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# Gender Differences in Foreign Language Learning Strategies

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- concept, classification, problems

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# Definition of Learning Strategies

An intense focus on learning strategies is related to the development of cognitive psychology.

## **Strategies are viewed as**

- set of actions or steps taken by learners
  - to enhance their learning
  - to improve the development of their language skills (Oxford 1992)
- the way in which the learner selects, acquires, or integrates new knowledge (Weinstein, Mayer 1986)

## **Concepts connected with FLLS**

learning strategies – strategic competence – competence to learn – strategic behaviour – learning patterns – learning style – cognitive style – learning techniques – self-regulated learning – autonomous learning – self-direction – first vs. second vs. foreign language acquisition

# Discussion on the Concept of Strategies

- „moving target syndromme“
- strategies vs. techniques
- learner strategies (Ellis, Tarone, Macaro) vs. learning strategies (Cohen, Oxford)
- conscious vs. unconscious
- level of planning, monitoring, awareness,...
- problems with classification
- conceptual links between strategies and learning styles, personality and demographic variables

# Beginning of Research on Strategies

The early research started with successful learners.

## Successful learners

- more strategies, more sophisticated,
- orchestrated application: relevant to needs and task (Cohen 1990, O'Malley, Chamot 1990, Oxford 1990, Wenden, Rubin 1987).

## Less successful learners

- sometimes unaware of what strategies they use,
- aware of just a few non-communicative strategies (Nyikos 1987),
- random application (Vann, Abraham 1989),
- problematic orchestration of strategies.

# Development of Strategy Research

Early research	Current research
<p>1980s/1990s swung between two extremes (good - less successful learners)</p> <ul style="list-style-type: none"><li>•General patterns of desirable behaviour with high level of within subject variation</li><li>•Specific examples of behaviour with little scope for within subject variation, related to non-specific tasks.</li></ul>	<p>Recent work has focused on specific examples of strategic behaviour in the contexts of specific tasks and skills.</p>
<p>Earlier work suggested that a successful learner had a vast repertoire of strategic behaviour.</p>	<p>Why is it that certain learners are able to combine strategies more effectively than others?</p>
<p>Unproblematical linking strategies with achievement.</p>	<p>Independent variables (learning stage, beginning of learning, rate of progress, achievement level relative to peers etc.) affect or are related to the strategy deployment.</p>

# Taxonomy of Language Learning Strategies

Direct strategies			Indirect strategies		
Memory	Cognitive	Compensation	Metacognitive	Affective	Social
Creating mental linkages	Practising	Guessing intelligently	Centring your learning	Lowering your anxiety	Asking questions
Applying images, sounds	Receiving, sending messages	Overcoming limitations in speaking and writing	Arranging and planning your learning	Encouraging yourself	Cooperating with others
Reviewing well	Analysing, reasoning		Evaluating your learning	Taking your emotional temperature	Empathising with others
Employing action	Creating structure for input and output				

R. L. Oxford (1990)



# Individual Differences in Strategy Use

Strategy use influenced by many factors

– resulting in inter- and intra-individual differences in strategy use

- age, proficiency, language tasks, motivation, self-efficacy, self-concept, awareness of strategies, learning style, cognitive style
- gender is one of the most often focused factor in SLA research or in other areas of strategy use

# Gender

- a set of characteristics, ways to behave, interests and looks representing the image of a woman/man in a society
- socially, culturally and historically bound
- dichotomous
- gender vs. sex

# Gender Differences in Strategy Use

## **Girls > boys**

Politzer (1983), Ehrman&Oxford (1989),  
Oxford&Nyikos (1989), Dryer&Oxford (1996)

## **Boys > girls**

Zamri (2004), Tran (1988), Tercanlioglu (2004)

## **No significant differences**

Lee&Oxford (2008), Peng (2001), Chou (2002),  
Shmais (2003), Griffiths (2003)

# Research Questions

- Are there any gender differences in FLLS use in the Czech Republic?
- Are the differences stable across different age groups?
- Are the results comparable to other studies and countries?
- Do the results support the theory of FLLS and gender?

