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Sex and age effects on computer assisted  
vocabulary and grammar acquisition in  
adolescence

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## **OŚWIADCZENIE**

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## Introduction

The aim of my study presented in this work is to investigate age and sex effects on grammar and vocabulary learning in primary school children. In the first part of the work, the key concepts are overviewed: SLA, social variables of age and sex, spaced repetition learning (in the form of SuperMemo.net platform). In the second part of the work, methodological aspects of the experiment are reviewed: the description of control and experimental groups, details of the spaced repetition method used by the experimental group as well as pre- and post-tests that were intended to measure the progress of both groups.

Unfortunately, towards the end of the experiment it turned out that the influence of age and sex on the progress made with and without SM could not be studied. There were two reasons for this fact: post-tests could not be administered in the fourth grade because of teacher's illness and class cancellation; moreover, in the sixth grade, it was only the girls who used SuperMemo.net platform.

For these reasons, the progress made by 6<sup>th</sup> grade girls was analysed independently of any social variables and all only pre-test results were analysed against these two social variables. The third and fourth chapter present the results of these analyses and the conclusions.

At this point, I would like to thank:

*Krzysztof Biedalak* – CEO of SuperMemoWorld for his constructive criticism and most of all for making the SuperMemo.net platform available free of charge to all my students over the period of the experiment;

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Without the help of these people, none of this work would be possible. All the mistakes are obviously mine.

# **Chapter 1: SLA meets sociolinguistics – age and sex as factors in language aptitude and performance**

## **1.1. SLA perspective**

Second Language Acquisition (SLA) is by general definition a process of learning a foreign language, the language which is not L1 (Macmillan Dictionary 2010). On the other hand it is difficult to provide a comprehensive definition of Second Language Acquisition. According to Ellis, the term requires an explanation, as the first part “second” refers to any language that was learnt subsequently to the native tongue. Ellis defines SLA as “the way which people learn a language other than their mother tongue, inside or outside of the classroom” (Ellis 1997: 3). After Krashen (1981: 1), we also could add that it is the process that requires natural communication when a speaker is paying attention to the message that is conveyed and understood rather than concerned with the form of utterance.

In the context of this paper, the second language will be English and first language will be Polish.

### **1.1.1. The origins of SLA – the historical overview**

Teaching of second language has been an inseparable part of education and studying for centuries (McLaughlin 1978: 11). Already in Sumerians times, the world’s first known great civilization, there were some bilingual texts designed to teach foreign languages. Another civilization that possessed bilingual texts was the Egyptian civilization that

utilized multilingual tables of the languages of their conquered areas for the purpose of second language learning. However, the first scholars who developed what we now call comparative linguistics were the Jews who systematically investigated similarities between Semitic and non-Semitic languages. In the Roman Empire, well-educated Romans were able to speak both Greek and Latin and their children were educated bilingually – all had Greek and Latin lessons. Latin “in Medieval Europe, was an international language of communication and culture” (Titone 1968 as cited in McLaughlin 1978: 11) that was taught in parallel to national languages. During the Renaissance, people started to learn languages not only for practical communication but also to expand their knowledge. In the course of the 19<sup>th</sup> century, SLA speaking activities were abandoned in favour of reading and translating texts. In the 20<sup>th</sup> century, Charles Frambach Berlitz pointed out that “the learner must be taught as quickly as possible to think in the second language and for that purpose must use that language constantly without reverting to the first language” (McLaughlin 1978: 12). This idea led him to the development of the *direct method of teaching* which consisted in teaching through the target language only. This in turn became later popularized as the *audio-lingual method*. Berlitz and other supporters of these methods also emphasised that grammar needs to be taught inductively and they stressed the oral aspect of the language (Jespersen 1947 as cited in McLaughlin 1978: 12). Nowadays, however, there is no clear-cut answer which way of teaching languages is the most effective one. Some advocate contrastive analysis, others advise implementing transformation exercises and yet another use Berlitz’s direct method.

### 1.1.2. Attention and memory in SLA

Effective language learning depends on several factors, including the method of teaching on the one hand and student’s attention, language aptitude and memory abilities on the other. As far as attention is concerned, with the advancement of computer graphics and animation as well as computer technology in general – it is easier to create language teaching software that is exciting enough to sustain student’s attention for a sufficient period of time. There are also computer programs that can help learners optimise their memorization process so that even less talented children can systematise, preserve and

recall language information. One of such computer programs is SuperMemo (SM) described in greater detail in Section 1.2.2. Based on research into the process of forgetting and retention, it is designed to help students keep their attention on learning new information and preserve what they learned with the least effort.

The term *attention* could be defined as allocating energy of the brain to some activity or subject while disregarding other things (c.f. Wikipedia – entry *Attention* 2010). Because, as Robinson (2005: 11) claims, to maintain performance on a task, the “attentional energy devoted to it must remain at a constant state” and it seems obvious that in a teaching process that requires months or years this “attentional energy” cannot stay constant – we need a concept of a *positive attitude* that could be defined as “readiness to devote one’s attention when required”.

In our experiment, it is this *positive attitude* that makes students come back every day to their drilling routine by means of the SuperMemo platform, and it is their *attention* that allows them to complete the task once started. Both positive attitude and attention may change in a learner depending on the difficulty of the task, student’s motivation or external factors. Some students who took part in my experiment seemed to be excited in the beginning but later on resigned from using SM for unknown reasons.

The various phases in attention and positive attitude could be explained by the concept of energetic pools (Robinson 2005: 11), namely the arousal pool, the activation pool and the effort pool. The effort pool is connected to responding, monitoring output and the feedback it elicits, and is affected by such variables as task complexity, time spent on task, and type of feedback provided, novelty and inspiring character of the task. The complexity of the task and prolonged time on task are the reasons for failure to sustain attention (Robinson 2005: 12). Tasks that are more difficult and need focus are more effortful than those low in capacity demands (Robinson 2005: 12).

In the experiment described in Chapter 2: , I attempted to adjust the difficulty of the exercises used for drills to the current curriculum, when necessary also providing Polish translations to make tasks easier. All the exercises were based on the material covered during English classes from students’ book *Superkids*, so the content and most of the examples were familiar to the learners. The most likely explanation of the fact that some students gave up their drilling routine was high familiarity with these exercises which could render them boring to students and the negative attitude towards the assignment displayed especially by older boys.

## **1.2. Computer applications in SLA**

We are surrounded by technological inventions, technology has also entered language learning. Universal access to Computer Assisted Second Language Acquisition (CASLA) materials and information has been introduced by the Internet (Chapelle 2001: 23). Chances for autonomous language learning and self-assessment for learners started to be widely available.

### **1.2.1. CASLA evaluation**

Any software targeting the field of CASLA requires more scrutiny than standard classroom activities because:

- feedback provided by CASLA software is often inconclusive;
- effectiveness of CASLA software is often disputable;
- CASLA software is often applied without teacher's supervision;
- CASLA software requires expensive resources.

Taking into consideration the above issues, before a given CASLA software is implemented, several questions need to be answered (Chapelle 2001: 55):

- language learning potential – does it improve an actual language competence;
- learner fit – does it fit learner's individual differences in linguistic and non-linguistic ability;
- meaning focus – does it direct attention to meaning of language that is needed to complete the task;
- authenticity – does it satisfy the learners' need and willingness to communicate;
- positive impact – does the software positively affect the student beyond the foreign language learning potential, namely his/her metacognitive strategies, knowledge of the target culture and general communication skills (Chapelle 2001: 57).
- practicality – is it easy to implement within the particular constraints of a class or a language program.

In my experiment, special attention was paid to cater for as many of these requirements as possible with respect to the software I recommended for students as well as the language content I provided for the software.

### 1.2.2. The SuperMemo method

SuperMemo is a computer program that helps learners to assimilate new knowledge incl. foreign language items. According to the inventor of the program, Piotr Woźniak:

SuperMemo is a method of computer-aided learning based on research into long-term memory. It provides the learner with an optimum plan of repetition while studying. Repetition is crucial to knowledge retention as it prevents forgetting. By analysing the processes of retention and forgetting for each user individually, SuperMemo finds the optimum timing for reviewing the material. Each item of information is set with a unique pattern of repetition. The method aims at allowing the learners to reach their required level of knowledge retention with a minimum amount of repetition and time spent on revisions. By changing the required level of retention the learners can make the system plan their learning schedule more or less intensively. The system sets repetition in daily intervals and requires systematic use for optimum results. With regular learning and repeating for just 10 minutes a day, a student working with SuperMemo can learn over 500 new words per month with an average retention exceeding 95% (SuperMemo Manual. SuperMemo Method 2010).

The idea behind SuperMemo is not new. It consists in “incorporating increasing intervals of time between subsequent review of previously learned material” called spaced repetition (Wikipedia – entry *Spaced repetition* 2010) and dates back to the classic book by Hermann Ebbinghaus, *Memory: A Contribution to Experimental Psychology* published in 1885. SuperMemo adapts this idea and tailors the learning schedule to the learner’s abilities, difficulty of the material and the required level of retention. It also finds the optimum timing for reviewing the material. The rate of recall (proportion of right and wrong answers) is measured constantly during regular repetition. Intervals between repetitions are set dynamically so that learners reach required levels of knowledge retention.

