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Educational level, gender and foreign language learning self-regulation difficulty

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Abstract

The present study attempted to answer the following question: do men and women from various educational levels differ in foreign language learning self-regulation difficulty? Three hundred and eighty persons completed Foreign Language Learning Self-regulation Difficulty Inventory. Significant main effects of gender and educational level were found on difficulty in planning, organizing and implementing learning. Moreover, the main effect of gender proved to be significant on: general Inventory result, difficulty in motivational and emotional control and reflecting and making changes. It was concluded that teachers should foster planning, motivational control and reflection skills, especially in male upper secondary school students.

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Key words: self-regulation; difficulty; foreign language learnig; gender; educational level;

1. Introduction

Attaining high level of foreign language proficiency depends on self-regulatory skills of a learner (Oxford, 2001). The development of students self-regulatory capacity can be supported by teachers (Zimmerman, 2002). Support of students` learning self-regulation development could greatly be enhanced if educational programs were suited to the needs of students of various age and gender. It seems that more empirical data is needed to construct such programs. Zeidner, Boekaerts and Pintrich (2000) emphasize the fact that there is little research on differences in self-regulation in students from various educational levels. The Authors also indicate that in the area of self-regulation studies there is also a need of thorough research concerning gender differences. Results of the research on age and gender differences in learning self-regulation are inconsistent, especially as far as the use of specific groups of self-regulatory strategies is concerned. Moreover, previous studies focused rather on the intensity of various self-regulatory strategies use than on the ease of executing them. **Therefore, the aim of the research described in the**

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article is to present the study on differences in subjectively experienced foreign language learning self-regulation difficulty in men and women from various educational stages.

To self regulate means “to change ... oneself, or some aspect of oneself, so as to conform to some idea or concept” (Forgas, Baumeister, & Tice, 2009: 4). Self regulation of learning takes place if students direct their own learning (Boekaerts, & Corno 2005). Self-regulatory control can involve thinking, emotions, motivation, behavior and environment. The progress of learning process is evaluated against criterion or standard. Self-regulation processes mediate between personal and environmental characteristics and achievement (Pintrich, 2004).

The majority of commonly accepted models present self-regulated learning as a cyclic process which consists of planning, performance and reflection stages (Pintrich, 2000). The example may be the model suggested by Zimmerman (2002). In the first stage a task is analyzed, goals or standards are formulated and strategies of action are chosen. In the second stage plans of action are put into practice. The last stage involves action monitoring, evaluation of outcomes against previously accepted standards and making adjustments.

The notions of self regulation and learning self regulation are connected to other constructs, such as autonomy, metacognition, and learning strategies. Autonomy can be defined as being “in charge of one’s own life”, which involves competence, independence from others and self-control (Haworth, 1986: 42). Autonomy in learning involves control over learning content as well as cognitive and affective processes concerning learning (Benson, 2001). Ponton and Carr (2000) suggest that the term learning autonomy should be applied when behaviours connected with independent learning are exercised out of their performers’ own intention. Metacognition, is understood as thinking about one’s own cognitive processes. It includes knowledge concerning oneself, one’s experience, goals and tasks to be performed and strategies of action, as well as planning action, monitoring it and evaluating its outcome (Dinsmore, Alexander, & Loughlin, 2008). In the foreign language learning literature the term learning strategies is often used to address the “operations employed by the learner to aid the acquisition, storage and retrieval and use of information” (Oxford, 2001: 166).

The most widely known questionnaires used to measure self regulation are: MSLQ - Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1993) and LASSI - Learning and Study Strategies Inventory (Weinstein & Palmer, 2002). In the field of foreign language learning research commonly used measurement instrument is SILL - Strategy Inventory for Language Learning, constructed by Oxford (1990).

Self regulatory processes are related to various variables: developmental stage, biological factors as well as personal and environmental characteristics (Pintrich, 2000). These variables among others include the level of education and gender.

Self-regulation capacity increases with age. Its development first clearly manifests before the age of two through voluntary movements aimed at reaching for a desired object. At the age of four ability to reflect on one’s goals and actions, to delay gratification and to adapt to changing situations is usually attained. Finally, a stage of formulating goals and subgoals, choosing strategies to achieve them and deciding on time needed to apply them can be achieved (Demetriou 2000). Research conducted in the area of learning self-regulation show that younger students use self-regulatory strategies more intensively than older ones. Such relationship was found in the case of effort goal orientation (Tang, & Neber, 2008), self-regulation of emotions, motivation and metacognitive processes (Vukman, & Licardo 2010) as well as in the case of memory, cognitive, metacognitive, affective, and social language learning strategies (Mei-Ling, 2009).