# Participants - Data Sampling

## **5<sup>th</sup> grade**

56 schools

end of primary educational level

1482 pupils

## **9<sup>th</sup> grade**

54 elementary schools

end of compulsory education

2384 pupils

## **penultimate year of grammar schools**

22 upper secondary comprehensive schools

12<sup>th</sup> grade of comprehensive education, near the end of comprehensive education

1038 students

South Moravia

non-random sampling

data collection through instructed administrators

# Method

## SILL (Oxford 1990)

- Strategy Inventory of Language Learning
- one of the most widely used strategy inventories
- 6 scales
  - memory, cognitive, compensatory
  - metacognitive, affective, social

## Examples of items

*„To understand unfamiliar words, I make guesses.“*

*„I first skim an English passage (read over the passage quickly) then go back and read carefully.“*

*„I find the meaning of an English word by dividing it into parts that I understand.“*

## 5-point frequency scale

# Reliability

grade	coefficient Cronbach $\alpha$	scale	sum of items
5th grade	0,74	3-point	28
9th grade	0,90	5-point	67
12th grade	0,96	5-point	67

9th grade	scales	coefficient Cronbach $\alpha$	number of cases	sum of items
	memory	0,55	2188	10
cognitive	0,80	2033	19	
compensatory	0,65	2223	8	
metacognitive	0,78	2033	15	
affective	0,70	2183	7	
social	0,61	2247	8	

12th grade	scales	coefficient Cronbach $\alpha$	number of cases	sum of items
	memory	0,82	1034	10
cognitive	0,86	1028	19	
compensatory	0,78	1033	8	
metacognitive	0,78	1030	15	
affective	0,71	1030	7	
social	0,88	1030	8	



# Data Analyses

## **Descriptive statistics**

Kolmogorow-Smirnov normality test

## **Parametric and non parametric techniques**

Mann-Whitney U-test , t-test

Spearman correlation coefficient R

ANOVA

## **Software**

Statistica 6

## **Missing data**

N differs depending on the analysis

## **Level of significance**

$p < 0,05$

in most cases  $p = 0,00$

# Characteristics of Participants

- The strategies were assessed in a „preferred“ language of the students:
  - most of the students preferred English
  - second most preferred language was German
- Nearly all pupils learn English
- Number of learnt foreign languages:
  - 5<sup>th</sup> grade: 92 % 1 FL
  - 9<sup>th</sup> grade: 69 % 1 FL, 27 % 2 FL
  - 12<sup>th</sup> grade: 61% 2 FL, 31 % 3 FL
- Almost everybody started studying the first foreign language before the age of 10.

# Characteristics of Participants

## *„I know how to learn“*

- 5<sup>th</sup> grade: 14 % not, 50 % partly
- 9<sup>th</sup> grade: 30 % not, 38 % partly
- 12<sup>th</sup> grade: 32 % not, 38 % partly

## **Reported language aptitude**

*(„I am good at language“, „I have language aptitude“)*

- 5<sup>th</sup> grade: 29 % not, 49 % partly
- 9<sup>th</sup> grade: 43 % not
- 12<sup>th</sup> grade: 37 % not



