p<.01
I systemise grammar rules in my notebook.	1.69	.73	p<.01
I set myself goals when learning grammar e.g. how many irregular forms I have remembered.	1.69	.68	p<.01
I am more successful if I plan time designated for learning grammar.	1.96	.79	p<.01
I prepare for a grammar test by thinking about the course contents, what I already know and what I still need to master.	2.18	.69	p<.01
I try to find opportunities to practice grammar.	1.92	.67	p<.01
I try to spot my grammar mistakes and understand why I do them.	2.41	.65	p<.01
I learn from my grammar mistakes.	2.62	.55	p<.01
I estimate grammar progress myself.	2.22	.68	p<.01
I encourage myself to be persistent in learning grammar.	2.18	.67	p<.01
I reward myself for every successful grammar test.	1.64	.75	p<.01
I practice with my friends to memorise new grammar forms.	1.98	.72	p<.01

Namely, items did not saturate only latent dimensions; instead, they very often simultaneously correlated with two or three dimensions (which is highly likely the consequence of one of the main criticism regarding Oxford's classification that it lacks satisfactory metric characteristics). Consequently, reduction of the number of items in line with metric and interpretability criteria leads to a drastic decrease of items which define each dimension, and their subsequent low or insufficient reliability. Therefore, we have applied different metric approach in determining latent dimensions: we have acted as though learning strategies were measured by separate »subtests« (sub-questionnaires in this case). Firstly, we have set one main component – containing items that describe certain learning strategies in line with Oxford's classification – in advance for each of the five sub-questionnaires, and we have defined a minimum correlation of an item with a latent dimension of 0.35 as well as minimal number of three items that define a certain factor.

Secondly, we have established which of the items within certain sub-scale represent respective dimension i.e. concrete learning strategy adequately. We have then determined reliability of the internal consistence type (Cronbach's alpha) for each of the components (of the questionnaire).

Results

The results of KMO measures of sampling adequacy and Bartlett's tests of sphericity showed that all matrices are convenient for the factorization (KMO's higher than 0.50 and Bartlett's Chi-squares significant at less than p<0.001).

Sub-questionnaire encompassing items that hypothetically cover memory strategies (final version containing 11 items) has satisfactory reliability (Cronbach a=.60), and explains only 21.84 % of total variance for memory strategies dimension (TABLE 2).

TABLE 2

COMPONENT ANALYSIS FOR THE SUB-QUESTIONNAIRE MEMORY STRATEGIES OF THE QUESTIONNAIRE ON GRAMMAR LEARNING STRATEGIES (CORRELATION OF VARIABLES WITH THE MAIN COMPONENT, COMMUNALITIES, EXPLAINED VARIANCE AND RELIABILITY)

Memory strategies (11 items)	Correlation with the main component	Communalities	Characteristic root/ explained variance	Reliability
The easiest way for me to memorise a new grammar form is to use it in a sentence.	.383	.147		
I connect a new grammar form with its meaning to memorise it more easily.	.474	.224		
I can memorise a new grammar form more easily if I underline it in the text or highlight with a marker.	.437	.191		
It is easier for me to memorise a grammar form if I encounter it several times.	.617	.381		
I memorise a new grammar form more easily when a teacher repeats it several times.	.424	.180		
At home, I regularly repeat grammar we have learnt in the class.	.383	.147	2.402	.598
At the beginning I repeat new grammar forms more frequently, then less frequently	.570	.325	21.84 %	
I try to remember the things I have previously learnt about it.	.524	.275		
I memorise similar grammar forms more easily.	.457	.209		
I memorise grammar forms in groups (e.g. conjugation).	.388	.151		
It is easier for me to remember a grammar form if I call to mind situation or sentence in which I have heard it.	.416	.173		

Sub-questionnaire of metacognitive strategy (12 items) has satisfactory reliability (Cronbach a=.77), and explains only 29,39 % of total variance for metacognitive learning strategy dimension (TABLE 3).

