



UNIVERZITET U NOVOM SADU
FILOZOFSKI FAKULTET

READING DIFFICULTIES IN ENGLISH AS A FOREIGN LANGUAGE

**(Teškoće u čitanju na engleskom
kao stranom jeziku)**

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Mentor:
prof. dr Predrag Novakov
Ko-mentor:
doc. dr Danijela Prošić-Santovac

Kandidat:
mr Vera Savić

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READING DIFFICULTIES IN ENGLISH AS A FOREIGN LANGUAGE

Abstract: The primary focus of the present research study was to investigate reading difficulties of young learners learning English as a foreign language (EFL) in formal school settings in Serbia. Since the introduction of English as a compulsory school subject from primary Grade One in 2003, there have been no research studies in Serbia to verify what can realistically be achieved in early reading skill development. As reading difficulties can negatively affect learners' self-esteem, motivation, attitude, confidence, and academic and career prospects, the prevention of reading difficulties has emerged as an issue requiring effective action. The first step towards successful teaching of early reading is exploration of factors that may have an adverse effect on learners' reading skill development.

The present research study involved 502 learners, aged 11, drawn from six state primary schools located in five geographically distant towns of Serbia. A mixed-method approach was applied in the study, and eight instruments were used to collect both quantitative and qualitative data. Quantitative data was obtained with reading research tool, individual factors questionnaire, contextual factors questionnaire, reading strategies questionnaire, reading difficulties questionnaire, teacher questionnaire and prompted think-aloud protocols, while qualitative data was collected with post-reading reflection protocols and prompted think-aloud protocols. The results showed that there was a statistically significant difference in reading results in relation to both individual and contextual factors, and that reading difficulties in early EFL reading may have been the result of adverse effects of some individual and contextual factors, like poor linguistic and strategic competences of young learners, negative transfer of L1 literacy, inappropriate teaching approach, and insufficient exposure to L2 texts. A taxonomy of reading difficulties was compiled, comprising 25 L2 reading difficulties. These results have significant implications for designing EFL reading and prevention programmes, for teaching beginning reading, and for pre-service and in-service EFL teacher education and training.

Key words: L2 reading difficulties, young learners, English as a foreign language, reading comprehension, comprehension strategies, reading fluency, individual factors, contextual factors.

TEŠKOĆE U ČITANJU NA ENGLISKOM KAO STRANOM JEZIKU

Apstrakt: Predmet istraživanja ove doktorske disertacije bio je da se ispituju teškoće u čitanju na engleskom kao stranom jeziku kod učenika mlađeg uzrasta u osnovnim školama u Srbiji. Od 2003. godine, kada je engleski jezik uveden kao obavezni predmet od prvog razreda osnovne škole, nije bilo nacionalnih istraživanja u vezi sa ranim razvojem veštine čitanja. Pošto teškoće u čitanju mogu negativno uticati na samopouzdanje učenika, njihovu motivaciju i stavove, kao i na akademska i profesionalna dostignuća, neophodno je efikasno delovanje u cilju sprečavanja teškoća u čitanju. Prvi korak u tom pravcu predstavlja ispitivanje faktora koji mogu imati nepovoljan uticaj na razvoj veštine čitanja.

U istraživanju je učestvovalo 502 ispitanika uzrasta od 11 godina, koji su pohađali šest osnovnih škola u pet geografski udaljenih gradova Srbije. Primenjena je kombinovana metoda upotrebom osam instrumenata za prikupljanje kvantitativnih i kvalitativnih podataka. Kvantitativni podaci su dobijeni korišćenjem testa čitanja, upitnika o individualnim faktorima, upitnika o kontekstualnim faktorima, upitnika o strategijama, upitnika o teškoćama u čitanju, i intervjua, dok su kvalitativni podaci dobijeni na osnovu pisanih refleksija učenika i upotrebom intervjua. Rezultati su pokazali da postoji statistički značajna razlika u rezultatima testa čitanja u zavisnosti od individualnih i kontekstualnih faktora, kao i da teškoće u ranom čitanju na engleskom kao stranom jeziku mogu biti posledica negativnog uticaja nekih individualnih i kontekstualnih faktora, kao što su nerazvijene lingvističke i strateške kompetencije učenika, negativan transfer veštine čitanja na maternjem jeziku, neadekvatan pristup razvoju veštine čitanja u nastavi, i nedovoljno čitanje na stranom jeziku van časova. Na osnovu rezultata sastavljena je taksonomija od 25 teškoća u čitanju na engleskom kao stranom jeziku. Ovi rezultati imaju značajne implikacije za dizajniranje programa ranog čitanja i programa prevencije teškoća u čitanju, za nastavu ranog čitanja, kao i za obrazovanje i stručno usavršavanje nastavnika engleskog jezika.

Ključne reči: teškoće u čitanju na stranom jeziku, učenici mlađeg uzrasta, engleski kao strani jezik, razumevanje pročitnog teksta, strategije za razumevanje pročitnog teksta, tačnost u čitanju, individualni faktori, kontekstualni faktori.

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1. INTRODUCTION

The second decade of the 21st century has witnessed a proliferation of research in young learner second/foreign language learning. Not too long ago, resources on assessment of children's L2 learning were rather limited. With the introduction of English as a compulsory subject at an increasingly younger age as a global trend in primary education (European Commission, 2012; Ediger, 2001; Enever, 2012; Garton, Copland, & Burns, 2011; Graddol, 2006; Shin, 2014; Shin & Crandall, 2014), children's L2 learning has become a focus of a large number of studies worldwide. It is now common that young learners, i.e. children aged 7 to 11, start learning English as a foreign or second language at the very beginning of their formal education, namely at the age of 6 or 7, or even younger (Enever, 2009, 2011; Enever & Moon, 2009; Graddol, 2006; Savić, 2013; Shin & Crandall, 2014). This trend of lowering the age of starting foreign language instruction began at the end of the 20th century, and has now spread to almost all parts of the world. European Commission (2012) reports that “[o]ver the last two decades, Europe has witnessed an increase in the duration of compulsory foreign language teaching [which] has been exclusively achieved by lowering the age at which this teaching begins” (p. 27). This process has affected teaching and learning English as a second or a foreign language as most non-English speaking countries in the world now opt for English as a first foreign or a second language in the primary curriculum. Serbia is no exception and in 2003 Serbian Ministry of Education and Science introduced English as a compulsory subject in the primary curriculum from Grade 1 (learners aged 6-7). As a result, English is now taught in about 90 per cent of Serbian state primary schools.

A number of studies (Cable et al., 2010; Curtain & Dahlberg, 2005) have indicated the benefits of early language learning: better results on placement tests, better pronunciation

and intonation, and more self-confidence in language use and more enthusiasm for language learning. What is more, it is believed that an early start can contribute both to fluency in communication and accuracy in using all four skills, as well as to the development of metalinguistic skills necessary for effective language learning in later education (European Commission, 2004, 2008). Referred to as the ‘age factor’, the starting age of L2 language learners has been the focus of a vast body of research that has shown “younger children’s advantages as compared to adults and older learners, [although] it looks as though a combination of favourable social factors rather than just young age is responsible for most young children’s success” (Pinter, 2011, p. 142). A significant role of L2 development is strengthening L1 literacy skills, both reading and writing, as “[i]t has been shown that a child's understanding of his [sic] native language is enhanced by learning a foreign one [as he or she] becomes more conscious and deliberate in using words as tools of his thought and expressive means for his ideas” (Vygotsky, 1986, p. 160).

One area that is gaining importance in the field of EFL/ESL is the development of reading skill. Reading in English has become a critical skill in terms of learning and academic and career success (Anderson, 1999; Grabe, 2002b; Grabe & Stoller, 2011). Moreover, with rapid development of technology and a vast amount of information on the internet available in English¹ (Graddol, 2006, p. 44), “L2 reading ability, particularly with English as the L2, is already in great demand as English continues to spread, not only as a global language but also as the language of science, technology and advanced research” (Grabe & Stoller, 2011, p. xiv). To sum up, the importance of reading in English as L2 involves its role in the development of L2 academic competence, interpersonal communication, exposure to L2 culture, learning about technological development and scientific discoveries, providing input in the form of printed books and journals, computers and the internet; in non-academic

¹ Texts in English still dominate the internet with 54.1% of all texts on the internet being in English, while Russian, the second most frequent language, is represented with only 6.1% of all texts. Data were taken from W3 Tech Survey on 1 November 2015, retrieved from <http://w3techs.com>.

contexts, the role of reading in English as L2 involves interpreting signs, directions, product labels, news and emails (Saville-Troike, 2006, p. 155).

As a consequence, research in the area of reading skill development in English as L2 is becoming increasingly important and is constantly growing. At the beginning of a new decade in the 21st century, it is obvious that “productive and educated citizens will require even stronger literacy abilities (including both reading and writing) in an increasingly broad range of societal settings” (Grabe & Stoller, 2011, p. xiv), mainly due to technology and its demands. This is supported by large-scale studies of reading literacy, like the Programme for International Student Assessment (PISA), organised by the Organisation for Economic Cooperation and Development (OECD) worldwide with the purpose of measuring learning outcomes of 15-year-olds in mathematics, science and reading. Since 2000, when it was first performed, the study has measured reading literacy globally every three years. PISA defines reading literacy as “understanding, using, reflecting on and engaging with written texts, in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society” (OECD, 2014, p. 195). This definition sees reading literacy as an applied task “beyond traditional notion of decoding information and literal interpretation of what is written,” involving “the range of situations in which people read, the different ways written texts are presented through different media, and the variety of ways that readers approach and use texts” (OECD, 2014, p. 176). The 2009 Canadian Youth in Transition Survey, a longitudinal study that followed the same learners after PISA 2000 study, has confirmed that learners who do not achieve Level 2, out of 7 levels of reading proficiency determined by PISA, which is “a baseline level of proficiency at which students begin to demonstrate the reading literacy competencies that will enable them to participate effectively and productively in life,” are disadvantaged as they “face a disproportionately higher risk of poor post-secondary participation or low labour-market outcomes at age 19, and even more so at

age 21,” the latest age for which data from this longitudinal study are available (OECD, 2014, p. 195).

Serbian learners took part in PISA studies in 2003, 2006, 2009 and 2012, achieving reading literacy scores well below the OECD means in all four cycles: although in 2009 they achieved 40 score points higher than in 2006, they did not reach the OECD mean by 60 score points (the mean score for reading literacy of Serbian learners in 2009 was 442), which equals a full academic year in OECD countries (Baucal & Pavlović Babić, 2010, p. 5). In 2012 Serbian learners’ reading literacy mean score was 446 score points, while the OECD mean score was 496 (OECD, 2014, p. 176). In the same study only a third (36 per cent) of Serbian learners managed to achieve Level 3 (OECD average) or above in reading proficiency, while a third (33.2 per cent) scored below functional literacy level, i.e. below Level 2, and only 2.2 per cent obtained scores in the highest Levels 5 and 6 (Pavlović Babić & Baucal, 2013, pp. 13-14). In the PISA 2012 study, the proportions of boys and girls who perform below Level 2 tended to be the same, but on average, girls outperformed boys in reading literacy by 38 score points as a result of “gender differences in attitudes and behaviour” (OECD, 2014, pp. 199-201).

This situation with large percentages of students achieving below functional literacy level is not typical of Serbia only. The 2008 OECD report stressed that almost a third of students in countries like the United States of America and the United Kingdom had serious problems with literacy, i.e. difficulties in everyday reading tasks, while an Australian 2008 report indicated that 13 per cent of Year 7 students did not attain even the minimum standard for reading (Westwood, 2008). In Great Britain 10 per cent of population are found to have dyslexic problems (specific reading and spelling difficulties), “four per cent having severe literacy problems” (Montgomeri, 2007, p. 20). Rasinski (2013b) states in the White Paper

document that “too many students in the United States struggle in learning to read” (p. 2), giving precise facts:

According to the 2011 National Assessment of Educational Progress (National Center for Educational Statistics, 2013) a third of all fourth grade students in the United States read at a level that is considered “below basic;” only 8% read at a level that is considered “advanced.” Among eighth-graders 24% are “below basic” and only 3% “advanced.” Moreover, despite enormous efforts to raise achievement in reading in the U.S., these levels of reading achievement have been relatively consistent for the past twenty years. Not only do many of our students struggle in reading, many students do not find reading enjoyable or worthwhile. In a report published in *Reading Today* (2010) only half of students, ages 9 to 17, indicate that reading for fun is important. (Rasinski, 2013b, p. 2)

The reason that prevents many readers to fully understand the texts they are reading is reading fluency, i.e. proficiency in this “foundational aspect of reading” (Rasinski, 2013b, p. 2).

Although most children acquire literacy skills relatively easily, difficulties appear both in L1 and L2 reading. Hannell (2008) argues that 15 per cent of children experience some form of reading difficulties, from mild to severe, resulting in motivational and emotional challenges, like embarrassment, frustration, and anger. It is, therefore, crucial to determine a child’s reading difficulties, i.e. factors behind her or his slow and/or inaccurate reading and/or problems with reading comprehension both in L1 / L2, and to give her or him timely help, so that she or he can achieve full potential in linguistic and academic development. Geva (2006) stresses that the same processing factors determine literacy development both in L1 and L2, so that if they facilitate L1 literacy acquisition, they will facilitate L2 reading development in the same way. Positive transfer of reading skills can be expected from L1 to L2, and from L2 to L1, but so can negative transfer as well, having “important implications for assessment of minority or bilingual children who are at-risk for having a reading disability” (Geva, 2006, p. 15). Drawing on recent research results related to the development of L2 reading skills of young learners, Geva (2006) points to a number of findings that should guide the practice of teaching beginning L2 reading: there is a significant

correlation between L1 and L2 word recognition, pseudoword decoding skills and spelling, so that children who have decoding and spelling difficulties in L1 will have similar difficulties in L2, irrespective of the differences in the depth of the orthographies; phonological awareness, rapid naming and verbal working memory are individual learner differences that can predict reading difficulties in L1, but appear to be significant individual differences associated with L2 reading development, and their measures in L1 and L2 correlate significantly; in second language settings, L2 learners' reading difficulties caused by poor word-based reading skills, such as word recognition, pseudoword decoding, and phonological awareness, are similar to L1 learner's reading difficulties; L2 learners' proficiency development takes a longer period than L1 proficiency development, and depends very much on the depth of L2 orthography, taking even longer periods if L2 orthography is deeper than L1 orthography (pp. 16-17).

Reading being regarded as “a cognitive psycholinguistic activity [and] a social activity” (Snow, Burns & Griffin, 1998, p. 15) influenced by a number of variables, makes assessment of early reading development challenging, but critical for learners' academic progress. Among those who face the highest risk of not being able to continue education are boys, ESL learners, students from lower socio-economic backgrounds and indigenous learners (Westwood, 2008, p. 3). Reading difficulties can negatively affect learners' self-esteem, motivation, attitude, confidence, and academic and career prospects. Consequently, the prevention of reading difficulties has emerged as an issue requiring effective action. The first step towards successful early reading skill development is exploration of factors that may have an adverse effect on it. Previous research has mainly focused on English as a native or second language contexts, while the area of reading difficulties in English as a foreign language has been neglected.

1.1. Research aim

The general aim of this study is to investigate reading difficulties of young learners learning English as a foreign language. More specifically, the research aims to shed more light on reading achievement and reading processes of young learners' development of reading skill in English as L2 in state school settings in Serbia, the focus being on deficiencies in oral reading fluency and reading comprehension and on individual and contextual factors determining success in reading. These variables will be examined both quantitatively and qualitatively, from different perspectives, so that the research data can be triangulated when drawing conclusions.

Starting from the premise that reading is “a complex developmental challenge that we know to be intertwined with many other developmental accomplishments: attention, memory, language, and motivation” (Snow, Burnes, & Griffin, 1998, p.15), five research questions have been developed:

1. Which reading difficulties are experienced in early reading in English as a foreign language?
2. Which factors correlate with observed reading difficulties?
3. How does the number of reading miscues correlate with reading comprehension?
4. How do phonological strategies correlate with reading comprehension?
5. Which strategies are used by more/less successful readers?

The Serbian EFL context is defined by the following curricular prescriptions: L2 literacy development begins from Grade 3, after the period of two years of developing L2 oral skills formally, and after two-year L1 literacy development of reading Serbian texts written in Cyrillic and Roman alphabets. Therefore, positive transfer of L1 literacy skills is expected in the acquisition of reading in English (Geva, 2006), i.e. it is believed that most

young readers will have developed satisfactory oral reading proficiency, good decoding and word recognition skills, good phonological awareness, and good reading comprehension skills. Reading difficulties are expected as a result of the differences in English and Serbian orthographic systems, and as a consequence of individual differences resulting from differences in learners' strategic competences.

An important issue in reading instruction today is “how to integrate components of learning to read so that the individual needs of students can be met,” since “there is now compelling evidence that no one component of reading instruction in isolation will yield superior results” (Vaughn, 2010, p. 45). Another significant issue is when L2 literacy instruction should begin. Despite the fact that in “L2 contexts (both foreign and second language contexts) reading and writing are not taught at the beginning stages” (Pinter, 2011, p. 144), research suggests that L2 literacy is very important and that young learners are very enthusiastic about using texts in reading and writing, leading to a conclusion that “[e]arly literacy practices can accelerate the learning process” (Pinter, 2011, p. 144). This study is expected to shed some light on these two issues.

1.2. Research design

In the study we applied a mixed-method approach to measure young learners reading skills and to determine reading difficulties both in oral and silent reading, in pronunciation and reading comprehension. In measuring the reading comprehension of Serbian young learners, we used a procedure similar to the one proposed in the study Early Language Learning in Europe (ELLiE) (Enever, 2011), applying the same reading research tool (see Appendix 2) specifically designed for EFL settings and for measuring the reading skills of children aged 10-11. The reading tool was used in 2010 to measure the reading skills of

children in seven European countries involved in the ELLiE study, and the results were published in 2011. We did not modify the instrument or the procedure of applying it, but in order to get a more comprehensive picture of the L2 reading skills of the learners in Serbia, we introduced another reading test as part of the prompted think-aloud protocol performed with the sub-sample of focal learners. The text used in the interview was taken from the *Cambridge English Young Learners: Young Learners English Tests: Sample Papers – Flyers* (2013). The data about individual and contextual factors was collected both with semi-structured questionnaires with multiple answers and in interviews with focal learners. The questionnaires were based on literature reviewed in respect of all aspects of L2 reading development (Chamot & El-Dinary, 1999; Cohen & Oxford, 2002; Enever, 2011; Radišić & Takač, 2007; Serafini, 2010; Smith, 2004). The think-aloud procedure was partly based on the questions suggested by Chamot and El-Dinary (1999), Cohen and Oxford (2002), Radišić and Takač (2007), Patton (2002), Serafini (2010), Smith (2004), and Weaver (2002). Teacher questionnaire was partially based on Alderson (2005), Birch (2008), Enever (2011), and Montgomery (2007).

Assessment of children's L2 skills is considered to be an integral part of language learning and teaching. The purposes of assessment may be varied, from evaluation of children's development in language, through diagnosing developmental delays to programme planning (Wortham, 2012, p. 3). The process of assessment requires the application of a variety of strategies in order to provide information "from several forms of evidence" (McAfee et al., 2004, p. 3). In the last few decades there has been in social sciences a shift from quantitative methods of research to qualitative ones as a consequence of the belief that people's behaviour is meaningful and people can account for it by providing good explanations (Edley & Litosseliti, 2010, p. 156). Although the use of qualitative methods in conducting language research has been debated in recent years, a

number of researchers have pointed out the method's merits (Angouri, 2010; Edley & Litosseliti, 2010; MacKay & Gass, 2005; Merriam, 2009; Patton, 2002; Rasinger, 2010). Indeed, in the field of second language research there is an increasing recognition of the importance and applicability of qualitative methods (MacKay & Gass, 2005, p. 162). MacKay and Gass (2005) explain that "despite the fact that distinction can be drawn between qualitative and quantitative research [. . .], it is increasingly common for researchers to present and discuss both quantitative and qualitative data in the same report, or to use methods associated with both types of research in a process sometimes known as split methods or multiple methods" (p. 164).

Consequently, qualitative and quantitative methods should not be viewed as mutually exclusive, but rather "as complementary means of investigating the complex phenomena at work in second language acquisition" (MacKay & Gass, 2005, p. 164). While quantitative methods are grounded on positivism and logical empiricism as the basic philosophical roots, are deductive, focus on quantity, require the use of standardised measures and tools that produce precise and numerical findings, aim to predict, control, describe and test hypotheses, are objective, generalizable, predetermined and structured, assume a stable reality and depend on large samples that are selected randomly to enable generalizations (Levon, 2010; Litosseliti, 2010; Rasinger, 2008), qualitative methods, on the other hand, are grounded on phenomenology and constructivism, are subjective and ungeneralizable, focus on quality and assume a dynamic reality, aim to facilitate understanding, discovery and generation of hypotheses, and rely on small samples selected purposefully to enable in-depth understanding of a phenomenon through inductive analysis to produce holistic and richly descriptive findings (Dörnyei & Csizér, 2012; Lincoln & Guba, 1985; MacKay & Gass, 2005; Merriam, 2009; Patton, 2002).

Consequently, our method has advantages in terms of providing a variety of data from five different sources: the silent reading test, the oral reading test, the learner questionnaire, the learner interview, and the teacher questionnaire. It is a clear improvement on current methods that usually focus on individual aspects of reading development, e.g. reading comprehension difficulties, or reading strategies, or motivation and attitudes, or specific reading difficulties, or individual factors affecting reading results, or contextual factors influencing reading achievement. The method of the research enhances the significance of the research, discussed in the following section.

1.3. Significance of the research

In Serbia there have been no studies so far concerning reading difficulties of young learners' learning in English as a foreign language. Research in this field is needed so that the learners' individual needs could be effectively met in regular primary schools in the country. Reading difficulties are not easily detectable, either in L1 or L2, and even when detected by teachers, they are not properly treated. Our research study may be a breakthrough in the field, creating a foundation for improving L2 literacy development in our state schools.

The Serbian Ministry of Education prescribes that all children learn English as a foreign language from primary Grade 1 (age 6-7). English has been a compulsory subject for all first graders since 2003, and has been taught to approximately 90 per cent of first graders in all state primary schools. In the course of eight-year primary education, all schoolchildren are taught two 45-minute English lessons a week. Oracy (listening, speaking and communication) is developed in Grade 1 and Grade 2, while literacy (reading and writing) is introduced in Grade 3 (age 8-9). The English curriculum prescribes the use of communicative method in teaching English throughout primary education. In Grade 4 reading curriculum

objectives are determined as the ability to comprehend a short written and illustrated text (not longer than 50 words) on familiar topics² (ZUOV, 2013a). According to the prescription concerning the English language, in order to achieve this goal, children should be able to: 1. recognize the letters of the English alphabet, words and sentences on familiar topics; 2. respect punctuation in reading; 3. understand a general meaning of short written and illustrated texts on familiar topics (ZUOV, 2013a).

The English curriculum for Grade 5 defines general standards for reading comprehension as the skills that enable a learner to understand short written and illustrated texts on familiar topics, or more specifically, as the ability of the learner to understand a short text (not longer than 80 words), words and sentences comprising mainly familiar linguistic elements (words and language structures prescribed by the curriculum); to understand the basic meanings of short written and illustrated text on familiar topics; to understand and respond adequately to written messages related to personal experience and classroom activities (invitations to play, orders, instructions, a recent event, plans for the future, etc.) (ZUOV, 2013b).

The prescription concerning the English language passed by the Ministry of Education of Serbia clearly points to the preconditions for developing beginning reading: using familiar words, phrases and grammar structures already covered in oral form for communication purposes. Moreover, the document is transparent in defining reading as the process of comprehending a written text for a number of purposes. However, it fails to suggest an appropriate approach to developing beginning reading or methods to be used in introducing this very complex skill to young learners (Savić, 2013). It cannot be assumed that teachers of English in Serbian primary schools are already well-acquainted with the process of developing reading in English as L2 or that they have adequate knowledge and experience of

² The curriculum is in Serbian and it states: „Učenik čita sa razumevanjem kratke pisane i ilustrovane tekstove u vezi sa poznatim temama” (ZUOV, 2013, n.p.).

applying different approaches to teaching beginning reading since most of the undergraduate teacher education curricula in Serbia do not pay due attention to the area of teaching English to young learners (Savić, 2013, p. 170). Considering the fact that reading, both in L1 and L2, is becoming a vital factor for academic success of students worldwide, it is critical to assess how effective the primary reading programme in Serbia is and to set the basis for determining approaches and methods for reading development that may be more effective in the Serbian young learner teaching context.

Viewed from a wider perspective, the research is significant considering little evidence produced so far with reference to learning outcomes of early L2 development. Cable et al. (2010) emphasize the need for more research:

There is to date rather limited and indirect international evidence on the learning outcomes which may be expected for languages learning in primary schools. There are suggestions that children's target language learning mostly involves formulaic expressions, words and phrases; some advantages have been claimed for children starting languages in primary school, over those starting languages at a later age, but the evidence base is small. In addition, many observers have claimed benefits for learning strategies and/ or for language awareness, but there are very few studies which measure such outcomes directly. (p. 4)

The primary cause of selecting reading difficulties as the main topic for the present research study is the fact that children develop their reading skills gradually, throughout their entire schooling. The research performed by the Institute for Experimental Phonetics and Speech Pathology in Belgrade suggests that 50 per cent of children in Serbian primary schools exhibit underdeveloped reading skills (Vladislavljević, 1991), while 8 per cent of learners aged 8-11 experience specific reading difficulties in L1 reading (Brakus, 2003). The reasons for reading difficulties may be inherent to the children, but also may lie in an inadequate instructional approach, while the most severe situations are those in which objective difficulties are coupled with an inadequate teaching approach, i.e. when oral knowledge of vocabulary does not precede the beginning of literacy development (Brakus, 2003; Vladislavljević, 1991). Phonological awareness and word recognition skills are

recognized as being the most important in the process of decoding, but to become competent readers, young learners need a lot of practice and exposure to a variety of reading materials that are motivating and interesting (Cameron, 2008; Snow et al., 1998). Present research aims to present a country case study of reading difficulties and factors causing them.

1.4. Dissertation structure

The dissertation is divided into five chapters. In the introduction the research aim is explained, an overview of research questions is given, the research design is described, the significance of the research is discussed, and the research structure is presented. Literature review begins with examination of differences and similarities between L1 and L2 reading processes, focusing on research results from previous literature related to reading strategies, factors affecting reading in L2, and individual and contextual factors influencing success in reading. This chapter finishes with three sections related to different aspects of reading difficulties, and a summary of research in the field. In the third chapter, methodology of the research is presented, the rationale for mixed-method design is given, and participants, instruments, and procedure are described. The next chapter looks at the results obtained by using eight different instruments, discusses correlations of variables, and discusses the findings. The final chapter concludes the dissertation, giving an overview of the results related to research questions, summarizing general results, proposing instructional approaches for improving reading programmes and reading outcomes, discussing limitations of the research, and giving recommendations for future research.

2. LITERATURE REVIEW

Research into the complex process of reading started more than a century ago, with focus fluctuating among different aspects of reading ability. The proliferation of research into the nature of reading and teaching of reading began in the early 1970s (Smith, 2004, p. 236). In the last four decades reading processes have been studied from linguistic, cognitive, and sociocultural perspectives, the emphasis increasingly being on reading comprehension (Hudson, 2007, p. 32). Reading, as part of L2 literacy instruction, has become the main focus of teaching English to children for two main reasons: 1. English language teaching has become mandatory from a young age throughout the world (Ediger, 2001; Enever, 2009; Enever & Moon, 2009); 2. reading is regarded as “one of the most important skills in academic settings” for second language (L2) learners (Grabe, 2002). There is a considerable literature on literacy development in English as L1, while not much is known about the development of early reading in English as L2. In a young learner context of foreign language learning, or more precisely English as L2, much of recent reading research has tackled the topics of reading strategies (Chaaya & Ghosn, 2010; Chamot & El-Dinary, 1999; Erler & Finkbeiner, 2007; Griva, 2014; Rao, Gu, Zhang & Hu, 2005; Walters, 2007; Zhang, Gu & Hu, 2008), comprehension (Enever, 2011; Nation, 2005; Szpotowicz & Lindgren, 2011), attitudes and motivation (Drew, 2009; Mihaljević Djigunović & Krevelj, 2009; Mihaljević Djigunović, 2013). Results from these studies shed more light on children’s L2 reading skill by deepening understanding of how a variety of factors interact, simultaneously opening up new questions that call for further studies into the area. New research should allow “comparison of L2 outcomes across contexts within the overarching population of young learners” (Murphy, 2014, p. x) and thus help identify the variables significant for predicting success in children’s L2 learning, relevant to their reading skill development.

The literature review will examine relevant literature and set a context for the study of reading skills of young learners, with a special focus on reading in English as a foreign or second language (L2), factors affecting success in early L2 reading, and reading difficulties in early L2 reading.