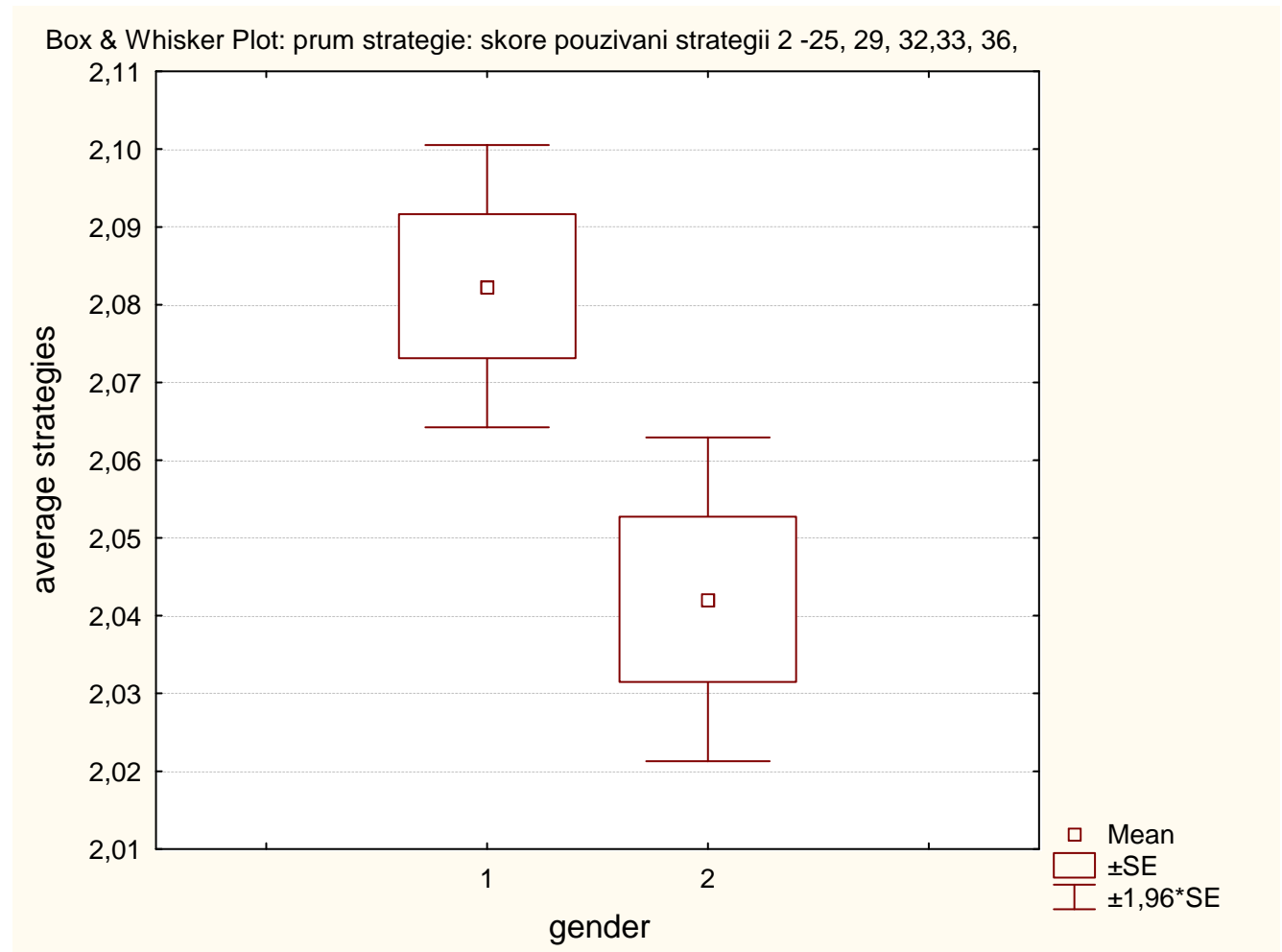
Need of  
strategy  
instruction

## **Learning strategies included in the instruction**

- 5<sup>th</sup> grade: 18 % never (31 % sometimes)
- 9<sup>th</sup> grade: 30 % never
- 12<sup>th</sup> grade: 37 % never

# Gender Differences in the 5<sup>th</sup> Grade

Girls use strategies more often



T-tests; Grouping: pohlavi (database_statis_5tridy_06)											
Group 1: 1											
Group 2: 2											
Variable	Mean 1	Mean 2	t-value	df	p	Valid N 1	Valid N 2	Std.Dev. 1	Std.Dev. 2	F-ratio Variances	p Variances
prum strategie	2,08	2,04	2,87	1469	0,00	794	677	0,26	0,28	1,12	0,12

# Gender Differences in the 5<sup>th</sup> Grade

Gender differences in use of 14 from 29 strategies

Girls predominate in:

Single strategies	Strategy category
•Learning vocabulary from songs and chants	Memory strategy
•Practicing pronunciation and spelling of words •Listening to songs in foreign language outside school too •Reading in foreign language in their pastime	Cognitive strategies - practicing
•Looking up new words •Reading texts repeatedly until they understand •Having their „favourite“ utterances which they use if they can.	Cognitive strategies
•Encouraging themselves when learning feels difficult	Affective strategies
•Asking for repetition, explanation or example when they do not catch the meaning of the word •Cooperating with others while learning outside school	Social strategies

# Gender Differences in the 5th Grade

3 strategies prevail amongst boys:

- Watching movies in English
- Playing computer games in English
- Looking up words/information on English web-sites