Sub-questionnaire of cognitive strategy (10 items) possesses satisfactory reliability (Cronbach a=.76), and explains only 32.34 % of the total variance for cognitive learning strategy dimension (TABLE 4).

TABLE 3

COMPONENT ANALYSIS FOR THE SUB-QUESTIONNAIRE METACOGNITIVE STRATEGIES OF THE QUESTIONNAIRE ON GRAMMAR LEARNING STRATEGIES (CORRELATION OF VARIABLES WITH THE MAIN COMPONENT, COMMUNALITIES, EXPLAINED VARIANCE AND RELIABILITY)

Metacognitive strategies (12 items)	Correlation with the main component	Communalities	Characteristic root/ explained variance	Reliability
I examine myself to check if I have remembered new grammar forms.	.491	.242		
I notice that I memorise grammar forms while reading books or magazines in L2.	.392	.154		
When I test my knowledge of verbs, I cover the column with forms in L2 and check my knowledge.	.453	.205		
I create a plan how to study grammar in advance.	.511	.261		
I try to study and practice L2 grammar regularly.	.648	.420		
I set myself goals when learning grammar e.g. how many irregular forms I have remembered.	.597	.356	3,526	.774
I am more successful if I plan time designated for learning grammar.	.620	.384	29,39 %	
I prepare for a grammar test by thinking about the course contents, what I already know and what I still need to master.	.616	.380		
I try to find opportunities to practice grammar.	.608	.369		
I try to spot my grammar mistakes and understand why I do them.	.609	.371		
I learn from my grammar mistakes.	.450	.203		
I estimate grammar progress myself.	.428	.183		

TABLE 4

COMPONENT ANALYSIS FOR THE SUB-QUESTIONNAIRE COGNITIVE STRATEGIES OF THE QUESTIONNAIRE ON GRAMMAR LEARNING STRATEGIES (CORRELATION OF VARIABLES WITH THE MAIN COMPONENT, COMMUNALITIES, EXPLAINED VARIANCE AND RELIABILITY)

Cognitive strategies (10 items)	Correlation with the main component	Communalities	Characteristic root/ explained variance	Reliability
I write down a new grammar form to remember it more easily.	.561	.315		
When I learn grammar, I write down the list of verb forms and their connotations with various examples to understand their meaning more easily.	.662	.438		
When I am uncertain of the use of a grammar form, I look for an explanation in the grammar outline.	.437	.191		
When I hear a new grammar form in a foreign language, I immediately write it down.	.588	.345		
I note new grammar forms when I read a book or some foreign magazine.	.575	.330	3.234 32.34 %	.762
I write down grammar forms to special cards.	.594	.353		
It is easier for me to memorise a grammar form if it is written.	.469	.220		
I leaf through a grammar outline several times to learn some new forms.	.646	.417		
I note grammar forms in a special notebook intended only for grammar.	.500	.250		
I systemise grammar rules in my notebook.	.614	.377		

However, sub-questionnaires of affective (3 items) and social (4 items) strategies did not exhibit satisfactory reliability: Cronbach a=.37 for social and Cronbach a=.38 for affective strategies. This is precisely why we have decided to „fusion" these two strategies in a sub-questionnaire of social-affective strategies (7 items) that possess low, yet, satisfactory reliability (Cronbach a=.52), and explain only 26.21 % of the total variance for social-affective learning strategy dimension (TABLE 5).