### 1.3. Sociolinguistic perspective

In order to explore the relationship between extralinguistic variables of age and sex on the one hand and some linguistic phenomena as well as the effectiveness of SuperMemo method in primary school children on the other – several sociolinguistic concepts need to be explained.

#### 1.3.1. Social independent variables vs. linguistic dependent variables

Sociolinguistics tries to answer the question how individual speakers or people in general use language and where they use it (Meyerhoff 2006: 1). It is a field that studies the relation between language and society, between the users of language and their social structures (Spolsky 1998: 3). In my experiment, the *extralinguistic or social independent variables* that characterise an individual speaker are *age* and *sex*. These variables are studied against *linguistic dependent variables*:

1. result of a language aptitude test;
2. performance in a placement test;
3. performance in a test on the content of a unit from a coursebook used in the classroom;
4. attitude towards learning English expressed by the number of logins in the SM platform.

These are not sociolinguistic variables in the sense of features of language that vary systematically according to social context (Llamas et al. 2007: 229 in the glossary appended to the volume; like *poszłem* or *poszedłem* in Polish, frequency of a glottal stop in English). But since they are related to socially recognized features of age and sex on the one hand, and they are all linguistic activities on the other – we will treat them as such.

For the purpose of this analysis, the distinction between dependent variable and independent variable needs to be made. Llamas (2007 et al.: 211) provides a definition of dependent variable “a linguistic feature specifically selected by the researcher for investigation which can be correlated by examining it in conjunction with other factors, for instance independent variables [...], values of which can be determined and con-

trolled by the researcher”. Lavandera argues that the concept of linguistic variable and sociolinguistic variable is the same and “the notion was originally introduced to account for those cases of variation which could be shown to carry social and stylistic significance and where this significance was manifested by consistent differences in frequencies in which co-varied with other linguistic and extra-linguistic factors” (Lavandera 1996: 25).

Llamas et al. (2007: 221) also indicate that there is a difference between linguistic variable and social variable, namely linguistic variable, in sociolinguistics, is “a descriptive and analytical unit used to describe and quantify patterns of variation [...]. Variables are categories which contain two or more distinguishable variants, the distribution of which is often non-random and can be shown to be dependent upon and constrained by their linguistic and non-linguistic factors” (Llamas et al. 2007: 221). In contrast, she defines social variable as “the aspect of a speaker’s social identity (such as social class, age or sex), which can be correlated with linguistic variable to reveal the principles behind usage” (Llamas et al. 2007: 229).

### **1.3.2. Two approaches to sociolinguistics that are relevant to this study**

Among several approaches to sociolinguistics, Beebe (1988: 48-57) lists the Labovian paradigm and approach to studying attitudes in SLA. In the former, proposed by the founding father of sociolinguistics William Labov, language varies systematically in connection to social characteristics of the speaker. In the latter, proposed by Wallace Lambert, the success of a foreign language learner varies depending on his or her sociolinguistic traits. The result of Lambert and Gardner’s work (1972 as cited in Beebe 1988: 69) was the school of research that focused on attitudes, motivation and effects on learning a second language. Lambert and Gardner cooperated in order to answer the following questions:

1. What are people’s attitudes toward language – that is, how do they evaluate speakers on the basis of language use?
2. How can we measure and describe motivational orientations?

3. What conditions – aptitude, intelligence, and particularly social psychological conditions related to attitudes and motivations – facilitate (or impede) second language development (Beebe 1988: 68)?

In our experiment, we hope to answer the question of how aptitude and social variables of sex and age are related to attitudes towards and success in second language development.

The driving force behind this success is motivation. According to Lambert and Gardner (1972 as cited in Beebe 1988: 69) there are two major motivational orientations: integrative and instrumental. Integrative motivation for learning a foreign language assumes willingness to understand foreign customs and tradition. Instrumental orientation assumes, e.g. willingness to get a job in a foreign country, finishing school or social recognition (Beebe 1988: 69).

For 10-12 year old children, the subjects of the experiment described in Chapter 2: , the perspective of instrumental use of a foreign language often seems quite distant whereas integrative use may still be insufficiently developed. This may result in lack of motivation for learning foreign languages in children of these ages and their respective lack of success in this domain reflected by their poor performance in various language tests.

#### **1.4. Age and sex as social variables**

Age and sex are the two social (or extralinguistic) independent variables relevant for this study.

##### **1.4.1. Definition of age**

For the purpose of this study, the age of a subject was approximated to the grade the subject attended. In the experiment described in Chapter 2: two grades took part: fourth and sixth. In the former, the learners were around 10 years old while in the latter learners were around 12 years old.

The connection between age and ease of learning foreign languages has been a controversial issue investigated by many researchers. Some of their interesting experiments concerning “age” and surprising views are presented in Singleton’s work *Age as a factor in second language acquisition* (Singleton 1981: 1). The most common belief concerning age and language learning is that there is a link between age and person’s capacity for language learning which decreases at some point between childhood and adulthood (Singleton 1981: 1). In an experiment carried out by Lars Ekstrand, immigrant students of Swedish comprehensive schools were tested for pronunciation, transcribing dictation, listening and reading comprehension in Swedish. All test results were found to “correlate positively and significantly with age, suggesting that language ability, including pronunciation, improves with age” (Ekstrand 1976: 190 as cited in Singleton 1981: 5). He also finds similar results in Ekstrand’s later experiment with Swedish pupils (1-4 grade) learning English pronunciation and listening comprehension for one semester and the results indicated that “the older children did significantly better than the younger ones” (Ekstrand 1976: 182 as cited in Singleton 1981: 5). Likewise, Susan Ervin-Tripp was experimenting with children ranging from four to nine years old focusing on syntax and morphology. In her result, she found that older children in natural environment acquire the language more rapidly than younger children. She notices “it was the older children who exhibited a superior mastery of these elements even though their exposure to the second language was no more than equal to that of the younger children” (Ervin-Tripp 1974 as cited in Singleton 1981: 8).

The above generalizations, however, have many opponents. According to a series of studies performed by Krashen (1976 as cited in Singleton 1981: 17), adults acquire language more easily while they are exposed to formal instruction in the language rather than using the language. Krashen notices that children in suitable conditions learn a second language subconsciously while adults acquire the target language consciously (Krashen 1976 as cited in Singleton 1981: 17).

Another variable relevant for this study is motivation for language learning. Is there a difference between younger learners’ and older learners’ motivation for acquiring a new language? Krashen claims that “older children acquire faster than younger children in early stages of morphology and syntax, where time and exposure are held constant” (Krashen 1979: 573 as cited in Hyltenstam and Abrahamsson 2005: 4). Some argue (Hyltenstam and Abrahamsson 2005: 4) that it is the older learners who acquire a

second language faster than young learners in the first stages of the learning process, but children can catch up later on and younger ones have more opportunities to become native speakers, which is rare or even impossible in the case of adolescent starters or adults.

#### 1.4.2. Sex vs. gender

The second social factor whose influence on second language performance and language aptitude was hypothesised was sex of the subject. In this study, biological sex was determined by means of the first name of the subject. In our study, apart from the biological sex, the social roles that biological sex often implies also matter. In this sense, *sex* would be synonymous with *gender* since “gender is not something we are born with, and not something we have, but something we do – something we perform” (Eckert and McConnell-Ginet 2004: 10). Nevertheless, in my experiment, I will stick to the concept of *sex* because *gender* could be argued to include for example the social role of “being good at languages” for girls, which in turn would blur the distinction between our dependent and independent variables and would somehow sneak a bit of a conclusion into our premise.

#### 1.4.3. Gender and technology

Although according to some “the gender divide in computer use has been essentially eliminated, as there is no overall difference between boys and girls in overall use of computers” (Anderson 2007: 345), there are opponents convinced that there are many disparities between boys and girls concerning attitude to technology, access, use and acquisition of computer skills. Since the appearance of a PC and intuitive operation systems that can be used by people untrained in computer science, more and more girls gained access to this technology. Today boys take to programming and playing computer games, so generally speaking they are more likely to use the Internet for fun and technical matters, while on the other hand girls tend to use computers in most cases for practical work like learning or writing (c.f. Anderson 2007: 346).

Anderson found in his surveys that girls, in the age range of 12-17, more likely than boys engage in practical online school activities and slightly more frequently used home computers for completing school assignments than playing games. These surveys reveal interesting results, namely that in education, the gender gap in using computers is decreasing or even in some aspects women use technology more than men (Anderson 2007: 345-350). Our experiment will confirm these findings.

## Chapter 2: Methodology

The experiment was conducted over the period of 2.5 months from April 2010 to mid June 2010 following my teacher training practice in Primary School no 71 in Poznań under the supervision of Mrs Katarzyna Nadratowska<sup>1</sup>.