# Gender Differences in the 5<sup>th</sup> Grade

## **Girls' preferences as stated:**

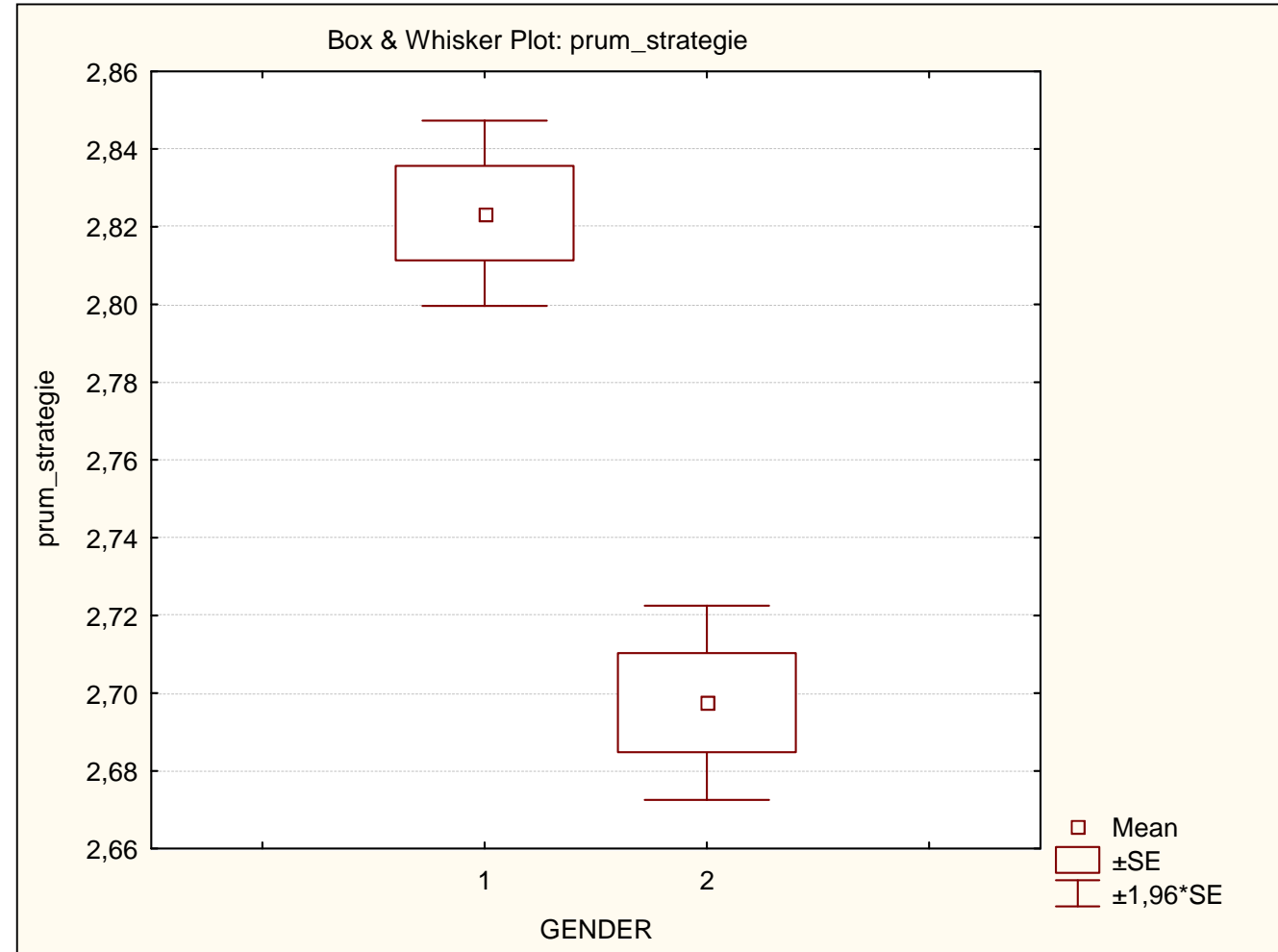
- Like learning foreign language
- Learn more often at home
- Feel more anxious before language exams ( $R = -0,07$ ,  $p = 0,01$ ),
- Have higher scores in the knowledge tests ( $R = -0,13$ ,  $p = 0,00$ ) – in accord with other results (Ellis 2008)
- Girls' grades were often better ( $R = 0,08$ ;  $p = 0,01$ ) and they were assessed better by teacher ( $R = 0,13$ ;  $p = 0,00$ )

## **No relation to gender:**

- Self-efficacy in language („ I know how to learn“, „I am good at language“)
- Learning environment at home (quiet place, learning with parents)
- Anxiety to speak in the target language

# Gender Differences in the 9<sup>th</sup> Grade

Girls use strategies more often



T-tests; Grouping: GENDER: 1 F, 2 M (database_strategie_zs9tr_06_stast5)											
Group 1: 1 Group 2: 2											
Variable	Mean 1	Mean 2	t-value	df	p	Valid N 1	Valid N 2	Std.Dev. 1	Std.Dev. 2	F-ratio Variances	p Variances
prum_strategie	2,82	2,70	7,16	2375	0,00	1207	1170	0,42	0,44	1,07	0,28



# Gender Differences in the 9<sup>th</sup> Grade

Gender differences are significant in all 6 dimensions.