Discussion

The results have shown there are latent dimensions with satisfactory metric characteristics in the basis of the items describing learning strategies according to the classification suggested by Oxford[67,70,71,74]. Sub-questionnaires referring to memory, metacognitive and cognitive strategies possess satisfactory reliability. However, all dimensions of learning strategies according to Oxford cannot be

TABLE 5

COMPONENT ANALYSIS FOR THE SUB-QUESTIONNAIRE SOCIAL-AFFECTIVE STRATEGIES OF THE QUESTIONNAIRE ON GRAMMAR LEARNING STRATEGIES (CORRELATION OF VARIABLES WITH THE MAIN COMPONENT, COMMUNALITIES, EXPLAINED VARIANCE AND RELIABILITY)

Social-affective strategies (7 items)	Correlation with the main component	Communalities	Characteristic root/ explained variance	Reliability
I memorise new grammar form more easily when teacher corrects me if I use it incorrectly.	.416	.173		
I like it when somebody corrects me if I formulate the sentence incorrectly.	.528	.279		
I mimic teacher's pronunciation of grammar forms.	.456	.208	1.835 26.21 %	.523
I practice with my friends to memorise new grammar forms.	.549	.302		
It is easier for me to memorise a grammar form if I like it.	.408	.166		
I encourage myself to be persistent in learning grammar.	.650	.422		
I reward myself for every successful grammar test.	.532	.283		

sufficiently interpreted in terms of metrics, thus, we had to leave out some of them (compensation strategies) and »fusion« the others (social and affective strategies into social-affective strategies). Namely, some authors argue that compensation strategies do not belong to learning strategies but communication strategies[65]. By the same token, it is quite problematic to separate memory strategies from cognitive since they form only a sub-group of the latter[65,66].

This research has also established metric characteristics of the questionnaire in line with the classification and template of the original one created by Oxford, which primarily refer to determination of reliability and validity of the metric instrument. In other words, it can be presumed that learning strategies supplement and mutually overlap to such extent that it does not make any sense to analyse them simultaneously with a unique factor analysis procedure on an integral questionnaire. For example, it is very probable that various cognitive and metacognitive strategies will be highly connected. Namely, the application of these sub-questionnaires, each of which is valid in terms of content, can be analysed in order to find out to which extent items, describing for example cognitive learning strategy, correlate with a dimension that represents a certain learning strategy. In other words, items describing each learning strategy can exist as a separate questionnaire. In that way, we got 4 questionnaires as follows: 1st measuring memory strategies, 2nd metacognitive strategies, 3rd cognitive strategies and 4th fourth social-affective strategies which offer operationalisation of the classification proposed by Oxford.

The results of this research have also pointed out the fact that learning strategies, due to their complex nature, are very difficult to separate conceptually. We suppose that people combine several different learning strategies, and they complement each other. Nonetheless, learning strategies are specific for each foreign language whereby culture of each population plays a significant role. This research is at the same time an attempt to redefine the original metric instrument in terms of its adaptation to the population of Croatian students. To be more precise, we have tried to adapt this concept of learning strategies based on Oxford's classification to Croatian mentality i.e. cultural and traditional characteristics of Croatian respondents. In cross-cultural research, such as this one, researchers have to adjust the constructs and associated measurement instruments that have been developed in one culture and then imported for use in another. If we compare different cross-cultural groups, there is ample bias present among groups and their social structures. Importing concepts from other cultures is often simply reduced to language adjustment of the content in the items of the measurement instruments that define a certain (psychological) construct. Bias can indicate that results in some metric instrument, based on the same items, measure different traits and characteristics of people from different cultural groups. In that context, some authors examined whether young migrants, differentiated by cultural background, vary in their experience of cultural

adjustment, emotional distress, levels of self-esteem, and coping ability[75]. Learners were recruited at random from public schools in South East Queensland, differentiated by cultural origin and school level (primary and high school). This study reveals information on how culturally diverse migrants acculturate, the type and severity of symptoms they experience, and their capacity to cope in stressful situations. To ensure comparability between cultural groups, each self-report measure was analysed for internal consistency, separately in each cultural group. Pearson's correlations were calculated among the culturally-diverse self-reports to determine whether these constructs relate in the same way. In another study some authors examined samples in three countries, in Argentina, Mexico and South Africa using the Reid Integrity scale (for predicting counter-productivity), with appropriate language translations[76]. The samples consisted of job applicants and current employees, while the supervisors provided performance evaluations for the majority of employees on the dimensions of counterproductive behavior, general work performance, social interaction and positive employee traits. Comparisons of mean scores and reliability coefficients indicated comparable responses to the scale across cultures and with US samples. The Reid Integrity scale Inventory was assessed within each sample and was found to be highly reliable. For Argentina, Cronbach's a=0.81, for Mexico, a=0.78 and for South Africa, a=0.79 (reliability coefficient obtained in a »source« country USA was a=0.83). They concluded that the instrument was appropriate for cross-cultural research. However, perfect instrument translation and reliability analysis is not the guarantee for its »immunity« against bias. More rigorous statistical testing is needed in order to equalize psychometrical characteristics of its original (»source«) and »target« version.