2.1. Reading in English as L2

In L1 contexts, reading research has been rather extensive, tackling a variety of learners' ages, from early childhood to university level, and focusing on different aspects of reading ability, from word recognition and vocabulary development, through comprehension and discourse organisation, to reading strategies and reading fluency (Grabe & Stoller, 2011). Consequently, L1 reading research has given a much more complete picture of reading development, especially of fluent reading comprehension, than L2 reading studies, providing thus L2 reading research with a necessary focus. Also, in the last few decades, studies have attempted to compare the achievement and performance of L1 and L2 readers, producing conflicting results (Grant, Gottardo & Geva, 2011). Therefore, since research on L2 reading "has based itself on insights from first language (L1) reading models and research" (Bernhardt, 2000, 2005; Grabe & Stoller, 2002, as cited in Macaro & Erler, 2008, p. 92), it has adopted the L1 research focus: word recognition and whole-text access (Macaro & Erler, 2008, p. 92). Both in L1 and L2 automaticity of word recognition was regarded as a prerequisite for "higher level processing of meaning across phrases, sentences, paragraphs and whole texts" (Macaro & Erler, 2008, p. 92). Moreover, the distinction between bottom-up processes (involving decoding the text word by word and clause by clause) and top-down processes (implying elaboration of the text in the reader's mind and extracting the meaning from the reader's own schemata) was transferred to L2 reading and later led to the models of

reading that saw reading comprehension as a result of applying combinations of both processes; schemata can play a very important role in reading comprehension and should be understood as a concept of personal prior knowledge interacting with knowledge of the topic of the text and specific knowledge (Macaro & Erler, 2008, p. 93).

However, Grabe and Stoller (2011) contended that in spite of the fact that L1 and L2 reading contexts differ in many aspects, L1 reading research can offer research on L2 reading development the right direction for several reasons:

First, far more research has been carried out on reading in L1 contexts (especially in English as an L1) than in L2 contexts. Second, students learning to become readers in L1 contexts usually achieve a reasonable level of fluency in reading comprehension abilities, but the same claim cannot be made for students learning to read in L2 contexts. Third, the ability to draw implications for instruction from research – including training studies that demonstrate the effectiveness of numerous instructional techniques and practices – is much more developed in L1 contexts than it is in L2 contexts. Fourth, reading instruction in L1 contexts has been a source of many instructional innovations that have not yet been explored extensively in L2 contexts, either at the level of research or at the level of practical implementation. (p. 4)

Having L1 reading research as the starting point in L2 reading research can pose some problems for the researcher because there are differences in L1 and L2 contexts that affect the reading processes in L2, like L1, age when learning started, attitudes and motivation, learning experience, and proficiency in L2 (Macaro & Erler, 2008, p. 95). Obviously, at the time when they start developing their L2 reading skills, L2 learners may be of different ages, may have achieved different L2 proficiency levels (with differences in grammar knowledge), they have usually had some reading experience in L1 and possess linguistic experience of L1 which may support or interfere with their L2 reading skills development (Grabe & Stoller, 2011, p. 36). Moreover, some research on L2 reading development is carried out in rather specific contexts, like bilingual settings, which can further contribute to the complexities of researching L2 reading.

Learning to read in L2 has many specific features, some of them resulting from “the impact of transfer at various ability levels, on various processes” with which L2 learners have

to deal (Grabe & Stoller, 2011, p. 35). In learning to read in English as L2 “an especially important set of questions concerns the effect of L1,” especially the possibility of transferring the “mapping principles learned as part of L1 reading” to reading in English (Perfetti & Grabe, 2008, p. 35). Grabe and Stoller (2011) argue that “the L2 reader learns to read in the L2 with a two-language processing system,” which means that L2 reading is supported by both languages because “the L1 never completely turns off” (p. 35). The authors have found fourteen differences between L1 and L2 reading development and grouped them into three areas: 1. linguistic and processing differences; 2. individual and experiential differences; and 3. socio-cultural and institutional differences.

According to Grabe and Stoller (2011), the first group of differences is the most complex one, as it refers to differences in vocabulary, grammar, discourse, and orthography, as well as to readers’ metalinguistic and metacognitive awareness, and to two languages transfer influences. The second group relates to differences in individual reading abilities, motivation for reading, exposure to reading and text types and language resources available to readers in L1 and L2. The third group concerns differences in socio-cultural backgrounds, ways of organising texts and expectations of educational institutions. Each of the differences within groups deserves to be explained as a foundation for understanding the research context of our study.

Linguistic and processing differences between L1 and L2 readers have frequently been studied, and consequently, the research in this area has contributed to understanding many of the aspects of reading. The major difference between L1 and L2 reading is the fact that in L2 reading follows a long period (at least four or five years) of oral language development: with English as L1, reading starts formally at the age of five in Great Britain, and at the age of six in the United States of America, Canada and Australia (Grabe & Stoller, 2011; Westwood, 2008). At the age when children start learning to read in English

as L1, they already possess an extensive vocabulary (5000 to 7000 words) and a good knowledge of basic grammatical structures (Grabe & Stoller, 2011). On the contrary, young L2 learners of English as a foreign language (in foreign language contexts like the Serbian one) have a very limited knowledge of vocabulary and grammar when they begin to read in English: after two years of oral language development in Grade 1 and Grade 2, they start the reading programme in Grade 3 and are expected to read not only texts containing familiar vocabulary and structures, but also to learn new language through reading, although they are not able to “match the sounded-out word to a word that they know orally because they do not yet know the word orally” (Grabe & Stoller, 2011, p. 37). Moreover, L2 learners also need a better foundation of structural and discourse knowledge to be able to read texts in English effectively, but research has not yet offered specific suggestions related to foundation of grammatical and text organisation knowledge necessary for L2 reading comprehension (Grabe & Stoller, 2011). Also, there are opposing views as well: Urquhart and Weir (1998) point to fact that for L1 learner in the early stages “listening and learning through listening would normally precede reading,” but later “a great deal of language learning – lexis, synthax, rhetorical organisation – would be accomplished via reading;” on the contrary, “an L2 course would not necessarily need to be preceded by an oral course, [but a] ‘reading to learn language’ stage would precede ‘reading to learn’ stage” (p. 24).

Metalinguistic awareness, i.e. knowledge of how language functions, and metacognitive knowledge, i.e. knowledge of what one knows, both declarative and procedural and conditional (Grabe & Stoller, 2011) of L2 readers is usually larger than the tacit awareness of L1 readers. Vygotsky (1986) stressed this difference:

The child's strong points in a foreign language are his [sic]weak points in his native language, and vice versa. In his own language, the child conjugates and declines correctly, but without realizing it. He cannot tell the gender, the case, or the tense of the word he is using. In a foreign language, he distinguishes between masculine and feminine genders and is conscious of grammatical forms from the beginning. (p. 195)

As a rule, L2 learners are often in the position to discuss vocabulary and grammar of L2 and also to reflect on their own learning happening while reading in L2; moreover, they usually begin to read in L2 after they have already mastered reading in their L1, and can respond favourably to explicit teaching of strategies that could enhance their reading comprehension in L2 (Grabe & Stoller, 2011). Metacognitive knowledge is found to account “for more than 25 per cent of the variance in reading comprehension, with reading self-concept (motivation) adding an additional 5 per cent” (Grabe & Stoller, 2011, p. 39). Serbian young learners start learning to read in English as a foreign language after they have mastered reading in Serbian in both scripts (Cyrillic and Latin) and learned the sentence structure and basic grammar, as well as the metalanguage used to describe these aspects of their L1.

The influence of linguistic differences between L1 and L2 on L2 reading comprehension (L2 being English as a foreign language) depends a lot on the readers' L1. Some of these differences cause variations in L2 reading rate and fluency: in Romance languages readers pay a lot of attention to verb endings, which contain important grammatical information, while in languages such as Hebrew they read slowly because the words are morphologically complex due to embedded grammatical information; in languages like Czech, consonant clusters take a lot of attention, and in Chinese visual processing is very important due to its orthography (Grabe & Stoller, 2011). Orthographies can be more or less transparent in different L1s and readers read more easily if the relationship between letters and sounds is more transparent, finding no difficulty in activating the appropriate sounds related to letters: e.g. Serbian is completely transparent and 30 letters of the language have exactly 30 corresponding sounds. On the other hand, English is much less transparent and very opaque for an alphabetic language. It has 26 letters and 44 sounds, with more or less inconsistent grapheme-phoneme correspondences and with most letters having “multiple possible pronunciations depending on the word context,” like the

letter ‘g’ which “has at least three different sounds (e.g. in ‘garage’ or ‘giraffe’ or ‘thing’) or can be silent (e.g. ‘gnome’)” (Perfetti & Dunlop, 2008, p. 25). Cameron (2008) summarises some of these correspondences in English: a) 1 letter = 1 sound (e.g. ‘b’: /b/); b) 1 letter = 2 sounds (e.g. ‘c’: /s/ as in ‘ice’; /k/ as in ‘come’); c) 2 letters = 1 sound (e.g. ‘ck’: /k/ as in ‘block’); d) 2 letters = 1 sound, with two different possibilities (e.g. ‘th’: /θ/ as in ‘thin’ /θin/, and /ð/ as in ‘the’ /ðə/); e) 1 letter = 2 sounds, depending on the other letters in the word (e.g. ‘a’: /æ/ as in ‘hat’ /hæt/, and /ei/ as in ‘hate’ /heit/). Although 75 per cent of English words follow the spelling rules, the fact that the most frequent 400 words have irregular spelling makes reading in English rather challenging (Crystal, 1987).

There is research evidence that “readers process words differently in transparent and opaque orthographies” and that “the orthography of a student’s L1 will influence L2 reading development even among advanced L2 readers” (Grabe & Stoller, 2011, pp. 41-42). Perfetti and Dunlap (2008) argue that “in the case of orthography, it appears that there can be significant effects on learning to read” (p. 18). The authors’ orthographic depth hypothesis explains how the orthographic depth influences the strategies readers use while reading: “[t]he more shallow or transparent the orthography – that is, the more reliable the correspondences between graphemes and speech segments – the more the reader uses a print-to-sound decoding strategy [; t]he deeper or less transparent the orthography, the more the reader uses a direct look-up the word, without grapheme-speech decoding” (p. 18). Since in English there is less mapping at grapheme-phoneme level, but higher consistency at the level of the rime (consisting of the vowel and the consonant ending of a syllable), Perfetti and Dunlap (2008) contend that readers of English may not decode letter-by-letter, but may rather use “a larger portion, or grain size, of the printed word to map onto spoken language” (the grain-size hypothesis) (p. 19), while “decoding letters to phonemes is more adaptive in a shallow orthography” (p. 26).

Regarding these differences in L2 reading, “findings from research with first language students cannot always be applied directly to L2 contexts” (Grabe, 1991, p. 388). Since L2 learners differ from L1 students and also from each other, it is essential to conduct research on L2 reading development. Current areas of research provide “important insights for ESL instruction; the improvements in reading instruction resulting from this research demonstrate the importance and vitality of second language reading research” (Grabe, 1991, p. 388). A clear objective of much of the reading research related to primary students’ early L2 literacy development has been to determine the components that contribute to or hinder success in reading. Quite a large number of studies have investigated the importance of bottom-up and top-down processing in L2 reading comprehension (Chamot & El-Dinary, 1999; Macaro & Erler, 2008), concluding that low-achieving readers relied most on phonetic decoding or they overused prior knowledge to make wild guesses, while high-achieving readers used a combination of top-down and bottom-up processes, a number of strategies and prior knowledge to make inferences. A printed word can be read in two ways: 1. by mapping the letters to the sounds (sublexical, effective for shallow orthographies); 2. by retrieving the word on the basis of the whole word letter pattern (lexical, effective for deep orthographies and irregular words) (Perfetti & Dunlap, 2008). To be able to read successfully in English, children have to learn to use the lexical pathways for a large number of words, i.e. to recognize them as whole words. For Serbian learners of English it means the requirement to use different reading strategies from the ones they tend to use when they read in their L1, and not to simply transfer the knowledge and skills they have developed in reading in Serbian. Since “our brain / mind automatically tries to apply the first language experience by looking for familiar cues,” an important component of learning English as a foreign language is “developing new understandings about the particular cues to meaning that the new language offers, and that differs from our first language” (Cameron, 2008, p. 136).

Yet another difference in developing reading in L1 and L2 is the role of cognates. Cognates have no role in learning to read in L1, but they may significantly support reading comprehension in L2 reading since they have similar forms and meanings in both languages. However, there are not very many cognates in English texts typically used with beginning young readers in Serbian context. What may cause negative influence are ‘false friends’, or deceptive cognates, the words bearing the form similar to words in L1, but having a different, and sometimes quite opposite meaning, thus misleading the L2 reader. Children’s knowledge of “certain pragmatic strategies, which help to avoid misunderstandings or mistranslations” is limited and cannot assist them in appropriate interpretation of L2 texts containing false friends (Chamizo Domínguez & Nerlich, 2002, p. 1833).

Regarding language resources used in developing reading skills and enhancing reading comprehension, there are important differences between L1 and L2 reading contexts. In L1 contexts resources like bilingual dictionaries or glosses (providing synonyms for more complex vocabulary) are rarely used, while in L2 reading they play an important role as translation resources used by L2 readers both in school and out of school L2 reading. Learners need guidance for using resources effectively, as they do with issues related to cultural content in L2 reading materials. Socio-cultural differences affecting L1 and L2 reading development may be an important factor in literacy development depending on how the learners’ L1 society and culture value reading both in L1 and L2. If there are large L1 – L2 differences related to social attitude to reading development and discourse and text organisation, readers may experience “difficulties in reading texts for purposes that do not complement cultural assumptions,” and may have problems understanding “cultural assumptions that the L2 students do not share” and “cultural and social preferences given to particular ways of organising discourse and texts” (Grabe & Stoller, 2011, p. 53). This is also true for different expectations of L1 and L2 educational institutions reflected in

differences in curricula, examinations, teacher qualifications and experience, educational resources available, institutional attitudes to L1 and L2 reading, which “can lead to reading difficulties that might otherwise be unexpected” or “limit students’ willingness to engage in long-term consistent effort to learn to read fluently” (Grabe & Stoller, 2011, pp. 54-55). All these differences may interfere with L2 reading comprehension and L2 reading development, but their adverse effects should be minimised through instructional guidance.

There are significant research implications stemming from the above discussion of three groups of differences in L1 and L2 reading development. As “current L2 research suggests that the L2 reader is one who incorporates both L1 and L2 language and literacy knowledge,” research of L2 reading comprehension should inevitably explore “L2 reading processes, the role of L1 transfer, the development and use of the bilingual lexicon, and the strengthening impact of L2 input knowledge as the L2 reader develops” (Grabe & Stoller, 2011, p. 56). Moreover, it must be taken into account that there is a two-way transfer, as Vygotsky (1986) explicitly stated as follows:

Success in learning a foreign language is contingent on a certain degree of maturity in the native language. The child can transfer to the new language the system of meanings he [sic] already possesses in his own. The reverse is also true – a foreign language facilitates mastering the higher forms of the native language. The child learns to see his language as one particular system among many, to view its phenomena under more general categories, and this leads to awareness of his linguistic operations. (pp. 195-196)

Investigation of young learners’ achievement in L2 reading skills must take into account the fact that children are still developing their mother tongue reading ability and may often find reading in English daunting. Apart from linguistic competence, children’s reading is also influenced by a number of contextual factors, children’s individual characteristics, like motivation, attitudes, preferences, and self-confidence, as well as knowledge of the topic and strategic competence (McKay, 2006). Research indicates that in EFL settings, in contrast to

ESL settings, contextual factors, such as out-of-school exposure, may have a strong influence on linguistic outcomes of young learners (Lefever, 2010; Mihaljević Djigunović, 2013).

2.1.1. Reading comprehension in English as L2

Anderson (1999) defines L2 reading as “an active, fluent process which involves the reader and the reading material in building meaning” in the way that “a synergy occurs in reading which combines the words on the printed page with the reader’s background knowledge and experiences” (p. 1). Being a cognitive and linguistic process, reading involves knowledge and skills that operate at a number of different levels, both for native and foreign language readers (Cameron 2008). Cameron (2008) argues that “to really understand a text, information has to be integrated from various scales at which a text can be ‘read’, from individual letters to discourse organization” (p. 128). Grabe and Stoller (2011) propose a definition of reading as “the ability to draw meaning from the printed page and interpret this information appropriately,” but argue that to define reading properly we must also consider the purposes for reading, the skills, processes and knowledge bases of fluent reading and reading comprehension, the cognitive process that operate under severe time pressure, the influence of L2 proficiency on L1 reading skill, and the social context in which reading happens (pp. 3-4). Attempting to explain this “remarkably complex [skill] involving many processing skills that are coordinated in very efficient combinations,” Grabe and Stoller (2011) proposed a set of seven purposes for reading: 1. reading to search for simple information; 2. reading to skim quickly; 3. reading to learn from texts; 4. reading to integrate information; 5. reading to write (or search for information needed for writing); 6. reading to critique texts; 7. reading for general comprehension (for information or pleasure; the most common purpose of L1 reading). Moreover, Grabe and Stoller (2011) sequenced a set of ten

processes of fluent reading comprehension as follows: 1. a rapid process; 2. an efficient process; 3. an interactive process; 4. a strategic process; 5. a flexible process; 6. an evaluating process; 7. a purposeful process; 8. a comprehending process; 9. a learning process; 10. a linguistic process. In L1 fluent reading, a good reader's rate is between 200 and 300 words per minute, which means that the words are recognised very fast and kept in working memory, while the structure of sentences is being analysed for assembling "the most logical clause-level meanings, building a main-idea model of text comprehension in our heads, monitoring comprehension," thus combining all skills necessary for efficient comprehension (Grabe & Stoller, 2011, p. 11).

Urquhart and Weir (1998) proposed a concise definition of reading as "the process of receiving and interpreting information encoded in language form via the medium of print" (p. 22), admitting that this may not be a very neat definition, but arguing that it suited their purpose. However, Grabe (2002a) contended that reading was much more than what Urquhart and Weir (1998) believed it was. Being "one of the most complex skills in which to develop strong second language (L2) fluency" (Grabe, 2002a, n.p.), reading includes both purposes for reading and a number of components related to reading ability: processing at phonological, morphological, syntactic, semantic, and discourse levels, and using a set of linguistic knowledge bases, like vocabulary knowledge-base and discourse organisation of the text, all activated in working memory. Reading comprehension involves activating cognitive skills at two levels: lower level and higher level processing skills (Grabe, 2002a). According to Grabe (2002a), the former set of cognitive skills is rather automatized and includes rapid and automatized word recognition, as fluent readers must automatically recognise 95 per cent of words in a text. It involves orthographic processing, phonologic processing, semantic and syntactic processing, lexical access, morphological processing, syntactic parsing, i.e. drawing key syntactic information and establishing accurate relations

among words and sentence parts, which is usually first done automatically, not consciously, until a comprehension problem appears, and semantic proposition formation, which can be combined to generate textual meaning; these processes are activated as part of working memory. Grabe (2002a) maintained that the latter set of cognitive skills involves two major components: 1. the construction of the text-model of reading comprehension as a summary of textual information: integration of clause-level meaning units to form a general understanding of the text; repeated information is more activated, while information that is not repeated loses activation; 2. the creation of the situation model of reading interpretation, which expands on the text-model and includes the readers' emotions, attitudes, background knowledge, motivations, and goals into a critical interpretation of the text. Inferencing and reader knowledge play a strong role in building the situation model of text interpretation, i.e. a mental model requiring integration between adjacent clauses to establish local coherence through text-connecting inferences and inferences about different events, actions and states, and to establish global coherence, and thus make the text cohere as a whole (Grabe, 2002a; Cain & Oakhill, 1999). Higher-level processing requires some type of executive control processing, a monitoring of information activation, text construction, and reader goals, attitudes, and evaluations within working memory. These processes demand that the relevant information either from the text or world knowledge be available and accessible in working memory, which is related to skills important for comprehension, such as strategic reading comprehension skills, resolution of pronouns, and the inference of unknown word meanings from context (Cain, Oakhill & Bryant, 2004).

Obviously, reading comprehension processes are very complex and much research has been needed to shed light on them. Nowadays, there are various theories of reading and reading comprehension, and many definitions of the processes. For the purposes of discussing and using research results in this field, several models of reading have been developed with

metaphorical representations of the above processes. Grabe and Stoller (2011) distinguish between two groups of models of reading: metaphorical and specific. The former group involves bottom-up models, top-down models and interactive models, while the latter group comprises the following five models: Interactive Compensatory Model, Word Recognition Model, Simple View of Reading Model, Dual Coding Model, and Psycholinguistic Guessing Game Model. Bottom-up models propose that reading follows a mechanical pattern in which pieces of information from the text are interpreted mentally, with little interference of the reader's background knowledge; this framework resembles Grabe and Stoller's (2011) lower-level comprehension processes. On the other hand, top-down models suggest that reading is guided by the reader's expectations about the information in the text, and the reader quickly scans the text to confirm/disconfirm his or her expectations, making many inferences on the basis of her or his background knowledge. This framework recognizes both lower-level and higher-level comprehension processes as described by Grabe and Stoller (2011). Interactive models of reading combine bottom-up and top-down views, suggesting that there is automaticity in word recognition in reading, but comprehension is aided by constantly applying background knowledge, inferencing and predicting, as top-down control of comprehension. Modified interactive models assume automaticity in word and grammatical structure recognition, while background knowledge or context is used only when needed for clarification of understanding. Modified interactive models give "a useful interpretation of general reading comprehension processes" (Grabe & Stoller, 2011, p. 27).

Five types of specific models of reading summarise research findings of the last couple of decades. The Interactive Compensatory Model, which was first proposed in the 1970s, suggests that automatic processes of reading operate almost independently, while less-automatic processes interact regularly; in case of reading difficulties there is increased interaction and compensation to aid understanding, i.e. the reader uses additional sources,

like context. Research in the last three decades has validated these assumptions (Grabe & Stoller, 2011). The Word Recognition Model has provided a validated view of word recognition processes as the basis for reading comprehension. Based on input and experience, word information in the brain creates neural networks consisting of bits of neurons networks and representing lexical items, to which new similar items are added after several encounters, allowing automaticity in word recognition. The Simple View of Reading Model explains the reading comprehension process as the product of word recognition skills and listening comprehension skills, whose multiplied measures give an accurate measure of reading comprehension. This model recognises individual differences in reading abilities, but does not account for the influence other factors have on reading comprehension, such as background knowledge, fluency and motivation. Nevertheless, it is the most influential reading model in current research of reading comprehension. The Dual Coding Model, proposed by Paivio and Sadoski, “has been growing in popularity among researchers in the last decade” (Grabe & Stoller, 2011, p. 29). It suggests that verbal and visual information are separable cognitive processing systems, but they are also linked and support each other: understanding and learning are enhanced when the information from the text is presented with visual representation, and, what is more, visual and linguistic input directly result in comprehension. There is a large quantity of evidence in research of multimedia learning that supports this view (Grabe & Stoller, 2011). And finally, the Psycholinguistic Guessing Game Model, proposed by Goodman (1996), has been popular though recognised as wrong by researchers. It proposes strictly top-down comprehension which has not been found beneficial for reading development and suggests that reading comprehension involves hypothesizing, sampling and confirming information using background knowledge, expectations and context information. It also suggests that reading processes are always the same irrespective of level of proficiency or language, and that there is an automatic transfer

of all reading abilities from one language to the other. Constructivist and transactional models of reading are similar to the Guessing Game Model, but they have only been successful in explaining “an early stage of reading development” (Grabe & Stoller, 2011, p. 30).

Similar to Grabe’s (2002a) definition of the reading comprehension process, Cain et al. (2004) define text comprehension as a “complex task that draws on many different cognitive skills and processes,” which makes research extremely difficult and our knowledge limited as research has usually focused on a single component skill (p. 31). Cain et al. (2004) conducted a longitudinal study of higher level language skills in L1 English readers aged 8, 9 and 11 years, focusing on integration of information in sentences and ideas in a text, namely on the skills like inferencing, integration, comprehension monitoring, and knowledge about text structure, necessary for constructing text-model, i.e. a coherent model of a text’s meaning. The authors found that in children aged 8-11, working memory capacity was a unique variance that explained reading comprehension “after the contributions made by word reading skill and verbal ability have been taken into account” and that there was “a consistent pattern of prediction of reading comprehension level at each time point” (Cain et al., 2004, p. 38).

The current interactive model of reading recognises “the importance of metacognition and self-regulation,” i.e. “the strategies involved in planning, monitoring and evaluating one’s learning and/or one’s strategy use” (Macaro & Erler, 2008, p. 95). Kintsch and Rawson (2005) propose a model of text comprehension that involves processing at different levels: the linguistic level, involving processing of words and phrases through decoding, word recognition and parsing; semantic analysis, which involves determining the meaning of the text through coreference or argument overlap; microstructure, concerning a complex network of interrelated propositions created on the basis of the syntactic relationship of words;

macrostructure, i.e. global structure of a text created by semantic relations of whole sections; textbase, concerning the meaning of the text as represented by microstructure and macrostructure; and, finally, situation model, which concerns the formation of mental representations of the text content, involving not only verbal domain, but also imagery, emotions and personal experiences. The authors argue that without retrieving prior knowledge from memory and integrating it with the new information in the text, the reader “does not really understand the text, even if he or she formed a correct textbase” (Kintsch & Rawson, 2005, p. 212). The construction of text base and situation model in reading comprehension is very much dependent on inferencing, or gap filling, which is rather fast and automatic activation of knowledge if the topic is familiar, but must be active and controlled in less familiar domains, i.e. “comprehension requires inferences, and inferences require knowledge” (Kintsch & Rawson, 2005, pp. 220-221). While expert comprehension is “a highly automated process, relying on readily available retrieval structures,” novice comprehenders reading an unfamiliar text need to engage a lot of effort to create a satisfactory situation model; therefore, beginning readers are often satisfied with creating a good textbase, “neglecting the more effortful construction of a situation model,” which results in shallow comprehension (Kintsch & Rawson, 2005, p. 225).

With respect to comprehension of children as beginning readers, their comprehension can be limited to literal meaning or text base, i.e. the meanings of words and relations between them, because at the beginning of learning to read children are primarily learning to decode and identify words (Perfetti et al., 2004). Perfetti et al. (2004) explain that to be able to gain a deeper understanding of a text and to build a situation model, readers need to be able to make inferences, monitor comprehension, and have a good knowledge of narrative text structure. To become skilled readers, children need to make inferences in order to make a text coherent and to comprehend seemingly unrelated actions (Perfetti et al., 2004). Perfetti et

al. (2004) stress that “young children are able to make the same inferences as older ones, but are less likely to do so spontaneously” (p. 231) and usually need some prompting to be able to do it. Moreover, there are individual differences in inference making between skilled and less-skilled readers, probably due to the following reasons: 1. less-skilled readers have deficits in general knowledge; 2. less-skilled readers do not know when to make inferences; 3. less-skilled readers have processing limitations which do not allow them to connect text information with prior knowledge (Perfetti et al., 2004). Cain et al. (2004) argue that although these higher level language skills are important for comprehension, “young children’s reading comprehension is strongly predicted by other lower level language skills, such as word reading accuracy and verbal and semantic skills” (p. 232). Similarly, Nation (2005) contends that reading comprehension “comprises two sets of skills, those concerned with decoding or recognizing printed words and those involved in linguistic comprehension” (p. 249), which makes two sets of processes crucial for comprehension process: lexical processes (involving phonological skills, semantic skills and visual word recognition) and working memory resources (verbal span). Individual differences in children’s reading comprehension are predicted by decoding, word recognition skill and vocabulary knowledge, but also by working memory capacity (Cain et al., 2004). Nation (2005) argues that there are differences in working memory among children influencing reading comprehension due to specific semantic weakness of some readers that restricts their ability to store verbal information in short-term memory.

Regarding inference making and comprehension monitoring as higher level language skills, they make a unique variance in reading comprehension (Perfetti et al., 2004; Nation, 2005). Studying the causal relationship between inferencing and comprehension skill of young children, Cain and Oakhill (1999) concluded that young readers “are less likely to generate inferences than older children” and that they often fail to ensure adequate

comprehension by not generating gap-filling inferences that incorporate information from general knowledge with the information in the text (p. 490). The authors argued that competence with gap-filling inferences emerges later in development, while success in text-connecting inferencing is determined by differences in reading aims of skilled and less skilled readers: skilled comprehenders “may simply be more likely to make inferences to integrate sentences and fill in details that are judged to be missing when they reflect on their model of the text, because they are more likely to be striving for coherence” and for them the “use of such cues may have become a fairly automatic reading strategy,” while less skilled comprehenders focus “more on word reading accuracy rather than comprehension monitoring” (Cain & Oakhill, 1999, p. 501). Their study has confirmed that “poor comprehension is (at least in part) the result of a failure to make sufficient inferences” and that “inferential processing remained a strong predictor of reading comprehension level” (Cain & Oakhill, 1999, p. 500). Cain et al. (2001) studied the relation of comprehension skill and inference making to knowledge and found that comprehension failure in making elaborative (gap-filling) inferences was due to different reasons for skilled and less skilled comprehenders, the former managing to recall “both the relevant textual premise and the knowledge base item but failed to integrate the two,” while the latter “failed to recall the information that had to be integrated to generate the inference” (p. 857).