The experiment involved the following steps:

- Creating language content for SuperMemo.net spaced repetition platform in the form of a two language courses based on two coursebooks used in the classroom by two respective grades, 4<sup>th</sup> and 6<sup>th</sup>;
- Obtaining parental consents from children willing to learn from these courses at home in parallel to their standard in-class language training;
- Administering a set of pre-tests to all children: language aptitude test, placement test and a test on the content of the coursebook covered over the preceding 2 months;
- Setting up SuperMemo.net accounts for all children willing to participate whose parents signed parental contents;
- After 2.5 months – administering a test on the content of the coursebook covered in class over the period of 2.5 months during which children had access to the SuperMemo.net platform.

The above procedures and tests will be described in greater detail in this chapter. Data obtained in the experiment will be analysed in the next two chapters.

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<sup>1</sup> I would like to express my sincere thanks to mgr. K. Nadratowska for her help during the experiment, for reminding her classes to use SuperMemo, administering pre- and post-tests and her comments on the content of the SM course.

## 2.1. Parental consent

Before children began to use the SuperMemo.net platform, I asked their parents for permission to get their child involved in the experiment and for help to make the computer available to the child at least 15 minutes a day. I collected 40 parental consents altogether.

**Table 1** Percentages of girls and boys providing consent from their parents to use SuperMemo.

grade	sex	count	provided consent	provided consent perc
4	girls	15	13	0.87
4	boys	14	11	0.79
6	girls	11	10	0.91
6	boys	10	6	0.60

The percentage of girls who provided parental consent rose from 87% in 4<sup>th</sup> grade to 91% in 6<sup>th</sup> grade whereas the percentage of boys who provided consent declined from 79% in 4<sup>th</sup> grade to 60% in 6<sup>th</sup> grade. The parents' approvals reveal that both genders had similar opportunities to use computers at home for educational purposes. The fact that 6<sup>th</sup> grade boys presented the lowest number of consents should be interpreted rather as their general lack of interest in learning English at home rather than the lack of computers or their parents' lack of interest in their children's education.

The request for parental consent is provided in Appendix A. Appendix B contains instructions on how to log into SuperMemo.net platform – attached to the letter to parents. The leaflet was based on promotional materials published on the SuperMemo.net site but its wording and layout were designed independently for the purpose of this experiment.

## 2.2. Pre-tests

Before the introduction of the SM method, I administered three pre-tests to all children:

- *Placement test*;
- *Modern Language Aptitude Test (MLAT) test*;
- *Unit test* based on the material that pupils had covered during their English classes.

The reason for testing children before the experiment was to evaluate their proficiency in English, their general language aptitude and to enable the comparison of retention of the coursebook unit preceding the experiment with the retention of the unit covered during the experiment.

### 2.2.1. Placement test

Placement tests are designed to provide information about students' abilities in order to diagnose at what stage of a teaching programme they are. In other words, to assign students to classes with various proficiency levels (Hughes 2003: 16-17). The placement test used as a basis for the test I administered was one from the *Solution* book by Lynda Edwards (Edwards 2007). The original test was intended to help teachers decide whether their students are on elementary, pre-intermediate or intermediate level with respect to the knowledge of "the key language as well as their receptive and productive skills" (Edwards 2007: 2). The original version consisted of

- 50 multiple choice questions about English grammar and vocabulary from elementary to intermediate levels,
- a reading text with 10 graded comprehension questions and
- an optional writing task that assesses students' ability to produce the language.

The original test was designed to take up the whole 45-minute lesson unit. I had to abbreviate it so that children could write all three pre-tests during that time. For this purpose, I used only grammar and vocabulary multiple choice sections from the original placement test. I choose only questions concerning grammar and vocabulary also because these were the areas that I focused on in my SM exercises. I shortened 50 questions to 25 but retained the proportion of grammar to vocabulary questions. In the original there were 33 grammar (66%) and 17 vocabulary questions (34%). In the modified version, I chose randomly 17 questions from the original 33 grammar questions (68%) and 8 random vocabulary questions (32%).

The modification of the original test entailed modification of the interpretation of its scores. The original scales were divided by two:

**Table 2** Original and modified scores in grammar and vocabulary placement test.

	Total	Elementary	Pre-Intermediate	Intermediate
Original scores	50	0-20	21-30	31+
Modified scores	25	0-10	11-15	16+

The content of the *placement test* is provided in Appendix C.

### 2.2.2. The definition of a MLAT and a MLATE test

The research on Modern Language Aptitude Test dates back to 1950's (Carroll and Sapon [1959] 2002). It was created to predict students' probability of success in learning a foreign language in favourable conditions. The results of the test are supposed to stay stable during an individual's lifetime (Wikipedia – entry Modern Language Aptitude Test 2010).

Rysiewicz (2008: 571) defines the FL aptitude as “a set of primary capacities, propensities at an individual's disposal, available to him prior to learning and, to a certain degree influencing his potential level of achievement”.

The construction of the MLAT assumes that specific parts of the test play separate roles. The classic model of language learning aptitude consists of four components that Carroll and Sapon (Carroll and Sapon [1959] 2002 as cited in Rysiewicz 2008: 572) identify as

- phonemic coding ability;
- grammatical sensitivity;
- inductive language learning ability;
- rote learning ability.

The first factor, phonemic coding ability, is the ability to segment distinct sounds in order to associate them with graphical symbols. The second component, grammatical sensitivity is the ability to recognize and identify grammatical functions of some words or phrases in sentences. Inductive language learning ability consists in the ability to induce rules and patterns from given linguistic evidence. Finally, rote learning ability is the ability to form, retain and recall the associations between form and meaning of language material (Skehan 1989 as cited in Rysiewicz 2008: 572).

Modern Language Aptitude Test – Elementary (MLATE) on the other hand was an adaptation of the adult version for students in grades 3 through 6. It was MLATE that was a direct prototype of my version of a Polish language aptitude test applied in the experiment described in this paper. I had to create a Polish version of MLATE myself since to my knowledge no such a test has been made for Polish yet (Rysiewicz 2008: 570). Just like MLAT, MLATE consist of four parts: three of them are versions of the MLAT's exercises; the fourth exercise is “finding rhymes”, which tests student's ability to recognize speech sounds (Wikipedia - entry *Modern Language Aptitude Test* 2010).

MLAT's can be used for many various purposes, for instance it may be used to determine who will benefit from language training or who will experience difficulty in it or it may even be used to diagnose language learning disability. The reason I used MLATE in my research was

- to identify subjects who could bias the results of the comparison of SM effectiveness if they were exceptionally talented or had exceptional language learning difficulties;
- to identify relationships between age, gender and language aptitude of primary school children.

To create the Polish version of MLATE I translated the English version of MLATE into Polish and adjusted the content of some exercises. The MLATE consists of four parts that measure abilities that can make learning languages easier:

- Part 1 — HIDDEN WORDS: ability to associate sounds and symbols
- Part 2 — MATCHING WORDS: sensitivity to grammatical structure
- Part 3 — FINDING RHYMES: ability to hear speech sounds
- Part 4 — NUMBER LEARNING: auditory alertness and ability to remember

The first part is called “hidden words” and contains 16 items. This part of MLATE depends on the knowledge of (Polish) vocabulary and requires the ability to associate sounds with symbols. Each question has a group of words, however the underlined word is not spelled in the usual way. Instead, it is spelled approximately as it is pronounced. The task of the pupil is to recognize the disguised word from the spelling, to write the correct spelling and to select one of the four words that corresponds in meaning to or collocates with the disguised word.

The second part of the test is called matching words and it consists in measuring grammatical sensitivity without measuring grammatical knowledge gained through

formal instruction, therefore words like *noun*, *subject* and *C-command* are avoided. The first sentence is called the key sentence. One word in the key sentence is underlined and the task is to select the word in the second sentence that plays the same role as the underlined word in the key sentence.

The third part of the test is finding rhymes – the student is asked to find one word which best rhymes with the underlined word. This part measures the students ability to recognize associations between speech sounds.

The last part is number learning and it tests students' auditory and memory abilities. In this part, the students hear the names of numbers in a new fictitious language "raitiki". Firstly, the students hear some instructions and learn some single-digit numbers in that language. After that, they are asked to write down these numbers using Arabic numerals from 0-9 (MLAT-Elementary 2010).

Interpreting scores of MLAT in terms of some objective scale would require a separate research. For the purpose of this study, MALTE results of different students were compared with each other in order to estimate the relative probability of their success or failure in foreign language learning. 4<sup>th</sup> grade as well as 6<sup>th</sup> grade learners received the same MLATE test.

The student's version of the MLATE test is provided in Appendix D, the teacher's version is included in Appendix E.

### 2.2.3. Units tests

The *Units pre- and post-tests* that used in this research were obtained from students' book *Superkids* that was used as a standard coursebook in both grades (Ściborowska and Kubrakiewicz 2005). The selection of the *Units pre-tests* depended on the number of coursebook units that students covered over approx. 2 months preceding the experiment. The selection of *Units post-tests* depended on the number of coursebook units covered during the 2.5 months experiment. In the end, fourth grade covered two units over the period of the experiment, so accordingly they were writing a unit test covering these two units. At the same time, the same content was provided in SuperMemo exercises. During that time, sixth grade covered one unit, so they were administered a test on this very unit and the same content was provided in SuperMemo exercises. Since the

original units tests were quite long, I reduce the number of exercises in the test approx. by half. The purpose behind these tests was to measure students' knowledge of the coursebook before the experiment and identify progress during the experiment.