This research has pointed out the need to conduct further examination of psychometric characteristics of the newly constructed questionnaire and further verification of instrument construct validity, with the objective of raising its metric quality[69,67]. This could also help redefine Oxford's theory in the framework of classic psychometric approach. For example some authors conducted a similar attempt, comparing different classifications of foreign language learning strategies by applying different variances of confirmatory factor analysis to the original metric instrument, and they suggested other possible approaches to the classification of learning strategies[67]. Actually, the research conducted by the authors of this article, offers a new classification aggregating social and affective strategies into a unique learning strategy.

As regards the advantages of the conducted research, there are certainly two facts arising from it: the first is the application of metric instrument to specific strategies of L2 learning in Croatian educational context, and the second is survey of intended sample of adult learners who learn a foreign language at a higher education institution. So, the result of this research is a new metric instrument, constructed according to the existing instrument used for the measurement of general learning strategies[1] which is

adapted for the measurement of the stated construct. The second value of this research lies in the fact that it has been conducted for the first time, at least according to the information of the authors, on Croatian population of adult learners who learn German, Spanish, Italian and French as their second language at a non-philological higher education institution.

The main shortcoming of this research might partly reflect in the methodology applied in this research. Questionnaire structure might also be its flaw; the respondent is in advance limited by the offered statements as they might be ambiguous and imprecise and do not have to reflect learner's personal approach in the use of learning strategies. Apart from that, the form of the question may also influence learner's response because it leaves room for misinterpretations of the content of a certain statement or incorrect assessment of the use of a strategy. Therefore, it would be advised to triangulate data when researching learning strategies to get answers that are as appropriate as possible regarding issues linked with the process of mastering a foreign language. One of the possible disadvantages of this research is also visible in the sample, which in this research perhaps is not representative enough. Finally, we should not disregard the fact that, despite the efforts of the researchers, concept of foreign learning strategies is essentially »imported« from the Western culture. Although we have for the most part tried to adapt stated concept to the Croatian mentality, maybe this attempt was not successful enough. This research in particular represents an attempt to adjust to the Croatian cultural context, but in the future attempts we might also try to adapt the content of the questionnaire to Croatian educational context of learning and teaching foreign languages to a greater extent.

In future researches it would be advisable to replicate the survey on a larger and more representative sample of respondents. Also, by applying different data analysis strategies in cross-cultural studies[77], concordance of factor and metric characteristics in general, resulting from the application of newly constructed questionnaire in this research might be compared to the data collected from the application of the same metric instrument on the samples from various cultures. In future researches, it is very important to differentiate between language use strategies and foreign language learning strategies, to recognise the importance of the environment, check whether language skills are clearly represented in each of the strategies and create strategic inventory of learning strategies[67].

Conclusion

The results of the research have shown there are latent dimensions in the basis of the items describing learning strategies according to the classification provided by the author Oxford, which possess low, yet still satisfactory metric characteristics (reliability and validity), however, heading towards one component solutions. Namely, reliability of the resulting latent dimensions is low or very low, while the quantity of explained variance is very small. In relation to the metric characteristics, some of the learning strategies dimensions given by Oxford could not have been adequately defined, thus, we had to leave some of them out (compensation strategies), and merge others into unique dimensions (social and affective strategy into social-affective strategy). Overall, even according to one component factor solutions, this application of the version of Oxford's original questionnaire on learning strategies, applied on Croatian learners, proves that theoretical construct in the basis of the classification of foreign language learning strategies has poor metric characteristics which is consistent to the findings of previously conducted researches[67,72].