There is a strong relation between working memory, i.e. simultaneous storage and processing of symbolic information, and children’s reading comprehension (Cain et al., 2004). Explaining the concept of working memory in reading comprehension, Grabe and Stoller (2011) argue:

The term *working memory* is now generally preferred to *short-term memory*. Working memory refers to the information that is activated, or given mental stimulation, for immediate storage *and* processing. Working memory for reading involves the active use of cognitive processes such as recognising and storing word information, using syntactic information, connecting pronoun references, building overall text structure,

integrating and restructuring information, establishing main ideas, assessing inferences and adapting reader goals. (p. 12)

Nation (2005) suggests that the relation between children's working memory and their text comprehension is underpinned by verbal and semantic skills, and that poor comprehenders have a specific semantic weakness that prevents their storing of verbal information in short-term memory. Cain and Oakhill (1999) argued that comprehension and inferential skills are related in young children, and concluded on the basis of the research that inferential processing remained a strong predictor of reading comprehension level. The source of inferential failure may be deficient memory for the text as a whole, and poor comprehenders were not significantly poorer at answering questions about literal information, leading to a conclusion that poor performance cannot be simply attributed to poor memory. Poor comprehenders improved their skills in text-connecting inference, but not in gap-filling inference – a possible reason is deficit in general knowledge and strategy deficiency – not knowing when and how to relate general knowledge to the text in order to supply missing details. A number of skills can contribute to children's reading comprehension, both lower, i.e. bottom-up, like word recognition, as slow or inaccurate word reading affects reading comprehension by taking too much processing capacity, and higher level processing skills, i.e. top-down, or inference making. With beginning readers, word reading is the best predictor of comprehension level, but as word reading ability develops, other skills become more important and higher level skills play a unique role, i.e. represent a unique variance, in the determination of comprehension level (Cain et al., 2004). Comprehension difficulties include inefficient lexical processing, impaired inference-making skill and comprehension monitoring ability, and limitations of working memory. Impoverished knowledge about word meanings or a specific domain, like world knowledge, may lead to comprehension difficulties. In their recent study, Currie and Cain (2015) studied how vocabulary and working memory contributed to both local and global coherence inferences, by examining

different age groups: 5-6, 7-8 and 9-10 year olds. The authors found that vocabulary was a key predictor for local coherence only for the 6 and 8 age group, while in case of global coherence, vocabulary was the main predictor for all age groups (Currie & Cain, 2015). What is more, the results showed that inferential abilities improved with age, not only owing to possessing relevant background knowledge, but also because children developed knowledge of “when and how to draw on background knowledge during text comprehension” (Currie & Cain, 2015, p. 70). Prompting was found to be a tool useful for indicating “the standard of coherence required of comprehension,” while the study also showed that “children need to be taught how to use both the text and background knowledge as sources of information to guide inference generation and text comprehension” (Currie & Cain, 2015, p. 71).

Cain et al. (2004) considered meaning-construction skills, such as inference making and comprehension monitoring (two processing variables) and knowledge about how narrative texts are structured (one knowledge variable), and found that performance on measures of these skills is related to individual differences in reading comprehension level. The ability to generate inferences that are necessary for making sense of the text through integration of information among individual sentences in the text, or the integration of general knowledge with the information in the text, is related both to age and reading comprehension skill (Cain, Oakhill, Barnes, & Bryant, 2001). Strategic reading abilities may play a role in individual differences in inference making. Moreover, Cain et al. (2001) argued that the measures of processing skills, e.g. inference making and comprehension monitoring, and processing capacity, e.g. working memory, explained a unique variance in reading comprehension ability even after the contribution made by lower level skills had been taken into account, and that knowledge about narrative text structure was positively related to reading comprehension level, even after other measures of verbal ability and language skill had been taken into account. Knowledge can help the reader to organize and relate events in a

text, which then benefits his or her memory and understanding. The compensatory effects of prior content knowledge on memory for text are well established.

Comprehension monitoring is a metacognitive skills that concerns the comprehension of connected prose / narrative text and helps the reader to detect inconsistencies in a text, such as contradictory sentences or statements that conflict with world knowledge, error detection requires readers to evaluate their understanding of the text and to regulate their reading (Cain et al., 2004). Performance on error detection improves with age, which may be related to children's developing information processing capabilities (Cain et al., 2004). Children with reading comprehension difficulties are poor at detecting internal inconsistencies in text, and such difficulties are more pronounced when the anomalous pieces of information are nonadjacent (Cain et al., 2004), indicating that working memory capacity may influence the application of this skill. The ability to integrate propositions to construct a coherent representation of a text is a precondition for effective comprehension monitoring: detection of internal inconsistencies can be achieved through the comparison of literal (explicit) statements in the text, while monitoring performance can be affected by interest in the task (Cain et al., 2004).

Understanding text structure and organization of narrative texts increases throughout childhood, but inadequate knowledge about text structures and genres, which may arise because of insufficient reading experience, may be a source of comprehension failure (Cain et al., 2004, p. 33). Knowledge about the purpose of reading and about the information provided by conventional features of text are related to age and reading comprehension and older children and better comprehenders are better able to explain the information given in introduction or ending of a text (Cain et al., 2004). Knowledge about the narrative structure may help make up for the adverse effects of limited processing capacity. Nation (2005) reviewed studies of specific reading comprehension deficits in children and pointed out that

“poor comprehenders draw fewer inferences than do skilled comprehenders” and are not engaged in active and constructive comprehension monitoring (p. 260). Kintsch and Rawson (2005) argued that beginning readers, or ‘novice comprehenders’, “are satisfied with forming a reasonably accurate textbase, neglecting the more effortful construction of a situation model,” which results in shallow comprehension (p. 225). Since novice comprehension cannot rely on automatized skills, then active strategic processes must compensate for the lacking retrieval structures that make comprehension easy for the expert. For deep comprehension it is necessary to construct good situation model, i.e. representation of the situation described by the text, “achieved by integration of information provided by the text with relevant prior knowledge [so that] inferencing is critically involved in forming a situation model” (Kintsch & Rawson, 2004, p. 219). This is only possible through active, strategic processing. Although these studies did not specifically refer to L2 reading, their findings have important implications for considering EFL reading outcomes.

The theoretic framework of Dual Coding Theory (DCT), created by Paivio (2006) and Sadoski and Paivio (2004), was originally developed to explain “verbal and nonverbal influences on memory” (Sadoski & Paivio, 2004, p. 2), but has later been extended to literacy, i.e. reading comprehension and written composition, and as a unified theory of reading and writing, through systematic research. Sadoski and Paivio (2004) argued that reading as a cognitive act is not unique in itself but involves the same processes as other cognitive acts: perceiving, recognizing, interpreting, comprehending, appreciating, and remembering information. This view considered cognition in reading as a special case of other cognition, the fact that can best be respected in research of reading through DCT. The authors saw a special contribution of DCT to reading research in the fact that it was the only theory that provided a combined account of the basic processes of reading, i.e. decoding, comprehension, and response – while other theories of reading usually focus on one of these

aspects. According to Sadoski and Paivio (2004), the same basic DCT principles “apply to grapheme-phoneme correspondences, word meaning, grammar, the construction of mental models of text episodes, and even imaginative responses to text” (p. 3).

In L2 reading research, especially in studies of the effects of visuals on L2 reading comprehension, DCT has been a useful theoretical framework. The studies have shown that L2 students, both children and adults, achieve significantly better results in reading comprehension if the text is accompanied with a visual representation (Liu, 2004, p. 228). DCT starts from the premise that some of the concrete qualities of our external experiences, both linguistic and nonlinguistic, are retained in our mental representations in two separate mental systems/codes: the verbal code (for representing and processing language) and the nonverbal code, or imagery system/code (for processing nonlinguistic objects and events). These two codes together “account for knowledge of language and knowledge of the world” and have mental representations that differ in quality because of the different sensory experiences that create them. Our visual representations are developed both in the verbal and nonverbal codes: visual representations of the language units that we have seen, such as letters, words, or phrases, are developed in the verbal code, while our visual representations of the nonlinguistic images that we have seen, such as objects or scenes, are developed in the nonverbal code (Sadoski & Paivio, 2004). The main distinctions in DCT are not between the verbal and visual codes, but “between verbal and nonverbal (imagery) codes, and between the visual modality and the other sensory modalities” (Sadoski & Paivio, 2004, p. 6).

Sadoski and Paivio (2004) specified the basic units in the verbal and non-verbal systems: *logogens* and *imagens*, respectively (pp. 7-9). These units are not static but tend to evolve, like our vocabulary expands with experiences of words in different contexts. Also, logogens vary in size, from letters (visual) or phonemes (auditory), to written or spoken text, also depending on perception of language and influencing its perception. Similarly, *imagens*

vary in size, but appear within larger mental images. Both logogens and imagens, as mental representations, can be activated in different ways, through bottom-up and top-down inputs: by direct sensory input, or indirectly, through internal and external contexts. Logogens and imagens do not possess a one-to-one referential correspondence, and some logogens might referentially activate few imagens, other logogens might activate many, while some logogens might activate no imagens at all, like the language that is highly abstract, because there is no referential meaning without the context of a concrete situation. This implies better understanding of concrete language, which is consistently being proved in research. Once activated logogens spread their activation referentially to one or more imagens in the nonverbal system, associative processing may occur within that system and, in turn, refer back to the verbal system. (Sadoski & Paivio, 2004) This approach makes DCT unique, as most theories of cognition describe the activation of representation from input, from one or many sources, but DCT is the only one that emphasizes “the modality-specific, verbal, and nonverbal distinctions in mental representation” with different constraints in processing resulting from sequential (verbal) and nonsequential (nonverbal) organization (Sadoski & Paivio, 2004, p. 9). Sadoski and Paivio (2004) argued that “logogens and the verbal system into which they are organized are characterized by sequential constraints” (p. 9) evident in conventional sequences (hierarchy) at all levels, from synthesizing smaller units into larger ones (letters into words), to analyzing larger units into smaller ones (words to letters), with a degree of independence of units at all levels, e.g. a spoken word can be recognized without analyzing its phonemic structure. On the other hand, “imagens and their nonverbal hierarchy are more holistic and simultaneous“ so that “[t]his combination provides great flexibility to cognition” (Sadoski & Paivio 2004, p. 10). Cognition is thus explained as structuring and processing of the above mental representations in three dimensions: representational processing, associative processing, and referential processing (Sadoski & Paivio, 2004).

As far as decoding is concerned, DCT assumes that in reading there is grapheme-phoneme level processing that does not necessarily have to involve comprehension, and it is an automatic process for familiar words and phrases. However, in reading unfamiliar words, there is more grapheme-phoneme processing and probably semantic and syntactic processing (Sadoski & Paivio, 2004). While reading, the mental model of the sentence emerges as “a verbal-nonverbal, syntactic and semantic episode in short term memory” (Sadoski & Paivio, 2004, p. 17), which does not necessarily have to be conscious, and a fluent reader, reading 250 words per minute, needs just two seconds to read and understand a simple sentence with familiar words and context and to record it as inner speech, as has been supported with a number of research data, including neuropsychological data. DCT assumes that the text is mentally represented in two different modalities: an auditory-motor representation (experienced as inner speech), and a visuo-spatial representation (experienced as mental imagery). Sadoski and Paivio (2004) contended that “[a]ssociative connections and referential connections between the verbal associates and the nonverbal associates form an internally consistent network that is the basis of meaning, comprehension, and the mental model” (p. 19). DCT supports these findings with a lot of empirical evidence. For example, decoding, which involves activation of verbal-associative connections between visual logogens and auditory-motor logogens, happens very fast, usually before any syntactic or semantic interpretation, resulting in prompt recording of printed words into an auditory-motor (phonemic) form. As this does not involve associative processing, the time needed for decoding depends on familiarity of the word and grapheme-phoneme consistency, as well as other factors (Sadoski & Paivio, 2004, p. 23). This process can spread to activation of imagens as a semantic factor in word recognition.

There is research evidence suggesting that ‘word imageability’ is one of the best predictors of reading performance in beginning reading and that beginning readers and poor

readers read concrete (imageable words) with more accuracy than abstract words, which is also true for readers with severe phonological deficits (Sadoski & Paivio, 2004). Also, it is important to point out that imageability facilitates the naming of low-frequency irregular words, i.e. word naming is faster when naming imageable irregular words because spelling-sound dual coding theory processing time is sufficient for the activation of corresponding imagens; as for regular words (regular spelling-sound correspondence), word naming is fast for both concrete and abstract words, imageability of concrete words not making any difference in naming (Sadoski & Paivio, 2004). Further replications confirmed the above results and also found that imageability played a significant role in naming low-frequency regular words (the influence still being lower than in naming low-frequency irregular words) (Sadoski & Paivio, 2004). These and other results related to different orthographies indicate “a persistent but qualified interaction between imageability and regularity in word naming” and that “imageability was more associated with right-hemispheric brain activation, consistent with a neuropsychological account of encoding differences” (Sadoski & Paivio, 2004, pp. 25-26).

Sadoski and Paivio (2004) concluded that all these studies indicate that, when the connections between orthography and phonology are complex (either because of irregular spelling-sound correspondences or word unfamiliarity), imageability plays a very important role in naming words, which is consistent with the interactive DCT model of reading and with the multiple-route decoding model in which “visual logogens activated by printed concrete words spread their activation to both auditory-motor naming logogens and imagens for referential meaning,” and consequently “[t]he activated imagens can significantly contribute to the activation of the naming logogens when the route between the visual logogens and the naming logogens is slow” (p. 26) Decoding is influenced by a number of factors and, under theoretically predictable conditions, imageability is only one of them.

DCT clarifies the important reading concepts, like ‘meaning’, ‘comprehension’ and ‘mental model’, in the following way: ‘meaning’ is represented by a network of activated verbal and nonverbal representations, ‘comprehension’ is regarded as the relative equilibrium in this network of verbal associations and nonverbal associations, and ‘mental model’ applies to the verbal-nonverbal correspondence as a whole. Sadoski and Paivio (2004) clarified further:

The mental model *is* the restricted set of activated representations and the associative and referential connections between them. [. . .] A mental model in DCT is not an abstraction; the modality-specific units activated and connected retain some of their original sensory properties, much as pebbles in an aggregate or particles in a suspension. (p. 19)

How deep understanding is depends on the reader’s need to elaborate what has been read and on the time available for that, and can range from simple understanding to strategic elaboration (Sadoski & Paivio, 2004). Depending on the cues in the text, the response may also involve a certain affect, e.g. in narrative texts, like stories, emotional response is an important aspect of experiencing the text. On the other hand, comprehension of an abstract text primarily involves verbal associations, and their fuller meaning and deeper understanding depend on a context: in a more concrete context, a higher associative level is achieved. (Sadoski & Paivio, 2004)

According to DCT, the most influential factor in reading comprehension is language concreteness because concrete language activates mental images and mental language, abstract language not having such access to the imagery code (Sadoski & Paivio, 2004). The authors explained that “the two codes are assumed to be independent and additive in their effects, predicting that concrete language should be nearly twice as comprehensible and memorable as abstract language, other factors being equal” (Sadoski & Paivio, 2004, p. 27). They pointed to the comprehensiveness of DCT in relation to context availability theory which assumes that all language, concrete and abstract, is comprehended and remembered by

its incorporation into the network of abstract propositions, and that it is easier to comprehend and remember concrete language because it can be easily associated with other propositions in the network owing to more connections. However, DCT explains this advantage as support the reader gets for abstract language through familiar information or supportive context. The authors have collected evidence that brings them to the conclusion that “DCT can provide a coherent account of the critical role played by language concreteness in reading comprehension” (Sadoski & Paivio, 2004, p. 31).

Response to the text involves mental imagery and emotional response, which create aesthetic response to text, both subjective and objective, like critical evaluation against some standard. The relationship between imaginative and affective processes has been studied and has revealed reliable measures, both quantitative, for the strength of response, and qualitative, for the nature of response (Sadoski & Paivio, 2004). Sadoski and Paivio (2004) concluded that imaginative responses are central to reading literary stories and that an overall response involves both the intellect and the emotions. The authors stressed the fact that DCT is similar to other reading theories as it understands reading as a combination of bottom-up and top-down processes, gives due attention to the role of prior knowledge in reading, and accepts the fact that representation of knowledge can be performed in several forms. However, they saw DCT as unique in stressing the importance of concrete language and dual codes processes for understanding, and in relying “on constructs that may be consciously experienced to some degree and for which plausible human assessments can be devised: natural language, mental imagery, and their associations” (Sadoski & Paivio, 2004, p. 37).

Sadoski and Paivio (2004) argued that, although DCT had a strong empirical record related to verbal behaviour, more research was needed in decoding, comprehension, and response. While there is enough evidence that the concreteness, i.e. imageability, of written language is a factor in its phonological recoding, and that reading has an interactive nature,

with top-down semantic and syntactic factors and bottom-up decoding factors interacting at all levels, more research is needed to show how meaning precedes phonology, i.e. what role phonological recording and inner speech, as a more conscious manifestation of phonological recording, have in reading, i.e. that there may be more to the phenomena of phonological recording and inner speech than providing us with a strategy for lexical access – meaning may precede phonology more than we realize. The authors argued that inner speech had been regarded as a short-term memory phenomenon, and although all readers engaged in inner speech at some degree, it was not inevitable, since good readers engaged in less inner speech than poor readers. They stressed some empirical research showing that “for skilled readers the optimal rate of comprehending prose while reading was identical to the optimal rate of comprehending prose while listening [i.e.] about 300 words per minute – about the maximum rate at which speech can be comfortably produced” (Sadoski & Paivio, 2004, p. 39). DCT regards inner speech as mental imagery in the auditory-motor modality, with the role of keeping the surface form of a sentence in the process of higher-order comprehension because “the visual modality can be overloaded if it has to simultaneously: (a) hold sentence segments already seen in visual memory, (b) process upcoming print, and (c) construct visual mental images as needed or preferred” (Sadoski & Paivio, 2004, p. 39). The process of reading is too complex to depend only on the visual pathways in the brain. Therefore, “[r]ecoding to the auditory-motor modality allows non-visual rehearsal and speech-like parsing to occur while new text is visually processed and a semantic interpretation, including visual images, is constructed” (Sadoski & Paivio, 2004, p. 40). The authors also suggested that inner speech could help in ‘sounding out’ unfamiliar words, and also in ‘hearing’ “vocal phrasings, intonations or other forms of expressive interpretation” (Sadoski & Paivio, 2004, p. 40) and seemed necessary for optimal reading. According to them, pedagogical implications should be teaching and encouraging inner speech, which is very common and obviously purposeful.

Regarding comprehension, the authors thought that, from the point of view of cognitive theories, the most important research question should be grammar and its role in text comprehension, because different kinds of grammar, i.e. traditional grammar, structural grammar, case grammar, and transformational grammar, had not offered a full explanation of the comprehension process. The authors argued that “studies of sentence transformation consistently showed that word meaning plays a crucial role in comprehension, even overriding syntactic information” (Sadoski & Paivio, 2004, p. 41). The authors stated some recent research in support of DCT and involvement of both verbal and nonverbal processes in grammar and in comprehension: e.g. cognitive grammar, which applied associational model of mind. Sadoski and Paivio (2004) explained:

In this model, networks of association evolve with the experience of the individual including linguistic associations. No innate or intrinsic rules are involved; language is governed by patterns of regularity that develop from childhood. The number of common syntactic patterns in a language is relatively small (e.g. the subject-verb-object pattern in English). All sentences are variations on a few patterns that may be represented as exemplars and varied by analogy. Descriptive, structural grammar is best suited to this explanation of grammar, and word meaning plays a more important role. (p. 41)

In cognitive grammar cognition is not seen as primarily verbal, but it can also be imagistic: in language processing, there is matching of words with mental models of reality that can be imagistic “experience-based knowledge of the world to which language refers,” allowing cognitive grammar to offer “an elegant, empirically verifiable approach that capitalizes on verbal and nonverbal mental representations and syntactic patterns that are readily experienced” (Sadoski & Paivio, 2004, p. 42). Finally, in relation to response, the reader’s response to literature has become a popular study subject. From the perspective of DCT, responding to literature involves two highly related factors: imagery and emotional response. Information that is imaged and felt is retained in memory longer, even if we read for superficial information (Sadoski & Paivio, 2004).

Educational psychologists have tried to find the combinations of visuals and texts that affect comprehension positively. Goldsmith (1987) suggested four groups of factors that influenced comprehensibility of an image: 1) unity (the cohesiveness and consistency of a single image); 2) location (the special arrangement of elements in a single image); 3) emphasis (the interrelationship between related but separate images); 4) text parallels (the relationship between visual imagery and text). Goldsmith (1987) also identified three levels of communication that these visual factors could achieve: 1) syntactic communication (the interrelation of multiple pictures, or the interrelation of elements within a single picture); 2) semantic communication (the comprehensibility of an image); 3) pragmatic communication (meeting the needs of the communication situation). According to Goldsmith (1987), cartoon imagery is the best way of representing familiar items and generalized vocabulary. However, even in semantic omission, i.e. partly cropped, incomplete images, like characters' bodies in 'close up' panels, students are able to infer the missing parts of the pictures, while by paying special attention to characters' figures and faces, they can find it easy to decode the feelings and the meaning expressed.

Beginning readers' reliance on visual information and picture clues may be crucial to supporting reading comprehension. However, to be able to use available clues from text and picture, learners need to develop a range of reading strategies and become strategic readers able to read independently. Becoming a fluent reader in L2 contexts may be accompanied with difficulties reflected in learners struggling for general comprehension of longer texts under time pressures (Grabe & Stoller, 2011). The complex process of reading requires the reader to employ "skills, strategies, attentional resources, knowledge resources, and their integration" (Grabe & Stoller, 2011, p. 9), which will further be explored in the next section.

2.1.2. Reading strategies in English as L2

Language learning strategies “offer the tools for learners to manage their own learning” (Grenfell & Erler, 2007, p. 6) and have the potential to make language learning more successful. Grenfell and Erler (2007) shared the view that “strategy work has a much greater potential to shape our pedagogy than has hitherto been grasped and that an overly utilitarian, ‘feed-in’ approach to strategies takes a far too limited view of that potential” (p. 6). In the last four decades quite a number of studies has set to identify strategies used by successful language learners, in general, and skilled readers/comprehenders, in particular, focusing on three main areas: strategy types and how they relate to reading proficiency, L1 and L2 reading strategies comprising linguistic and non-linguistic factors, and reading strategy instruction (Cohen & Macaro, 2007). Oxford (2001) defined L2 strategies as “specific behaviours or thought processes that students use to enhance their own L2 learning” (p. 362), while Chamot (2004) stressed that strategic learners possess “metacognitive knowledge about their own thinking and learning approaches, a good understanding of what a task entails, and the ability to orchestrate the strategies that best meet both the task demands and their own learning strengths” (p. 14). Starting from the premise that reading is a problem-solving process, Goodman (1998) explained how reading strategies functioned, arguing that “reading strategies include sampling the text once the reading has been initiated, making inferences, predicting, and confirming” (p. 227) when reading makes sense, but, when the text does not make sense, readers disconfirm and consequently self-correct “selectively to support their construction of a meaningful text” (p. 227).

Unlike the area of general language learning, where learning strategies have been studied extensively for several decades (e.g. O’Malley & Chamot, 1990), in the area of early language learning there have been relatively few studies related to strategic language use.

Moreover, the issue of strategy development and assessment in early L2 reading has been neglected. Grabe and Stoller (2011) focus on reading strategies and clarify the meaning of the term by defining reading strategies as “abilities that are potentially open to conscious reflection, and reflect a reader’s intention to address a problem or a specific goal while reading” (pp. 9-10). The authors warn, however, that “many abilities that are commonly identified as strategies are relatively automatic in their use by fluent readers (e.g. skipping an unknown word while reading, rereading to re-establish text meaning)” (Grabe & Stoller, 2011, p. 9) and that the distinction between strategies and skills is not fully clear because of the nature of the reading processes as a cognitive activity. The authors also argue that a strategic reader is someone who is “able to read *flexibly* in line with changing purposes and the ongoing monitoring of comprehension [since] reading is an *evaluating* process in that the reader must decide if the information being read is coherent and matches the purpose for reading” (Grabe & Stoller, 2011, p. 12). They propose a long list of sample reading strategies: 1. specifying a purpose for reading; 2. planning what to do/what steps to take; 3. previewing the text; 4. predicting the contents of the text or section of text; 5. checking predictions; 6. posing questions about the text; 7. finding answers to posed questions; 8. connecting text to background knowledge; 9. summarising information; 10. making inferences; 11. connecting one part of the text to another; 12. paying attention to text structure; 13. rereading; 14. guessing the meaning of a new word from context; 15. using discourse markers to see relationships; 16. checking comprehension; 17. identifying difficulties; 18. taking steps to repair faulty comprehension; 19. critiquing the author; 20. critiquing the text; 21. judging how well purposes for reading were met; and 22. reflecting on what has been learned from the text (Grabe & Stoller, 2011).

Strategic learners apply strategies as ‘the conscious actions’ that they take to improve their performance in the learning and use of L2 (Anderson, 2005). Although numerous

research studies of L1 reading strategies have demonstrated the importance of reading strategy training for reading comprehension, it is important to know that not all L1 reading strategies usually transfer automatically to L2 reading contexts, but this process depends on the readers' experience with effective reading strategies used in L1 reading contexts; obviously, successful transfer of L1 reading strategies and practice of new ones depends on L2 learners' metalinguistic knowledge (Grabe & Stoller, 2011). As a consequence, "L2 literacy learning in one sense may be less effortful if the child is already able to transfer strategies from L1" (Pinter, 2011, p. 145).

However, in spite of ample research of language learning strategies, and the discussions of the importance of reading strategies, research of L2 reading strategies is extremely limited. Cable et al. (2010) pointed out that "there is limited research on strategy instruction for early L2 literacy (e.g. encouraging learners to infer meanings from context, to identify cognates or to analyse word structure)," but stressed the fact that some small scale studies of early L2 strategy instruction "present positive preliminary results" (p. 29). The fact that there have been relatively few studies of young language learners' reading strategy use is possibly due to young children's cognitive immaturity. Since strategies are difficult to observe, they are most often identified through self-reporting (using a questionnaire, an interview, a think-aloud protocol, a diary or a journal), which has limitations as, frequently, young learners "may not remember the strategies they have used in the past, may claim to use strategies that in fact they do not use, or may not understand the strategy descriptions in the questionnaire items" (Chamot, 2004, p. 15). It is, therefore, reasonable to collect the data related to strategy use as soon as possible after the process of reading, to increase the possibility of readers' remembering the strategies they have used in performing the task.

Very few studies have addressed the development of reading strategies of young L2 learner/beginner L2 reader, while even fewer have focused on longitudinal interventions for

strategy development (Macaro & Erler, 2008, p. 90). Cohen and Oxford's (2002) draft of *Young Learners' Language Strategy Use Survey*, comprising a total number of 60 strategies related to L2 learning, suggested 18 reading strategies distributed in three groups: 'What I do to read more', 'What I do to understand what I read', and 'What I do when I don't understand what I read' (p. 75). The *Survey* was used to create a reading research instrument to be used with young learners in Croatia (Radišić & Pavičić-Takač, 2007). The adapted instrument comprised 13 items classified into two groups of strategies: 1. social (external) strategies, comprising six strategies, such as asking for help or using a dictionary/textbook; 2. cognitive (independent) strategies, comprising seven strategies, such as using clues, rereading, or reading extensively (Radišić & Pavičić-Takač, 2007). The instrument was used to assess fourth-graders' reading strategies in three Croatian schools (Horvatić, 2013). The results showed that more successful beginning readers used independent strategies more often, judging by the data collected through the interviews and the journals, relying on their own comprehension and inferencing skills and using their own background knowledge and personal experience, while less successful beginning readers used external sources of information more often, relying on other people's help; moreover, more beginning readers used external sources of information more often than independent strategies (Horvatić, 2013). A very interesting finding was a negative and insignificant correlation between success in reading and independent strategies self-reported by children through questionnaires; the author concluded that either children were not aware of their strategy use or found it difficult to evaluate their strategy use (Horvatić, 2013). The author finally concluded that participants were independent readers as more than two thirds reported reading independently at home, using a dictionary instead of asking someone for help, dictionary use being classified as a cognitive strategy, not as an external strategy (Horvatić, 2013).

So far most of the studies of young language learner reading strategies have referred to L2 in immersion contexts, like Chamot and El-Dinary's (1999), who studied reading strategies of young language learners in language immersion classrooms. They investigated third- and fourth-grade foreign language learners' learning French, Japanese and Spanish, with the aim of identifying strategies used by more effective and less effective learners when reading and writing. The results of the research indicated that the two groups did not differ in total strategies used, but there was a difference in types of strategies used by high rated students. Moreover, the authors reported that qualitative analysis of think-aloud transcripts suggested that effective learners used their repertoire of strategies more flexibly, monitoring and adapting them, while less effective learners tended to stick to ineffective strategies, being either unaware of their ineffectiveness or not being able to adapt them, e.g. relying on single strategies or using the same strategy repeatedly. When reading, effective learners focused on the task as a whole, relying mostly on inferencing (24.6 per cent), while less effective learners focused on details, relying mostly on phonetic decoding (43.6 per cent), i.e. decoding single words or focusing on the words they did not know (Chamot & El-Dinary, 1999). The authors came up with two groups of reading strategies: 1. metacognitive strategies: planning, selective attention, and monitoring; 2. cognitive strategies: background knowledge (inferencing, predicting, and elaborating), language knowledge (decoding, deducing and substituting), manipulating information (retelling, summarizing, translating), using resources (dictionaries, charts, questions), recall strategies (sequence, association, brainstorming, visualisation, audio recall) and metacognitive awareness (automatic understanding, knowledge of L2, inference, L1-L2 comparisons, self-awareness and affect). They concluded on the basis of the interviews with children, that learners "as young as grade 1 were often able to describe their thinking in rich detail," indicating that metacognitive awareness begins at an early age (Chamot & El-Dinary, 1999, p. 331).