Self-regulation proved to be connected to gender. Girls in comparison to boys, especially in preschool and early school years, read social signals better, are less impulsive and more obedient to rules than adults (McCabe, Cunnington, & Brooks-Gunn 2007). Research show that in learning women generally report more intensive use of self-regulatory strategies than men. However, results of the studies concerning relationship between gender and various self-regulation aspects are inconsistent. Women more frequently adapt effort to task requirements (Dresel & Haugwitz, 2005) and are more oriented towards effort goals (Tang & Neber, 2008) than men. Female students also report more frequent use of cognitive strategies like note taking (Dresel, & Haugwitz, 2005), rehearsal, organizing of learning material (Bembenuatty, 2007) and copying answers (Tang & Neber, 2008) in comparison to male students. However, study conducted by Bembenuatty (2007) did not reveal differences between women and men in terms of effort management and the use of learning material elaboration. Inconsistent research results also have been obtained as far as gender differences in metacognitive self-regulation are concerned. Differences between boys and girls in metacognitive self-regulation strategies use were observed among students under 18 years of age (Dresel &

Haugwitz, 2005; Vukman & Licardo, 2010) but were not found in college students (Bembenutty, 2007) and gifted high school students (Tang & Neber 2008).

In foreign language learning research in which significant differences between female and male students were obtained women proved to use foreign learning strategies more often than men (Ran & Oxford, 2003). More intense use of learning strategies in foreign language learning was found in the eighth decade of the XX century in the studies conducted by Ehrman and Oxford (1989) and by Oxford and Nyikos (1989). Research in which SILL was administered in various cultural and academic contexts confirmed this general tendency but yielded contradictory results, especially as far as the use of affective strategies is concerned. Ran and Oxford (2003) found more frequent use of memory, cognitive, compensation, metacognitive and social learning strategies by girls in comparison to boys in the group 11-12 year old students of English as a foreign language in Taiwan. In the study conducted by Ghee, Ismail, and Kabilan (2010) among university students from Malaysia learning Mandarin as a third language, female and male learners differed only in terms of affective strategies, which proved to be used more frequently by women. No gender differences in foreign language strategy use were found in students of Modern Greek as a second language (Psaltou-Joycey, 2008) and in university students from Iran who learned English as a foreign language (Rahimi, Riazi, & Saif, 2008).

Results of previous studies indicate general relationships. Research on the correlation between age and learning self-regulation show unexpected tendency of younger students to self-regulate their acquisition of knowledge and skills more intensively than the older ones. Results concerning gender differences in self-regulatory strategies use in learning indicate more frequent self-regulation in women than by men. However there is no agreement as far as gender differences in the use of metacognitive and affective strategies are concerned. Therefore there seems to be a need to gather more data and to investigate which specific areas of learning self-regulation are less difficult for women than for men on various educational levels. Administration of a measurement tool based on experienced difficulty of self-regulatory strategies use in such a study would provide more information concerning obstacles students face in self-regulation of learning compared to collecting data based on frequency of certain behaviours. Consequently, such information could enable counseling and help which would be more suited to students' needs.

2. Problem and hypotheses

The main problem of the research was formulated as follows: do men and women from various levels of education differ in terms of foreign language learning self-regulation difficulty? The problem was then specified in the form of six research questions:

- What is the level of foreign language learning self-regulation difficulty reported by the participants?
- Do students from primary, lower secondary and upper secondary school differ in terms of foreign language learning difficulty?
- Do men and women differ in terms of foreign language learning difficulty?
- Are differences between men and women in terms of foreign language learning self-regulation difficulty related to educational level?
- Which foreign language learning self-regulatory behaviours are rated differently in terms of difficulty by students of primary, lower secondary and upper secondary school?
- Which foreign language learning self-regulatory behaviours are rated differently by men and women in terms of difficulty?

The first research question concerning the level of foreign language difficulty declared by the participants is diagnostic, therefore it was not transformed into hypothesis. Three following groups of hypotheses were formulated.