R E F E R E N C E S

1. OXFORD RL, Language Learning Strategies. What Every Teacher Should Know (Heinle and Heinle Publishers, Boston, 1990). *DOI:* 10.2307/3586958 – 2. OXFORD RL, NYIKOS M, Modern Language Journal, 73 (1989) 291. DOI: 10.1111/j.1540-4781.1989.tb06367.x – 3. O'MALLEY, JM, CHAMOT, AU, Learning Strategies in Second Language Acquisition. (Cambridge: Cambridge University Press, 1990). DOI: http://dx.doi.org/10.1017/CBO9781139524490 – 4. GARDNER, RC, MAC-INTYRE, PD, Language Teaching, 26 (1993) 1. DOI: http://dx.doi.org/10.1017/S0261444800000045 – 5. RUBIN, J, Applied Linguistics, 1 (1981) 117. DOI: 10.1093/applin/II.2.117 – 6. BIALYSTOK E, Modern Language Journal, 65 (1981) 24. DOI: 10.1111/j.1540-4781.1981.tb00949.x – 7. EHRMAN M, OXFORD R, The Modern Language Journal, 73 (1989) 1. DOI: 10.1111/j.1540-4781.1989.tb05302.x – 8. BEDELL D, OXFORD R, Cross-Cultural Comparisons of Language Learning Strategies in the People's Republic of China and Other Countries. In: OXFORD, R (Ed.) Language Learning Strategies Around the World: Cross-Cultural Perspectives (Technical Report 13, University of Hawai'i, Second Language Teaching and Curriculum Center, 1996). – 9. DREYER CR, OXFORD RL, Learning Strategies and Other Predictors of ESL Proficiency Among Afrikaans Speakers in South Africa. In: OXFORD R (Ed.) Language Learning Strategies Around the World: Cross-Cultural Perspectives (Technical Report 13, Honolulu: University of Hawai'i: Second Language Teaching and Curriculum Center, 1996). – 10. KAYLANI C, The Influence of Gender and Motivation on EFL Strategy Use in Jordan. In: OXFORD R (Ed.) Language Learning Strategies Around the World: Cross-Cultural Perspectives (Technical Report 13, University of Hawai, Second Language Teaching and Curriculum Center, 1996). – 11. BREMNER S, Language learning strategies and language proficiency: investigating the relationship in Hong Kong, Canadian Modern Language Review, 55 (1999), Available from: http://UTPJOURNAL.com. DOI: http://dx.doi.org/10.3138/cmlr.55.4.490 – 12. COHEN AD, Strategies in Learning and Using a Second Language (Longman, London, New York, 1998). DOI: http://dx.doi.org/10.4324/9781315833200 – 13. YU L, Learning strategies and their relationship to listening comprehension. A report on Non-English majors in a medical university in China. Teaching English in China, 26 (2003) 3. – 14. SHMAIS WA, Language learning strategy use in Palestine. TESL-EJ, 7 (2003) A-3. Available from: http://www.tesl-ej.org/wordpress/issues/volume7/ej26/ej26a3/. – 15. CHAMOT AU, KUPPER L, Foreign Language Annals, 22 (1989) 13. DOI: 10.1111/j.1944-9720.1989.tb03138.x – 16. GREEN JM, OXFORD RL, TESOL Quarterly, 29 (1995) 261. DOI: 10.2307/3587625 – 17. LAN R, OXFORD RL, IRAL, 41 (2003) 339. DOI: 10.1515/iral.2003.016 18. OXFORD RL, CROOKALL D, Modern Language Journal, 73 (1989) 404. DOI: 10.1111/j.1540-4781.1989.tb05321.x. 19. – WHARTON G, Language Learning, 50 (2000) 203. DOI: 10.1111/0023-8333.00117. 20 – NYIKOS M, The effect of color and imagery as mnemonic strategies on learning and retention of lexical items