T-tests; Grouping: GENDER: 1 F, 2 M (database_strategie_zs9tr_06_stast5) Group 1: 1 Group 2: 2											
Variable	Mean 1	Mean 2	t-value	df	p	Valid N 1	Valid N 2	Std.Dev. 1	Std.Dev. 2	F-ratio Variances	p Variances
memory	2,41	2,35	2,82	2375	0,00	1206	1171	0,51	0,52	1,05	0,44
cognitive	2,94	2,77	7,56	2376	0,00	1207	1171	0,55	0,55	1,02	0,73
compensatory	3,38	3,23	5,90	2376	0,00	1207	1171	0,62	0,64	1,08	0,20
metacognitive	2,85	2,70	5,92	2376	0,00	1207	1171	0,60	0,60	1,01	0,88
affective	2,51	2,45	2,10	2373	0,04	1207	1168	0,73	0,74	1,05	0,43
social	2,74	2,65	3,65	2374	0,00	1207	1169	0,63	0,64	1,03	0,59

# Gender Differences in the 9<sup>th</sup> Grade

Girls use more single strategies from the group of:

## **Memory strategies**

- Structured repeating
- Visualising where the word was written
- Using memory cards for vocabulary learning

## **Compensatory strategies**

- Asking for help
- gestures, mimic
- Avoiding conversation about topics with unfamiliar vocabulary
- Directing conversation to topics with familiar vocabulary
- Simplifying and adaptation of messages
- Circumlocutions, synonyms

## **Cognitive strategies**

- Repeated pronouncing/writing
- Pronunciation/writing practicing
- Phrases
- Text overview before reading
- Using vocabularies
- Application of rules
- Words analysing
- Understanding without translating word for word
- Being cautious with transferring rules from L1 to L2
- Writing notes
- Making summaries
  
- The strongest correlations: highlighting important information ( $R = -0,28, p = 0,00$ ).

# Gender Differences in the 9<sup>th</sup> Grade

Girls use more single strategies from the group of:

## **Metacognitive strategies**

- Attention, concentration
- Interest how to learn FL
- Planning time for learning
- Organising of learning place (M7)
- Having notebook (M8)
- Anticipating
- Looking for opportunities to practice
- Learning from own mistakes
- Evaluation of language progress

The strongest correlations:

- M7 (R = -0,18, p = 0,00)
- M8 (R = -0,15, p = 0,00)
  
- All relations are significant, but weak.

## **Affective strategies**

- Relaxing when feeling stress
- Encouraging herself
- Sharing feeling and attitudes

## **Social strategies**

- Asking for adaptation of the message
- Asking for verification
- Asking for correction
- Co-operating with peers

# Gender Differences in the 9<sup>th</sup> Grade

Boys used more 1 memory and 1 affective strategy which were generally not used:

- Physically acting out the word
- Keeping record for feeling and their improvement