Reading strategy use of bilingual primary pupils in Singapore was investigated by Rao, Gu, Zhang and Hu (2005). Analyses of think-aloud protocols revealed two different levels at which children processed texts in English and two groups of reading strategies applied: deep-level and surface-level strategies. The deep-level processing strategies were used for creating a mental representation of the text, employing prior knowledge; these strategies involved: inferencing, prediction, contextualization, global questioning of the text, recognition of the text structure, comprehension evaluation, summarization, appreciation of the given text, and reconstruction (Rao et al., 2005). The group of surface-level processing strategies was used for comprehension at word and sentence level; these involved paraphrasing, rereading, local questioning of text, and questioning vocabulary (Rao et al., 2005). The results suggested that successful readers tended to apply deep-level strategies most of the time and a larger repertoire of reading strategies, while less successful readers relied mainly on surface approach, which resulted in their poorer comprehension of the text and poorer achievement in retelling the text; what is more, there was a “sharp discrepancy between two groups of pupils in reading strategy use” (Rao et al., 2005, p. 262).

Zhang, Gu, and Hu (2008) conducted another study with Singaporean primary school pupils, focusing on children’s use of reading strategies in English as L2. Case studies and think-aloud protocols of reading strategy use in grades four to six suggested that flexibility and appropriateness of reading strategy use varied according to children’s language proficiency and grade level: high-proficiency pupils’ achievements were better than lower-proficiency pupils’ results, and higher graders used a bigger number of strategies than lower graders. The authors also reported that less successful readers relied mostly on bottom-up processing (decoding, sounding out or repeatedly reading unknown words), not being aware of the connection between reading and meaning-making, unable to monitor their own comprehension or to identify reading problems, engaging in wild guesses instead of making

inferences or predicting; on the contrary, successful readers managed to create a conceptual framework quickly and to monitor and evaluate their comprehension (Zhang et al., 2008). Zhang et al. (2008) concluded that “high- and low-proficiency pupils differed in the strategies they used to understand the text” (p. 258), and older students’ comprehension was particularly good. The basic taxonomy drawn from pupils’ reading behaviour involved metacognitive, cognitive and social-affective strategies, classified as follows: 1. metacognitive: self-initiating, planning, monitoring, evaluating, follow-up decision-making (rereading); 2. cognitive: perceptual processing (fixation, repetition, decoding), parsing/organization (inferencing, prediction, contextualization, translation, imagery), utilization / elaboration (reconstruction, summarization, relating to personal experience, appreciation of given text, evaluate using genre), using resources (using a dictionary); and 3. social-affective: social (cooperative learning, asking for help), affective (trying to enjoy, avoiding embarrassment) (Zhang et al., 2008). The authors also found that “the more mature students who were two or three years senior to the younger ones used comprehension strategies more frequently and flexibly and had clearer awareness of the reading process,” while “unsuccessful readers most often could not decode properly and even if they decoded, their decoding was not really focusing on meaning making” (Zhang et al., 2008, pp. 263-264). In relation to metacognitive awareness, the authors concluded that primary school children “appeared to be less systematic and less resilient in their metacognitive endeavours” (p. 265) than adult learners, which was also true for their use of cognitive strategies, asking for explicit training in comprehension monitoring and word-attack strategies that would help children solve the problems caused by limited linguistic knowledge.

Yet another study of young English language learners’ use of literacy learning strategies in Singapore was conducted by Gong, Zhang, Zhang and Kiss (2011). The focus of this large-scale study were socio-psychological factors and strategy use in reading and

writing of primary Grade 3 pupils. The questionnaire concerning reading strategies comprised 40 statements related to strategic behaviour of young learners, which were later classified into five different groups: 1. goal setting and planning; 2. comprehension enhancement; 3. attention management; 4. coping with unknown words; 5. monitoring and evaluation (Gong et al. 2011). The results revealed that boys and girls differed only in relation to coping with unknown words: girls reported more frequent use of strategies in this respect (Gong et al., 2011). The results also showed that self-reported strategy use was determined by children's motivation and out-of-school learning effort: learners with high interest in reading tended to use strategies more often, those with the highest self-efficacy reported using strategies more often, and learners who read after school reported using strategies more often. (Gong et al., 2011). The significance of the study is primarily in revealing that third-graders "did attempt to use different literacy strategies, though the average frequency of strategy use was not very high," and in pointing to the relations between the use of strategies and the learners' gender, motivation, self-efficacy and out-of-school efforts (Gong et al., 2011).

A recent study of young learners' strategy use has been conducted by Griva (2014). It was a large-scale study of fifth grade pupils' reading strategy use in Greek as L1 and in English as a foreign language. Skilled readers reported using more reading strategies, being more aware of using appropriate and effective reading strategies, and having greater flexibility in employing strategies than less skilled readers. Moreover, skilled readers used reading strategies similarly in L1 and in L2. On the contrary, less skilled readers employed fewer reading strategies in L2 than in L1 overall. The study also showed that pupils preferred problem solving strategies to global and support strategies. Gender differences were noticed in awareness of reading strategy effectiveness and frequency of application: girls were found to be more aware of their strategy use, while boys reported using strategies more often in both languages.

The effect of the age factor on reading strategies in English as L2 was studied by Šamo (2009). Although the participants were teenagers (aged 13-14), the findings may be generalised for other age groups as the study focused on different behaviour of successful and less successful learners/readers and the reading strategies the learners reported in verbal protocols. Analysis of verbal protocols describing the use of strategies while doing three cloze tests, revealed multiple use of strategies for meaning construction (Šamo, 2009). The author distinguished 26 reading strategies classified into five categories: 1. supervising strategies, like recognising loss of concentration, stating failure to understand, stating success in understanding, adjusting reading style, formulating a question, making a prediction, referring to lexical items that impede comprehension, confirming/disconfirming an inference, referring to the previous passage, and responding affectively; 2. support strategies, like skipping unknown words, and expressing a need for help; 3. paraphrase strategies, like using cognates, breaking lexical items into parts, paraphrasing, translating a word, and extrapolating from information in the text; 4. strategies for establishing coherence in text, like rereading, using context clues, reacting to the author's style, reading ahead, using background knowledge, acknowledging lack of background knowledge, and relating stimulus sentence to personal experience; 5. other strategies, like changing an answer (Šamo, 2009). The results showed that "good readers used a significantly greater number of strategies when reading the passages, whereas poor readers used significantly fewer strategies while solving the same cloze passages" (Šamo, 2009, p. 127). Moreover, successful readers used self-supervision strategies more often than less successful readers, while less successful readers mainly referred to words/phrases that impeded their comprehension, asking for help and acknowledging the lack of background knowledge. Successful readers also used a wider range of reading strategies, and used them more often than less successful readers; successful readers were more verbal, used their working memory more efficiently, remembered more

information, and monitored and evaluated their reading. However, the study indicated that there was no significant difference related to the period of L2 learning as the learners who studied L2 for a longer period were not better readers (Šamo, 2009). The author concluded that starting age should be combined with other factors, both contextual and individual, when determining difference.

Macaro and Erler (2008) studied the impact of strategy instruction on reading comprehension, reading strategy use and attitudes to studying French of a sample of 62 young learners aged 11-13, studying French as a foreign language (L2) in England. Pointing to the fact that “very few studies have focused on beginner readers,” the authors emphasized the complete absence of longitudinal interventions such as theirs (p. 90). The main aim of this longitudinal quasi-experimental researcher-manipulated study was to investigate how, after 15 months of strategy instruction, the measures of reading comprehension of the instructed sample compared to achievements of a group of 54 students who had received no instruction in reading strategy use; also, the authors wanted to determine if strategy instruction had any effect on motivation for studying French. The authors designed a questionnaire with a comprehensive list of reading strategies “which matched the reality of their context” and comprised 12 reading strategies and approaches to be used while performing a task, as a response “to the recent call by the researchers in the field for task-based strategy questionnaire“ (Macaro & Erler, 2008, p. 102). The twelve items described learners’ actions and behaviours when they saw a text of several sentences or a paragraph in French as L2. The findings showed that the intervention group outperformed the comparison group both in reading comprehension and reading strategy use. Moreover, the findings indicated that the patterns of strategy use changed in the intervention group in which learners tended to use more text-engagement strategies than teacher-reliance strategies. The authors concluded that upon intervention learners gained independence and self-confidence in reading strategy use,

while the comparison group “continued to show the signs of ‘teacher-reliance’ strategies” (Macaro & Erler, 2008, p. 110). Macaro and Erler’s (2008) Taxonomy of reading strategies is based on their Reading Strategies Questionnaire with twelve items describing a reader’s behaviour in seeing a short L2 text. It involves seven general approaches to reading, three inferencing strategies, a cognitive and a monitoring strategy, as follows:

1. *Wait for the teacher to explain the text.* This is considered a general approach to reading, showing that a child is not engaged independently, but rather relies on the teacher.
2. *Skip it.* Another general approach to reading in which a child avoids engagement “perhaps regarding it as an unnecessary or impossible task” (Macaro & Erler, 2008, p. 102).
3. *Try to understand each word.* A cognitive strategy involving full engagement with the text, but inappropriate “if time limitations, text length, or task demands operate against it” (Macaro & Erler, 2008, p. 103).
4. *Go back to a word or section and double-check that it makes sense.* A monitoring strategy involving a high level of engagement.
5. *Scan for words that look familiar and try to guess the meaning of the text from them.* An inferencing strategy involving gap-filling and problem solving using knowledge of the topic and familiar words.
6. *Scan for words that look like English and try to guess the meaning of the text from them.* An inferencing strategy involving using prior knowledge and recognizing cognates.
7. *Guess from the pictures what it’s all about.* An inferencing strategy that may be inappropriate if the children avoid reading the text, relying on pictures only.
8. *Invent a meaning.* A general approach that may be inappropriate if children avoid reading the text.
9. *Ask a friend what it means.* A general approach involving “reliance on someone who might be of higher proficiency” (Macaro & Erler, 2008, p. 103).

10. *Ask the teacher what it means.* A general approach involving reliance on the teacher rather than independent reading.

11. *Wait and see if the teacher says what it means.* A general approach involving both text engagement and reliance on the teacher.

12. *Look up many words in the dictionary or glossary.* A general approach involving engagement with the text, but requiring metacognitive evaluation of the text.

Macaro and Erler (2008) managed to “identify context-specific and task-specific combinations of reading strategies” (p. 91) and how the combinations changed over time due to instruction, showing that it was the effective use of these combinations that promoted learning.

In the research report on learning foreign languages in Grades 3-6 in British primary schools, *Languages Learning at Key Stage 2: A Longitudinal Study*, Cable et al. (2010) reported on the development of literacy in a foreign language (French, Spanish and German) and how it correlates with reading skill development in English as a native language of the children surveyed. The overall objective of the study was “to examine how children's attitudes, learning and attainment within languages and across the curriculum were affected” (Cable et al., 2010, p. 13). Reviewing previous Ofsted studies, the authors noted that observation had showed that development of oracy was given more attention than development of literacy, and that when literacy was concerned, reading played a more important role than writing (Cable et al., 2010). Although according to the authors “few examples of systematic reading were observed” (Cable et al., 2010, p. 6), when children read simple texts, they “could use a good range of strategies to work out meanings“ (p. 7). Drawing on previous studies, the authors emphasized the need to encourage learners to use both top-down comprehension processes, i.e. knowledge of the world and context, and bottom-up processes, i.e. decoding and getting meaning at word and phrase level, while

reading because it would help them understand the texts above their proficiency level (Cable et al., 2010). A later Ofsted study (OFSTED, 2011) gave an example of developing reading comprehension strategies with learners in Key Stage 3 “such as using cognates and similarities with other languages” (p. 44). Observation showed that in several lessons the teachers had asked children to explain what strategies they could use, thus referring to reading strategies explicitly. Besides being systematically taught about the relationship between spelling and sounds, children could use pronunciation guides with rules when reading aloud, which had helped them develop good pronunciation (OFSTED, 2011). This study offers a persuasive argument for explicit strategy instruction for improving children’s reading abilities.

Macaro and Mutton (2009) studied inferencing strategies of young learners of French in British primary schools. Children aged 10-11 were involved in a pilot study of the effects of strategy development on reading comprehension. The researchers compared reading comprehension of three groups of learners: the first group was exposed to special materials designed for developing inferencing strategies, the second one to graded French readers, and the third group continued with regular French classes without any strategy instruction. The results of reading comprehension showed that the groups exposed to intervention outperformed the group without intervention. Moreover, the group trained in inferencing strategy development outperformed the graded readers group both in inferencing and in learning function words. The authors concluded that further study of effects of strategy instruction was necessary to confirm the results of the pilot study described. Similarly, Chaaya and Ghosn (2010) researched reading progress of second grade pupils in an English-immersion school in Lebanon and found that eight months of explicit strategy instruction led to considerable improvement of children’s reading skills. Moreover, the guided reading approach and differentiated instruction in the programme resulted in improvement of

children's perceptions about reading, strengthened their self-confidence as readers and helped them develop as independent readers.

Aiming to reveal both the strategic actions and the motives, Walters (2007) took a socio-cultural perspective in researching beginning bilingual learners' strategies for learning to read in English. The key finding was that the strategies learners employed in order to be successful in reading in L2 were not always meaning-focused and that the strategies that children used for learning to read were very closely connected with the issues of identity: the need to fit in and belong to the classroom community, and the need to please the teacher, often hiding comprehension difficulties. The author suggested that, besides focusing on strategies, i.e. the things that children do, teachers should also focus on the issues of identity and assimilation (Walters, 2007).

Teachers and researchers can assess strategies by using a number of techniques: observations, note-taking, interviews, diaries, journals, think-aloud procedures and self-report surveys (Oxford, 1990). Oxford (1990) contended that the two very effective ways of assessing learning strategies were thinking aloud and self-observation: the former involves a learner's verbal flow of thoughts without any control or direction, while the latter requires conscious observation and analysis of a learner's own thoughts. However, in both procedures, "thoughts may be focused on a topic, such as a particular language learning task, especially if guided by a researcher" (Oxford, 1990, p. 195). Think-aloud interviews are particularly useful for assessing reading strategies, before and after strategy training. Oxford (1990) suggested using an interview guide with twenty questions related to a reader's general behaviour and his or her verbalised thoughts during a reading task. *Interview Guide for Reading Strategies* (Oxford, 1990) first identifies four types of general reading behaviour based on a reader's use of translation and guessing: 1. rarely translating, guessing contextually; 2. translating, guessing contextually; 3. translating, guessing noncontextually;

and 4. translating, rarely guessing. The *Guide* then describes twenty strategies as reader's actions: 1. keeping meaning in mind, 2. skipping unknown words (guesses contextually), 3. using context in preceding and succeeding sentences and paragraphs, 4. identifying grammatical category of words, 5. evaluating guesses, 6. reading title (makes inferences), 7. continuing if unsuccessful, 8. recognizing cognates, 9. using knowledge of the world, 10. analysing unknown words, 11. reading as though he or she expects the text to have meaning, 12. reading to identify meaning rather than words, 13. taking chances in order to identify meaning, 14. using illustrations, 15. using side-gloss, 16. using glossary as last resort, 17. looking up words correctly, 18. skipping unnecessary words, 19. following through with proposed solutions, and 20. using a variety of types of context clues (Oxford, 1990). The *Guide* is recommended to be used in a think-aloud interview with a learner doing a reading task and thinking aloud "describing what he or she is doing to accomplish the task," and the researcher recording his or her general behaviour and strategy use (Oxford, 1990, p. 195).

To conclude, research of young learner reading strategies has tended to focus on immersion or bilingual young language learners rather than on young learners in foreign language contexts. Furthermore, there has been rather "limited research on strategy instruction for early L2 literacy" (Cable et al., 2010, p. 29). Considering the above findings related to a number of benefits of strategic reading, our present study aims to shed more light on the types of reading strategies young learners use to aid comprehension in English as L2 and the contribution of individual strategies to reading achievement. More generally, Oxford (2001) emphasized that "[i]n light of this remarkable association between learning strategy use and positive learning outcomes, it is not surprising that students who frequently employ learning strategies enjoy a high level of self-efficacy, i.e., a perception of being effective as learners" (p. 363). Research gives an insight into the role of reading strategies in overcoming difficulties in the beginning stages of learning to read in English as L2 and emphasizes the

need for developing both top-down (global) and bottom-up (local) cognitive strategies as well as metacognitive processes (self-monitoring) for successful reading comprehension (Wilawan, 2012), but also stresses the need for considering individual differences, such as age, educational background, cultural background, life experience, affective factors and beliefs about language learning, in explicit strategy instruction (Anderson, 2005). Therefore, the next section deals with a great number of other factors that can potentially contribute to reading development and success.

2.2. Factors affecting success in early L2 reading

Young learners' development of English L2 reading skill is influenced by a number of factors, both intrinsic and extrinsic to the child (Alderson, 2005; Birch, 2008; Cameron, 2008; Griffiths, 2008; McKay, 2006; Saville-Troike, 2006). Some of these influences are age, motivation, aptitude, personality, gender, strategies, learning style, metacognition, autonomy, beliefs, L1, L1 reading skill, L2 oral skills, prior knowledge, a text read, teaching method, and exposure to L2 printed material. To be able to understand how L2 readers develop reading in English and how best to support them, teachers need to know "what factors complicate the acquisition of the knowledge and processing strategies for effective reading in English" (Birch, 2008, p. 11), or, in other words, what factors contribute to later proficient or expert reading and can be used as guidelines for intervention and improvement of the teaching of reading.

McKay (2006) proposed three critical influences on L2 reading success: 1. L1 literacy; 2. cultural and background knowledge; 3. oral language. Literacy in L1 can be very beneficial for learning to read in L2 because children can transfer some of their reading skills to L2 reading. Usually, when children start learning to read in L2, they have already had

some experience with L1 reading, and the influence of L1 literacy may be positive. Learners of L2 who can read in their L1 benefit from the positive transfer of this knowledge as “[t]he basic concept of deriving meaning from abstract written/printed symbols is the same in most languages, and the same top-down strategies for making inferences, using prior knowledge, and reasoning are applicable” (Saville-Troike, 2006, p. 156). However, McKay (2006) warned that positive influence can only be expected if “readers have crossed a linguistic threshold in their first language,” i.e. acquired an appropriate level of reading ability “that enables them to transfer their first language reading ability to the second language reading context” (p. 220). If children lack age-appropriate linguistic skills either in their L1 or L2, the influence can be negative. What is more, literacy in L1 can interfere with English L2 reading if children stick to processing strategies they generally use in L1 reading when the L1 and L2 syntactic systems and orthographies differ greatly (i.e. L1 being transparent/shallow, and English being opaque/deep) (Birch, 2008). Knowledge about learners’ L1 reading development is very useful when researching L2 reading of young learners, as it can help explain learners’ errors and/or difficulties with a reading task (McKay, 2006). Also, knowing learners’ schemata, i.e. background and cultural knowledge, is crucial when assessing their reading outcomes. Learners’ success in comprehending an L2 text is influenced by their knowledge of the topic, mainly embodied in their knowledge of vocabulary appearing in the text, in a way that culturally familiar topics will aid understanding. McKay (2006) pointed out that according to research “the processes of reading in first and additional languages are similar except for the shared prior (and cultural) knowledge that language learners bring to literacy development, and their lower proficiency in the target language in which they are learning to read” (p. 221).

Another important factor determining the progress in L2 beginning reading is the level of oral L2 knowledge, i.e. the amount of L2 vocabulary and basic grammar necessary

for understanding an L2 written text (Saville-Troike, 2006). Oral language basis has a very strong influence on L2 reading development because it involves the skills and knowledge necessary for learning to read, like phonological awareness, grammatical and vocabulary knowledge, and cultural understandings (McKay, 2006). Without oral language foundation “children’s ability to read and write will be severely hampered” (McKay, 2006, p. 222). There may be large individual differences among English L2 learners in respect to L2 oral abilities related to pronunciation of individual English sounds, or vocabulary and grammar knowledge, or cultural and background knowledge, necessary for comprehension. An important implication for assessment of children’s reading outcomes should be to avoid emphasizing reading over oral language and to adapt the reading task to the scope of reading ability prescribed by the grade curriculum.

Drawing on Bachman and Palmer’s (1996) model of language knowledge, McKay (2006) determined components of reading ability: 1. organizational knowledge, involving a) grammatical knowledge, i.e. processing at phonological, morphological, syntactic, semantic, and discourse levels, and b) textual knowledge, i.e. understanding the meaning of the text; and 2. pragmatic knowledge, involving a) functional knowledge, purposes behind the language, and b) sociolinguistic knowledge, i.e. cultural references and appropriateness to the context. McKay (2006) devised a list of contributing knowledge and skills that must be learned and consequently assessed. The list involved nine skills as follows: 1. ability to decode, i.e. to use graphophonic cues; 2. knowledge of a growing range of vocabulary, i.e. knowing and understanding growing vocabulary; 3. knowledge of a growing range of grammatical structures, i.e. understanding structures in reading; 4. ability to predict meaning from a range of cues, i.e. to use semantic, syntactic and graphophonic cues; 5. ability to draw on prior knowledge, and knowledge of different genres, i.e. to use personal experience and knowledge of the context; 6. ability to understand main ideas and connections, i.e. to find

specific information; 7. ability to take responsibility for their own learning, i.e. to find opportunities to read in L2 and to ask for help; 8. confidence and motivation, i.e. enjoying reading and being self-motivated; 9. ability to critically analyse and interpret, i.e. to find a message in a text. These skills stem from the theoretical framework and should be part of young learner English L2 reading curriculum.

Alderson (2005) reviewed a number of reading skills taxonomies, seeing their applicability both in planning classroom activities and in diagnosing a reader's problems. . Oposing the division of reading skills into 'higher' and 'lower', Alderson (2005) suggested that many of the reading skills were simultaneous and overlapping in the reading process. According to Alderson (2005), fluent reading "is rapid, purposeful, motivated, interactive (in terms of component skills as well as in the relation between knowledge and the printed word), it is comprehending (readers expect to understand), it is flexible, and it develops gradually" (p. 14). The variables of reading identified by Alderson (2005) include factors within the reader and linguistic features of the text that are significant for reading success. Reader variables include: the reader's background knowledge and knowledge of the topic, i.e. formal shemata (knowledge of language) and content shemata (knowledge of the world), the reader's cultural knowledge, the reader's knowledge of the language in which the text has been written, i.e. L2 orthographic, phonological, morphological, syntactic, semantic, discourse, and metalinguistic knowledge, as well as L1 knowledge and reading ability, and the reader's knowledge of text type (Alderson, 2005). As fluent reading is characterised by rapid and automatic word recognition, the ability to identify words and access their meanings distinguishes good readers from those who experience reading difficulties. Moreover, the depth of processing a text depends on a reader's motivation and affect. In L1 reading research the focus has been on the linguistic aspects of the text and the reader's vocabulary and metalinguistic knowledge, results showing that "[m]easures of readers'

vocabulary knowledge routinely correlate highly with measures of reading comprehension, and are often, indeed, the single best predictor of text comprehension” (Alderson, 2005, p. 35). On the other hand, in L2 reading research there has been emphasis on syntactic and lexical knowledge, with recent focus on rhetorical and metalinguistic knowledge, results showing that L1 literacy is a powerful predictor of L2 reading ability, but that “L2 linguistic knowledge is a consistently more powerful predictor, accounting for more than 30% of the variance” (Alderson, 2005, p. 38), i.e. that L2 knowledge is more important than L1 reading abilities for L2 reading development, and that for L1 reading ability to be transferred to L2 reading a linguistic threshold must be crossed. Although research evidence increasingly supports the language threshold hypothesis stating that “L2 readers need to have enough L2 knowledge (vocabulary and structure) so that L1 reading strategies and skills can be used effectively to help comprehend the L2 texts” (Grabe & Stoller, 2011, p. 44), Grabe and Stoller (2011) warn that there is little evidence to support the transfer of reading skills across languages, and since it cannot be assumed that such transfer is always good and positive, the authors express a need for more research on the interplay of a variety of factors influencing L1 and L2 reading development. Since all L2 readers are different in their L2 knowledge, L2 reading experience and topic knowledge, the threshold will vary depending on these differences. Still, L2 variables have a much stronger influence on L2 reading development than L1 reading knowledge (whose transfer may be severely limited), though L1 reading abilities play a significant role at beginning L2 levels, both as positive transfer influences, i.e. supporting comprehension through cognitive and metacognitive knowledge, motivation and attitudes, and as interference, i.e. interfering with comprehension and slowing the processing of reading (Grabe & Stoller, 2011).

With reference to L2 reading difficulty, Alderson (2005) reported research indicating that “the second-language reading problem should be reformulated, not as an Either / Or

question, but as a question of the interaction between the two abilities / knowledge sources” (p. 38). Metacognition plays a very important role in L1 reading and has a significant effect on reading performance: poor readers lack knowledge of strategies and how and when to apply them, and “over-rely on word-level cues” (Alderson, 2005, p. 41), which has important implications for L2 reading. While purposes for reading, motivation and interest, and reader affect may vary depending on the reading task, there are more stable reader characteristics that affect reading success, like personality, gender, intelligence, social class, and occupation, research results indicating that girls perform better in L1 and L2 reading than boys (Alderson, 2005). With respect to beginning English L2 readers, assessment of their reading performance has diagnostic implications, while extensive research of L1 young learners’ performance “is of very limited relevance to the assessment of reading in a second or foreign language” (Alderson, 2005, p. 59), where “an important component of developing reading ability must be increasing language proficiency” (p. 60).

Grabe and Stoller (2011) maintained that skilled reading consisted of two parts: lower-level processes and higher-level processes; the former processes refer to more automatic language processes like lexical access, syntactic parsing and semantic proposition formulation, while the latter refer to comprehension and comprise text model of comprehension, situation model of reader interpretation, background use and inferencing, and executive control processes. Both groups of components of reading abilities are equally difficult to develop and both of them are aspects of working memory processing, as described by Grabe and Stoller (2011):

The words that are accessed, the information that is cued grammatically, the emerging meanings of words, the formation of a text model of comprehension, inferencing and executive control processes are all active in working memory. In the case of lower-level processes, the activation is brief, one or two seconds, unless rehearsed or connected to new incoming information. In the case of higher-level processing, there is continual reactivation of main ideas as long as reading is continuing or the reader is reflecting on the text information. If new information is to be integrated so that an accurate update of meaning is formed, the information must be combined rapidly.

Working memory keeps *new* information active for one to two seconds while it carries out the appropriate processes. (p. 14)

Research has found that children's age influences their L2 learning, results showing that younger children, below the age of 9 or 10, if compared to older children, "follow a somewhat different order of acquisition, at least in some areas of grammar" and "rely more on imitation skills, repetition and implicit learning," while in learning vocabulary they "do not plan or rehearse, and even when they are taught these strategies, the training has little effect on their memory performance" (Pinter, 2011, p. 142). On the other hand, research indicates that older children, above the age of 9 or 10, "rely on their cognitive and analytical abilities and more explicit learning methods," and they are able to "use their memory strategies more effectively" (p. 142), while in learning vocabulary, their "efforts are accelerated by their increasingly effective use of memory strategies" and the ability "to reflect on their learning and assess their own performances" (p. 143).

Language learning strategies and styles are addressed by Oxford (2001) as two key variables that affect L2 learning, and her *Strategy Inventory for Language Learning* (SILL) has been extensively in use since 1990. Oxford (2001) classified language learning strategies into six types: 1. cognitive (L2 proficiency): reasoning, analysing, notetaking, summarizing, synthesizing, outlining, recognizing information to develop schemas (knowledge structures), practising; 2. metacognitive: identifying one's own learning style preference and needs, planning for L2 task, gathering and organising materials, arranging a study space and a schedule, monitoring mistakes, evaluating task success, evaluating success of any type of learning strategy; 3. memory related strategies, which relate to L2 proficiency: retrieving information in an orderly string (acronyms, sounds – rhyming, images – a mental picture of the word itself or the meaning of the word, a combination of sounds and images – keyword method, body movement – TPR, mechanical means – flashcards, location – blackboard); 4. compensatory strategies (significantly related to L2 proficiency): guessing from context in

reading, using synonyms in speaking; 5. affective strategies (significantly related to L2 proficiency): identifying one's mood and anxiety level, talking about feelings, rewarding oneself, using deep breathing; 6. social strategies (significantly related to L2 proficiency): asking questions to get verification, asking for help, talking with native speakers, exploring cultural and social norms. Oxford (2001) argued that "when the learner consciously chooses strategies that fit his or her learning style and the L2 task at hand, these strategies become a useful toolkit for active, conscious, and purposeful self-regulation of learning" (p. 365). Oxford (1990) classified memory, cognitive and compensation strategies as direct strategies, while metacognitive, affective and social strategies were classified as indirect strategies, with inevitable strategy groups overlap.

A group of factors that distinguishes L1 and L2 reading are non-linguistic factors related to readers' individual and experiential differences: L1 reading abilities, motivation for reading in L2, amount of exposure to L2 reading, reading text types and language resources available to L2 readers (Grabe & Stoller, 2011). The interplay of L1 and L2 non-linguistic factors is under-researched, although it can affect L2 reading development: children with limited L1 reading ability, low motivation for reading in L1 and low self-esteem as L1 readers, are not likely "to transfer many supporting resources to their developing L2 reading," nor to develop better abilities as L2 readers than the ones they already possess as L1 readers (Grabe & Stoller, 2011, p. 49). Without examining children's L1 reading skills, their self-esteem and self-perception as readers, their interest in and involvement with L1 reading, as well as their emotional response to reading, researchers and teachers are "more limited in deciding what skills and strategies to focus on and promote for transfer" (Grabe & Stoller, 2011, p. 49). Since readers' past experience in L1 and L2 reading influences perceptions of how successful they are as readers and how willing they may be to

perform an L2 reading task, L2 reading researchers should consider it in interpreting the results of L2 reading development studies.