1. Measurements of each of the following variables: foreign language learning self-regulation difficulty in general; difficulty in choosing goals, ways and conditions for learning; difficulty in planning, organizing and implementing learning; difficulty in motivational and emotional control; and difficulty in reflecting and making changes would be:
 - a. the higher the higher educational level;
 - b. lower in women than in men;

- c. different in girls and boys and from primary school;
 - d. different in young women and young men from lower secondary school;
 - e. different in women and men from upper secondary school.
2. For each analyzed self-regulatory behavior the following hypothesis was tested: Students from primary school, lower secondary school, and upper secondary school differ in difficulty ratings of the behavior.
 3. For each analyzed self-regulatory behavior the following hypothesis was tested: men and women differ in difficulty ratings of the behavior.

Each part of grouped hypotheses was verified separately.

3. Method

3.1. Instrument

To answer research questions Foreign Language Learning Self regulation Difficulty Inventory (FLSDI) was constructed. The Inventory items were formulated on the basis of Self-Regulation Model postulated by Zimmermann (2002). For the purpose of the Inventory construction self regulation was operationalized as difficulty experienced in independently planning, performing and evaluating learning process.

Foreign Language Learning Self regulation Difficulty Inventory (FLSDI) consists of 34 items describing various behaviours connected with learning self-regulation. Each item begins with a phrase “When you learn a foreign language how difficult is it for you independently to....”.

On the basis of principal component analysis (N=557) of Inventory items four components explaining 50,81% of the variance in the data were finally extracted. Four FLSDI scales emerged as the result of varimax rotation procedure. The scales are as follows:

- Difficulty in choosing goals, ways and conditions for learning - 12 items (Cronbach alpha=0,89), for example: “When you learn a foreign language, how difficult is it for you independently to.... decide how you will learn a given material, identify which goals connected with learning you want to achieve;
- Difficulty in planning, organizing and implementing learning - 8 items (Cronbach alpha=0,82), for example: “When you learn a foreign language, how difficult is it for you independently to.... use various ways of learning, ...plan what you will learn in the distant future;
- Difficulty in motivational and emotional control - 6 items (Cronbach alpha=0,81), for example: “When you learn a foreign language, how difficult is it for you independently to...continue learning when other activities would be more pleasant, ...increase the willingness to learn in yourself;
- Difficulty in reflecting and making changes - 8 items (Cronbach alpha=0,86), for example: “When you learn a foreign language, how difficult is it for you independently to...determine whether the level at which you have mastered a certain knowledge or skill is satisfactory, ...evaluate the effectiveness of your learning;

Self-regulatory behaviours described in the Inventory items are rated on a scale ranging from “very easy” (0 points) to “very difficult” (6 points). The raw general Inventory score and the score of each Inventory scale is calculated as an arithmetic mean of sum of points and may range from 0 to 6. The higher the score the higher the difficulty in foreign language learning self-regulation – either general or measured by the scale.

The normality of FLSDI results distributions was checked by means of Kolmogorov-Smirnov test with Lilliefors amendment. The results are presented in table 1. Values of skewness and kurtosis in the range (-1; 1) show that the observed divergences from normal distribution in the general Inventory result and the result of three Inventory scales were not high.

3.2. Participants

Three hundred and eighty Polish students (194 women and 186 men) learning English as a second language took part in the research. The participants were divided according to educational level into three following groups:

- primary school students – 115 persons (58 women and 57 men); mean age M=11,6 (SD=0,58);
- lower secondary school students – 169 persons (89 women and 80 men); mean age M=14,7 (SD=0,91); and
- upper secondary school students – 96 persons (47 women and 49 men); mean age M=16,8 (SD=0,91).

4. Results

First, descriptive statistics of self-regulation difficulty measurements for the whole group of participants are shown. Next, the results concerning differences between men and women from various educational levels in terms of FLSDI general result and the results of the Inventory scales are reported. Finally, data on differences between students from various educational levels and between men and women in difficulty ratings of self-regulatory behaviours described in individual FLSDI items are presented.

4.1. Descriptive statistics of Foreign Language Learning Self-Regulation Difficulty Inventory

Descriptive statistics of Foreign Language Learning Self-Regulation Difficulty Inventory and its scales are presented in two tables. Table 1 shows FLSDI results for all participants. The data for the groups of participants formed on the basis of educational level and gender are included in Table 3.