# Gender Differences in the 9<sup>th</sup> Grade

## **Girls tended to:**

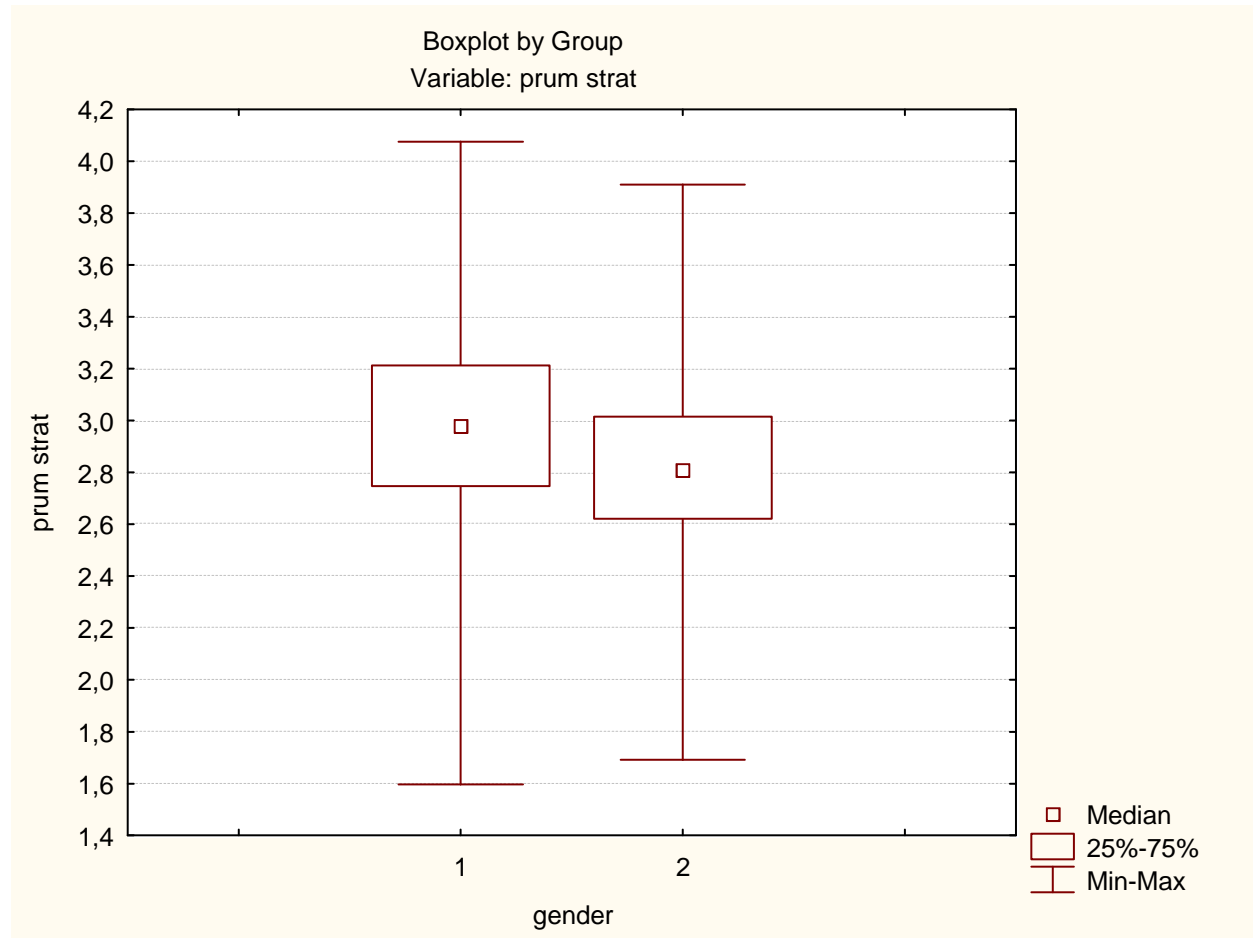
- Report longer time of L2 learning ( $R = -0,06$ ,  $p = 0,01$ )
- Get better language grades than boys (similar to other Czech studies Průcha 1997, Moravcova 2002, vyzkumy TIMSS, PISA, Genderova analyza ceskeho skolstvi 2006)

## **No gender differences in:**

- Language preference
- Onset of the first foreign language learning
- Level of language skill development
- Reported practising strategies with teacher
- Self-efficacy („ I know how to learn“, language aptitude, knowledge of language)
- Effectiveness of learning (time/knowledge)

# Gender Differences in the 12th Grade

Girls used strategies more than boys



Mann-Whitney U Test (strategie_gymn_06_aktualni)									
By variable gender									
Marked tests are significant at $p < ,05000$									
variable	Rank Sum Group 1	Rank Sum Group 2	U	Z	p-level	Z adjusted	p-level	Valid N Group 1	Valid N Group 2
prum strat	367944,5	159933,5	90927,50	6,736721	0,000000	6,737022	0,000000	656	371

# Gender Differences in the 12th Grade

Girls used more all 6 groups of strategies.