Pinter (2011) contended that “the specific challenge of exactly how to teach L2 literacy in different contexts is still very much open to debate and research” because the factors like the children’s L1 literacy, the characteristic features of L1 and L2 and the transfer between them must be considered (pp. 144-145). Moreover, “literacy, i.e. reading and writing, both depend on and support the development of oracy, i.e. listening and speaking skills and spoken interaction” (Cable et al., 2010, p. 29). Since children learning a foreign language “often lack a solid spoken proficiency in the language,” they will not be able “to recognise familiar words in print,” which stresses the importance of phonological processing skills for predicting reading abilities in L2 (Pinter, 2011, p. 145). To compensate for the lack of vocabulary and oral language knowledge in L2, beginning readers depend on top-down processing and on transfer of L1 reading processes, which can be facilitated by the teacher by selecting the reading texts on familiar topics, and providing both visual and auditory input, so that the learners can guess the meanings of new words in context (Saville-Troike, 2006). Cable et al. (2010) emphasized the importance of oral skills in developing reading:

In the early stages of languages learning, a key element is pre-fabricated, formulaic chunks, set phrases learned whole, which have an immediate communicative value by enabling the learner to interact with others.[. . .] Progression in oracy depends in part, on the richness of the target language input, which can be provided by teacher talk plus the use of resources such as DVDs, and in part on a range of opportunities for pupils themselves to interact. In general, research to date suggests that oracy is the main focus of languages teaching in the primary school. (p. 28)

Results of a groundbreaking study of young learners’ L2 development were reported by Enever (2011). The ELLiE (Early Language Learning in Europe) project was a longitudinal and comparative study of early language learning in the seven different country contexts, i.e. Croatia, England, Italy, the Netherlands, Poland, Spain, and Sweden, in the period 2007-2010. It was one of the most extensive research studies of foreign language

learning of young learners carried out in Europe in recent years. The study aimed to show how different factors interacted in the outcomes of early foreign language learning, and found that both learner factors (attitudes, motivation, self-perception) and contextual factors (education policy, school level policy, immediate learning environment) influenced success of young language learners. A survey of reading skill was carried out in the last (third) year of the study by the end of the learners' fourth year of foreign language learning in regular school settings. A total number of about 1400 children, aged 10-11, from all seven countries, were given the same reading task – a comic strip in which some speech bubbles were erased and children were required to fill them from a choice of three or four options including a distracter. The level of discrimination of the test was found to be good or acceptable in all country contexts, with the level of difficulty varying from easy or very easy in two countries, through averagely difficult in two countries, to mostly difficult or very difficult in three countries. The study also showed that positive attitude to reading contributed to FL success. The section that follows explains the relationship between individual factors like motivation, positive attitude and self-confidence on reading outcomes of young L2 readers.

2.2.1. Individual factors

Individual characteristics, such as attitudes, preferences, self-confidence and motivation have been found to contribute to reading success (McKay, 2006, p. 228), and more generally to linguistic outcomes of young learners (Cable et al., 2010; Drew, 2009; Edelenbos et al., 2006; Enever, 2011; Mihaljević Djigunović, 2013, 2014; Mihaljević Djigunović & Lopriore 2011; Nikolov, 1999, 2009; Pinter, 2006, 2011; Saville-Troike, 2006; Szpotowicz, 2012). Moreover, individual differences like age, gender, cognitive style, reading strategies, aptitude, personality, working memory, self-regulation, anxiety,

willingness to communicate, and learners' beliefs have been found to affect success in L2 learning (Dorney, 2009; Ellis, 2008). Table 2.1 presents a comprehensive list of 10 categories of factors that may affect L2 reading achievement.

Table 2.1: Individual factors affecting reading outcomes (based on Saville-Troike, 2006)

Individual Factors
<ul style="list-style-type: none"> • Age
<ul style="list-style-type: none"> • Gender
<ul style="list-style-type: none"> • Cognitive style <ul style="list-style-type: none"> - Field-dependent — Field-independent - Global — Particular - Holistic — Analytic - Deductive — Inductive - Focus on meaning — Focus on form
<ul style="list-style-type: none"> • Reading strategies <ul style="list-style-type: none"> - Metacognitive - Cognitive - Social-affective
<ul style="list-style-type: none"> • Aptitude <ul style="list-style-type: none"> - Phonemic coding ability - Inductive language learning ability - Grammatical sensitivity - Associative memory capacity
<ul style="list-style-type: none"> • Personality <ul style="list-style-type: none"> - Anxious — Self-confident - Risk-avoiding — Risk-taking - Shy — Adventurous - Introverted — Extroverted - Inner-directed — Other-directed - Reflective — Impulsive - Imaginative — Uninquisitive - Creative — Uncreative - Empathetic — Insensitive to others - Tolerant of ambiguity — Closure-oriented
<ul style="list-style-type: none"> • Attitude
<ul style="list-style-type: none"> • Preferences
<ul style="list-style-type: none"> • Self-confidence
<ul style="list-style-type: none"> • Motivation <ul style="list-style-type: none"> - Integrative - Instrumental

Ellis (2008) proposed a less comprehensive list of 10 factors within 4 categories: 1. abilities: intelligence, working memory, language aptitude; 2. propensities: 1. learning style, motivation, anxiety, personality, willingness to communicate; 3. learner cognitions about L2 learning: learner beliefs; 4. learner actions: learning strategies. However, Ellis (2008) warns that there is no framework yet for studying these factors, with two main reasons emerging so far: the overlapping of the factors and the absence of a theory of individual differences in L2 learning. Still, individual factors have been a focus of a great body of research in the field of L2 acquisition and learning. Age has been studied as an important variable in overall L2 achievement, and its contribution to native-like pronunciation, grammar judgments and functional competence has been determined (Saville-Troike, 2006). In L1 learning, Critical Period Hypothesis identifies the age beyond which normal language learning is not possible due to the changes in the brain plasticity (Saville-Troike, 2006). In respect to L2 learning, it has been concluded that although young learners have the advantage of brain plasticity, older learners have “greater learning capacity, including better memory for vocabulary” as well as “[g]reater analytic ability” (Saville-Troike, 2006, p. 82). Consequently, “younger learners are probably more successful in informal and naturalistic L2 learning contexts, and older learners in formal instructional settings” (Saville-Troike, 2006, p. 84). Regarding age factor and reading success, age has been found to influence reading outcomes only in combination with other factors, and by correlating with the use of reading strategies (Šamo, 2009). As regards gender, most of the research focused on differences in linguistic/reading outcomes resulting from the interaction of gender with other individual factors, such as cognitive style, reading strategies, attitudes and motivation, or with contextual factors, such as opportunities for interaction and types of input and exposure (Enever, 2009; Griva, 2014; Lefever, 2010; Mihaljević Djigunović, 2013). Differences have been found in reading scores in relation to

interaction of gender with attitudes and motivation (Enever, 2009; OECD, 2014), and with reading strategies (Gong et al., 2011).

Another factor that is thought to contribute to L2 learning success is cognitive style, but its contribution is much less established than the influence of age, motivation and aptitude (Saville-Troike, 2006). Saville-Troike (2006) defines cognitive style as “individuals’ preferred way of processing: i.e. of perceiving, conceptualizing, organizing, and recalling information” (p. 87). Cognitive styles are related to personality variables and learning strategies and can be identified as pairs of characteristics, such as field-dependent and field-independent, global and particular, holistic and analytic, deductive and inductive, and focus on meaning and focus on form. Research has correlated all these traits with L2 linguistic success and found that some of them contributed to L2 proficiency, like inductive cognitive style, or young learners’ preferences for kinesthetic and tactile language activities, but there is agreement that the influence of cognitive styles on L2 proficiency should still be considered with caution (Saville-Troike, 2006). Together with personality factors, cognitive style is often included in general learning style. Personality factors include pairs of traits, like being anxious or self-confident, risk-avoiding or risk-taking, shy or adventuresome, introverted or extroverted, inner-directed or other-directed, reflective or impulsive, imaginative or uninquisitive, creative or uncreative, empathetic or insensitive to others, and tolerant of ambiguity or closure-oriented. For example, L2 learners who are self-confident, risk-taking, adventuresome, imaginative, empathetic, and tolerant of ambiguity have been found more successful in language learning (Saville-Troike, 2006). Anxiety has been widely researched and found to correlate negatively with L2 success, while the traits of being reflective or impulsive, inner-directed or other-directed, were not found to correlate with ESL achievement of children from several countries (Saville-Troike, 2006).

A significant factor that may explain L2 learners' success is motivation, because it "largely determines the level of effort which learners expend at various stages in their L2 development, often a key to ultimate level of proficiency" (Saville-Troike, 2006, p. 85). Moreover, motivation is the factor that both language teachers and learners mention when explaining success and failure, and a technical term used in applied linguistics and psychology, often with a wide spectrum of meanings (Dörnyei, 2014, p. 518). Dörnyei and Csizér (1998) argued:

L2 motivation is one of the most important factors that determine the rate and success of L2 attainment: it provides the primary impetus to initiate learning the L2 and later the driving force to sustain the long and often tedious learning process. Without sufficient motivation, even individuals with the most remarkable abilities cannot accomplish long-term goals, and neither are appropriate curricula and good teaching enough to ensure student achievement. (p. 203)

Motivation is a rather complex concept comprising interrelated factors like social attitudes, values, and other learner factors, all of which have to be measured separately (Rasinger, 2008). Defining motivation, therefore, is a complicated task. Dörnyei (2014) argues that motivation is a factor that determines "the direction and magnitude of human behavior or, in other words, the choice of a particular action, the persistence with it, and the effort expended on it" or, more precisely, it is responsible for "*why* people decide to do something, *how long* they are willing to sustain the activity, and *how hard* they are going to pursue it" (p. 519). The author consequently defines motivation as "the foundation of human behaviour" involving motivational (interest), cognitive (curiosity and engagement) and emotional (joy) variables (Dörnyei, 2014, pp. 519-520). However, L2 learning motivation does not integrate only the factors related to the learner, but also the factors related to the learning task, and those related to the learning environment, making a conglomerate of L2 motivational self system, a term proposed for study purposes by Dörnyei (2014), as a mixture of three components: 1. ideal L2 self, i.e. desired future self-image; 2. ought-to L2 self, i.e. attributes for avoiding possible negative outcomes; 3. L2 learning experience, i.e.

situation-specific motives related to the learning environment, like positive influence of success or enjoyable quality of a language course. Observation has shown that a vision component of L2 self does not automatically activate action and “task-specific cognitive plans, scripts, and self-regulatory strategies,” but rather depends on a number of conditions: having a desired future self-image which has to be sufficiently different from the current self, to be elaborate and vivid, to be perceived as possible and within the grasp of the learner, to be in harmony with expectations of the family, peers and the social environment, to be regularly activated, to be accompanied by relevant and effective strategies and by a counteracting feared possible self, i.e. “a vivid image about the negative consequences of failing to achieve the desired end state” (Dörnyei, 2014, p. 522). Two types of motivation have been recognized: 1. integrative, in which emotional or affective factors are the most powerful, like interest in the community or people who use L2; 2. instrumental, involving practical reasons, like passing the L2 course in school, or having better study and employment opportunities (Saville-Troike, 2006).

Children bring with them varying attitudes toward L2 reading and specific motivations for reading L2 texts and for performing L2 reading tasks, based both on their experience in L1 and L2 reading (Grabe & Stoller, 2011). Students’ self-esteem, self-perceptions as readers, emotional responses to reading, interest in reading and willingness to read and perform reading tasks, are considered important predictors of their academic success. Consequently, reading motivation and its different manifestations are deemed as important in L2 as in L1 reading contexts. Motivation for reading in L2 contexts has become a topic of much research in the last fifteen years, though it has attracted much less attention than motivation for general L2 learning. Interestingly, L2 reading motivation has been found to be “much more stable over time” in comparison to L2 learning motivation, which is “dynamic and constantly shifting”: even when a reader may not want to do a specific task,

“that person is still likely to self-identify as liking to read or not liking to read” (Grabe & Stoller, 2011, p. 122). Grabe and Stoller (2011) argued, therefore, that instead of taking L2 learning motivation as research foundation for L2 reading motivation, it is better to take L1 reading motivation. Indeed, L1 reading motivation research strongly stresses that “intrinsic motivation, self-efficacy and expectations for success predict both amount of reading and reading comprehension development” (Grabe & Stoller, 2011, p. 122). Wang and Guthrie’s (2004) study supported the implication that children’s text comprehension required not only cognitive processes, but also motivational processes and that “students’ reading is associated with both intrinsic and extrinsic motivation” (p. 162).

These views have been confirmed in a number of L2 studies. Edelenbos et al. (2006) stressed:

Two of the individual learner characteristics which seem most strongly associated with proficient performance in the target language are ‘motivation’, and ‘aptitude’. By the age of twelve or so, ‘aptitude’ seems to account for significant variation in performance. It is all the more important to understand therefore that ‘aptitude’ is not something which is fixed from birth. It is in fact a quality which can be developed and increased by the process of primary schooling. That is why in the early stages of primary schooling, the evidence suggests it is helpful not to focus exclusively on fun activities based solely on language-use but to supplement this with activities which help children to internalise meaningful concepts about language (thereby affording them a meta language with which to regulate their language-learning and -use) and also to enhance their sensitivity to sound and to underlying pattern, all of which seem associated with language-related aptitude. (p. 148)

Aptitude is understood as a specific language learning talent involving four components: 1. phonemic coding ability, which is very important at early language learning; 2. inductive language learning ability; 3. grammatical sensitivity; 4. associative memory capacity (Saville-Troike, 2006). Drawing on research in this field, Saville-Troike (2006) argues that although it is not necessary to possess all four components to be a successful L2 learner, “[t]he findings that aptitude is an important predictor of differential success in L2 learning holds both for naturalistic contexts and for formal classroom instruction” (p. 85). Alexiou (2009) also points out that tests of cognitive aptitude abilities can be used for

predicting literacy success of young learners. She studied young learners' cognitive skills and found significant relationships between children's aptitude and their L2 vocabulary development. Aptitude was defined as a special skill comprised of several subskills, independent of motivation, personality type, learning environment and the opportunity to learn, but affecting the speed of learning: people who learn quickly have high aptitude, while those who learn slowly and with difficulty, have low aptitude (Alexiou, 2009). Memory was regarded as a set of several kinds of memories, and the following were found to facilitate language learning: short-term immediate memory for pictures, associative short-term memory, and recognition memory (Alexiou, 2009). The study also showed that language achievement was strongly impacted by other aptitude components, such as inductive learning ability, visual perception, reasoning ability and spatial ability (Alexiou, 2009). Moreover, it appeared that "while learners favour phonological vocabulary at the onset of learning, that is to say, they learn words by sound only, orthographic recognition vocabulary very quickly exceeds phonological vocabulary," so that "a feature of just about all academically successful foreign language learners is that they have very large sight only vocabularies" (Alexiou, 2009, p. 56), supporting reading skill development. Cognitive abilities found in Alexiou's (2009) study related to certain task types, indicating the relationship between aptitude and learning styles of young learners, while difficulties in early reading appeared to be caused by individual differences in cognitive abilities, i.e. the speed of learning, making the researcher to conclude that cognitive tests of aptitude can be useful in predicting and anticipating children's literacy problems.

Motivation has been reported to correlate highly with contextual factors that influence reading, like aspects of the learning environment, i.e. teacher, and out-of-school exposure to L2, through, for example, extensive reading. Motivation "has been linked to attitudes" (Nikolov, 1999, p. 34) in a way that motivation and positive attitudes play a very important

role in children's L2 learning. A contextual factor closely related to motivation and attitudes is the L2 teacher, whose role is of great significance in an L2 young learner classroom (Pinter, 2011). Nikolov (1999) studied motivation and attitudes of Hungarian children aged 6 to 14 for the period of 8 years, using a questionnaire with the same open-ended questions for the entire study period, and found that sources of motivation differed in relation to children's age: younger children (aged 6-8) liked learning a foreign language because of fun and play, and because of the teacher, while older children (aged 8-11) added the reasons related to interesting lessons and to their own ability to use the language. Learners' answers to questions could be distributed into three age groups according to similarity: age 6-8, age 8-11, and age 11-14 (Nikolov, 1999). The oldest group of children (aged 11-14) rarely mentioned the teacher as the source of motivation, but pointed to interesting lessons and the ability to use the language. Nikolov (1999) concluded that "[t]he answers reflect a general positive attitude to the learning context, activities and tasks, and an intrinsic motive for participating in classes is present," connecting the results to "the strong emotional link to the teacher, which gradually weakens with time in all the three groups over the eight-year periods" (p. 45).

In their longitudinal study of reading strategies of young learners learning French as L2 in England, Macaro and Erler (2008) studied the changes in attitudes during the period of 15 months of reading strategy intervention. The study involved 116 young learners aged 11-12, whose attitudes to reading were elicited by using a smiley questionnaire with five-point ratings scale. At the beginning of the study there was no difference in attitudes towards any aspect of foreign language learning between the intervention and control groups, but at the end of the study the intervention group reported significantly more positive attitudes to reading in French, then positive attitudes to other three language skills, as well as to their spelling, their French textbook and their homework tasks (Macaro & Erler, 2008).

Mihaljević Djigunović and Krevelj (2009) reported on development of attitudes of Croatian young learners of English (aged 9-10), studied within the project Early Language Learning in Europe 2007-2010. The longitudinal study focused on children's attitudes to learning, teaching and using English, and to the development of their linguistic self-confidence. Although children's attitudes to reading became increasingly favourable in the course of the study, reading was not seen as a very popular activity either in Grade 2, as less than ten per cent reported liking to read in English in this early stage of learning to read in English, or in Grade 3, when slightly more than ten per cent reported reading as their favourite skill, while listening appeared to be the most liked activity. Mihaljević Djigunović and Krevelj (2009) also reported the change in the learners' linguistic self-confidence across the three years, reflecting the learners' metacognitive development in the course of the study: "the young learners became more realistic about their abilities" and "started relating their learner self-perception to the grades they were assigned by the teacher and to the amount of effort they were investing in learning at home" (p. 149). Mihaljević Djigunović (2015) reported similar results in an earlier study of attitudes of Croatian young learners learning English, French and German in experimental classes (conducted in 1993). Although these studies did not relate attitudes and motivation to linguistic outcomes, they are interesting as rare longitudinal studies showing how these individual factors change as children become more mature.

Mihaljević Djigunović (2013) investigated the interaction between contextual and individual factors with linguistic outcomes in early EFL learning in Croatia. Applying both quantitative and qualitative analyses, Mihaljević Djigunović (2013) found that both contextual factors, namely learning environment, out-of-school exposure to English, socio-economic status, and home support, and individual factors, like attitudes, motivation, and linguistic self-confidence, interacted with linguistic outcomes. Being part of the longitudinal

study ELLiE 2007-2010, the study presented Croatian context in which it was found that enjoyment in learning English and linguistic self-confidence highly correlated with listening comprehension. Overall, the study indicated that interactions of contextual and individual factors with linguistic outcomes changed with time, becoming rather dynamic: motivation was found to be unstable, fluctuating with time, dropping in Grade 3, and then increasing in Grade 4, probably as a result of “a feeling of achievement [. . .] [that] boosted again their motivation for EFL learning” (Mihaljević Djigunović, 2013, p. 172), while motivation for learning new words decreased in Grade 4, when reading as a classroom activity gained popularity and competed with the activity of learning new words (Mihaljević Djigunović, 2013). Language anxiety became prominent in Grade 4, reflected in children’s concern over tests. For Grade 2 learners teacher and classroom environment were important factors that influenced the children’s attitudes: they disliked when the teachers did not pay enough attention to them or when some peers’ behaviour interrupted interesting activities and play in the classroom (Mihaljević Djigunović, 2013). In respect to the learners’ self-confidence, the study showed that “with growing experience as language learners, YLs [young learners] seem to get more critical in their self-perception,” starting to see themselves as having the same, not superior, level of linguistic competence as their peers, but constantly comparing themselves to their peers and taking into account the grades awarded by the teacher (Mihaljević Djigunović, 2013, pp. 176-177).

Mihaljević Djigunović and Lopriore (2011) studied the relationships between young language learner characteristics and their learning achievements in the course of three years of the ELLiE project. Smiley questionnaires and oral interviews provided data that revealed changes in motivation and common trends in the children’s attitudes: with maturity, children’s preferences changed from fun activities to skills-related activities. At the end of the third year of the project, for children aged 10-11, children’s preferences for reading

increased, possibly as a result of “the children’s most recent experiences in FL reading and a sense of achievement in reading, as well as to their growing cognitive development” (p. 47). The study also showed that the ELLiE learners’ “attitudes, motivation and self-concept were associated with language learning outcomes” (Mihaljević Djigunović & Lopriore, 2011, p. 51). In the final year of the ELLiE study, 68.1 per cent of participating young learners expressed positive feelings about foreign language learning, 20.2 per cent expressed neutral reactions, while 11.7 per cent reported they did not like learning the foreign language (Mihaljević Djigunović & Lopriore, 2011). Similar results were obtained for attitudes to learning new words in the foreign language: 74.2 per cent expressed positive feelings, 17.8 per cent were neutral, while a small minority, 8 per cent, declared they did not like the activity of learning new words in the foreign language. The results were seen as an indication that “[k]nowing FL words seems to give YLs a feeling of achievement and contributes to their language confidence” (Mihaljević Djigunović & Lopriore, 2011, p. 45). The authors reported high correlation between motivation and self-concept and listening comprehension, and between motivation and self-concept and lexical diversity in oral production (Mihaljević Djigunović & Lopriore, 2011).

In a longitudinal study of language learning in Great Britain, Cable et al. (2010) reported on the impact of languages learning (French, Spanish and German) on attitudes and motivation of English children. The overall objectives of the three-year longitudinal study were “to examine how children’s attitudes, learning and attainment within languages and across the curriculum were affected” (Cable et al., 2010, p. 13). Children in the sample schools were asked about their experience of learning a foreign language. Generally, most of them were positive and reported liking interactive activities like games, songs, storytelling, and roleplays, because such activities made learning a foreign language fun. They also reported being “motivated to learn by the language learning process itself, including learning

new words and phrases, as well as by their perceptions of the wider value of languages for communication with other people” (Cable et al., 2010, p. 4). The authors see the development of positive attitudes to and motivation for second/foreign language learning as the main benefit of teaching languages at primary level. In respect to self-confidence, the study indicated that development of oracy in a foreign language enhanced some children’s self-confidence when reading and writing in their mother tongue (L1). Cable et al. (2010) argued that at the primary level there is not a strong gender differentiation in relation to motivation and attitudes:

Positive attitudes to learning languages in the primary phase on the part of both girls and boys is evident in the research reported above, although boys are clearly less favourably disposed by the time they enter secondary schools. Young children generally view languages learning as fun and enjoyable and are motivated by the kinds of activities their teachers provide to support their early learning. Older primary aged children are able to distinguish between learning and playing and the research evidence suggests that their motivation for languages learning gradually changes, as they perceive a purpose for speaking another language in communicating with others and in learning as a challenge in itself. (p. 44)

Somewhat different results were obtained in two more studies conducted with young learners in England and reported by Enever (2009). Qualitative studies, conducted in a two-year period, focused on primary children’s attitudes to foreign language learning and on the influence of societal factors on attitude change. The results showed that initial positive attitude to foreign language learning decreased with time, with boys showing a sharp decrease, probably “influenced by media images and the opinions of their elder siblings and parents” (Enever, 2009, p. 28). Enever (2009) concluded that “[t]he children of these two studies – and the boys in particular – appear to need help in building their motivational capital even at this early point” (p. 26).

As reported above, correlational studies point to significant contribution of some individual factors to L2 reading outcomes and L2 proficiency, while for some factors “it is difficult to establish causality, or even directionality: for example, “good learners” may

approach language tasks more actively because they are more proficient (not more proficient because they are more active), or because they are more self-confident” (Saville-Troike, 2006, p. 92). Less successful language learners “often have lower self-esteem than successful language learners” (Oxford, 2005, p. 62), comparing their L1 language skills to their L2 language skills and feeling rather limited. The above studies indicate strongly that individual factors are closely linked to contextual factors, interacting with each other and with reading outcomes of young learners. As stressed by Mihaljević Djigunović and Krevelj (2009), “[c]ontextual influences, both at macro and micro levels, are increasingly being recognized as a significant factor in attitudinal research” (p. 139), emphasizing the importance of comparative research of interrelations between linguistic outcomes and a group of variables involving both individual and contextual factors in a variety of contexts worldwide. The next section focuses on a number of contextual factors investigated in L2 early reading.

2.2.2. Contextual factors

Children’s reading is influenced by a number of contextual factors (McKay, 2006), research indicating that in EFL settings, factors like out-of-school exposure, may have a strong influence on linguistic outcomes of young learners (Drew, 2009; Lefever, 2010; Mihaljević Djigunović, 2013). Contextual factors refer to learning environment both in and out of school and may include teacher quality (education), teaching method, instructional input, socio-economic status (SES), home support, parents’ use of L2, availability of reading material, extensive reading opportunities, and out-of-school exposure, like out-of-school classes, opportunities for watching undubbed TV programmes/films, using the internet, playing computer games in L2, or using L2 for communication with foreigners/native speakers of L2. Table 2.2 shows the complexity of contextual factors, distributed into two

large groups depending on the formality of the learning environment. A growing body of research into young learners' L2 programmes in a variety of contexts has strengthened "the awareness that contextual factors may play an essential role" in early foreign language learning (Mihaljević Djigunović, 2013, p. 160).

A non-linguistic factor that has a great influence on linguistic factors, like fluency and automaticity in reading, is the quantity of exposure to L2 reading and L2 texts. There is a large difference in the amount of exposure in L1 and L2 reading. Grabe and Stoller (2011) maintained that "L1 readers spend years building up the amount of exposure to print needed to develop fluency and automaticity," while "most L2 readers are simply not exposed to enough L2 print (through reading) to build fluent L2 processing" (p. 50). The language threshold hypothesis stresses the importance of increased exposure to reading with the aim to develop learners' fluency by reading texts that are neither too difficult for them, nor too simple (Grabe & Stoller, 2011). Obviously, limiting reading experiences of young L2

Table 2.2: Contextual factors affecting reading outcomes

School level contextual factors	Out-of-school contextual factors
grade curriculum	out-of-school English classes
school profile: - availability of teaching materials - availability of reference books - L2 (English) books - authentic books for children in English - children's dictionaries - equipment - technology	exposure to English: - foreign TV programmes (series, shows) - foreign films - foreign cartoons (cable TV) - the internet (reading material, videos, video games, music in English) - music in English
teacher qualifications	interacting with English-speaking people
teacher attitudes	reading English storybooks or comics
teaching approaches	using dictionaries
classroom exposure to English	parents' support (practising, explaining, checking homework)
classroom processes and activities	siblings' support (practising, explaining, checking homework)
classroom arrangement	

readers to textbooks, or exposing them to very difficult authentic texts, are not appropriate teaching strategies. Children's L2 reading experiences should match their cognitive levels and interests, involving them in reading a wide range of texts. In Serbia, L2 reading as classroom activity mostly involves reading course book texts, and children are rarely exposed to narrative genres like authentic stories (Savić & Shin, 2013). Savić and Shin (2013) reported that in teaching English to young learners in Serbian state schools only 23 per cent of teachers had claimed using storybooks often in regular classes, so the authors concluded that "there seems to be a discrepancy between the respondents beliefs regarding the benefits of using storytelling in teaching young learners and the actual practice in Serbian primary classrooms" (pp. 67-68).

Drew (2009) reported results of introducing an extensive reading programme in teaching EFL to third- and fourth-grade pupils in a primary school in Norway. Upon the period of using story books (readers) in English with the experimental group, and introducing environmental print into the classroom to stimulate literacy, the experimental group outperformed two control groups. The results also showed that not only children's readings skills, but also their writing, listening and oral skills, were improved upon introduction of a literacy programme that involved regular extensive reading. Parental help and differentiation of reading materials helped sustain children's motivation and enthusiasm. Although a number of factors may have contributed to learner performance, teacher being one of them, the improvement of children's reading, writing, listening and oral skills in the experimental group was seen as a result of increased input through extensive reading (Drew, 2009).