Table 1. Descriptive statistics of Foreign Language Learning Self-Regulation Difficulty Inventory (N=380)

	General foreign language learning self-regulation difficulty	Difficulty in choosing goals, ways and conditions for learning	Difficulty in planning, organizing and implementing learning	Difficulty in motivational and emotional control	Difficulty in reflecting and making changes
Arithmetic mean	2,54	2,30	2,57	3,10	2,44
Standard deviation	1,01	1,08	1,18	1,33	1,14
Confidence interval 95%	2,434-2,64	2,19-2,41	2,45-2,67	2,97-3,24	2,32-2,55
Skewness	-0,04	0,07	0,09	-0,07	-0,07
Kurtosis	-0,25	-0,49	-0,38	-0,64	-0,64
KS normality test p	0,03	0,03	0,20	0,04	0,02

FLSDI result may theoretically range from 0 to 6. The higher the score, the higher self-regulation difficulty. Data in Table 1 show, that the arithmetic mean of the general Inventory result for the whole group of participants equals $M=2,54$ ($SD=1,01$). This value indicates that the subjects report medium general foreign language learning difficulty. Participants reported experiencing the highest difficulty in the case motivational and emotional control ($M=3,10$; $SD=1,33$). Less difficulty was declared in the case of: planning, organizing and implementing learning ($M=2,57$; $SD=1,18$); reflecting and making changes ($M=2,44$; $SD=1,14$); and in choosing goals, ways and conditions for learning ($M=2,30$; $SD=1,08$). Inspection of arithmetic means included in table 3 shows that difficulty in motivational and emotional control is indicated as most difficult by both men and women on each of three analyzed educational levels.

4.2. Differences in Foreign language learning difficulty in men and women from various levels of education

A two-way between groups analysis of variance was used to test the hypotheses concerning the differences between men and women from various educational levels (primary school, lower secondary school, upper secondary school) in terms of five following dependent variables: general foreign language difficulty; difficulty in choosing goals, ways and conditions of learning; difficulty in planning, organizing and implementing learning; difficulty in motivational and emotional control; difficulty in reflecting and making changes. The results of variance analysis are shown in table 2. The analysis was complemented by calculating the values of t tests between the scores of women and men in foreign language self-regulation measurements for each educational level separately. Table 3 presents the outcomes of these comparisons. Main effect for gender was found to be the only one statistically significant effect in the case of general foreign language learning self-regulation difficulty [$F(1, 374)=8,487$; $p=0,004$; $\eta^2=0,022$], difficulty in motivational and emotional control [$F(1, 374)=11,373$; $p=0,001$; $\eta^2=0,030$] and difficulty in reflecting and making changes [$F(1, 374)=4,937$; $p=0,027$; $\eta^2=0,013$]. In the case of these variables both the main effect for level of education and interaction effect did not reach significance.

Table 2. Effects of educational level and gender on foreign language learning self-regulation difficulty

Dependent variable	Independent variable	F	Significance level	Partial eta squared
General foreign language learning self-regulation difficulty	level of education	1,597	0,204	0,008
	gender	8,487	0,004	0,022
	level of education*gender	1,583	0,207	0,008
Difficulty in choosing goals, ways and conditions for learning	level of education	0,842	0,431	0,004
	gender	2,343	0,127	0,006
	level of education*gender	2,615	0,074	0,014
Difficulty in planning, organizing and implementing learning	level of education	5,956	0,003	0,031
	gender	11,964	0,001	0,031
	level of education*gender	0,790	0,455	0,004
Difficulty in motivational and emotional control	level of education	1,055	0,349	0,006
	gender	11,373	0,001	0,030
	level of education*gender	0,460	0,631	0,002
Difficulty in reflecting and making changes	level of education	0,316	0,729	0,002
	gender	4,937	0,027	0,013
	level of education*gender	0,853	0,427	0,005

Table 3. Descriptive statistics of foreign language learning self-regulation difficulty measurements in groups of participants