Variable	T-tests; Grouping: gender: 1 F, 2 M (strategie_gymn_06_aktualni) Group 1: 1 Group 2: 2										
	Mean 1	Mean 2	t-value	df	p	Valid N 1	Valid N 2	Std.Dev. 1	Std.Dev. 2	F-ratio Variances	p Variances
memory	2,42	2,35	2,75	1025	0,01	656	371	0,43	0,45	1,07	0,45
cognitive	3,29	3,11	5,79	1025	0,00	656	371	0,48	0,47	1,04	0,65
compensatory	3,57	3,40	4,86	1025	0,00	656	371	0,51	0,57	1,23	0,03
metacognitive	2,94	2,79	4,46	1025	0,00	656	371	0,55	0,54	1,01	0,92
affective	2,34	2,23	2,37	1024	0,02	656	370	0,70	0,72	1,07	0,45
social	2,96	2,73	5,89	1021	0,00	655	368	0,62	0,60	1,06	0,55

# Gender Differences in the 12<sup>th</sup> Grade

Girls used more:

## **Memory strategies**

Structured repeating  
Visualising where word was written  
Memory cards

## **Cognitive strategies**

Repeating activity  
Practicing orthography or pronunciation  
Finding main idea  
First reading before deep reading  
Looking for rules  
Language comparison  
Note making  
Summaries  
Highlighting

## **Compensatory strategies**

Asking for repeating  
Gestures, mimic  
Directing conversation to topics with familiar vocabulary  
Simplifying messages



# Gender Differences in the 12<sup>th</sup> Grade

Girls used more following single strategies:

## **Metacognitive strategies**

- Making overview, looking for associations
- Postponement of own speech production
- Interest in how to learn
- Planning of learning
- Organising of learning environment
- Note making
- Anticipation
- Evaluation of progress

## **Affective strategies**

- Relaxing when stress appears
- Encouraging oneself
- Rewarding oneself
- Sharing feelings/attitudes

## **Social strategies**

- Asking for verification
- Asking for correction
- Co-operating with peers
- Learning the foreign culture
- Empathy

# Gender Differences in the 12<sup>th</sup> Grade

Boys used more 2 single strategies:

- Combining known expressions
- Guessing

# Gender Differences in the 12<sup>th</sup> Grade

## **Girls tended to**

- Learn more languages than boys ( $R = -0,18$ ,  $p = 0,00$ )
- More often learned English, French ( $R = -0,12$ ,  $p = 0,00$ ), Spanish, Russian, Latin (no differences in German)
- Preferred more often other languages than English ( $R = -0,14$ ,  $p = 0,00$ ).
- Had better grades in FL ( $R = 0,16$ ,  $p = 0,00$ )

## **No gender differences were found in**

- Effectiveness of learning (time/knowledge)
- Reported strategy instruction by teacher
- Self-efficacy, Self-concept (I know how to learn FL, language aptitude, language knowledge)
- Time of onset of FL learning
- Time of learning preferred language
- Preferred language

# Discussion

SILL worked well and highly reliably in the Czech Republic.

- Some items seem to be culturally specific and not used in the Czech Republic (like writing diaries about language learning, mind mapping or employing action)

# Discussion

Gender differences are statistically significant at all three educational levels

- Primary, lower and upper secondary comprehensive education
  - But the relations are weak
  - Some influence might have the relatively large sample size, but still R should be  $> 0,2$
- 
- Girls reported using strategies more than boys.
  - Sometimes boys overdo girls in some single strategies.
  - The importance of gender differences grows more with higher educational level.

# Discussion

## **Support for FLLS theory?**

- In many studies girls use more strategies and different strategies than boys (Oxfrod 1986, Oxfrod, Ehrman 1987, Oxfrod, Nyikos, Crookall 1987). Might be socio-culturally determined. Sometimes men overdo women in some strategies.

## **Do the Czech results differ?**

- Compared to other results, the Czech Rep. seems to have similar results to most other countries within Euro-American culture – gender differences are significant and in favour to girls.

# Conclusion

- When learning a foreign language, strategy use is unavoidable.
- Strategies were at all stages used rather unsystematically and there is an area for improvement. One of the reasons being the fact that 1/3 of the students admit not knowing how to learn.
- Results of the Czech Republic do not differ in basic aspect from results from other countries. The SILL inventory might be used successfully in the Czech Republic.

# Recommendations

- Introduce strategies into the instruction – systematically
  - It is one of the goals of educational program
- Teacher should know the typical gender differences
- Not to anticipate automatically the difference between boys and girls as far as strategy use concern
  - culture specific
- Focus on efficiency of strategy use rather than only the number of strategies used and gender differences
- Keep other factors in mind (strategy orchestration, quality of strategy use)
- Focus on systematic and regular strategy assessment





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# Thank you for your attention and questions

Gender Differences  
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