Mihaljević Djigunović (2013) investigated key contextual factors influencing Croatian young learners' L2 learning processes and linguistic outcomes within the ELLiE study. She considered the interaction of key contextual factors with individual factors and correlated them with the linguistic results of children. Key contextual factors studied were

socio-economic status, type and amount of out-of-school exposure, school setting contexts, teacher qualification and teaching method. Data were obtained through interviews with teachers and school principals, teacher and parent questionnaires, and observation. Two groups of contextual factors were distinguished: 1. school level contextual factors, referring to the curriculum, school characteristics, like attitude to foreign language teaching, availability of teaching materials, L2 (English) books, authentic books for children in English, children's dictionaries, equipment and technology use, teacher qualification and attitudes to teaching young learners, teaching approaches, i.e. types of tasks and classroom exposure to L2; 2. out-of-school contextual factors, comprising out-of-school exposure to English through taking private classes, watching foreign TV programmes (films, cartoons, series, and shows), using the internet (watching videos, playing video games, listening to music in English), interacting with English-speaking people, reading English storybooks or comics, and practising English with parents and older siblings. The study showed that contextual factors had a great influence on individual factors, like motivation and attitudes, and caused their fluctuation with time. In Grade 2 children favoured mostly classroom activities that involved physical movement, while in Grade 4 they preferred typical language learning activities, like reading. In Grade 2 children disliked certain teacher and peer behaviour (teacher not paying attention to them or peer interrupting an enjoyable activity), while in Grade 4 they rarely complained about the teacher, but disliked certain classroom activities, like writing and tests. However, children's attitude to classroom arrangements did not change over time as most of them "preferred the traditional classroom arrangement both in Grade Two and in Grade Four" (Mihaljević Djigunović, 2013, p. 175). The contextual factors that correlated highly with linguistic outcomes of Croatian young learners were exposure to English outside school (taking private lessons and reading English books and comics), experience of the teacher (teacher specialist qualification and longer experience), the

level of use of English in the classroom (high level of L2 use by teachers and learners), using the internet and watching TV, discussing English lessons with parents, and the socio-economic status, in terms of parents' education. Mihaljević Djigunović (2013) concluded:

Contextual factors presented themselves not only as relevant but often as key variables in explaining this phenomenon. The interactions they entered with individual learner characteristics and with linguistic outcomes threw more light on both the processes and outcomes of early EFL learning. Of special significance is the finding that all examined factors and their interactions changed with time, thus creating highly dynamic relationships. (p. 180)

Exposure to L2 as prescribed by a national curriculum and as classroom practice is recognized as one of key factors of L2 learning by European Commission (2012). The study stated that “there is a lot of evidence suggesting that the more foreign language input pupils receive, the greater will be their proficiency“ (European Commission, 2012, p. 12). However, the study reported that, although foreign languages in primary grades are compulsory in most European countries, “the time allocated to them, as a proportion of the total taught time, does not generally exceed 10% in the countries where the number of hours to be spent on particular subjects is determined at central level,” and that in many countries it is even lower (European Commission, 2012, p. 10). In relation to classroom exposure to L2, European Commission (2012) stressed that “according to students, teachers do not 'usually' use the target language in the classroom, although they still use it on some or frequent occasions” (p. 12), pointing to the need “to make sure that the target language is used during language lessons both by teachers and pupils” (p. 12)

The ELLiE study (2007-2010) evidence indicated that “the interplay between these variables affects the development of the early language learner, particularly in terms of their linguistic achievement, attitudinal development and motivation” (Lopriore & Krikhaar, 2011, p. 62). Enever (2011) concluded that in the ELLiE study “it was possible to identify good levels of achievement by children in a number of schools within each region, with well-trained teachers, good resources, lively engaged classes and school environments conducive

to FLL” (p. 148). Contextual factors were investigated within three large groups of variables: the school factors, the teacher’s role, and parental influence. Table 2.3 presents contextual variables structured in the following way: 1. wider social context, involving national FL education policy, and school setting; 2. language learning milieu, involving significant others; 3. the immediate language learning environment, involving nature of instruction in the class, and out-of-class exposure to FL (Lopriore and Krikhaar, 2011).

Lopriore and Krikhaar (2011) investigated the influence of school factors on L2 development in seven different country contexts. Several large groups of factors were considered and found highly significant: the status of FL both in the school and in the curriculum, availability of FL materials and resources, teachers’ in-service training for language improvement and teaching methodology updates, participation in international projects and exchanges, and family-school connections (see Table 2.3 for more details). Positive influences of the above factors were reported as “consistent and developmental increase in both oral production and aural comprehension over the study period [and] consistently positive feelings towards the FL” (Lopriore & Krikhaar, 2011, p. 67). More precisely, significant correlation was found between the parents’ educational background and the childrens aural comprehension scores (Lopriore & Krikhaar, 2011). Lopriore and Krikhaar (2011) concluded that “[s]chools and their internal organisation – together with their immediate social context, the families’ socio-economic status (SES) and the type of teacher-learner and school-family relationship – represent important aspect to monitor over time” (p. 74).

Recent evidence of the significance of teacher’s role in early language learning has been given by Tragant and Lundberg (2011) within the ELLiE (2007-2010) research project. In all country contexts the favoured model of teacher training was generalist primary teacher with excellent language skills, i.e. possessing level B1/B2 of *Common European Framework*

Table 2.3: Contextual factors found significant in the ELLiE 2007-2010 research project
(Lopriore & Krikhaar, 2011, p. 63)

Wider social context	Language learning milieu	The immediate language learning environment
<ul style="list-style-type: none"> • National FL education policy - FL as a second or third language (in bilingual regions) - total required curriculum time for FL - frequency and scheduling of FL lessons (number of lessons per week, lesson duration) 	<ul style="list-style-type: none"> • Significant others - parents' support - parents' attitude - parents' educational level - parents' use of the FL professionally (interaction with FL speakers) - the peer group 	<ul style="list-style-type: none"> • Nature of instruction in the class - teaching methodology - teaching materials - amount of L1 used in lessons - interaction in the classroom level of challenge
<ul style="list-style-type: none"> • School setting - location - socioeconomic and sociocultural status - children's language backgrounds - provision of foreign languages - class sizes - frequency of scheduling of FL lessons - the FL teacher (type of qualification, teaching experience at primary level and in FL teaching, FL proficiency, international teacher exchanges) - FL teaching materials and technical equipment: audio/CD players, video player, access to computers, Interactive White Board, FL library materials: simplified books, authentic children's picture story books and paperbacks, children's dictionaries - foreign language in the educational milieu: FL exposure outside the classroom, international school activities and exchanges, FL facilities outside the classroom - parental involvement: involvement in the child's FL learning, attitudes towards early FLL - the principal 		<ul style="list-style-type: none"> • Out-of-class exposure to FL - type and amount of exposure - watching subtitled films / cartoons / series in English on television - cable television and internet - playing video / computer games - listening to music - reading books, magazines, comics - interaction with FL speakers (during holidays or at home)

for Languages and trained in foreign language teaching. Aiming to determine teacher factors leading to success in teaching young learners in seven different contexts, Tragant and Lundberg (2011) investigated the nature of instruction that correlated with high linguistic scores of the learners in the longitudinal study. Surprisingly, it was found that “successful foreign language learning can take place under different conditions and can be achieved in quite different ways” (p. 99), either when teachers used the communicative approach or traditional practices, spoke L2 almost all the time or used L1 considerably, was highly fluent in L2 or not, used a coursebook or prepared their own materials. What appeared to be the common conditions in all case studies presented were the teachers’ positive attitudes to teaching L2 and their beliefs in the benefits of early L2 teaching/learning, the teachers’ ability to create a safe and supportive relationship with the learners and to keep them on-task, as well other contextual factors that may have played an important role, like family background of children and high SES, rather homogenous school environment (low percentages of migrant children), and out-of-school exposure to L2. Consequently, Tragant and Lundberg (2011) concluded that the role of teacher and the effects of out-of-school factors needed to be considered together.

Another recent study performed by Munoz and Lindgren (2011) focused on parental influence on young learners’ attitudes and progress in L2 in the final year of the longitudinal survey of young learners’ linguistic achievements within the ELLiE 2007-2010 research project, when the children were 10-11 years old. The focus was on the correlation between children’s L2 proficiency, expressed as listening and reading comprehension, and out-of-school variables related to home environment. The data was collected through parents’ questionnaire and interviews with teachers and focal learners, while reading was measured with the comic strip containing seven multiple choice items (the same reading tool used in the present study). The results showed that children’s exposure to L2 outside school was 5 hours

a week on average, but variations across country contexts were rather large (from three to eight hours per week). Moreover, a breakthrough of activities related to exposure showed that most of L2 exposure happened through listening and least through reading (on average, an hour and a half and half an hour, respectively), common types of exposure being listening to music, watching subtitled films, playing computer video games, speaking in the FL and reading (Munoz & Lindgren, 2011). Statistical analyses showed that factors that had a significant influence on reading scores were exposure to the FL, father's use of the FL at work, mother's use of the FL at work, and interaction with FL speakers on holiday (only marginally significant), while parents' level of education and interaction with FL speakers at home did not make a unique contribution that was statistically significant (Munoz & Lindgren, 2011). Within the five exposure activities included in the questionnaire, the activities with the strongest explanatory power for reading scores were watching films, listening to music and playing video/computer games, while the activities of reading books, magazines or comics, and speaking with someone, had no significant predictive power (Munoz & Lindgren, 2011). With reference to parents' influence on children's scores, the results interestingly indicated that parents' educational level was not as strong influence as parents' active use of the FL at work (Munoz & Lindgren, 2011, p. 115). The interviews with focal learners provided more information on the kind of out-of-school exposure and influence of home environment on the learners L2 proficiency, i.e. on their listening and reading comprehension. With respect to the sources of exposure to L2 at home, the most frequent source mentioned both by learners and by their parents were television and songs in L2, then radio and computers/computer games, and these sources varied across the seven country contexts, television being most popular with Dutch and Swedish students, computer games with Swedish and Croatian, and songs with Polish and Italian students (Munoz & Lindgren, 2011). Children also claimed having L2 books at home, dictionaries being the most frequent

type of books, and that they rarely interacted with L2 speakers, which was also reported by parents in all country contexts. Teachers also provided information about exposure to L2 at school and at home, stating that computer games and the use of the internet were the most frequent exposure activities, followed by music, while film and television were common only in countries that provided subtitles. What is more, one third of teachers evaluated the impact of digital media as positive in terms of pupils' linguistic development and motivation (Munoz & Lindgren, 2011). Two thirds of the teachers mentioned that children were exposed to L2 a lot outside school, giving a number of sources, like television, computer games, the internet, music, films, travelling, and FL lessons outside school. However, most teachers claimed that FL exposure in school outside the FL classroom was rare, occurring mostly once or twice a year (Munoz & Lindgren, 2011). Munoz and Lindgren (2011) concluded that "parents, teachers and children provided a similar picture, highlighting the impact of exposure, and in particular of subtitled television and films," which gave children an advantage of linguistic development through a complex and active cognitive processing of the foreign language with the support provided by the pictures (p. 118). The study proposed that teachers could "enhance pupils' awareness of the possibilities for out-of-school contact by incorporating tasks that bring the out-of-school context into the classroom," since the impact of English in media is likely to increase and provide more input for young learners (Munoz & Lindgren, 2011, p. 119).

In his investigation of reading, listening and communication skills in English of children who had not yet had any formal English instruction in Island schools, Lefever (2010) provided results showing, besides other indications, that ample exposure to English through a variety of media outside school, contributed to basic literacy skills development, with very little gender difference. Moreover, the duration of exposure to English as L2 had a significant influence on success, i.e. the children with the longest exposure to English achieved the best

linguistic results (Lefever, 2010). A very important result of the study related to beginning reading, stating that “children as young as seven years old are beginning to understand written English” (Lefever, 2010, p. 14). The best results were obtained at the word recognition level and matching a word to a picture, indicating that children were becoming literate in English without formal instruction.

Lightbown (2000) argued that “[t]he most important reason for incomplete acquisition in foreign language classroom settings is probably the lack of time available for contact with the language” (p. 449) in a variety of contexts and out-of-school. Hayes (2014) reviewed research and documentation related to teaching English worldwide and proposed “[c]onsiderable out-of-school exposure to English in the local environment, including through films and television programmes in English which are subtitled rather than dubbed into learners’ L1” (p. 28). This proposal is in line with the findings of the ELLiE 2007-2010 research project that saw undubbed films and television series as a big advantage for children in several country contexts participating in the study (Lopriore & Krikhaar, 2011).

In their review of a research of fourth-grade learners’ oral reading fluency, Pinnell, Pikulski, Wixson, Campbell, Gough, and Beatty (1995) stressed the importance of instructional practices for fluency development. Both fluent and non fluent readers in the study reviewed by the authors, read often in the classroom, but reading as a classroom activity did not seem to have much influence on reading ability of the children. What indicated a significant difference was the fact that fluent readers had more opportunities to read books of their own choice, while non fluent readers were not asked to read own selections so frequently. Pinnell et al. (1995) concluded:

It seems clear that in their classroom instruction, non fluent readers are asked to do less reading involving personal choice than are their fluent reading counterparts. This may be of some concern, since being able to select one's own reading materials can be especially motivating and is likely to sustain reading for a longer period of time. Fourth-grade students who display the type of oral reading that was characterized as

non fluent in this study may need as much, if not more, motivation and opportunity for meaningful reading activities as their fluently reading counterparts. (p. 32)

Although some of the above research did not specifically target the influence of contextual factors on reading processes and outcomes, the findings may be fully relevant to reading skill development in a young learner context because the distinction of skills and factors interplay is not possible. If contextual factors are absent or rare, children's attitudes and motivation change, leaving much space for experiencing difficulty or failure. Thus, the next section gives more information about sources and types of reading difficulties.

2.3. Reading difficulties in early L2 reading

This section explores literature studying reasons behind reading difficulties in young learner early reading in English as EFL/ESL, and presents classifications of reading difficulties of early reading development. A distinction is made between general reading difficulties and specific reading difficulties, i.e. impairments or disorders, which are not the focus of the present study. Theoretical considerations of reading difficulties are made at two levels: word level, i.e. oral reading difficulties, and text level, i.e. reading comprehension difficulties. Considering the fact that reading difficulties are rather prominent globally (International Reading Association 1999, 2007; Montgomeri, 2007; OECD, 2014; Rasinski, 2013b; Westwood, 2008) and that failure in achieving high standards in reading ability can negatively affect academic and career prospects, it is very important to study potential sources of reading difficulty, with the principal focus on beginning reading/early reading development in EFL/ESL/L2 contexts. Although EFL/ESL learners are at severe risk of failure in reading (Westwood, 2008), there is very little research in this field, especially in early/beginning EFL/ESL reading. For this reason, we start from reference material addressing mainly reading difficulties of young learners of English as a native language.

Ziegler and Goswami (2005) argued that beginning readers face three main problems of reading acquisition: availability, consistency, and granularity. These problems are related to the process of learning and applying the mappings between sounds and symbols, i.e. phonological recording. Becoming literate begins with “acquisition of the system for mapping between symbol and sound,” while “mastery of this system allows children to access the thousands of words already present in their spoken lexicons” (p. 3). Phonological recording allows children to record words they have heard, but have never seen before. However, there are three serious problems that beginning readers are faced with: first, the availability problem, which “reflects the fact that not all phonological units are consciously (explicitly) accessible prior to reading,” which requires further cognitive development; second, the consistency problem, which “reflects the fact that some orthographic units have multiple pronunciations and some phonological units have multiple spellings,” which slows reading development; third, the granularity problem, which “reflects the fact that there are many more orthographic units to learn when access to the phonological system is based on bigger grain sizes as opposed to smaller grain sizes,” i.e. “there are more words than there are syllables, more syllables than there are rimes, more rimes than there are graphemes, and more graphemes than there are letters” (p. 3). Ziegler and Goswami (2005) contend that reading proficiency can be achieved once these three problems are solved.

Grabe and Stoller (2011) contended that reading difficulties appear as a result of inefficient operation of lower-level and higher-level comprehension processes. The authors explained that this happens when the text is too difficult, when the reader does not have adequate background knowledge or linguistic knowledge, or when the reader has not had enough practise in reading for developing reading efficiency. This can be the case both with L1 and L2 readers. In such situations, L2 readers may try to understand the text by translating it slowly and mechanically or by using past experience to form a situation model. Neither of

these techniques will aid comprehension: slow translation will disable working memory to function efficiently, while the situation model formed on the basis of the reader's past experience will not be connected to the text. Translating or guessing as coping strategies of L2 readers generally result in poor comprehension and, if this experience is repeated, L2 learners "would lose motivation to become fluent readers" (Grabe & Stoller, 2011, p. 24). Grabe and Stoller (2011) see the solution to the problem of poor comprehension in engaging L2 readers in "reading for many hours at text- and task-level appropriate to their abilities," i.e. in "extended exposure to meaningful print" that can be read efficiently (p. 24). Apparently, "reading *develops gradually*; the reader does not become fluent suddenly, or immediately following a reading development course," but rather as a result of "long-term effort and gradual improvement" (Grabe, 1991, p. 379). Rapid and accurate word recognizing ability "has been seen as an important predictor of reading ability, particularly with young readers" (Grabe, 1991, p. 385). Moreover, research suggests that "aspects of syntactic processing are, in relevant sense, reflex-like" and can be explained "in terms of grammar network including neuronal assemblies that act as discrete grammatical sequence detectors" (Pulvermuller, Shytirov, Hastings, & Carlyon, 2008, p. 251). However, both L1 and L2 readers "need countless hours of exposure to print (that they are capable of comprehending successfully)" in order to develop automaticity "in using information from grammatical structures to assist them in reading" (Grabe & Stoller, 2011, p. 18), and for automatic word recognition (Grabe & Stoller, 2011, p. 15).

A delay in L1 literacy and/or English L2 literacy does not have to mean that a child is experiencing learning difficulties (McKay, 2006). Reading difficulties may be temporary, resulting from some external factors, like migration, and can be improved with proper attention and help by the teacher. According to McKay (2006), remedial intervention in L1 literacy will benefit the child's L2 literacy development:

Over time, through exposure to oral language experiences, and gradually to simple written texts in the target language, most children with first language literacy delay will improve in their literacy in the target language. They will improve even more in their literacy development in the target language if their first language literacy skills are also enhanced at the same time. If a teacher has carried out all the checks over some period of time and yet seen very little improvement in reading, it may then be necessary to refer the child to a learning difficulty specialist. (pp. 232-233)

As a rule, if a child is experiencing L2 reading difficulties, the first action of the teacher should be checking the child's L1 reading skills, observing him or her in classroom activities, and talking to his or her parents about his or her attitudes to reading and reading practice at home (Birch, 2006).

Westwood (2008) distinguished between two groups of possible reasons of reading difficulties: 1. outside influences; 2. reasons intrinsic to the learner. The former group of factors involves teaching method, teacher effectiveness, time allocated for learning to read, language environment of the learner, socio-economic status, and cultural factors, while the latter group comprises child's cognitive abilities, phonological awareness, psychological processes, attitudes and motivation, and affective response to failure. Alexiou (2009) highlighted that some psychologists indicated that "differences in cognitive abilities and cognitive development may account for the difficulties encountered by some young learners in early reading and writing" (p. 47). What is more, a very important distinction must be made before more information about the reasons of English L2 reading difficulties are explained in more detail: unlike English L1 readers who may experience reading difficulties associated with speech disorders which result from "intellectual development problems, neurological impairment, or inability to discriminate sounds in hearing" (Birch, 2008, p. 174), English L2 readers may experience pronunciation difficulties, i.e. 'accents', due to "nonnative motor commands or movements of the mouth" (Birch, 2008, p. 174) in no way connected with developmental problems or impairments. These pronunciation problems will

be regarded as reading difficulties of L2 beginning readers if they reflect poor phonological skills and interfere with fluent oral reading.

Teaching method has been recognized as one of major causes of reading difficulties, and has long been the issue of much debate and controversy (International Reading Association, 1999, p. 2). Westwood (2008) argued that “research studies indicate clearly that children need to be taught explicitly the principles for applying phonic knowledge (letter-to-sound correspondences) in order to decode and spell unfamiliar words” (p. 4), but added that a balanced approach to instruction was necessary for achieving the best results: a combination of developing phonic decoding skills and teaching whole word recognition, supported with explicit teaching of comprehension strategies. In 1999 the International Reading Association, based in the United States of America, issued a Position Statement aiming to clarify their own stance on reading method. The Statement pointed out:

There is no single method or single combination of methods that can successfully teach all children to read. Therefore, teachers must have a strong knowledge of multiple methods for teaching reading and a strong knowledge of the children in their care so they can create the appropriate balance of methods needed for the children they teach. (p. 2)

The Statement stressed that research had confirmed that in applying exclusively one reading method (e.g. phonics method, literature based method, or language experience method) there had always been children who successfully mastered reading skills and those who had experienced severe difficulties. Ziegler and Goswami (2005) reported that research had shown that the rate of learning to read in English is slower than in other alphabetic orthographies, but argue that it “does not seem to occur because of variations in teaching method across different countries,” but rather “due to the relatively low orthographic consistency of English” (p. 13).

Still, the issue of reading method in teaching English remains controversial for several reasons: despite improvements of teaching methods, there are children who struggle with

reading; it is difficult to carry out reading research, and even more difficult to interpret research results; different methods tend to use the same activities, which makes defining specific methods for teaching beginning reading rather complex (International Reading Association, 1999, p. 3). The Statement proposes a definition of reading as guidelines for instruction, concluding that a skilled reading teacher should be “a professional who knows what this definition means, can assess children in light of the definition, and then can adjust the balance of methods so that each child is taught what he or she needs to learn” (p. 3) The definition of reading provided by the International Reading Association (1999) is rather comprehensive:

Reading is a complex system of deriving meaning from print that requires all of the following: the development and maintenance of a motivation to read; the development of appropriate active strategies to construct meaning from print; sufficient background information and vocabulary to foster reading comprehension; the ability to read fluently; the ability to decode unfamiliar words; the skills and knowledge to understand how phonemes or speech sounds are connected to print. (p. 3)

The definition places large demands on the teachers of beginning reading and requires them to possess solid knowledge of the nature of the reading process and of reading methods, and to be flexible in applying them, in other words, to make a difference in a child’s learning, they should be “knowledgeable, strategic, adaptive, and reflective” (International Reading Association, 2007, p. 1). In summary, “to be effective, foreign language teaching needs well qualified foreign language teachers” (EC, 2012, p. 9). International Reading Association (2007) proposes six key areas of expertise required for becoming an effective reading teacher: 1. foundation in research and theory; 2. word-level instructional strategies; 3. text-level comprehension strategies; 4. reading-writing connections; 5. instructional approaches and materials, 6. assessment. Research in the area of word-level instructional strategies consider phonemic awareness and phonics as foundational abilities because “children who are systematically taught to manipulate spoken phonemes show significant improvement in both their spelling and word recognition ability,” while “explicit phonics instruction supports

children of all backgrounds and skill levels in learning the alphabet, improving their spelling, and decoding new words — leading to gains in their reading ability” (International Reading Association, 2007, p. 3). The area of word-level instructional strategies also includes syntax and semantics, and attention to word meanings, all deemed crucial for developing automaticity and fluency. Research in the area of text-level comprehension strategies has shed light on the role of vocabulary development, fluency, comprehension strategies, strategies for content area reading, and critical literacy, in enhancing learners’ comprehension of a variety of text types (International Reading Association, 2007). Obviously, reading teachers’ role in teaching beginning reading skills is very complex and demanding, which makes teacher effectiveness and preparation the keys to providing conditions for success in teaching/learning to read.

Results of a very recent research in the field of cognitive neuroscience have shed more light on how reading skill develops in children and other beginning readers. Yoncheva, Wise and McCandliss (2015) reported the results of a study performed in the United States of America (New York University, the University of Texas, Stanford University and Stanford Neuroscience Institute). Starting from the premise that “success in early reading acquisition depends on a learner’s ability to master the association between spoken words and their corresponding visual word forms,” and that this skill can be developed in two ways, i.e. “a student may attend to individual letters and link them to sounds within a word, thus focusing on sublexical grapheme–phoneme mappings” or he or she “might attend to larger *grain sizes*, such as letter clusters, onsets, rimes, or even whole words” (Yoncheva et al., 2015, p. 23), the authors aimed to compare the effectiveness of two ways of teaching reading: phonics approach, i.e. grapheme-phoneme mapping (GP), and whole-word approach (WW). The researchers studied brain circuitry, i.e. brain responses, supporting skilled reading to find out if both approaches were equally effective. Surprisingly, the results showed that brain

responds differently to different approaches of learning new words. In GP approach, brain responses were very strong in the left hemisphere in the course of reading taught words, in reading unfamiliar words, and in reading the text with taught words, which showed that the process of decoding was active and effective. In WW focus, the left-lateralized “perceptual expertise for visual words” was not observed, indicating “lack of engagement of left-lateralized linguistic processes to any recently trained, control script,” in spite of “identical stimulus exposure and training times for the two scripts” (Yoncheva et al., 2015, p. 29). Since “orthographic as well as phonological processes are predominantly left-lateralized in fluent readers” (Yoncheva et al., 2015, p. 24), instruction in initial learning of reading should engage the left brain hemisphere by focusing on grapheme-phoneme mappings. The study also showed that “greater left lateralization was evident for words in the GP script that were not previously trained relative to words in that script that were specifically trained, potentially indicating effortful decoding processes” (Yoncheva et al., 2015, p. 29). Moreover, the fact that “only GP focus training produced novel script assimilation into literate adult’s reading expertise lends further support to the idea that selective attention to GP mappings in particular is central in biasing which brain networks get trained, and consequently honed, as a student progresses with training” (Yoncheva et al., 2015, p. 31) stressed the significance of developing grapheme-phoneme mappings in training readers, “with implications not only for recognizing trained visual words but also for self-teaching of unfamiliar but decodable words” (Yoncheva et al., 2015, p. 32).

In conclusion, new brain research supports phonics as an approach in teaching reading in English and developing fluent readers. However, in English L2 early reading development experts suggest not using it as an exclusive approach, “but combined with top-down, and meaning-focused approaches to text” to help children become skilled readers (Cameron 2008,

pp. 133-134). The main obstacles to becoming fluent L2 readers are difficulties at word level, which will be further elaborated in the next section.

2.3.1. Oral reading difficulties

Difficulties at word level are connected to skills of decoding and word identification, and involve problems in automatic recall, using phonic knowledge and orthographic units within the word, and using analogy and the context of the sentence or paragraph (Westwood, 2008). Automatic recall enables readers to access the word automatically from their sight vocabulary, while phonic knowledge helps them to decode a word very quickly by associating the letters with equivalent phonemes; after several encounters of the same word, usually 5 to 7, it becomes part of sight vocabulary. However, beginning readers and children with reading difficulties can have significant difficulties in word identification or in retrieving words already stored in memory, i.e. word finding difficulty (WFD). If children are not able to recognise words immediately, they experience problems with reading. Struggling readers often cannot use the word recognition strategies rapidly, or are not able to decode words with difficult (irregular) spelling patterns due to poor phonic skills and ineffective decoding strategies. If they try decoding letter-by-letter, they become very slow, thus “overloading their working memory and impairing comprehension” (Westwood, 2008, p. 18). In such cases they depend on guessing words from context or using cues from pictures accompanying the text, which are not reliable solutions and can result in inaccurate comprehension.

A major reason of early difficulty of reading acquisition is the fact “that phonology and orthography initially favour different grain sizes,” i.e. phonology favours larger ones, while orthography favours smaller one, like letters (Ziegler & Goswami, 2005, p. 19). As the child learns letters, he or she discovers phonemes represented by individual letters and by

letter clusters, the grapheme-phoneme relations influencing his or her learning to read and causing difficulties in learning to read in English as a language with rather inconsistent relationship between reading and spelling. Therefore, “beginning readers have to learn additional correspondences for larger orthographic units, such as syllables, rimes, or whole words [. . . while] to decode the most frequent 3,000 monosyllabic English words at the level of the rime, a child needs to learn mappings between approximately 600 different orthographic patterns and 400 phonological rimes” (Ziegler & Goswami 2005, p. 19). Since reading fluency generally depends on efficient decoding, “children with weak decoding skills are unlikely to become fluent readers” (Pullen & Lane, 2014, p. 1). To be able to decode words properly, learners first need to develop their phonological awareness and to establish their understanding of grapheme-phoneme correspondences, the skills whose development should start at pre-school age (Kopas-Vukašinić, 2014). Yet, “over one-third of children entering school lack phonemic awareness” and if they do not get specific training in this skill they might develop reading difficulties (Westwood, 2008, p. 21). Westwood (2008) stressed that “it is believed that very many students with reading and spelling difficulties have poor phonological awareness,” which prevents them from identifying unfamiliar words; without phonological awareness children cannot master phonic decoding skills, necessary for spelling and identifying unfamiliar words (p. 19).

Moreover, phonological weaknesses account for most severe reading difficulties, which can also be caused by “limited vocabulary knowledge, deficits in working memory, and problems with rapid retrieval of letter-sound correspondences and words from memory” (Westwood, 2008, p. 20). The most severe reading difficulties, or specific reading difficulties like dyslexia, are thought to result from “the double deficit of both phonological problems and difficulties in rapid retrieval of orthographic information from memory” (Westwood, 2008, 20). Farrall (2012) gave a more precise definition of dyslexia. Using the Simple View

of Reading paradigm, she summarised reading comprehension (R) as the product of decoding (D) and linguistic comprehension (C) in the following way: $R = D \times C$ (with D and C ranging from 0 = poor skill, to 1 = perfect skill). Using this equation, dyslexia could be represented with the following values: $D = 0$, and, consequently, $R = 0$, meaning “children with good receptive language ability (linguistic comprehension) and poor decoding skills will have poor reading comprehension” (Farrall, 2012, p. 18). Children with dyslexia experience “severe problems learning to read words” and consequently need much more time than other children to learn the grapheme-phoneme correspondences and how to use the orthographic system “to blend letters into recognizable words” (Oakhill, Cane & Elbro, 2015, p. 6). Consequently, poor comprehension of dyslexic children is the result of their poor word reading.

Ziegler and Goswami (2005) pointed to the interesting fact that children from different countries have very similar phonological deficits, so dyslexia is usually diagnosed “on the basis of functional deficits in comparison with peers despite normal intellectual and educational experiences” (p. 15). In consistent orthographies it is characterised by “extremely slow and effortful phonological recoding combined with very poor spelling,” while in less consistent orthographies it “becomes apparent on the basis of inaccurate reading alone,” although the child also experiences speed and spelling problems (p. 15). Poor readers, or low progress readers, are found to organise their reading “at letter and word level” and to use “a narrower range of clues,” relying on remembering words by sight and restricting their attention to letters mainly to the first letter, consequently making mistakes they are unaware of (Montgomery, 2007, p. 21). Moreover, slow readers are not able to infer the alphabetic principle from whole word reading (which good beginning readers are able to do) and they tend to overuse the phonic strategy trying to sound the new words (Montgomery, 2007). Perfetti and Dunlap (2008) argued that the manifestation of dyslexia is probably affected by orthography in the way that these readers experience impaired phonological awareness and

phonological decoding together with very slow reading and poor spelling. Some recent studies have also found neurological differences, i.e. “differences in brain activity for normal and dyslexic readers,” expressed as less brain activity in the left hemisphere of the brain, which is involved in normal reading of a deep orthography; this led to a possible interpretation that dyslexic readers are reading a deep orthography as if it were a shallow one, applying letter-to-sound decoding (Perfetti & Dunlap, 2008, p. 28). These studies also indicated that different brain regions are probably active depending on whether alphabetic or whole word strategies are applied in reading (Perfetti & Dunlap, 2008), which has recently been studied and proved by Yoncheva et al. (2015).