### 2.3. Types of exercises in SuperMemo

The exercises used in the SuperMemo program are based on the material which was covered during English classes. The exercises included in the program were created to accompany the book *Superkids*, which had been chosen as a basic coursebook for children I worked with. During the experiment, the fourth grade covered two units from the book: unit three "animals" and unit four "family". In that time, sixth grade covered one unit – unit six "globetrotters".

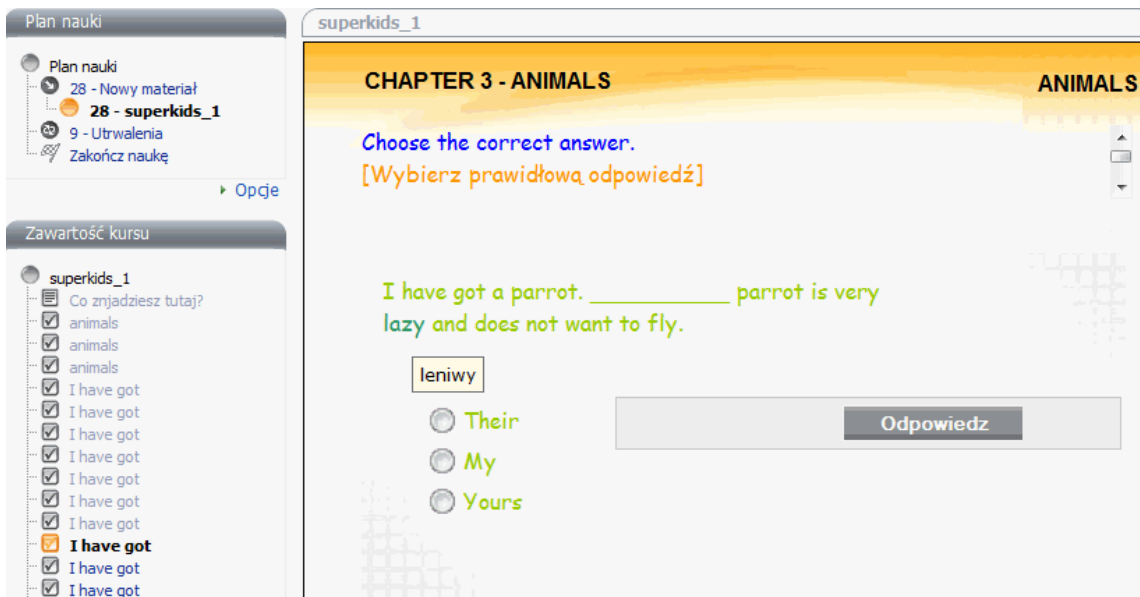
In the content of my SM course, I tried to use all types from the available set of exercises:

1. multiple choice with one possible answer;
2. multiple choice with several possible answers;
3. one answer from a drop-down list;
4. spelling controller;
5. translation;
6. true/false sentences.

**Figure 1** presents the first type of exercise – a multiple choice exercise that offers several alternative answers from which a student needs to choose the correct one. It is a simple exercise type usually applied to quickly revise grammatical forms or word meanings. A circle to the left of each option means that only one of them is correct. In the vertical menu to the left, the student sees a learning plan ("Plan nauki") which also presents his or her progress and how many revision he/she still needs to make. Below, there is another tree-like vertical menu with the content of the course ("Zawartość kursu"). Each node of that tree is a unit from the coursebook. The exercises in grey are already done, exercise in bold is the one that a student is doing at the moment and below there are exercises that the student still needs to complete. Then a student clicks *Answer* button ("Odpowiedz") and sees whether his/her answer was correct. If it was, he chooses one of three evaluation buttons "I knew it", "I hardly knew it" or "I did not know".

Finally, the system using three icons presents an evaluation of the answer and an optimum plan of repetition in daily intervals. **Figure 2** captures an already done exercise.

Apart from the above presented exercise type there is also a multiple choice type exercise with one or more answers are possible. The third type is a drop-down list, where a student needs to read a sentence and click on the little arrow which unfolds three possible answers for the question with one of them being correct. The fourth type is called spelling controller in which students are asked to write the correct spelling of the word or correct a word with a spelling mistake. Translation is the fifth type, while the sixth are true/false exercises.



**Figure 1** “Choose” exercise with one correct answer and the menu



**Figure 2** Completed “choose” exercise with repetition time

## 2.4. Post-test

Post-test was designed/created to evaluate students’ knowledge after the experiment with SuperMemo. The post-test consisted of a units test that measured students’ progress with material covered during English classes and aided with SuperMemo exercises done at home. Post-tests were created for all groups: two fourth grades and one sixth grade. As already indicated in the introduction to the thesis, because of teacher’s absence caused by her illness I did not manage to administer a post-test for the fourth grade. The fact that the post-test was administered to sixth grade only on the one hand, and the fact that in the sixth grade it was only the girls who used SuperMemo.net platform on the other – made it impossible to study the influence of social variables of sex and age on the progress made with and without SM. For this reason, all pre-tests were analysed against these two social variables and the progress made by 6<sup>th</sup> grade girls was analysed independently of any social variables. The following chapters present the results of these analyses.

## **Chapter 3: Sex, age, language aptitude and performance**

In this chapter, two social variables – sex and age will be statistically studied against the language performance of two groups of primary school pupils<sup>2</sup>. The second language performance was measured by a placement pre-test and units pre-test. The general language aptitude was measured by MLAT test adapted for Polish by the author of this thesis.

While sex seems a rather uncontroversial variable, the variable of age was approximated by the grade the subjects attended. No formal question about age of the subjects was asked. It was assumed that all four-graders were approx. 10 years old and all six-graders were approx. 12 years old. This assumption was considered sufficient because even if there were some children who were older (e.g. those who repeated a grade) or younger (e.g. those who went to school as six-year-olds) than the average for their grade...

- we had no reason to suppose that the number of such exceptions was different compared to an average Polish primary school;
- there were as many as 50 children altogether and any such exceptions would be levelled out in the statistics.

It should be noted at this point that optional enrolment of six-year-olds to Polish schools was introduced in 2009 and obligatory enrolment will be introduced in 2012. Therefore, these changes have not affected any of the students participating in this experiment.

EFL performance was understood in terms of the results of four tests: MLATE test, Placement test and two Unit tests: pre- and post-test (see Chapter 2: where these tests are described in greater detail and Appendices where they are included in full).

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<sup>2</sup> In all of the statistical tests presented in chapters 3 and 4, I received much help from my friend Przemek Jazło, to whom I extend my sincere thanks.

All the statistical analyses performed in this chapter were one-way ANOVA or Kruskal-Wallis tests<sup>3</sup> with the independent variable of either sex or age on the one hand, and MLATE result with its four components as well as placement test result as dependent variables on the other hand.

### 3.1. Sex and MLATE, Placement test and Unit pre-test results

The factor of the student's sex turned out to have an influence on some of the MLATE components but in neither of the grades was this influence significant on the overall MLATE grade.

Sex turned out to have a significant influence on

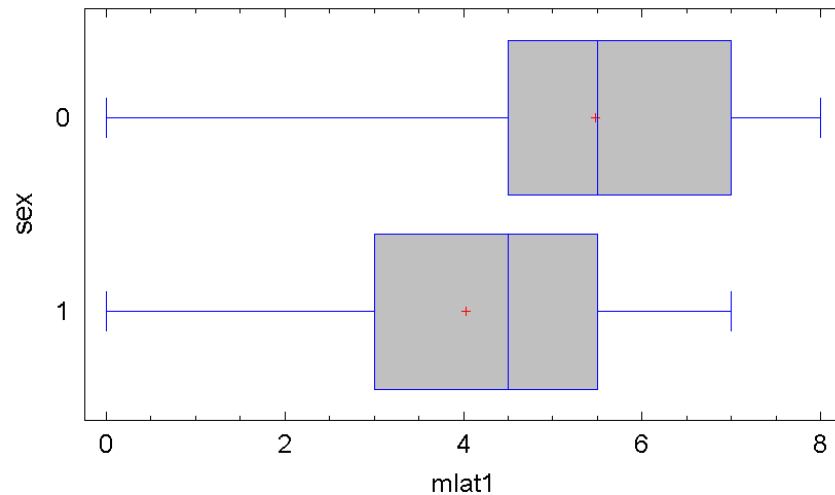
- The 1<sup>st</sup> component of the MLATE test. The value of p (explained in the footnote<sup>4</sup>) for this combination of variables is displayed in **Table 3** at the crossing of the MLATE1 row, major column of "4 and 6" and the sub-column "girls". This last location indicates that girls had an advantage over boys ( $F=5.73$ ,  $p=0.0214$ ). The advantage is illustrated in Figure 3

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<sup>3</sup> "The purpose of **analysis of variance (ANOVA)** is to test for significant differences between means by comparing variances. By partitioning the total variation into different sources, we are able to compare the variance due to the between-groups variability with that due to the within-group variability. Under the null hypothesis (that there are no mean differences between groups in the population), the variance estimated from the within-group variability should be about the same as the variance estimated from between-groups variability.