in German. PhD Thesis (Purdue University, 1987). 21. – LEE KR, OX-FORD RL, Asian EFL Journal, 10 (2008) 7. – 22. LAVINE RE, OXFORD RL, Dealing with affective issues in the foreign or second-language classroom. In: Proceedings (Modern Language Association Annual Meeting, Chicago, 1990). – 23. CHAMOT AU, Teaching learning language strategies to language learners. (Report No. EDO-FL-025-976). ERIC Clearinghouse on Language and Linguistics: Washington, D.C., 1998. (ERIC Document Reproduction Service No. ED433719). – 24. COHEN AD, Second language learning and use strategies: Clarifying the issues. (Report No. EDO-FL-023-639). ERIC Clearinghouse on Language and Linguistics: Washington, D.C., 1995. (ERIC Document Reproduction Service No. ED393307). – 25. DADOUR ES, ROBBINS J, University-level studies using strategy instruction to improve speaking ability in Egypt and Japan. In: OXFORD R (Ed.) Language learning strategies around the world: Cross-cultural perspective (Manoa: University of Hawaii Press, 1996). – 26. LEKI I, TESOL Quarterly, 29 (1995) 235. DOI: 10.2307/3587624. – 27. OXFORD RL, EHRMAN ME, System, 23 (1995) 359. DOI:10.1016/0346-251X(95)00023-D – 28. PHILLIPS V, CATESOL Journal (1991) 57. – 29. DÖRNYEI Z, TESOL Quarterly, 29 (1995) 55. DOI: 10.2307/3587805 – 30. LEE H, Journal of English Language Teaching, 12 (2000) 247. – 31. OH, J, Language Teaching, 1 (1992) 23. – 32. TOUBA, N. Language learning strategies of Egyptian student teachers of English. In: Proceedings (Twelfth National Symposium on English Teaching in Nasr City, Cairo, Egypt, 1992). – 33. VICTORI M, TRAGANT E, Learner Strategies: A Cross-sectional and Longitudinal Study of Primary and High-school EFL Learners. In: GARCÍA MAYO, MP, GARCÍA LECUM-BERRI, ML (Eds) Age and Acquisition of English as a Foreign Language. (Multilingual Matters, 2003). – 34. LEE H, OH J, English Teaching, 55 (2001) 389. – 35. ZIMMERMAN BJ, MARTINEZ-PONS M, Journal of Educational Psychology, 82 (1990) 51. DOI: http://dx.doi.org/10.1037//0022-0663.82.1.51 – 36. VANDERGRIFT L, Foreign Language Annals, 29 (1997) 387. DOI: 10.1111/j.1944-9720.1997.tb02362.x – 37. LIU D, ARE-CLS E-Journal, 1 (2004) A5. – 38. GRIFFITHS, C. Language Learning Strategies: Theory and Research. In: Procedings (Occasional Paper No.1., School of Foundation Studies, AIS St Helens, Auckland, 2004). – 39. GRIFFITHS C, PARR JM, Independence, 28 (2000) 7. – 40. DICKINSON L, Culture, autonomy and common sense. In: Proceedings (International Conference Autonomy 2000: The Development of Learning Independence in Language Learning, Bangkok, Thailand: King Mongkut's Institute of Technology Thonburi, 1996). – 41. PARRY K, Journal for Research in Reading, 16 (1993) 148. DOI: 10.1111/j.1467-9817.1993.tb00044.x – 42. POLITZER RL, MCGROARTY M, TESOL Quarterly 19 (1985) 103. DOI: 10.2307/3586774 – 43. TYACKE M, MENDELSOHN D, TESL Canada Journal 1 (1986) 171. DOI: http://dx.doi.org/10.18806/tesl.v3i0.1003 – 44. DE PRADA E, La adquisición de la autonomía en contextos académicos: Introducción a la problemática en el caso de la enseñanza secundaria. In: OTAL JL, VILLANUEVA ML (Eds) Primeres Jornades sobre Autoapre-nentatge de Llengües (Castelló de la Plana: Publicacions de la Universitat Jaume I, 1993). – 45. PURDIE N, OLIVER R, System, 27 (1999) 375. DOI: 10.1016/S0346-251X(99)00032-9 – 46. TODD D, Strategies for gifted second language learners, Academic Exchange Quarterly (2006), accessed 08.06.2016. Available from: http://www.thefreelibrary.com/Strategies for gifted second language learners.