Since different orthographies require different information processing in reading, specific reading difficulties vary across languages, in addition to varying within a single orthography, manifested as different subtypes of dyslexia (Hadzibeganovic et al., 2010). Hadzibeganovic et al. (2010) distinguished five different subtypes of developmental dyslexia: 1. letter position dyslexia characterized by letter position errors; 2. developmental neglect dyslexia, with reading errors appearing only to one end of the word, typically the left one; 3. developmental attentional dyslexia, in which “letters from words in parafoveal vision intrude into the processing of the currently fixated word”; 4. developmental phonological dyslexia, in which readers have a specific difficulty in learning the decoding rules; 5. Developmental surface dyslexia, in which readers have a specific difficulty in building up sight vocabulary (p. 1313). Hadzibeganovic et al. (2010) argued that when reading in English, readers have to solve the problems related to grapheme-phoneme correspondence caused by the fact that some phonemes are represented by two or more graphemes, like ‘sh’ in ‘ship’ and ‘igh’ in ‘high’, while when reading in Serbian or Bosnian readers do not have similar problems; another problem with English orthography is a split grapheme, like a vowel phoneme in ‘race’ where ‘a’ and ‘e’ are split (p. 1314). Hadzibeganovic et al. (2010) concluded that

“children learning English have difficulty learning letter-sound rules involving split graphemes,” but such difficulty does not exist when reading in Serbian due to the differences in orthography (p. 1314).

Difficulties for L2 learners can be the result of “transfer effects from *language processing differences*” (Grabe, 1991, p. 386). Grabe (1991) mentioned a number of negative transfer effects: false cognates or near cognates, which can interfere with vocabulary recognition; influence of learners’ L1 syntactic knowledge, like word order, relative clause formation, noun phrase structures and other complex structures, which may “mislead the EFL/ESL reader, particularly at beginning stages” (p. 386); orthographic differences between the learners’ L1 and English can cause difficulties, especially with beginning readers whose L1 has shallow orthography, i.e. very regular correspondence between sounds and letters, like Serbian, English orthography being deep, with very irregular correspondence between sounds and letters, though “orthographic transparency differences do not appear to lead to different fluent reading strategies” (p. 386). Since beginning readers may try to transfer their L1 reading knowledge, skills and strategies to L2 reading, Serbian learners of English as a foreign language may try to use their L1 pronunciation patterns, which are regular, in reading in English, which may result in their making many errors, reading slowly and not comprehending accurately. Research has shown that two different strategies used in reading depending on orthographic depth – sublexical (alphabetic) and lexical (whole word) – cause two different types of errors: using the lexical strategy in reading “leads readers, when they make errors, to respond with real words based on shared letters or partial visual overlap with the target word, for example, responding ‘near’ for the word ‘never’,” while sublexical strategy “leads to errors with high phoneme overlap with the target word, even when that means producing non-words” at the expense of lexicality (Perfetti & Dunlap 2008, p. 27). Considering the fact that Serbian young learners tend to apply sublexical strategy in their L1

reading, the errors that might appear in their reading in English as a foreign language would result from their tendency to use the sublexical strategy instead of the more appropriate lexical one, i.e. they would probably sound out new words applying the learned letter-sound correspondences, instead of responding with a real word similar to the target one. Moreover, the reading problems of Serbian beginning readers “are more likely to involve reading rates and poor spelling,” and less likely to involve phonological decoding or phonological awareness (Perfetti & Dunlap 2008, p. 28).

To sum up, without acquisition of functional decoding skills children cannot build sight vocabulary or achieve fluency in word identification by combining groups of letters and blending them into words. Identification of words is “the most basic but indispensable first step toward reading connected text with understanding,” and if it is done rapidly, it “releases the reader’s cognitive abilities to concentrate fully on the meaning of the material being read and his or her response to it” (Westwood, 2008, p. 28). Obviously, L2 reading development is influenced by a learner’s L1 literacy skills and L1 orthography, which “may help explain possible L2 difficulties in word recognition, fluency and reading rate” (Grabe & Stoller, 2011, p. 42). Reading difficulties at word level inevitably negatively affect reading comprehension skills, causing difficulties at text level and affecting comprehension. The next section deals with difficulties in reading comprehension and explains the causes of comprehension problems children may experience in early EFL reading.

2.3.2. Reading comprehension difficulties

Difficulties at text level refer to comprehension difficulties resulting from limited vocabulary knowledge, lack of fluency, lack of familiarity with the subject matter, difficulty of the text (readability), inadequate use of effective reading strategies, weak verbal reasoning,

problems with processing information, and problems in recalling information after reading (Westwood, 2008). Interestingly, there is no evidence that direction-of-reading or punctuation and spacing can cause much difficulty (Grabe 1991).

Since comprehension depends on the ability of the reader to integrate the meaning of words and sentences into a meaningful whole by constructing a mental model of the text, i.e. mental representation, also termed ‘situation model’, by drawing on his or her lexical and background knowledge, Oakhill, Cain and Elbro (2015) contend that children can experience three different forms of reading difficulties: 1. general poor comprehension, manifested as poor word reading and poor language comprehension; 2. specific word reading problems, i.e. dyslexia, manifested as poor word reading, but good language comprehension; 3. specific comprehension problems, manifested as good word reading, but poor language comprehension. It is obvious that problems with one component, i.e. word reading or language comprehension, may occur independently of problems with the other component, resulting in the pattern termed ‘double dissociation’ (Oakhill et al., 2015). Oakhill et al. (2015) term the three groups of readers experiencing these three problems as ‘generally poor readers’, ‘children with dyslexia’, and ‘poor comprehenders’. Generally poor readers can be the children who have experienced early language impairments, while poor comprehenders, i.e. children with specific reading comprehension problems, are usually not detected before the 3rd or 4th year of schooling, when a sudden drop of their reading abilities becomes apparent (Oakhill et al., 2015). Children with reading comprehension problems do not usually have problems remembering factual information from the text, but find it very difficult “to integrate information from different parts of the text” or “to integrate information in the text with their knowledge of the world,” and to predict what might happen in the story and how it might end (Oakhill et al., 2015, pp. 25-26).

Research has shown that in the early school years good and poor readers mainly differ in word decoding skills, while in the later years of schooling, it is reading comprehension that differentiates these two groups of readers (Oakhill et al., 2015). However, with beginning readers it is not always possible to distinguish between their word reading problems and comprehension problems, and in such cases the solution is to assess word reading separately and to check language comprehension by assessing their listening comprehension (Oakhill et al., 2015) in order to see if they can make inferences necessary for understanding the text. When reading, children are required to make local cohesion inferences, which link lexical items, and global coherence inferences, which connect parts of the text and assist in making a mental model of the text. However, some studies demonstrated that “young children have the potential to make a range of inferences, but they do not always do so, even when prompted by explicit questions” (Oakhill et al., 2015, p. 43). Three factors influence children’s inference making ability: 1. memory; 2. knowledge; 3. personal standard for coherence. Due to poor memory, lack of knowledge and low standard of coherence, children may experience difficulties in inference making, resulting in poor text comprehension (Oakhill et al., 2015). If a child has poor memory, he or she cannot make enough necessary inferences because he or she cannot remember many details on which inferencing depends, like explicit information in the text. Moreover, if a child possesses limited knowledge of vocabulary or of the world related to the topic of the text, a child will experience difficulties in making necessary inferences. Lack of word and world knowledge may result in comprehension difficulties especially when children are faced with ambiguous words, i.e. the words that have more than one, often unrelated, meaning, and when the intended meaning of such a word must be worked out from the context and from the meanings of other words in the text. In such cases, “[t]he resolution of ambiguous words provides a good example of the interactive nature of text comprehension: the reader’s current mental model can provide the context for

the interpretation of such words, and that is what would typically happen in normal skilled reading” (Oakhill et al., 2015, p. 56). It is clear that depth of vocabulary knowledge, including relations and associations between words, is critical for reading comprehension and closely related to it, or as Oakhill et al. (2015) put it, “it is less beneficial to comprehension to know lots of words at more superficial levels” than to have “a relatively deep understanding of words” (pp. 57-58). The importance of vocabulary knowledge to reading comprehension increases between the ages 7 and 10 as children become better decoders and the reading texts children have to read become more challenging (Oakhill et al., 2015). Vocabulary difficulties and reading comprehension can be interrelated in a way that poor comprehension limits the growth of vocabulary, while further reasons of reading comprehension difficulties may be related to vocabulary knowledge beyond single words, like fixed expressions, common sayings, or idioms whose meaning, literal or figurative, depends on the context, where inference skills become crucial for inferring the intended meanings from the context.

Skilled and less skilled reading may result from differences in inference making ability, which is regarded as “a central component of skilled reading” (Cain et al., 2001, p. 850). Cain et al. (2001) maintain that inference failure of poor comprehenders may be the result of their difficulty to select the relevant information for inference making and of their failure to remember the information necessary for making inferences. Apart from vocabulary knowledge, syntactic skills of beginning readers may be the cause of reading comprehension difficulties, as “the syntactic demands of written texts continue to increase” during the school years (Oakhill et al., 2015, p. 70). Research has indicated that children with reading comprehension difficulties sometimes have poor syntactic knowledge, resulting from “problems [with] processing information in verbal working memory” (Oakhill et al., 2015, p. 71). While successful readers manage to integrate successive clauses and sentences in a text owing to their linguistic knowledge of anaphors, where pronouns and verb phrase ellipses

taking their meaning from another part of the text, i.e. their antecedents, as well as other devices for achieving lexical cohesion, and connectives, i.e. words and phrases signalling the logical relations between clauses and sentences, children with reading comprehension difficulties find it difficult to identify the correct antecedent of a pronoun, or to understand the relations expressed by connectives (Oakhill et al., 2015). The main reasons may be the use of superficial cues for pronoun interpretation, or poor working memory that does not foster creation of the mental model of text information. Moreover, studies suggest that poor comprehenders are not fully aware of the functions of connectives or of their meanings (Oakhill et al., 2015). Some children (poor readers) experience reading difficulties because they cannot adjust their standard for coherence to the purpose of reading a particular text, i.e. reading to learn versus reading for pleasure, failing to put enough effort into reading certain texts (Oakhill et al., 2015). The text structure plays a significant role in determining reading comprehension: although children are usually familiar with typical structure of fictional narratives, poor comprehenders “appear to be less knowledgeable about how narratives work” (Oakhill et al., 2015, p. 90). Children with reading comprehension difficulties find it difficult to distinguish between statements that refer to settings, characters and the purpose of the story, a possible reason being problems with memory (Oakhill et al., 2015).

Children’s ability to monitor their comprehension and conclude if the text makes sense is a strategic competence needed for detecting misinterpretation or failure in comprehension. When reading a text and seeing it does not make sense, skilled readers “can engage in remedial action to insure good comprehension [by] looking up an unknown word in a dictionary, re-reading a section of a text that does not make sense, and even generating an inference to enable integration between two propositions” (Oakhill et al., 2015, p. 95). A child’s ability to monitor their own comprehension is manifested in her or his ability to differentiate between the texts that are coherent and those that are not, and in the ability to

identify the part of the text that does not make sense. Studies have shown children's early monitoring abilities, even at the age of 5, but "young children and children with reading difficulties, particularly those with specific reading comprehension problems, often fail to monitor their comprehension adequately" (Oakhill et al., 2015, p. 98) mostly due to memory limitations, lack of familiarity with the topic, and failure to set the task goal (Oakhill et al., 2015, p. 101).

Reading problems in English as L2 may be the result of too large demands placed on individual learners who may be struggling to develop their literacy skills in their L1 at the same time when they are learning to read in English. Weak word recognition skills inevitably result in comprehension difficulties, but adequate word reading and fluency can also result in difficulties related to understanding: about 10 per cent to 15 per cent of learners are reported to have comprehension difficulties when reading expository texts (Westwood, 2008). Comprehension requires "an active thinking process through which a reader intentionally constructs meaning to form a deeper understanding of concepts and information presented in a text" by interpreting new information and linking it to prior knowledge (Westwood, 2008, p. 31). Reading comprehension can function on three levels: literal comprehension is the basic level at which the reader understands factual information; inferential level of understanding involves inferring details that are not explicitly stated in the text; critical level of comprehension takes place when the reader evaluates the text and the writer's ideas, compares and contrasts the information (Westwood, 2008). Weak readers "have enormous difficulty progressing beyond a literal level of comprehension because most of their cognitive effort is taken up in unlocking the print" (Westwood, 2008, p. 32). While good comprehenders and effective readers use a number of cognitive skills as they read (visualising scenes, actions and characters in a narrative text, reflecting critically, questioning, monitoring understanding, evaluating, predicting, inferring, and summarising),

poor comprehenders and ineffective readers do not interact cognitively with the information, do not think deeply, do not check or monitor understanding, do not read critically, or use effective strategies to aid comprehension (Westwood, 2008).

Drawing on recent research, Westwood (2008) argues that limited vocabulary knowledge, i.e. inadequate level of spoken language competence, results in comprehension problems due to a serious mismatch between a learner's knowledge of word meanings and the vocabulary used in texts; also, the rate of reading, either too slow or too fast, can cause poor comprehension: the former may restrict cognitive capacity to lower-level processes, while the latter may result in overlooking important details. Also, lack of prior knowledge of the text causes reading without understanding, and if the text is too difficult (at 'frustration level'), with complex language in terms of vocabulary, concepts, grammar structures or sentence length, comprehension is impaired. Moreover, inadequate use of effective reading strategies in text interpretation and lack of ability to make relevant connections among text facts (weak verbal activity) cause comprehension difficulties. Finally, reader's inability to keep relevant information within working memory (limited working memory) and make connections between ideas is often related to slow reading (abnormally slow rate of processing), and the inability to retrieve information from long-term memory, are all causes of poor comprehension.

Grabe (1991) claims that these difficulties are likely to be caused by linguistic differences between L1 and L2 at syntactic and discourse levels: the need to focus on function words for getting more syntactic information; the need to organize information differently at discourse level; differences in the social context of using literacy; differences in the level of reading in L1; differences in evaluating the reading material, regarding it as truth and knowledge to be memorized, and not questioning the content. These reasons may potentially cause reading comprehension difficulties at the level of higher-order processes.

As Cameron (2008) points out, the differences between L1 and L2 in graphophonemic relationships, spelling patterns, meanings of morphemes, word order, punctuation, grammar structures, and organisation and structure of texts, which appear at different levels of knowledge and skills, i.e. the levels of sounds-letters, morphemes and syllables, words, sentences, text and the world, require L2 readers “to develop new skills and knowledge, in addition to what can be transferred” (pp. 135-136). Moreover, since languages differ in their structure, “the different structures offer users different cues to meaning,” so that looking for the clues that the reader already knows from his or her L1 may be ineffective and result in comprehension difficulties (Cameron, 2008, pp. 134, 136). To be able to understand a text in L2, the beginning reader needs to be aware of these differences and to develop new knowledge, skills and strategies that will aid her or his comprehension. The absence of appropriate knowledge, skills and strategies, will cause comprehension problems.

In her recent research, Griva (2014) studied reading difficulties awareness in EFL and in Greek as L1 (GL1) of fifth and sixth graders, and found that “students reported more reading difficulties in EFL ($M = 2.29$, $SD = 0.47$) than in GL1 ($M = 2.46$, $SD = 0.32$)” (p. 242). Moreover, statistically significant gender differences were found between the mean scores of comprehension tasks only in English as L2, while in GL1 there was no significant difference in the perceived reading difficulties between boys and girls. In English as L2, “girls showed to have a mean easiness [while] boys were aware of having more reading difficulties than girls in EFL” (Griva, 2014, p. 243). Boys and less-skilled readers showed awareness of more reading difficulties, which correlated with their reading comprehension scores. The difficulties included reading rate, fluency, understanding the unknown words from the context, and finding key ideas in texts both in GL1 and EFL (Griva, 2014).

Cameron (2008) stresses the fact that recent empirical research has offered evidence that fluent readers do process every letter, but they do it very quickly, and also “have

available the skill to speak the words of the text to themselves, the ‘voice in the head’” which they use for difficult texts (p. 125). When reading a text, fluent readers use visual information (letters), phonological, semantic and syntactic (related to words, clauses and sentences), and discourse information for text comprehension (Cameron, 2008). To be able to understand a text, a child has to “master techniques for using all the information available in a text” (Cameron, 2008, p. 134), i.e. he or she should be able to use four cueing systems strategically in order to construct meaning: visual cues (graphophonic), syntactic cues (knowledge of grammatical structures), semantic cues (knowledge of word/phrase meaning) and pragmatic cues (text structure and purposes for reading) (Active young readers, 2012). Visual information does not relate to illustrations or pictures accompanying the text (they represent semantic cues and contribute to meaning), but to graphophonic knowledge, which is based on the reader’s phonological awareness, and is used when the reader applies this knowledge to letter-sound correspondences to understand visual cues; syntactic information refers to the structure of language, i.e. standard English grammar, and to information such as clause and sentence structure, punctuation, function of words, word endings, and word order, used by the reader to understand syntactic cues; semantic information involves meaning conveyed through words, ideas, pictures and illustrations, and the reader uses his prior knowledge to understand semantic cues; context or pragmatic information refers to the readers understanding of the text structure and requires the reader to use his prior knowledge of text types and discourse structures to predict meaning and to understand pragmatic cues (Active Young Readers, 2012). Smith (2004) argues that skilled readers need less visual information if they are able to use the other three sources of information, thus relying on redundancy, i.e. the information they do not need because they already have it. Moreover, skilled readers are able to use their own background knowledge and knowledge of the world, often referred to as

schemata (Smith, 2004), and also their literacy knowledge of discourse organisation, necessary for finding important information in the text (Cameron, 2008).

On the contrary, being inexperienced readers, children do not possess knowledge related to a variety of text organisation and may find understanding different text/discourse structures difficult. Also, children's experience with oral language does not prepare them for understanding the organisation of paragraphs as discourse unites, nor does it give them the skills of analysing topic sentences. What is more, the first texts children read are too short to be organised in paragraphs, so that they can learn about paragraphs and discourse organisation once they start reading longer texts. In respect to certain grammatical structures that children learn in written texts, rather than in spoken language, it is often the case that such new grammar patterns may appear confusing and problematic for children. Cameron (2008) argues that "without the support that comes from recognising the syntactic patterns, early readers have to work on each word as a separate unit, working out what it is and storing it in memory while the next word is tackled," which can be inefficient as "memory spans are limited, and words can drop out of short term memory before the child gets to the end of the sentence and has a chance to work out the meaning of the whole" (p. 130). Consequently, beginning readers' inability to integrate text information from different levels, and their inadequate experience with different types of discourse, may result in comprehension difficulties at text level.

Comprehension is the goal and essence of reading, which means that without deeper understanding it is purposeless. Taberski (2011) argues that "[c]omprehension isn't a pillar at all – it's the overarching pediment, supported atop the pillars" and leading "to the pinnacle – understanding what we read" (p. 49). To play such an important role, comprehension must be enhanced and supported by reading accuracy and fluency, the reader's background knowledge, his or her oral language and vocabulary, his or her reading strategies and his or

her understanding of the connection between reading and writing. Rasinski (2004a, 2004b, 2013b) suggests that the most prevalent reason of reading comprehension difficulty is reading fluency, or more precisely, the lack of proficiency in reading fluency. Reading fluency “refers to accurate and automatic decoding of the words in the text, along with expressive interpretation of the text, to achieve optimal comprehension” (Rasinski, 2004a, p. 2). To be able to read fluently, readers not only have to decode the words accurately and effortlessly, but also to read with appropriate phrasing and expression: emphasizing certain words and using appropriate volume and intonation. Rasinski (2004a) distinguishes between three dimensions of reading fluency: accuracy in word decoding, speed and automaticity in word recognition, and expresiveness and meaningfulness in interpretation of a text, i.e. prosody. Absence of these three dimensions in reading results in comprehension difficulty. A child who reads word-by-word, hesitating at challenging vocabulary, paying little attention to phrasing and punctuation, not expressing interest and enthusiasm, is likely to experience difficulties in comprehending the text (Rasinski 2004a, 2004b). The next section explains the interconnectedness between reading fluency and reading difficulties in more detail.

2.3.3. Reading fluency and reading difficulties

With fluency being identified as a significant factor in reading development and a key to reading comprehension, there is the need to assess and monitor reading fluency in order to diagnose difficulties and help learners make progress in learning to read (Rasinski, 2004a). Rasinski (2004a) argues that the three dimensions of oral reading fluency, i.e. decoding accuracy, word recognition automaticity, and prosody, can be assessed efficiently, with appropriate levels of reliability and validity. The approach to be used for measuring the first two dimensions (decoding accuracy and automaticity) is Oral Reading Fluency assessment,

which measures the reading rate in oral reading of the text at grade appropriate level, while the rate is the total number of words read correctly in 60 seconds (WCPM = words correct per minute) (Rasinski, 2004a). Accuracy is determined by dividing WCPM by the total number of words read, thus getting a percentage which should be compared to levels of performance expressed in percentages: readers who score 97-100 per cent are considered independent readers, able to read the assessment text and texts of similar difficulty without assistance; readers who score 90-96 per cent reach instructional level and are able to read the assessment text or texts of similar difficulty with some assistance of a more able reader; finally, readers who score below 90 per cent read at frustration level and find the assessment text or texts of similar difficulty too challenging to read, even with assistance (Rasinski, 2004a). For measuring accuracy, the reader is supposed to read the text at his or her grade level orally and the following errors should be recorded: mispronunciations, substitutions, reversals, omissions and teacher prompts (Rasinski, 2004a). One-minute reading can optionally be repeated with a child reading a different passage. The target rate norms differ for each grade and time of year, increasing from autumn to spring (Rasinski, 2004a). For example, a Fifth grader “should be reading approximately 100-125 words correct per minute during the first half of the school year” (Rasinski, 2004b, p. 49). Rasinski (2004a) defines disfluent readers as those who either read “in a very slow and disjointed manner“ or “too fast and fail to pay attention to intra- and inter-sentential boundaries or the meaning of the text” (p. 9), so by measuring accuracy, it is possible to determine reading fluency difficulties with precision. Comprehension difficulties may appear if a reader reads “with high accuracy but low rate scores” or “with a high rate but excessive decoding errors,” and the sources of their comprehension difficulties may be different, i.e. the former experiencing a lack of sufficient automaticity, and the latter having a lack of sufficient decoding accuracy (Rasinski, 2004a, p. 10). This method of assessment, though not definitive, is successful in diagnosing children

with reading difficulties/struggling readers who might need additional support and instruction (Rasinski, 2004b).

The errors made in oral reading are often referred to as miscues, to avoid “the negative connotation and history of the term error in first- and second-language research and language education” (Goodman, 1998, p. 227). Goodman (1973) defines a miscue as “an actual observed response in oral reading which does not match the expected response” (p. 5). The author maintains that miscues in reading are not accidental and they can, therefore, tell a lot about the reading process and how the reader is trying to understand the text he or she is reading (Goodman, 1973). The miscues the reader makes, like omitting a word or some word parts, inserting a word, substituting a word, going back to correct himself or herself, make it possible to make inferences about the process he or she has used, and about his or her competence with that process: the reader’s strengths and/or weaknesses (Goodman, 1973). The reading research tool focused on miscues is miscue analysis, used in reading research since 1963 as a diagnostic tool which can give information about the proficiency of the reader. Miscue analysis involves the study of the reader’s “use of graphic, phonological, syntactic, and semantic information” (Goodman, 1973, p. 4) and gives an insight into his or her “construction of meaning and the process of comprehension,” (Goodman & Goodman, 1998, p. 107) as well as into the pattern of comprehension strategies he or she uses. Miscue analysis enables the researcher to examine the “syntactic nature of the miscues, the points in the text where miscues occur, and the syntactic acceptability of sentences that include miscues” (Goodman & Goodman, 1998, p. 111), and also “provides evidence that readers integrate cueing systems from the earliest initial attempts at reading” by using graphophonic, semantic, syntactic and pragmatic information to make predictions, confirm and self-correct while reading (p. 114). Goodman and Goodman (1998) point to another insight resulting from miscue analysis: understanding that “miscues are necessary to language learning” as the

results of schemata development and modification, a schema being understood as “an organized cognitive structure of related knowledge, ideas, emotions, and actions that has been internalized and that guides and controls a person's use of subsequent information and response to experience;” when miscues are corrected, some schemata may have to be modified or completely abandoned (pp. 115-116).

Miscue analysis has contributed to understanding of some general characteristics of comprehension process in relation to text length: it is easier to understand long language sequences than short ones, i.e. “sentences are easier than words, paragraphs easier than sentences, pages easier than paragraphs, and stories easier than pages” (Goodman & Goodman, 1998, p. 122). Goodman and Goodman (1998) explain that one reason for this is the need of the reader to become familiar with the style and the topic of the text, and when the text is short there are not enough syntactic (style) and semantic (topic) cues for the reader to rely on; another reason is the fact that miscues are more disruptive in a short text, while a long text gives the reader more opportunities to self-correct. Miscue analysis can be used for determining the reader's ‘comprehending score’, which is represented by all miscues which result in acceptable meaning added to all miscues which result in unacceptable meaning, but are corrected by the reader successfully, and expresses as a percentage of all miscues; it is a measure of the quality of the reader's miscues, as it is not important how many miscues a reader has made, but how they affect the meaning, and of “the reader's ability to keep his focus successfully on meaning” (Goodman, 1973, p. 10). Goodman (1998) distinguishes between high quality miscues and low quality miscues: the former are semantically and syntactically acceptable and do not interfere with comprehension (the sentence makes sense), while the latter are not semantically and syntactically acceptable and they interfere with comprehension.

There are several conditions to be fulfilled when using miscue analysis as a tool. Goodman and Goodman (1998) contend that in taking the running record the text must be new to the reader and complete (with a beginning, middle, and end); then, it must be “long and challenging enough to produce sufficient numbers of miscues for patterns to appear;” also, readers must not receive any help and must not be interrupted, and if they “hesitate for more than 30 seconds, they are urged to guess, and only if hesitation continues are they told to keep reading even if it means skipping a word or phrase;” finally, the reading during miscue analysis requires as normal a situation as possible (p. 103). The researcher should note all “miscues, regressions (including self-corrections), oral asides, any other behavior that will aid in understanding the reading (e.g., finger pointing or careful perusal of illustrations or graphs)” (Goodman, 1998, pp. 228-229). Drawing from research evidence, Goodman and Goodman (1998) argue that oral and silent reading are similar enough “to justify generalizing from studies of oral reading miscues to theories and models of silent reading;” the authors see similarities in language cueing systems, in strategies, in miscues, and in construction of meaning, concluding that “a single process underlies all reading” (pp. 120-121). However, the differences are reflected in the reader’s consciousness of the audience when reading orally, resulting in miscues like “nonword substitutions, persistence with several attempts at problem spots, overt regression to correct miscues already mentally corrected, and deliberate adjustments in ensuing text to cover miscues so that listeners will not notice them” as well as “deliberate omission of unfamiliar words, reluctance to attempt correction even though meaning is disrupted, and avoidance of overtly making corrections that have taken place silently to avoid calling attention to miscues” (Goodman & Goodman, 1998, p. 121).

There is a number of suggestions for coding miscue categories in taking running records. Rasinski (2004a) proposes five different categories: 1. mispronunciations; 2. substitutions; 3. reversals; 4. omissions; 5. teacher prompts. Pinnell et al. (1995) discussed

oral fluency of Fourth graders and found three key types of deviations in oral reading: 1. substitutions, involving only substitutions of whole words, then partial word omissions and substitutions of prefixes and suffixes; 2. omissions, involving omissions of whole words; 3. insertions, involving whole word insertions. Pinnel et al. (1995) reported research findings that suggested that comprehension was more impacted with deviations that changed meaning, which stressed the importance of word recognition and reading accuracy.

The third dimension of fluency is prosody, which involves four areas: 1. expression and volume; 2. phrasing; 3. smoothness; 4. pace (Rasinski, 2004b). Rasinski (2004b) argues that fast reading is not necessarily fluent reading, but rather meaningful reading can be considered fluent. For measuring prosody, Rasinski (2004b) suggests using a multidimensional fluency scale with descriptors for each of the four levels for all four components of prosody, the maximum score being 16, and scores below 8 being a reason for concern. Regarding expression and volume, concern should be caused when a reader reads words quietly, with no expression or any making sense of them; in regard to phrasing, concern should be caused if a child reads in monotone, word-by-word, with little sense of sentence boundaries; in respect of smoothness, concern should be caused if a child often makes pauses, hesitates, repeats words or phrases or tries to sound them out several times; finally, regarding pace, concern should be caused if a child's reading is slow and laborious (Rasinski, 2004b). Pinnell et al. (1995) argue that accuracy and speed are the key components of reading fluency, so "[i]f readers have too much difficulty recognizing and reading individual words, their ability to gain overall meaning from a passage will be seriously hampered" (p. 33) primarily because the pause made for figuring out/decoding the unfamiliar words disrupts comprehension of the text as a whole.