The **Kruskal-Wallis test** is a non-parametric alternative to one-way (between-groups) ANOVA. It is used to compare three or more samples, and it tests the null hypothesis that the different samples in the comparison were drawn from the same distribution or from distributions with the same median. Thus, the interpretation of the Kruskal-Wallis test is basically similar to that of the parametric one-way ANOVA, except that it is based on ranks rather than means." (Statistics Glossary 2010)

<sup>4</sup> The **p-level** is the statistical significance of a result is an estimated measure of the degree to which it is "true" (in the sense of "representative of the population"). More technically, the value of the p-level represents a decreasing index of the reliability of a result. The higher the p-level, the less we can believe that the observed relation between variables in the sample is a reliable indicator of the relation between the respective variables in the population. Specifically, the p-level represents the probability of error that is involved in accepting our observed result as valid, that is, as "representative of the population." For example, the p-level of .05 (i.e., 1/20) indicates that there is a 5% probability that the relation between the variables found in our sample is a "fluke." In other words, assuming that in the population there was no relation between those variables whatsoever, and we were repeating experiments like ours one after another, we could expect that approximately in every 20 replications of the experiment there would be one in which the relation between the variables in question would be equal or stronger than in ours. In many areas of research, the p-level of .05 is customarily treated as a "border-line acceptable" error level.



**Figure 3** Box & Whisker Plot illustrating the advantage of girls (sex=0) over boys (sex=1) in the 1<sup>st</sup> component of MLATE.

In the above figure, the means are indicated by crosses inside shaded areas. Vertical lines inside shaded rectangles are medians. Notches to the left and to the right outside the shaded areas indicate minimum and maximum values. The width of shaded area extends over the middle 50% of the data. For all the remaining combinations of age, sex and test results no such detailed graphs and analyses will be given. All the results are summed up Tables 3 and 5.

- The 4<sup>th</sup> component of the MLATE test, with boys having an advantage over girls ( $F=4.10$ ,  $p=0.0495$ );
- Placement pre-test, with boys having an advantage over girls ( $F= 11.65$ ,  $p=0.0015$ );
- Units pre-test, with girls having an advantage over boys according to Kruskal-Wallis test ( $H= 4.45$ ,  $p=0.0348$ ) but not ANOVA test ( $F=2.43$ ,  $p=0.1271$ ).

According to Krashen (1981: 19), “aptitude and attitude are not related to each other”. In our study however, girls showed significantly better attitude towards SM method and learning English in general. Their positive attitude was proportional to their scores in the first component of the language aptitude test and it varied inversely to the last component of the aptitude test. Our study shows therefore, that aptitude and attitude may be related, but this relationship is complex.

**Table 3** The influence of sex on scores in *MLATE test* and its 4 components, as well as on the performance in *Placement test* and *Units pre-test*. The location of *p* under one sex indicates that this sex had an advantage over the other with respect to given test (component). Significant *p*'s (<0.05) are given in bold.

grade	4 and 6		4		6	
sex	girls	boys	girls	boys	girls	boys
MLATE total	0.6916			0.9271	0.6350	
MLATE 1	<b>0.0214</b>		<b>0.0148</b>		0.3956	
MLATE 2	0.1161		0.2826		0.1333	
MLATE 3	0.3738		0.8496		0.2549	
MLATE 4		<b>0.0495</b>		<b>0.0225</b>		0.3890
Placement		<b>0.0015</b>		<b>0.0000</b>		0.3739
Units pre-test	ANOVA p=0.1271 Kruskal-Wallis p= <b>0.0348</b>		0.0616		0.8138	

Rua (2006: 100) makes several claims about the differences between boys and girls with respect to their aptitude in and attitude towards learning languages.

- 1) Girls are superior in terms of overall achievement in language in general;
- 2) Girls are superior in terms of overall achievement in foreign languages;
- 3) Girls appear more interested in the study of a foreign language than boys.

Our study confirms the first claim insofar as the first component of MLATE is concerned. This part of MLATE referred to as “Phonetic script” tests students’ ability to learn a system for writing native sounds phonetically (c.f. MLAT 2010: 8). Our study shows that the older the child, the less visible the difference between the sexes with respect to this parameter becomes. Boys, on the other hand excel, in the fourth component of MLATE referred to as “Number Learning”, which “tests auditory and memory abilities associated with sound-meaning relationships” (MLAT 2010: 7). Other than these two MLATE components, the differences between the sexes in overall achievement in languages is unclear. Altogether, it is impossible to point to one sex as superior in overall language achievement.

As far as the second claim is concerned, of all MLATE components, the one closest to the FL learning task was the component 4. All the other components relied

solely on L1 competence. In this particular component it was the boys who had an overwhelming advantage. Also boys' scores in the placement test were much higher than the girls'. And although girls came out better in the *Units pre-test*, the overall result would suggest that boys are superior in FL learning over girls, which in turn would make the second claim false.

As far as the third claim is concerned, in our experiment girls seemed to be more interested in the study of English than boys because they were willing to use SM learning method more often than boys (see Table 6). The direct answer to this question however would require a more specific experiment.

### 3.2. Age and MLATE, Placement test and Unit pre-test results

Among all the conducted tests, only the results in the *Placement test* were significantly related to the age of the subjects. The 6-grade students performed significantly better in the *Placement test* than their colleagues in the 4<sup>th</sup> grade. This difference is significant even though the distribution of students into proficiency categories described in **Table 2** was surprisingly similar between the two grades, as presented in **Table 4**.

**Table 4** Distribution of students among proficiency categories in different grades.

	4th grade	6th grade
elementary	28	17
pre-intermediate	1	3
intermediate	0	1

The majority of difference between the two grades was due to the girls' performance in this test because the difference between the scores of boys from the 4<sup>th</sup> and 6<sup>th</sup> grade was insignificant.

**Table 5** The influence of age (i.e. grade) on the scores in the *MLATE test* and its 4 components, as well as on the performance in *Placement test* and *Units pre-test*. The location of *p* under one grade indicates that this grade had an advantage over the other with respect to the given test (component).

sex	girls and boys		girls		boys	
grade	4	6	4	6	4	6
MLATE total	0.2392		0.5195		0.3674	
MLATE 1	0.1817		0.1993		0.7719	
MLATE 2		0.1019		0.0961		0.3598
MLATE 3		0.4089		0.2351	1.0000	
MLATE 4	0.0868		0.2738		0.0939	
Placement		<b>0.0000</b>		<b>0.0000</b>		0.1079
Units pre-test	0.6848		0.2952			0.6280

It is important to note that *Units pre-test* administered to 4<sup>th</sup> and 6<sup>th</sup> graders were adjusted to their current curriculum whereas the *Placement test* was identical for both groups, just as the *MLATE test*. In terms of the first and last *MLATE* component and total results, surprisingly, it was the 4<sup>th</sup> graders who gained the advantage over the 6<sup>th</sup> graders. It is difficult to measure how 4<sup>th</sup> graders are better at *MLATE* than 6<sup>th</sup> graders. It can be assumed that separating classes, as in 4<sup>th</sup> grade boys and girls are divided during English classes, may have contributed to such an outcome. Only the 2<sup>nd</sup> and 3<sup>rd</sup> component of *MLATE*, which consisted in recognizing syntactic roles and finding rhymes gave a minimum advantage to older children, the advantage however was not statistically significant.

### 3.3. Conclusions

Our study shows that sex differences in language aptitude and EFL performance are more marked in 4 graders than in 6 graders. One of the reasons why the difference between boys and girls was more marked in 4<sup>th</sup> grade could be that they were divided into two gender groups by the school regulations during English classes, which may have led to different learning conditions. 6<sup>th</sup> graders learned in coeducational classes and their learning conditions were similar. The analysis showed that age affects only EFL per-

formance, with older children being more proficient in English than younger children. This confirms that the MLATE test prepared by the author of this paper met one of the requirements posed by the proponents of the idea of MLAT – that its results are independent of age. This opens up the possibility of further usage of my version of MLAT in other studies.

## **Chapter 4: Standard method vs. SM-assisted method**

In the first section of this chapter, the different approaches to the SuperMemo method will be presented in boys and girls of two age groups we studied. In the second section, the progress a group of 4 six-grade girls made after SM-assisted course will be compared against the progress of 4 other girls who took part in standard course in the same language class. The scope of the experiment was limited to girls only because only girls logged into the SM platform (as the first section will show) even though both sexes were equally encouraged to do so. Another limitation of the experiment is that, contrary to what was assumed in the introduction, the factor of age had to be disregarded because of the lack of unit post-test in the fourth grade.

### **4.1. Sex and age vs. usage of the SM method**

In the fourth grade, the same number of boys and girls used the SM method at least once but the proportions differed slightly. As can be seen in **Table 6**, 4 out of 15 girls and 4 out of 14 boys logged into SM website at least once and reviewed at least one item during the 2.5 months of the experiment. The proportions become widely different among the six-graders: 45% of girls and none of the boys used SM during that time.