Group of participants		Primary school	Lower secondary school	Upper secondary school	Women	Men	Primary school		Lower secondary school		Upper secondary school	
							women	men	women	men	women	men
Number of participants		115	169	96	194	186	58	57	89	80	47	49
General foreign language learning self-regulation difficulty	M	2,42	2,55	2,66	2,38	2,71	2,16	2,68	2,39	2,74	2,64	2,68
	SD	1,01	1,06	0,90	0,94	0,99	0,96	0,10	1,08	0,92	0,81	0,99
	t (p)						-2,862 (p<0,001)		-2,166 (p<0,050)		-0,223 (ns)	
Difficulty in choosing goals, ways and conditions for learning	M	2,20	2,34	2,34	2,20	2,41	1,98	2,43	2,23	2,50	2,44	2,24
	SD	1,07	1,13	1,01	1,08	1,07	1,04	1,05	1,15	1,09	0,96	1,06
	t (p)						-2,308 (p<0,050)		-1,592 (ns)		1,001(ns)	
Difficulty in planning, organizing and implementing learning	M	2,38	2,50	2,91	2,35	2,80	2,10	2,67	2,28	2,77	2,82	3,01
	SD	1,21	1,19	1,06	1,14	1,18	1,19	1,18	1,13	1,19	0,98	1,14
	t (p)						-2,586 (p<0,050)		-2,738 (p<0,010)		-0,885 (ns)	
Difficulty in motivational and emotional control	M	2,96	3,14	3,20	2,88	3,35	2,64	3,29	2,94	3,39	3,05	3,35
	SD	1,26	1,43	1,23	1,31	1,31	1,21	1,23	1,44	1,38	1,14	1,31
	t (p)						-2,830 (p<0,010)		-2,104 (p<0,050)		-1,187 (ns)	
Difficulty in reflecting and making changes	M	2,37	2,46	2,48	2,31	2,58	2,13	2,62	2,36	2,58	2,43	2,52
	SD	1,18	1,15	1,05	1,09	1,16	1,15	1,18	1,14	1,15	0,92	1,17
	t (p)						-2,226 (p<0,050)		-1,253 (ns)		-0,419 (ns)	

As can be seen from the pattern of arithmetic means shown in table 3, women reported experiencing lower difficulty in comparison to men in the case of general foreign language learning self-regulation ($M_{\text{women}}=2,38$; $SD_{\text{women}}=0,94$; $M_{\text{men}}=2,71$; $SD_{\text{men}}=0,99$), motivational and emotional control ($M_{\text{women}}=2,88$; $SD_{\text{women}}=1,31$; $M_{\text{men}}=3,35$; $SD_{\text{men}}=1,31$) and reflecting and making changes ($M_{\text{women}}=2,31$; $SD_{\text{women}}=1,09$; $M_{\text{men}}=2,58$; $SD_{\text{men}}=1,16$).

In the case of difficulty in planning, organizing and implementing learning two significant effects were found: the main effect for gender [$F(1, 374)=11,964$; $p=0,001$; $\eta^2=0,031$], and the main effect for educational level [$F(2, 374)=5,956$; $p=0,003$; $\eta^2=0,031$]. The interaction effect did not reach significance. Arithmetic means presented in table 3 indicate lower difficulty in planning, organizing and implementing learning for women ($M=2,35$; $SD=1,14$) than for men ($M=2,80$; $SD=1,18$). Analysis of the impact of educational level on difficulty in planning, organizing and implementing learning showed a significant linear contrast ($p=0,001$). Planning, organizing and implementing learning proved to be least difficult for primary school students ($M=2,38$; $SD=1,21$), more difficult for lower secondary school students ($M=2,50$; $SD=1,19$) and most difficult for upper secondary school students ($M=2,91$; $SD=1,06$). In the case of difficulty in choosing goals, ways and conditions for learning main effect for gender, main effect for educational level and interaction effect did not reach significance.

In further analyses differences in FLSDI results of female and male students were inspected separately for participants from primary, lower secondary and upper secondary school. The values of t tests presented in table 3 show that the gender differences in foreign language learning self-regulation difficulty and its aspects decrease with the increase of educational level. On primary school level significant differences between boys and girls were found in the general FLSDI result ($t = -2,862$; $p<0,001$) and in the case of all Inventory scales measuring difficulty in: choosing goals, ways and conditions for learning ($t = -2,308$; $p<0,050$); planning, organizing and implementing learning ($t = -2,586$; $p<0,050$); motivational and emotional control ($t = -2,830$; $p<0,010$), as well as in reflecting and making changes ($t = -2,226$; $p<0,050$). Female and male participants from lower secondary school differed in terms of general FLSDI result ($t = -2,166$; $p<0,050$), and the result of two out of four Inventory scales measuring difficulty in: planning, organizing and implementing learning ($t = -2,738$; $p<0,010$) as well as motivational and emotional control ($t = -2,104$; $p<0,050$). No differences between men and women in FLSDI results were observed among participants from upper secondary school.