-a0146219165. – 47. PAVIČIĆ TAKAČ V, Vocabulary Learning Strategies and Foreign Language Acquisition. (Clevedon, Buffalo, Toronto: Multilingual Matters Ltd., 2008). DOI: http://dx.doi.org/10.1017/S0272263109090494 48. WITKIN HA, GOD-DENNOUGH D, OLTMAN P, Journal of Personality and Social Psychology 37 (1979) 1127. DOI: http://dx.doi.org/10.1037/0022-3514.37.7.1127 – 49. BRATEN J, OLAUSSEN BS, Contemporary Educational Psychology, 23 (1998) 182. DOI: 10.1006/ceps.1997.0963 – 50. MIHALJEVIĆ DJIGUNOVIĆ J, Strani jezici, 3-4 (1999) 191. – 51. MIHALJEVIĆ DJIGUNOVIĆ J, Orbis Linguarum, 18 (2001) 167. – 52. CHANG HH, The Relationship Between Extrinsic/Intrinsic Motivation and Language Learning Strategies Among College Learners of English in Taiwan. MS Thesis. (Ming Chuan University, College of Applied Languages, 2005). – 53. DÖRNYEI Z, AILA Review 19 (2006) 42. DOI: 10.1075/aila.19.05dor – 54. MIHALJEVIĆ DJIGUNOVIĆ J, Strani jezici, 1-2 (2000) 9. – 55. EHRMAN M, OXFORD RL, Modern Language Journal, 74 (1990) 311. DOI: 10.1111/j.1540-4781.1990.tb01069.x – 56. AKBARI R, HOSSEINI K, System, 36 (2008) 141. DOI: 10.1016/j.system.2007.09.008 – 57. HOROWITZ EK, The Modern Language Journal, 72 (1988) 283. DOI: 10.1111/j.1540-4781.1988.tb04190.x – 58. MORI Y, Language Learning, 49 (1999) 377. DOI: 10.1111/0023-8333.00094 – 59. VICTORI RM, Investigating the metacognitive knowledge of learners of English as a second language. MS Thesis. (University of California, Los Angeles, 1992). – 60. VICTORI M, System, 27 (1999) 537. DOI: 10.1016/S0346-251X(99)00049-4 – 61. VICTORI M, LOCKHART W, System, 23 (1995) 223. DOI: 10.1016/0346-251X(95)00010-H – 62. WENDEN A, Conceptual background and utility. In: WENDEN A, RUBIN J, (Eds) Learner Strategies in Language Learning (New York: Prenctice Hall, 1987). – 63. WENDEN A, Learner Strategies for Learner Autonomy (New York: Prentice Hall, 1991). – 64. BIALYSTOK E, Communication strategies in second language acquisition (Oxford: Blackwell, 1990). – 65. DÖRNYEI Z, The Psychology of the Language Learner: Individual Differences in Second Language Acquisition (Mahwah, NJ: Lawrence Erlbaum Associates, 2005). DOI: 10.4324/9781410613349 – 66. PURPURA JE, Learner strategy use and performance on language tests: A structural equation modeling approach (Cambridge: Cambridge University Press, 1999). – 67. HSIAO T-Y, OXFORD RL, The Modern Language Journal, 86 (2002) 368. DOI: 10.1111/1540-4781.00155 – 68. EL-DIB MA, Foreign Language Annals, 37 (2004) 85. DOI: 10.1111/j.1944-9720.2004.tb02176.x – 69. NYIKOS M, OXFORD RL, Modern Language Journal, 77 (1993) 11. DOI: 10.1111/j.1540-4781.1993.tb01940.x – 70. ROBSON G, MIDORI-KAWA H, JALT Journal, 23 (2001) 202. – 71. YANG ND, System, 27 (1999) 515. DOI: 10.1016/S0346-251X(99)00048-2 – 72. PARK GP, English Language Teaching, 4 (2011) 21. DOI: http://dx.doi.org/10.5539/elt.v4n4p21 – 73. COMMON EUROPEAN FRAMEWORK OF REFERENCE FOR LANGUAGES: LEARNING, TEACHING, ASSESSMENT (Council of Europe. Cambridge University Press, 2001). – 74. PARK GP, Foreign Language Annals, 30 (1997) 211. DOI: 10.1111/j.1944-9720.1997.tb02343.x – 75. BARRETT PM, SONDEREGGER R, SONDEREGGER NL, Behaviour Change, 19 (2002) 220. DOI: http://dx.doi.org/10.1375/bech.19.4.220. – 76. FORTMANN K, LESLIE C, CUNNINGHAMM, International Journal of Selection and Assessment, 10 (2002) 98. DOI: 10.1111/1468-2389.00196 – 77. SINDIK J, Collegium Antropologicum 36 (2012) 31.