**Table 6** Percentages of girls and boys using SuperMemo method in both grades.

grade	sex	count	used SM	used SM %
4	girls	15	4	0.27
4	boys	14	4	0.29
6	girls	11	5	0.45
6	boys	10	0	-

According to popular expectations, boys should be more inclined to use new technologies. Our study however shows that this is true only for the 4<sup>th</sup> grade. In the 6<sup>th</sup> grade, girls turned out to be more willing to use computers to support their language learning process. This partly confirms a German study which showed that 46% of girls and 44% of boys between 6 and 13 years of age use learning software at least once a week, while at the same time 58% of girls and 68% of boys play computer games (Feierabend and Klingler 2001 as cited in Fromme 2004).

A possible explanation, as indicated in Section 1.4.3. might be that girls view computers as tools for achieving certain practical goals whereas boys tend to treat them more as a pastime. Boys prefer to devote the time they spend in front of the computer to gaming, which trains their reflexes or confronts them with their competitors.

Another explanation might be that boys are generally less interested in learning foreign languages (Kissau 2006 as cited in Kissau and Turnbull 2008: 154), and the stronger the difference between the sexes becomes over the years of adolescence, the more visible this tendency becomes.

#### **4.2. Progress between Units pre- and post-test and the usage of the SM method**

Due to factors described in the introduction to 0, the influence of the SM method could be studied only among 6<sup>th</sup> grade girls. This excludes the possibility of incorporating the social variables of sex and age into the analysis. Table 7 collects the results of boys and girls from both 4<sup>th</sup> and 6<sup>th</sup> grade, showing that the appropriate data only exists for 6<sup>th</sup> grade girls.

**Table 7** Average results of boys and girls from grade 4 and 6 in four tests: MLATE and Placement test (same for both grades) as well as Units pre- and post-tests (different for each grade). Results are given separately for pupils using and not using SuperMemo method.

grade	sex	used SM %	MLATE		Placement		Units pre-test		Units post-test	
			SM	no SM	SM	no SM	SM	no SM	SM	no SM
4	girls	0.27	0.72	0.62	0.07	0.05	0.40	0.38	-	-
4	boys	0.29	0.50	0.73	0.36	0.27	0.33	0.20	-	-
6	girls	0.45	0.49	0.69	0.37	0.33	0.32	0.33	0.44	0.40
6	boys	0.00	-	0.49	-	0.44	-	0.28	-	0.31

Nevertheless, we are still able to determine whether the girls who used the SM method outperformed the girls who did not apply the method. It is important to note at this stage, however, that the girls were not divided into two groups by the experimenter but the division was the result of the choices the girls made themselves. All of them were equally encouraged to use SM. The groups and their numbers were as follows:

- 1) 5 girls presented parental consent (Appendix A) to use SM and did use it;
- 2) 5 girls presented parental consent to use SM but did not use it;
- 3) 1 girl did not present parental consent to use SM and she did not use it.

One girl from the first group did not participate in the pre-test and one girl from the second group did not participate in the post-test, therefore they had to be excluded from the analysis as their progress could not be determined. The progress made by the group of 4 girls using SM was then compared with the progress made by the group of 5 girls not using SM. The percentage results in all pre- and post-tests in shown in Table 8.

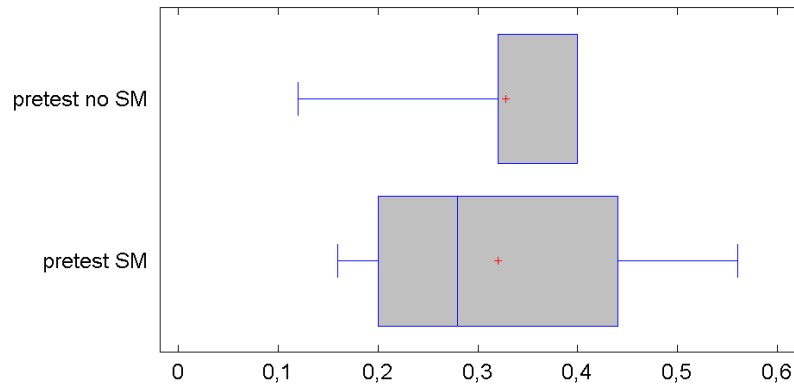
**Table 8** Average results 6-grade girls in four tests: MLATE, Placement test and Units pre- and post-tests. Results are given separately for girls using and not using SuperMemo method.

	MLATE		Placement		Units pre-test		Units post-test		Post- minus pre-test	
	SM	no SM	SM	no SM	SM	no SM	SM	no SM	SM	no SM
average test results	0.49	0.69	0.37	0.33	0.32	0.33	0.44	0.40	0.12	0.07

Intuitive overview of the above average results reveals that girls who were to use SM during the experiment scored lower by 1% than the girls who did not use SM during that time.

The slight difference between these averages is visualised in **Figure 4**. The means are indicated by crosses inside the shaded areas. The rightmost border of the first shaded rectangle (at the value of 0.4) and a middle vertical line inside the second rectangle (at the value of 0.28) indicate medians. Notches to the left and to the right outside

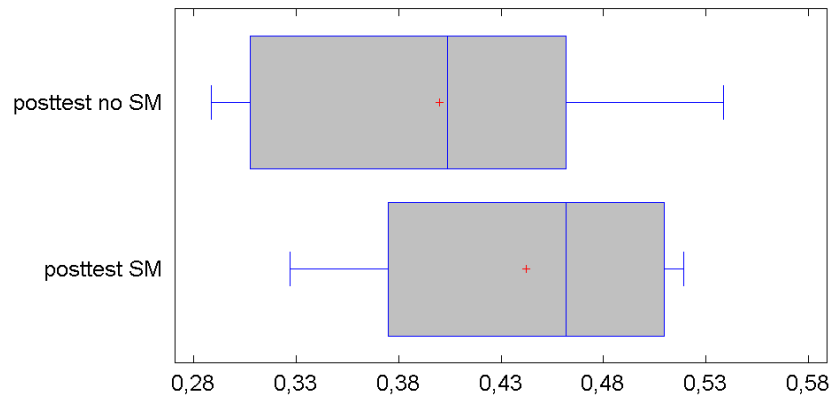
the shaded areas indicate minimum and maximum values whereas the width of shaded area extends over the middle 50% of the data.



**Figure 4** Box & Whisker Plot illustrating performance in the *Units pre-test* of 6-grade girls not using and using SuperMemo method

The above graph reveals no clear-cut differences between the two groups of students before they started using different learning methods.

In **Figure 5**, the differences between the two groups become clearer. The graph presents the scores of the two groups in *Units post-test* after the different learning methods were applied. Although the best score was achieved by a student from the “no SM” group, the average result of the SM group was higher by 4% than that of the “no SM” group.



**Figure 5** Box & Whisker Plot illustrating performance in the *Units post-test* of 6-grade girls not using and using SuperMemo method.

As can be seen in Table 8, the progress between the *Units post- and pre-test* was greater in girls using SM (12%) than in girls not using SM (7%).

This result was achieved in spite of the fact that the first group of girls showed 20% poorer performance in the MLATE test, indicating that the girls who used SM might have realized that they are less talented in terms general of language aptitude and consciously decided to use computer to ease their work to acquire new language items. In the end, it turned out that they retained these items better than girls who just relied on their language talents and did not take up the SM language learning method.

On the other hand, this result may be partly ascribed to greater general EFL knowledge of girls using SM. As can be seen in **Table 8**, the girls who used SM came out by 4% better in the general placement test preceding the experiment than those girls who did not use SM later on. This indicates that even before the experiment they put more effort into language learning and their EFL knowledge was higher than of the remaining girls.

Surprisingly, it is the latter group, though, who scored 1% higher in the *Units pre-test*. This shows that there was a discrepancy between the general EFL knowledge and the content of one unit from the coursebook the students covered prior to the experiment. Talented girls retained more language material from the last unit but their general language abilities were poorer than of the less talented girls.

These data give us a tentative possibility to ascribe the greater progress made by the group of children from the experimental group to the method of reviewing language items they applied.

### **4.3. Conclusions**

The SuperMemo method may turn out very helpful for girls in primary school. Due to this method even students that display less talent for languages may outperform students who score significantly higher in general language aptitude tests. The experiment also revealed that for boys the fact of incorporating latest Information Technology developments like the Internet, online communities and chat rooms needs not be enough of an incentive to get involved into optional extra-curricular foreign language learning activities. Tight connection between SM content and in-class activities, parent's assistance and teacher's supervision may play a vital role in achieving success with the application of the SuperMemo method in primary school EFL learning.