4.3. Age and educational level differences in difficulty ratings of self-regulatory behaviours included in FLSDI

In the last part of the analyses each self-regulatory behaviour included in FLSDI was treated separately. Hypotheses concerning differences between primary, lower secondary and upper secondary students in evaluating each Inventory item were verified by means of Kruskal-Wallis test. In the comparisons of women and men ratings of FLSDI items Mann –Whitney test was used.

Students from various levels of education differed in terms of experienced difficulty in six self regulatory behaviours included in FLSDI. Among these six behaviours there were four where the highest mean rank of scores, indicating the highest difficulty, was found in the case of upper secondary school students, lower mean rank of scores was observed for lower secondary school students, and the lowest mean rank of scores characterized primary school students. These four self-regulatory elements were:

- three behaviours connected with planning, organizing and implementing learning:
 - planning what one will learn in the distant future ($\chi^2=14,441$; $p=0,001$);
 - devoting time for learning on one`s own besides formal classes ($\chi^2=8,611$; $p=0,013$);
 - checking the effectiveness of various ways of learning ($\chi^2=6,782$; $p=0,034$); and
- one element connected with choosing goals, ways and conditions for learning, namely: planning how much time one will devote to learn a given material ($\chi^2=13,673$; $p=0,001$).

Among six self – regulatory behaviours which foreign language learners from various levels of education rated as differing in terms of difficulty there were also: identifying goals connected with learning which one wants to achieve, and planning what one will learn in the nearest future. Identifying which goals connected with learning one wants to achieve was indicated as most difficult by lower high school students and as less difficult by upper high school students and primary school students ($\chi^2=8,779$; $p=0,012$). In the case of planning what one will learn in the nearest future the highest mean rank of scores, indicating the highest difficulty, was found in the case of upper high school students, lower values of mean rank of scores characterized primary school students, and the lowest mean rank of scores was registered for lower high school students ($\chi^2=8,520$; $p=0,014$).

The difficulty of twelve out of 34 self-regulatory elements included in FLSDI was rated differently by male and female participants of the research. All these twelve behaviours were evaluated as more difficult by men than by women. Among the elements of foreign language learning self-regulation which were evaluated differently in terms of difficulty by men and women there were:

- five behaviours concerning planning, organizing and implementing learning:
 - devoting time for independent learning besides formal classes ($Z = -3,601$; $p = 0,0001$);
 - looking for people, materials or courses which could help in learning ($Z = -2,798$; $p = 0,005$);
 - planning what one will learn in the distant future ($Z = -2,325$; $p = 0,020$);
 - using various ways of learning ($Z = -2,243$; $p = 0,025$);
 - putting learning plans into practice ($Z = -2,145$; $p = 0,032$);
- four behaviours connected with motivational and emotional control:
 - increasing the willingness to learn in oneself ($Z = -3,170$; $p = 0,002$);
 - continuing learning when other activities would be more pleasant ($Z = -3,128$; $p = 0,002$);
 - concentrating on learning in the face of various distracters ($Z = -3,016$; $p = 0,003$);
 - taking advantage of one's disposition, interests and circumstances to help oneself in learning ($Z = -2,805$; $p = 0,005$);
- two behaviours connected with reflection and making changes:
 - making changes in one's learning when one thinks it is necessary ($Z = -2,648$; $p = 0,008$);
 - identifying causes on one's learning results ($Z = -2,127$; $p = 0,033$); and
- one element concerning choosing goals, ways and conditions for learning, namely: choosing the way of learning which will enable obtaining results one wants to achieve ($Z = -2,450$; $p = 0,014$).

5. Discussion and conclusions

An attempt was made to answer the following question: do men and women from various levels of education differ in terms of foreign language learning self-regulation difficulty? Students from primary, lower secondary and upper secondary school completed Foreign Language Learning Self-regulation difficulty Inventory (FLSDI). The Instrument measures difficulty in: choosing goals, ways and conditions for learning; planning, organizing and implementing learning; motivational and emotional control; as well as reflecting and making changes.