KONSTRUKCIJA UPITNIKA O STRATEGIJAMA UČENJA STRANOGA JEZIKA

S A Ž E T A K

O'Malley i Chamot (1990) definiraju strategije učenja kao posebne misli ili ponašanja koja pojedinci rabe da bi razumjeli, naučili ili zadržali novu informaciju. Oxford (1990) strategije učenja smatra specifičnim aktivnostima koje učenik poduzima kako bi proces učenja učinio lakšim, bržim i ugodnijim, te kako bi iste mogao primijeniti u novim situacijama učenja i uporabe jezika. Uporaba adekvatnih strategija učenja pridonosi uspješnom učenju stranoga jezika. Cilj istraživanja bio je utvrditi metrijske karakteristike Upitnika o strategijama učenja koji je sastavila autorica, prema predlošku izvornog upitnika SILL (Strategy Inventory for Language Learning) (Oxford). Istraživanje je provedeno na Rochester Institute of Technology Croatia na uzorku od 201 ispitanika koji uče njemački, španjolski, francuski i talijanski kao strani jezik. Rezultati su pokazali da postoje latentne dimenzije koje su u osnovi čestica koje opisuju strategije

učenja prema klasifikaciji autorice Oxford, koje posjeduju niske ali još uvijek zadovoljavajuće metrijske karakteristike (pouzdanost i valjanost), ali prema jednokomponentnim solucijama. Međutim, u odnosu na metrijske karakteristike nisu se mogle zadovoljavajuće definirati sve dimenzije strategija učenja prema Oxford, pa smo neke od strategija učenja morali izostaviti (kompenzacijske strategije), dok smo neke „združili" u jedinstvene dimenzije (društvene i afektivne strategije u društveno-afektivne). U cjelini, čak i prema jednokomponentnim faktorskim solucijama, i ova primjena inačice Oxfordina izvornog upitnika strategija učenja, primijenjena na hrvatskim studentima, ukazuje da teorijski konstrukt u osnovi klasifikacije strategija učenja stranog jezika posjeduje loše metrijske karakteristike. Jedno od potencijalnih objašnjena dobivenih rezultata moguće je dovesti u vezu s multikulturalnim kontekstom i interkulturalnim dijalogom. Naime određeni društveni, politički i ekonomski kontekst u Hrvatskoj mogao je utjecati za odabir i oblikovanje strategija učenja stranoga jezika.