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## Appendix A – Parental consent

Szanowni Rodzice,

Proponujemy Państwu udział dzieci w nowatorskim projekcie naukowym. Projekt ten ma na celu pomoc w nauce języka angielskiego poprzez zastosowanie kursu komputerowego SuperMemo. Kurs ten jest oparty na podręczniku SuperKids i ma na celu **utrwalenie materiału**, którego Państwa dziecko uczy się na lekcjach angielskiego. Praca dziecka z tym kursem odbywałaby się w domu przy komputerze po około 15 minut dziennie. Projekt zaplanowany jest na najbliższe **dwa miesiące** a uczestnictwo w nim jest całkowicie **darmowe**. Korzyści jakie odniesie Państwa dziecko to:

- poznanie nowatorskiej metody uczenia się, która **kilkukrotnie** zwiększa zdolność zapamiętywania nowych informacji;
- utrwalenie materiału przerabianego podczas lekcji języka angielskiego a tym samym lepsze **przygotowanie do testu** z języka angielskiego zaplanowanego w szkole na koniec roku.

Przez okres trwania kursu nauczyciel będzie miał dostęp do informacji czy uczeń korzysta z kursu regularnie oraz jakie robi postępy.

Uprzejmie prosimy:

- aby podczas początkowych sesji pomogli Państwo dziecku w korzystaniu z kursu zgodnie z instrukcją obsługi znajdującą się na odwrocie tej kartki;
- określili poniżej czy istnieją techniczne możliwości aby zapewнили Państwo dziecku dostęp do komputera raz dziennie;
- aby swoim podpisem wyrazili Państwo zgodę na uczestnictwo dziecka w niniejszym projekcie.

W razie jakichkolwiek problemów bardzo proszę o kontakt na email:

agata.szofer@gmail.com.

Z poważaniem,

Katarzyna Nadratowska oraz Agata Szofer

Nie jest / Jest możliwy codzienny dostęp dziecka do komputera\*

Nie wyrażam zgody / Wyrażam zgodę na uczestnictwo dziecka w kursie SuperMemo

.....  
Podpis Rodzica

\*Proszę podkreślić właściwą odpowiedź

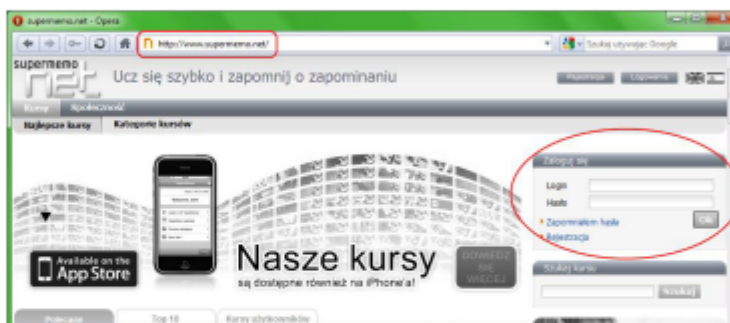
## Appendix B – SuperMemo manual

### INSTRUKCJA OBSŁUGI KURSU SuperMemo ONLINE

#### Logowanie

1. Połącz się z Internetem
2. Uruchom przeglądarkę internetową (np. Internet Explorer, Mozilla Firefox, Opera lub inną)
3. W oknie przeglądarki wpisz adres strony internetowej <http://www.supermemo.net>
4. Zaloguj się wpisując

- w oknie „Login” swoje **imię i nazwisko, połączone kropką, małymi literami bez polskich znaków**. Jeśli nazywasz się *Łukasz Liść* to twój login to: *lukasz.liśc*
- w oknie „Hasło” swoje **imię małymi literami bez polskich znaków**



5. Na stronie zobaczysz swoje konto. Po kliknięciu nazwy kursu: „superkids\_1” (dla klasy 4) lub „superkids\_2” (dla klasy 6) rozpoczynasz naukę

#### Nauka angielskiego

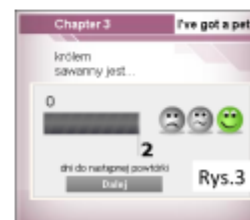
- Kurs składa się ze slajdów. W pierwszy dzień pracy z kursem wszystkie slajdy należą do **nowego materiału**. W kolejne dni komputer będzie wyznaczał **do powtórek** slajdy z poprzednich dni oraz nowe slajdy
- Każdy slajd zatytułowany jest tak jak podrozdział z twojego podręcznika, np.
  - w podręczniku do klasy 4, w rozdziale „Chapter 3 – Animals” jest podrozdział „I’ve got a pet” i slajdy oparte na tym podrozdziale będą miały tytuł „I’ve got a pet”
  - w podręczniku do klasy 6, w rozdziale „Chapter 6 – Globetrotters” jest podrozdział „Have you ever been abroad” i slajdy oparte na tym podrozdziale będą miały tytuł „Have you ever been abroad”
- Są dwa główne rodzaje slajdów:
  - prezentacja materiału – zawiera opis czego będą dotyczyły kolejne slajdy. Wystarczy, że przeczytasz prezentację i klikniesz „Dalej”
  - ćwiczenie SuperMemo – zawiera ćwiczenie językowe oparte na podręczniku SuperKids. Twoim zadaniem jest
    - zaznaczyć właściwą odpowiedź i kliknąć „Odpowiedz” (Rys.1)
    - porównać swoje rozwiązanie z tym, które wskaże program
    - **samodzielnie ocenić** swoją odpowiedź klikając na jeden z przycisków: „nie wiem”, „prawie” oraz „wiem” (Rys.2)
    - przejść do kolejnego slajdu klikając „Dalej” (Rys.3)
- Jeśli klikniesz „nie wiem” program wyświetli ten slajd jeszcze tego samego dnia. Jeśli klikniesz „prawie” albo „wiem” – program wyświetli ten slajd za kilka dni. Liczba dni do następnej powtórki zostanie podana (Rys.3).
- Zwróć uwagę, że komputer porównuje twoją odpowiedź z poprawną odpowiedzią i na pomarańczowo (Rys. 2) podpowiada, który przycisk powinieneś wcisnąć. Jednak ty sam podejmujesz ostateczną decyzję, który przycisk klikniesz.



Rys.1



Rys.2



Rys.3

#### Cele kursu

Celem tego kursu jest nauczenie ciebie słownictwa i gramatyki angielskiej za pomocą metody SuperMemo. Po tym kursie

- lepiej będziesz pamiętał słownictwo
- sprawniej wykonywał ćwiczenia gramatyczne
- dużo łatwiej zdasz klasówki z języka angielskiego i duży test na koniec roku

## Appendix C – Placement pre-test with key

### Test 3 – 10 minut

Imię i nazwisko ucznia: .....

Klasa: .....

.

#### Część 1.

Zaznacz prawidłową odpowiedź A, B, C lub D. Tylko jedna odpowiedź jest poprawna.

1. His \_\_\_\_\_ is a famous actress.  
A aunt B uncle C grandfather D son
2. We \_\_\_\_\_ like rap music.  
A doesn't B isn't C aren't D don't
3. He \_\_\_\_\_ TV at the moment.  
A watches B is watching C watched D has watching
4. Did you \_\_\_\_\_ to the beach yesterday?  
A went B were C go D goed
5. Let's go into \_\_\_\_\_ garden. It's sunny outside.  
A a B any C – D the
6. Mark \_\_\_\_\_ his car last week.  
A cleaned B did clean C has cleaned D is cleaning
7. Which bus \_\_\_\_\_ for when I saw you this morning?  
A did you wait B had you waited C were you waiting D have you waited
8. That's the \_\_\_\_\_ film I've ever seen!  
A worse B worst C baddest D most bad
9. I've been a doctor \_\_\_\_\_ fifteen years.  
A since B for C until D by
10. If I \_\_\_\_\_ this homework, the teacher will be angry!  
A am not finishing B won't finish C don't finish D didn't finished
11. I'll meet you \_\_\_\_\_ I finish work.  
A if B when C as D so
12. We're getting married \_\_\_\_\_ March.  
A in B on C at D by

13. I \_\_\_\_\_ not be home this evening. Phone me on my mobile.  
A can B could C may D should
14. He asked me if I \_\_\_\_\_ a lift home.  
A wanted B want C was wanting D had wanted
15. You \_\_\_\_\_ go to the supermarket this afternoon. I've already been.  
A mustn't B can't C needn't D won't
16. The \_\_\_\_\_ near our village is beautiful.  
A country B woods C view D countryside
17. I'm \_\_\_\_\_ I can't help you with that.  
A apologise B afraid C regret D sad
18. It was really \_\_\_\_\_ this morning. I couldn't see anything on the roads.  
A cloudy B sunny C icy D foggy
19. Can you look \_\_\_\_\_ my dog while I'm away?  
A for B at C to D after
20. I wish he \_\_\_\_\_ in front of our gate. It's very annoying.  
A won't park B wouldn't park C doesn't park D can't park
21. It was good \_\_\_\_\_ about her recovery, wasn't it?  
A information B words C news D reports
22. I \_\_\_\_\_ the report by 5.00 p.m. You can have it then.  
A have finished B will have finished C finish D am finishing
23. Because of the snow the teachers \_\_\_\_\_ all the students to go home early.  
A said B made C told D demanded
24. I'm afraid it's time we \_\_\_\_\_.  
A leave B must leave C are leaving D left
25. He wondered what \_\_\_\_\_.  
A is the time? B the time was C was the time D is the time?