Students from primary, lower secondary and upper secondary school varied only in the case of difficulty in planning, organizing and implementing learning. This finding is contrary to the results of studies based on the intensity of self-regulatory strategies use conducted by Vukman and Licardo (2010) and by Mei-Ling (2009). These Authors revealed differences between students of various ages in terms of wide array of strategies: cognitive, metacognitive, motivational, and emotional. Detailed analysis of the research results obtained in the present study showed that planning, organizing and implementing learning measured by FLSDI scale proved to be least difficult for primary school students and most difficult for upper secondary school students. One possible explanation of such relationship may be the fact that the higher educational level the higher the complexity of self-regulation tasks faced by the students. Findings of the present study using FLSDI are congruent with the outcomes of the research based on the intensity of self-regulatory strategies use (Mei-Ling, 2009; Vukman and Licardo 2010), which revealed that older students report less frequent use of self-regulatory strategies than the younger ones.

Data gathered by means of FLSDI showed that women in comparison to men reported experiencing less foreign language learning self-regulation difficulty in general as well as difficulty experienced in planning, organizing and implementing learning; motivational and emotional control; and reflecting and making changes. Such an outcome is consistent with the research findings which indicate that generally women use self-regulatory strategies more often than men (Ran, Oxford, 2003). The findings of the present study using FLSDI show that self-regulation of such aspects of metacognition as planning, organizing and implementing learning as well as reflecting and making changes was evaluated as less difficult by women than by men. However, female and male participants of the study did not differ in terms of experienced difficulty in metacognitive strategies like choosing goals, ways and conditions for learning. This indicates that inconsistencies of the results of previous research on gender differences in the use of metacognitive strategies might have been the result of the broad variety of strategies covered by the concept measured. FLSDI data indicating experiencing lower difficulty by women in comparison to men in motivational and emotional control are congruent with the findings from the research conducted by T. Ghee and coworkers (2010) but

contrary to the results found by L. Ran and R. Oxford (2003), indicating lack of gender differences in affective strategies use.

Analyses of the data from the present study revealed that on primary school level differences between girls and boys could be observed in terms of general foreign language learning difficulty, as well as difficulty in all four self-regulation aspects measured by FLSDI. Male and female participants from lower secondary school reported different self-regulation difficulty in general, as well as in planning, organizing and implementing learning and motivational and emotional control. No differences between women and men in self-reports concerning experienced foreign language self-regulation difficulty were observed in the case of upper secondary school students. Previous studies found that the higher educational level, the smaller the number of gender differences in the intensity with which various strategies of self-regulation are employed (Vukman & Licardo 2010). Similar tendency was revealed in the present study concerned with difficulty of self-regulatory strategies use.

In the present study, in which FLSDI was used, no differences between men and women and between students from various educational levels in terms of difficulty in choosing goals, ways and conditions of learning was revealed. However, gender and educational level differences were found when ratings of the Inventory items treated as independent units were analyzed. Women declared choosing the way of learning which will enable obtaining results one wants to achieve as less difficult than men. Evaluations of difficulty of planning how much time one will devote to learn a given material and difficulty of identifying goals connected with learning which one wants to achieve were different in students from primary, lower secondary and upper secondary school.

Conclusions from the present study using FLSDI may be formulated as follows:

- Difficulty experienced in self-regulating foreign language learning process was evaluated by participants of the research as medium or even small. The most difficult self-regulation aspect proved to be motivational and emotional control.
- More gender than educational level differences in foreign language learning self regulation were found. Women reported less difficulty than men in terms of difficulty in planning, organizing and implementing learning; motivational and emotional control; as well as in reflecting and making changes. The only aspect of foreign language learning self-regulation difficulty evaluated differently by primary, lower secondary and upper secondary school students proved to be planning, organizing and implementing learning. Younger students indicated experiencing less difficulty in comparison with older ones.
- On the basis of the research findings educational programs aimed at fostering foreign language learning self regulation capacity could be constructed. Such programs should put special emphasis on motivational and emotional control regardless of the gender and educational level of participants. These programs should address greater difficulty experienced by men than by women during learning self-regulation, providing male students with extra instruction and practice opportunities, especially on primary school level. The higher educational level, the more extensive training in strategies facilitating planning, organizing and implementing learning should be provided.
- Further research should be conducted to verify the data obtained in the present study and to test whether the relationships which were found can also be observed in cultural contexts other than Central Europe and during learning subjects other than foreign languages. Moreover, the effectiveness of educational programs constructed on the basis of research findings and aimed at fostering self-regulation skills should be verified.

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