KEY: 1 a, 2 d, 3 b, 4 c, 5 d, 6 a, 7 c, 8 b, 9 b, 10 c, 11 b, 12 a, 13 c, 14 a, 15 c, 16 d, 17 b, 18 d, 19 d, 20 b, 21 c, 22 b, 23 c, 24 d, 25 b

## Appendix D – MLATE sheet for students

<b>Test 3 – 10 minut</b>		
<b>Imię i nazwisko ucznia:</b> .....		
<b>Klasa:</b> .....		
<b>Część 1.</b>		
PODKREŚLONY wyraz nie został zapisany prawidłowo. Brakuje w nim jakiejś literki albo został on zapisany tak jak się go wymawia. Odszyfruj ten wyraz i w nawiasie zapisz jego poprawną formę. Następnie zaznacz krzyżykiem ☒ JEDNO z czterech słów umieszczonych poniżej, którego znaczenie jest najsilniej związane z podkreślonym wyrazem.		
<b>PES</b> (poprawnie: .....)	<b>GUPIJ</b> (poprawnie: .....)	
<input type="checkbox"/> roślina	<input type="checkbox"/> ostrożny	
<input type="checkbox"/> nazwa rzeki	<input type="checkbox"/> rozkaz żeby coś wypić	
<input type="checkbox"/> przyjaciel człowieka	<input type="checkbox"/> nazwa ryby	
<input type="checkbox"/> pieniądz	<input type="checkbox"/> niemądry	
<b>HLEP</b> (poprawnie: .....)	<b>WŁAĆ</b> (poprawnie: .....)	
<input type="checkbox"/> pomieszczenie dla zwierząt	<input type="checkbox"/> ssak	
<input type="checkbox"/> coś do picia	<input type="checkbox"/> nalać coś	
<input type="checkbox"/> rodzaj czapki	<input type="checkbox"/> krzyczeć	
<input type="checkbox"/> czerstwy	<input type="checkbox"/> narysować coś	
<b>Część 2.</b>		
W pierwszym zdaniu zostało <u>podkreślone</u> JEDNO słowo. <u>Podkreśl</u> w drugim zdaniu jedno słowo, które pełni taką samą funkcję jak podkreślone słowo w pierwszym zdaniu.		
<table border="1"><tr><td><b>Przykład:</b> Wczoraj złożyłam <u>mamie</u> życzenia. Kasia powiedziała <u>cioci</u>, że ją jutro odwiedzi.</td></tr></table>		<b>Przykład:</b> Wczoraj złożyłam <u>mamie</u> życzenia. Kasia powiedziała <u>cioci</u> , że ją jutro odwiedzi.
<b>Przykład:</b> Wczoraj złożyłam <u>mamie</u> życzenia. Kasia powiedziała <u>cioci</u> , że ją jutro odwiedzi.		
Mama <u>rozmawia</u> z synem o komiksach.		
Dzieci idą z rodzicami do parku.		
Dziadek zabrał wnuczka na ryby i złapali <u>szczupaka</u> .		
Kolega świetnie podał mi piłkę i dzięki temu łatwo wygramyśmy.		
<u>Rano</u> zjadłam dużą porcję spaghetti.		
Siostra obiecała mi, że pójdzie ze mną do zoo ale dopiero pojutrze.		
Niedawno kupiłam sobie nowe <u>buty</u> .		
Lody, które babcia mi kupiła, bardzo mi smakowały.		
1		

### Część 3.

W poniższych przykładach zaznacz krzyżykiem ☒ JEDNO słowo, które najlepiej rymuje się ze podkreślonym słowem.

wesoły

- goły
- bary
- biły
- fory

nuta

- brata
- sałata
- minuta
- nuda

trawa

- ewa
- brawa
- staw
- żyrafa

skakać

- pomagać
- popłakać
- przebfać
- drapać

### Część 4.

W tym zadaniu nauczysz się nazw liczb w języku *raitiki*. Następnie usłyszysz kilka prostych liczb w tym języku i twoim zadaniem będzie zapisanie ich przy pomocy cyfr arabskich (od 0 do 9). Na przykład – gdybyś po polsku usłyszał liczbę „siedemnaście” zapisałbyś 17. Ale w tym zadaniu usłyszysz liczbę nie po polsku ale w języku *raitiki*. Instrukcje te usłyszysz tylko raz. Gdy zacznę dyktować liczby, na zapisanie każdej z nich będziesz miał około 10 sekund.

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....
7. ....
8. ....

<b>Test 3 – 10 minut KLUCZ</b>	
<b>Imię i nazwisko ucznia:</b> .....	<b>Klasa:</b> .....
<b>Część 1.</b>	
<u>PODKREŚLONY</u> wyraz nie został zapisany prawidłowo. Brakuje w nim jakiejś literki albo został on zapisany tak jak się go wymawia. Odszyfruj ten wyraz i w nawiasie zapisz jego poprawną formę. Następnie zaznacz krzyżykiem ☒ JEDNO z czterech słów umieszczonych poniżej, którego znaczenie jest najsilniej związane z podkreślonym wyrazem.	
<u>PES</u> (poprawnie: .....<pies>)	<u>GUPI</u> (poprawnie: ..... <głupi>)
<input type="checkbox"/> roślina	<input type="checkbox"/> ostrożny
<input type="checkbox"/> nazwa rzeki	<input type="checkbox"/> rozkaz żeby coś wypić
<input type="checkbox"/> przyjaciel człowieka<>	<input type="checkbox"/> nazwa ryby
<input type="checkbox"/> pieniądz	<input type="checkbox"/> niemądry<>
<u>HLEP</u> (poprawnie: ..... <chleb>)	<u>WŁAĆ</u> (poprawnie: ..... <wołać>)
<input type="checkbox"/> pomieszczenie dla zwierząt	<input type="checkbox"/> ssak
<input type="checkbox"/> coś do picia	<input type="checkbox"/> nalać coś
<input type="checkbox"/> rodzaj czapki	<input type="checkbox"/> krzyczeć <>
<input type="checkbox"/> czerstwy<>	<input type="checkbox"/> narysować coś
<b>Część 2.</b>	
W pierwszym zdaniu zostało <u>podkreślone</u> JEDNO słowo. <u>Podkreśl</u> w drugim zdaniu jedno słowo, które pełni taką samą funkcję jak podkreślone słowo w pierwszym zdaniu.	
<b>Przykład:</b> Wczoraj złożyłam <u>mamie</u> życzenia. Kasia powiedziała <u>cioci</u> , że ją jutro odwiedzi.	
Mama <u>rozmawia</u> z synem o komiksach.	
Dzieci idą z rodzicami do parku. <idą>	
Dziadek zabrał wnuczka na ryby i złapali <u>szczupaką</u> .	
Kolega świetnie podał mi piłkę i dzięki temu łatwo wygraliśmy. <piłkę>	
<u>Rano</u> zjadłam dużą porcję spaghetti.	
Siostra obiecała mi, że pójdzie ze mną do zoo ale dopiero pojutrze. <pojutrze>	
Niedawno kupiłam sobie nowe <u>buty</u> .	
Lody, które babcia mi kupiła, bardzo mi smakowały. <lody>	
1	

### Część 3.

W poniższych przykładach zaznacz krzyżykiem ☒ JEDNO słowo, które najlepiej rymuje się ze podkreślonym słowem.

#### wesoły

- goły<>
- bary
- biły
- fory

#### nuta

- brata
- sałata
- minuta<>
- nuda

#### trawa

- ewa
- brawa<>
- staw
- żyrafa

#### skakać

- pomagać
- popłakać<>
- przebłągać
- drapać

### Część 4.

Nauczysz się teraz nazw liczb w języku *raitiki*. Następnie usłyszysz kilka liczb w tym języku i twoim zadaniem będzie zapisanie ich przy pomocy cyfr arabskich (od 0 do 9). Na przykład – gdybyś po polsku usłyszał liczbę „siedemnaście” zapisałbyś 17. Ale w tym zadaniu usłyszysz liczbę nie po polsku ale w języku *raitiki*.

Na początek zapamiętaj liczby jednocyfrowe:

- BU** oznacza **jeden** (1)
- BUBU** oznacza **dwa** (2)
- DI** oznacza **trzy** (3)

Liczby dwucyfrowe to

- TU** oznacza **dwadzieścia** (20)
- TI** oznacza **trzydzieści** (30)
- ZE** oznacza **czterdzieści** (40)

W języku *raitiki* **TU-BU** oznacza **dwadzieścia jeden** (21) bo **TU** to **dwadzieścia** a **BU** to jeden. Przez chwilę zastanów się jak zapisałbyś **TI-BU**... Już? **TI-BU** w języku *raitiki* to 31 ponieważ **TI** to **dwadzieścia** a **BU** to jeden.

Czas zacząć. Zapisz liczby, które zaraz usłyszysz. Są też one napisane poniżej. Będziesz miał około 10 sekund, żeby zapisać każdą liczbę

- |                            |                            |
|----------------------------|----------------------------|
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