Rasinski (2004a) contends that severe restriction of exposure to print in early grades results in lack of fluency and in delay in developing "a sufficient bank of words that are

recognized and understood at sight” (p. 12). In case of English language learners, learners’ growth in reading may be impeded by vocabulary and language proficiency issues, so reading rate should be used with caution when assessing L2 readers, taking into account the fact that “developing proficiency in reading is a cumulative task” (Rasinski, 2004a, p. 12), accumulating from the early grades on. Since oral reading proficiency rates are closely associated with silent reading comprehension success, assessment of expressive and prosodic reading should be considered as “a reliable and valid way for assessing overall reading performance” (Rasinski, 2004a, p. 16). Rasinski (2004a), therefore, suggests using a simple form of an oral reading fluency scale for assessing prosodic reading as a way of formative assessment that can guide instructional intervention: learner’s expressiveness, volume, phrasing, smoothness and pace are rated on a four-level scale, scores being one to four. Table 2.4 presents the four levels of oral reading fluency.

Table 2.4: Levels of oral reading fluency (based on Rasinski, 2004a)

Level	Fluency descriptors
Level 1 – Inexperienced Reader	<ul style="list-style-type: none"> • little expression • word-by-word reading • no smooth or expressive interpretation
Level 2 – Beginning Reader	<ul style="list-style-type: none"> • mostly two-word phrase • with occasional three- and four-word groupings; no smooth or expressive interpretation
Level 3 – Developing Reader	<ul style="list-style-type: none"> • smooth expressive reading • with some appropriate pauses and observation of punctuation primarily three or four word phrase groups
Level 4 – Mature Reader	<ul style="list-style-type: none"> • smooth expressive reading • emphasizing key words and phrases • observes punctuation

Scores one and two indicate reading difficulties: score one means that a child reads mainly word-by-word, with occasional two- or three-word phrases, not preserving meaningful syntax, lacking expressive interpretation, excessively slowly or fast, ignoring punctuation and phrase boundaries, while score two means that a child reads mainly in two-word phrases, with some three- and four-word phrases not related to context, and with word-by-word portions or expressive interpretation portions, and with some excessively slow or fast sections of the text; on the other hand, scores three and four indicate fluent reading: score three means that a child reads mainly in three- and four-word (and some smaller) phrases, at an appropriate rate, with appropriate expressiveness and preserving the syntax of the author, while score four means that the child reads mainly in larger and meaningful phrases, at an appropriate rate, with consistent preservation of the author's syntax, with expressive interpretation, though some deviations may be present. Pinnell et al. (1995) also point out the fact that “[m]aintaining a steady rate of reading can be central to the process of comprehending” (p. 33), thus indicating the importance of keeping an appropriate speed in oral reading.

Distinguishing between fluent and difficult reading is crucial for understanding reading difficulties. Neither modes of reading is typical only of beginning readers or of experienced readers, because both groups can read some texts fluently and some texts with difficulty: it is possible to find texts that even beginning readers can read fluently, or the texts that even experienced readers cannot read without difficulty (Smith, 2004). Smith (2004) argues that it is experience that increases a reader's ability to read different kinds of texts, i.e. “the more we read, the more we are able to read,” making fluency development a lifelong process (p. 189). Fluent reading requires “knowledge of the conventions of the text, from vocabulary and grammar to the narrative devices employed” depending on purposes of the reader (Smith 2004, p. 189). Difficulties in reading may be the result not only of undeveloped

reading ability, but also of an unusual style in which the text is written, or anxiety related to reading, and can be experienced both by beginning and experienced readers (Smith, 2004). Thus, it is lack of reading experience that makes reading difficult in certain situations; for children, who are learning to read, “everything they might attempt to read is likely to be difficult” (Smith, 2004, p. 189).

It is now understood that oral and silent reading are not competing, but are rather complementary forms of reading “that reflect students' developmental growth as readers,” and should be present in the classrooms “in developmentally responsive ways: oral, repeated reading with younger, less proficient readers and silent, wide reading with older, more proficient readers” (Hiebert & Ray, 2014, p. 291). Generally speaking, “the basic mode of reading is silent” (Goodman & Goodman, 1998, p. 120), but oral reading provides teachers with a means for monitoring children’s progress and obtaining “a window for understanding struggling students' knowledge and use of underlying systems of written language” (Hiebert & Ray, 2014, p. 292). What is more, oral reading provides young EFL readers with opportunities to exhibit their new abilities as L2 readers. Rasinski (2004a) points out that “student oral reading will have an impact on their silent reading” as an internal voice that develops both through oral and silent reading opportunities (p. 15). Today, due to the digital age “in which the selection, evaluation, and interpretation of information is paramount” (Hiebert & Ray, 2014, p. 291), silent reading is gaining importance. Moreover, since some studies indicate that sustained silent reading (SSR) improves motivation, background knowledge, vocabulary and reading comprehension, developing fluency in silent reading should be one of the goals of reading instruction (Hairrell et al., 2014). However, building independent silent reading skills with children with reading difficulties can be a challenging task both for the English teacher and the learner, who needs a lot of scaffolding (Hairrell et al., 2014). Therefore, children usually do not get enough opportunity for such development,

while teachers have a difficult task to measure the effects of silent reading development or check reading comprehension of silent reading, especially in case of learners with reading difficulties. Research of silent reading with learners with reading difficulties is rare, and in the past it focused on “the relationship between time spent reading silently and reading comprehension outcomes” (Hairrell et al., 2014, p. 279).

Although silent reading was regarded as “one of the most effective practices for promoting ELs' English print literacy,” its popularity suddenly dropped in the United States of America when the National Reading Panel found that research results related to benefits of silent reading were unconvincing (Ockey & Ray, 2014, p. 258). Many researchers concluded later that it was a wrong decision based on false interpretation of research results, which has brought the revival of silent reading in the classroom. However, there are still no trusting research techniques to measure the effect of silent reading on reading comprehension and fluency. Using brief oral reading, in which a learner is required to read aloud for one minute, is not an adequate technique because “one cannot assume that a short, oral reading of a lengthy text is likely to be representative of students' accuracy or reading rate when engaged in lengthy periods of silent text reading” (Ockey & Ray, 2014, p. 262). Moreover, since oral reading requires verbal skills, like pronunciation, a learner may make mistakes due to difficulty in pronouncing some English words, especially in early stages of learning to read in English (Ockey & Ray, 2014). Ockey and Ray (2014) argue that the reader’s “failure to read aloud accurately does not necessarily imply a lack of reading comprehension during silent reading” and that occasional miscues are not typical of unsuccessful readers only, but may appear in oral reading of skilled readers because they are not caused by cognitive or metacognitive processes and thus do not impair comprehension (p. 262). Pinnell et al. (1995) also contend that deviations made in oral reading do not necessarily have a negative influence on comprehension, and they comment on the research results arguing that “making errors when reading orally may have been only minimally related to overall reading proficiency,

unless the errors resulted in some disruption to the meaning-making process in which case, a more direct relationship was observed” (p. 37), thus indicating the complexity of the relationship between oral reading accuracy and reading proficiency.

In respect to measuring silent reading comprehension, Ockey and Ray (2014) criticise some current ways of assessing silent reading comprehension of English L2 learners: self-assessment, in which can-do statements are used, probed recall, where comprehension questions are used, and free recall, in which readers are asked to retell orally the text previously read silently (the technique favoured for assessing young language learners). Ockey and Ray (2014) warn that “silent reading is a cognitive activity not easily accessed through behavioral observations” and conclude that the above ways of measuring silent reading comprehension should be regarded as limited until neuroscience offers more reliable ways of following cognitive processes in silent reading (p. 271). Considering the complexity of the reading process and the limitations of oral and silent reading assessment, the researcher of present dissertation argues that a comprehensive picture of young L2 readers’ abilities can be obtained by measuring both silent and oral reading achievement quantitatively and qualitatively using a range of research instruments and analyzing results by comparing and contrasting them. The next chapter explains methodology of the research in great detail and gives rationale for the specific research design.

3. METHODOLOGY OF THE RESEARCH

A mixed-method approach was used in the study and both quantitative and qualitative data were collected to “contribute to a better understanding of the various phenomena under investigation” (Angouri, 2010, p. 33) and to enable data triangulation through obtaining diverse views and making stronger inferences: quantitative research helped to generalize research findings, while qualitative approaches enabled providing in-depth and rich data (Angouri, 2010, pp. 33-34). Obviously, “the combination of qualitative and quantitative results provide a far better and reliable insight than one approach on its own” (Rasinger, 2008, p. 22). In the L2 field, in quantitative research “researchers are attempting to determine a relationship between or within variables” (MacKay a& Gass, 2005, p. 137), while qualitative research “can be taken to refer to research that is based on the descriptive data that does not make (regular) use of statistical procedures” (MacKay & Gass, 2005, p. 162).

Reading comprehension is dependent on a number of reading skills, abilities and strategies, which appear rather difficult to be assessed together. A mixed-method design was chosen in the research with the aim to provide a rich, comprehensive and detailed picture of reading abilities and difficulties of young learners. Our quantitative research design was an empirical, cross-sectional (synchronic) study in which a large amount of data was collected at one point in time (Rasinger, 2010). As such, it met two key requirements: 1. the study involved a big number of cases; 2. the data was collected within a short timeframe (Rasinger, 2008). A total number of 502 children was surveyed, as a representative sample of the population of approximately 71.600 Grade Five pupils³. Our sample made approximately 0.7 per cent of the whole population of Grade Five schoolchildren. Regarding representativeness and generalizability, the sample satisfied the guidelines for minimum sample numbers given

³ The number was calculated as one eighth of the total number of 573.274 primary school pupils in grades one to eight, as recorded in the Statistical Year Book of the Republic of Serbia in 2012 (STATT.YEARB.SERB. 2012).

by MacKay and Gass (2005) as follows: “100 for descriptive studies, 50 for correlational studies, and 15 to 30 per group in experimental studies depending on how tightly controlled they are” (p. 123). It is emphasized that with larger samples in qualitative research there is “a higher likelihood of only incidental differences between the sample and the population” (MacKay & Gass, 2005, p. 123).

The researcher conducted a pilot survey in a primary school a couple of months before the study, i.e. in May 2013, while the research survey was carried out in the first three weeks of November 2013. The research study resulted in collecting a big amount of data, thus making it possible to make generalizations and to detect relationships between variables. Moreover, collecting data within a relatively short timeframe made it possible to rule out any changes that might affect the data (Rasinger, 2008), as collecting the data lasted for three weeks, which was the shortest timeframe possible taking into account the fact that the six schools selected were located in five different and distant parts of the country, so that diverse geographical regions could be represented as realistically as possible.

On the other hand, our qualitative research design was in the form of basic qualitative research, and the data was collected through an interview (Merriam, 2009). Qualitative approaches are considered “particularly suitable for doing research with children,” since children are more likely to give rich descriptions of their understandings than to provide facts needed for quantitative studies (Greig, Taylor, & MacKay, 2007, pp. 137-138). Our qualitative study was carried out with the sub-sample of twelve learners in the form of standardized open-ended interview, i.e. prompted think-aloud protocol interview, consisting of a “set of questions carefully worded and arranged with the intention of taking each respondent through the same sequence and asking each respondent the same questions with essentially the same words” (Patton, 2002, p. 342), with more or less limited flexibility in probing. Our standardized open-ended interview was carried out in Serbian, i.e. the mother

tongue of all respondents, thus “enhancing data collection during interviewing by increasing clarity, communicating respect, and facilitating rapport” and allowing respondents to express their views in their own words (Patton, 2002, p. 363).

The interview was selected based on the extensive literature supporting its application in similar research. Merriam (2009) explains that “[i]nterviewing is necessary when we cannot observe behaviour, feelings, or how people interpret the world around them” (p. 88), and Edley and Litosseliti (2010) see interviews as “legitimate and valuable research tools” if they are treated as interactional events rather than as “a mechanism by which one party (i.e. the interviewer) extracts vital information from another (i.e. the interviewee)” (p. 165). The principal purpose of an interview is “to allow us to enter into the other person’s perspective [. . .] to find out what is in and on someone else’s mind” (Patton, 2002, p. 341). Being a “window onto the mind” (Litosseliti, 2010, p. 170), interviews are very useful in linguistic research for gaining information about people’s attitudes towards language in general or towards a particular language aspect, or about people’s views, beliefs, motivations and perceptions on a topic. In reading research, interview in the form of prompted think-aloud protocol can offer that necessary window on what is going on in the reader’s mind while reading.

Both with structured interviews and with more semi-structured or unstructured ones, the basic requirement for the interviewer is to remain neutral during the process of gathering information, and for the interviews to be theoretically well-grounded and planned in detail (Litosseliti, 2010, p. 172). It is undeniable that well-designed interviews “yield direct quotations, feelings, and knowledge” resulting from a researcher’s discussions with people about their experiences and perceptions, the true “fruit of qualitative inquiry” being the patterns, insights, themes and understandings produced through analysis of interview protocols (Patton, 2002, p. 4).

In designing our prompted think-aloud protocol we considered what realistically could be achieved in gathering introspective verbal protocols by asking children to give ongoing reports on their thought processes in the course of doing a task (MacKay & Gass, 2005, pp. 77-85). Taking into account the fact that there was no possibility of summoning all respondents for a training in ‘thinking aloud’, the researcher realised that the questions and probes had to be very carefully thought of, so that the information obtained could be used for research purposes. Following recommendations given by Chamot and El-Dinary (1999), Cohen and Oxford (2002), MacKay and Gass (2005), Merriam (2009), Patton (2002), Rankin (1988), Serafini (2010), Smith (2004), and Weaver (2002), the researcher decided on the amount of structure of the protocol by opting for a structured interview with semistructured sections (see Appendix 2): the questions required from all respondents were predetermined, while the questions related to the specific data to be elicited from individual learners were more flexible. The starting point was a task given to the learners: a reading text slightly above the level of the learners (*Cambridge English Young Learners: Young Learners English Tests: Sample Papers – Flyers*, 2013). After a few general questions related to a learner’s reading habits and attitudes in the learner’s mother tongue, he or she was instructed to look at the picture and try to predict what the text would be about, and then to read the first paragraph aloud and retell it in Serbian, trying at the same time to solve the problems related to unknown vocabulary (both pronunciation and meaning) and grammar structures, and thus enhance comprehension. The researcher tried to encourage the child to speak up when silently thinking by asking “What are you thinking at this moment?”. These online recalls were audio recorded and later transcribed for analysis.

Patton (2002) argued that “collecting the same information from each person poses no credibility problem when each person is understood as a unique informant with a unique perspective” (p. 347). Moreover, using the same questions in the same order made analysis of

respondents' answers easier and faster. The role of the probes, i.e. the follow-up questions, was to elicit greater detail from the learners related to their reading habits, attitudes to different kinds of reading, difficulties in reading and self-concept as readers, and also to guide them and provide stimuli for eliciting relevant answers. The fact that unique answers were obtained to the same questions should have increased credibility of the method. Two pilot interviews were carried out with Grade 5 learners in a local primary school a couple of months before the time of the research in order to see if there were any confusing questions, and if all questions elicited useful data. The pilot interviews caused minor changes in wording questions and in their order. The interviews were also very beneficial in helping the researcher gain some experience and confidence in interviewing children. Interviewing children calls for careful phrasing and wording of questions since they "take interview questions quite literally" (Patton, 2002, p. 365). MacKay and Gass (2005) argued that online (immediate) recalls should be carried out in the learner's native language to allow him or her to fully express his/her thoughts.

Prompted think-aloud interviews of the present research study were carried out in the same schools where the quantitative survey was done and in the course of the same period, i.e. the first three weeks of November 2013. The sub-sample involved one to three learners per research school, nominated by the English teachers from these schools. Involving learners from all six contexts, and from five different country regions, was aimed at enhancing credibility by creating a comprehensive and complete picture of the research issue (MacKay & Gass, 2005). Sampling strategy was non-probabilistic, and the sampling form was purposeful sampling in accordance with Merriam's (2009) argument that "[p]urposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p. 77). Several selection criteria were applied: time and space available for an interview at a certain

place, willingness and eloquence of prospective interviewees, and provision of the parent's consent before the interview. Before nominating children to take part in the interview, teachers were instructed to nominate learners who would feel comfortable to talk about their experiences and would be "more likely to provide extended answers in a conversational format" (MacKay & Gass, 2005, p. 174). High level of English language proficiency was not a critical criterion, although it would have been rather inconvenient to interview learners with very low EFL proficiency for gaining an in-depth insight into comprehension processes. Generally, upon completing the qualitative survey at a school, the researcher carried out an interview with a learner in a quiet and solitary room in the school, familiar to the child, like a library or a psychologist's office not occupied at the time, or an unoccupied classroom, during the regular school hours. The researcher was not a stranger to the learner at the time of the interview, having first carried out the reading task survey in the learner's class. At the end of the interview, each interviewee was presented with a special notebook for keeping records of future readings in English (titles, sources, new vocabulary, impressions, etc.), much appreciated by the interviewees.

3.1. Participants

A sample of 502 young EFL learners attending primary Grade Five took part in the survey conducted in November 2013. The gender structure was 51.8 percent girls (260) and 48.2 per cent boys (242), their average age being $M = 11.21$ ($SD .31$). Table 3.1 shows gender distribution within the whole sample, while Table 3.2 presents the average age of the cohort. Depending on the age of the participants, it could be expected that characteristics of both concrete operational thinking and formal operational problem solving may be guiding the children's cognitive processes (Kail, 2014). According to Piaget, in the concrete operational stage (children aged from 7 to 11), children's thinking is "limited to the

Table 3.1: Gender of participants

	Frequency	Percent
girls	260	51.8
boys	242	48.2
<i>Total</i>	502	100.0

Table 3.2: Average age of participants

Minimum	Maximum	Mean	Std. Deviation
10.17	12.58	11.21	.31

tangible and real, to the here and now,” and it can be reversed; in the formal operational stage (children older than 11), “children and adolescents apply mental operations to abstract entities; they think hypothetically and reason deductively” (Kail, 2014, p. 185), taking a more sophisticated approach to solving problems through creating and testing hypotheses, and drawing inferences. However, if compared to adolescents, children “have limited experience in most tasks, so they perform few processes automatically” and “their processing requires substantial working memory capacity,” but as they acquire experience, some of the processes become more automatic and children’s problem solving more successful (Kail, 2014, p. 196). The level of the participants’ cognitive development affects their performance in the reading task, determining the automaticity of the processes and how much of their working memory would be free to facilitate reading comprehension.

Six large state schools were selected (see Appendix 5), comprising from 700 to 900 students, distributed in eight primary grades, both urban and suburban, located in more or less economically affluent settings in five distant geographical towns in Serbia: Niš, a big city in Southern Region, Belgrade, a metropolis, and Novi Sad, a big city, in Northern Region, and

Kragujevac, a big city, and Jagodina, a small town, in Central Region (see Appendix 5). The purpose of such random and statistically representative sample was to allow generalisations and to control bias (Patton, 2002). The number of participants drawn from individual schools ranged from 71 to 101. Table 3.3 shows the number of participants from individual schools (S1-S6) and their gender frequencies.

A sub-sample of 90 learners was drawn for post-reading reflection protocol analysis. This group was drawn from one school located in the Northern Area, i.e. School 6 (S6), in which a very high percentage of the participants had accounted for their choices in the reading task. The purposeful sampling strategy applied was intensity sampling, with the purpose of reviewing and studying the cases that offered the most material for in-depth qualitative analysis of reading strategies applied. The aim was to find out which comprehension strategies might have contributed to the sub-sample's above-average reading scores in the Serbian context, and which should be considered in pedagogical implications of the study for improving reading skills of young learners.

Another sub-sample of twelve learners was selected for face-to-face individual interviews. The approach applied in sampling was purposeful non-probabilistic sampling, the criterion being "credibility, not representativeness" (Patton, 2002, p. 241). Credibility was enhanced by collecting data from six different contexts, i.e. schools, and by ensuring that interviewees were acting naturally in the presence of the researcher, whom they had already met in the class survey, and later in the informal discussion before the interview. Patton (2002) warned that such a purposeful non-probabilistic sample does not allow statistical generalization, but Merriam (2009) argued that "generalization in a statistical sense is not a goal of qualitative research" (p. 77) and is therefore unnecessary. The most important aim of purposeful sampling should be getting valuable information for deeper understanding of the phenomenon studied, i.e. to allow identification of reading difficulties, reading strategies and

Table 3.3: Number and gender of participants per school

School		Participants' gender		Total
		girls	boys	
S1	N	40	40	80
	% within the school	50.0%	50.0%	100.0%
	% within the whole sample	15.4%	16.5%	15.9%
S2	N	53	32	85
	% within the school	62.4%	37.6%	100.0%
	% within the whole sample	20.4%	13.2%	16.9%
S3	N	39	36	75
	% within the school	52.0%	48.0%	100.0%
	% within the whole sample	15.0%	14.9%	14.9%
S4	N	36	35	71
	% within the school	50.7%	49.3%	100.0%
	% within the whole sample	13.8%	14.5%	14.1%
S5	N	49	52	101
	% within the school	48.5%	51.5%	100.0%
	% within the whole sample	18.8%	21.5%	20.1%
S6	N	43	47	90
	% within the school	47.8%	52.2%	100.0%
	% within the whole sample	16.5%	19.4%	17.9%
<i>Total</i>	N	260	242	502
	% within the whole sample	51.8%	48.2%	100.0%
	% within the whole sample	100.0%	100.0%	100.0%

a number of individual and contextual variables affecting reading development in English as a foreign language. Additionally, a questionnaire was distributed to the teachers teaching the sample learners who participated in the survey of reading skills: 6 schools in five towns in Serbia involved 9 teachers altogether, all being female. The teachers were specialist English language teachers, and two thirds of them, i.e. 6 out of 9, held bachelor's degrees, and one third (3 teachers) had a master's degrees in the English language and literature. The overall teachers' teaching experience ranged from 3 to 25 years, the mean teaching experience being

14.4 years, while their experience in teaching young learners ranged from 3 to 17 years, the mean TEYL (teaching English to young learners) experience being 10.5 years. At the time of the survey the respondents were teaching from 29 to 110 fifth graders involved in the study. Although the teachers' English language proficiency was not measured in the study, it is critical that over a half of them (5 teachers out of 9) had had some in-service training about teaching reading to young learners, acquired in the professional development programmes like *Teaching Knowledge Test*, *Winter School*, *English Book Summer School*, *Ministry of Education Course*, and the same number reported possessing professional books about teaching reading to children, either at school or at home.

The teachers completed the questionnaire during the classes when their learners were being surveyed, in the presence of the researcher who could assist by clarifying the items, if needed. Apart from using questionnaires in surveying the learners and the teachers, a range of other instruments was employed in the study, as will be described in the next section.

3.2. Instruments

The instruments utilized in the research study focused on a wider area of reading skills, strategies, and difficulties, as well as attitudes and motivation, viewed from the perspectives of the learners and the teachers. The apparatus was composed of the following instruments developed for the study (see Appendix 2): 1. Contextual Factors Questionnaire – a background structured questionnaire with eight questions, seven of which had multiple choice answers; 2. Reading Research Tool – the ELLiE study reading research instrument (ELLiE team, 2013) in the form of a comic strip with seven multiple choice items with distracters, obtained for the present research study upon written Permission signed by the ELLiE Project Director (see Appendix 1); 3. Post-Reading Reflection Protocol, with seven reflection tasks (ELLiE team, 2013); 4. Individual Factors Questionnaire – a smiley

questionnaire with seven questions related to attitudes, motivation and self-concept, and three-level rating scale; 5. Reading Strategies Questionnaire – a semi-structured questionnaire comprising three multiple choice and open-ended questions; 6. Reading Difficulties Questionnaire – a semi-structured questionnaire comprising one multiple choice and open-ended question; 7. Prompted Think-Aloud Protocol Interview – a standardised open-ended interview for the sub-sample of twelve learners, comprising the reading text of *Cambridge English Young Learners: Young Learners English Tests: Sample Papers – Flyers* (2013); 8. Teacher Questionnaire - a semi-structured questionnaire comprising twenty-two questions divided into two sections, with multiple choice and open-ended questions.

All instruments, apart from the ELLiE reading research instrument and the post-reading reflection prompts, that had been designed by the ELLiE team (2013), were designed by the researcher. Detailed coding schemes were devised by the researcher for analysing post-reading reflection protocols and prompted think-aloud protocols. With regard to the reading task that had been designed by the ELLiE research team (2013), the scoring scheme was the same as for the ELLiE study, so that the collected data could be comparable to the ELLiE reading results. Both the reading research tool and the prompted think-aloud task were kept confidential and were not shared with the schools, so it was possible to re-use the same tasks within schools and within the country. All quantitative data were analysed using SPSS, a quantitative data analysis package. A detailed description of all above instruments is given in the following sections.

3.2.1. Contextual factors questionnaire

Background questionnaire was administered to the whole sample for collecting biodata information and for gathering data on some contextual factors. It was in Serbian, the

common mother tongue of all learners in the sample. It preceded the reading task and was done as a class activity for the reasons of clarity and speed: the researcher read question by question to the whole class, clarifying them when necessary, and the participants were given a very short time to write or circle their answers. At the beginning of filling in the data, children were told that the test was going to be done anonymously and that they should not write their names on the material. They were also told that the results would not be available to anyone except the researcher and would be used for the research purposes exclusively. This information satisfied the requirements of privacy and anonymity of the participants (MacKay & Gass, 2005) and helped children feel more comfortable.

Since there are no specific rules or guidelines about the biodata that should be obtained in the second language field, the research focus should determine what and how much information is needed (MacKay & Gass, 2005). Our background questions related to learners' age, gender, mother tongue, level of proficiency and grades in mother tongue and in English, overall period of learning English, attendance of out-of-school classes, and overall experience in reading and writing in English (see Appendix 2). The question about gender was answered by circling one of two answers, while the question about age requested children to give both the year and month of their birth; the questions about mother tongue and about grades achieved in mother tongue and in English in Grade 4 were open-ended; the questions about attendance of out-of-school private English classes, had two choices, i.e. affirmative and negative, while the question about the overall period of learning English had three choices: a) since Grade 1; b) since pre-school grade; c) since kindergarten; finally, the last question referred to overall experience with reading and writing in English, to which five choices were offered: a) since attending pre-school; b) since Grade 1; c) since Grade 2; d) since Grade 3; e) since Grade 4. However, the answers to the last question were not taken into account eventually because the children found it very difficult to determine when exactly

they started to read in English. As learning to read in English as a foreign language is a slow process, and is started as sight reading at word level, it is understandable why the question related to its beginning caused such confusion. Although clarification related to this question had been necessary in the pilot research, the researcher had not omitted it believing it would be possible to obtain valuable data. When the collection of data from the whole sample was finished, the researcher decided not to include the answers to this question in the analysis. The answer to this question was provided by English language teachers in Teacher Questionnaire, but it concerned the sample at the school level (not at individual students level), and most often just echoed the primary curriculum prescription for introduction of reading and writing in English in Grade Three, after two full years of oracy development).

3.2.2. Reading research tool

The reading skill assessment instrument was the ELLiE Reading Research Tool (ELLiE team, 2013; see Appendix 2), a set of comic strip pictures adapted from the original cartoon ‘Pesquis i Baliga’, published in Catalan by Cavall Fort (www.ellieresearch.eu). It was adapted by the ELLiE team and used in the ELLiE survey (Enever, 2011), and the researcher used it in the present survey upon written Permission granted by the ELLiE Team and signed by the ELLiE Project Director on 9th May 2013 (see Appendix 1).

The reading tool was an authentic comic strip, originally published in a children’s magazine (Szpotowicz & Lindgren, 2011). It consisted of three strips of pictures, the first and the third containing three pictures each, while the second strip had four pictures (see Appendix 2). There were 16 speech bubbles, and the text had been erased from seven speech bubbles (representing seven items of the reading task, though in the ELLiE study in six country contexts the task had eight items, and seven in one context only) in the following

pattern: in the first strip, there were three speech bubbles, the initial one contained the prompt, while the two that followed were empty; in the second strip, there were seven speech bubbles, three of which were empty; in the last strip, there were six speech bubbles, two of which were empty. The reading task involved filling in the empty speech bubbles with text by choosing from the options which had one distracter for each strip. Table 3.4 shows the prompts and options for pairs or groups of items; it can be seen that each item was preceded by a prompt, either as a text in a speech bubble, or a picture.

Table 3.4: Reading research tool items

Items	Prompts	Options
Items 1 and 2	Item 1. Prompt: Tony: <i>I'll have a snack first, a glass of orange juice</i> (opening the fridge). Item 2. Picture: Tony looks at the table, his food is gone.	A) <i>I'm hungry and the fridge is empty.</i> (distracter) B) <i>There is some chocolate spread, yum.</i> (Answer 1) C) <i>Mmmmm this is going to be good! Where's the orange juice? Where's the bread?</i> (Answer 2)
Items 3, 4 and 5	Item 3. Prompt: <i>Oh no! There's somebody at the door ... Coming.</i> Item 4. Prompt: Tina: <i>Hi Tony.</i> Tony: <i>I just turned my back for one second and...</i> Item 5. Prompt: (Tina) <i>I've got an idea Tony, can you give me a banana, please.</i>	A) <i>Why do you need it?</i> (Answer 5) B) <i>Oh, it's you. Something strange just happened. I think we've got ghosts.</i> (Answer 3) C) <i>Hi Tina, I just had a snack.</i> (distracter) D) <i>Wait, let me think ...</i> (Answer 4)
Items 6 and 7	Item 6. Prompt: (picture) Tony and Tina put the banana on the table. Item 7. Prompt: (picture) a monkey grabbing the banana. Prompts: Tony: <i>But ...</i> Tony: <i>You're a clever girl!</i> Tina: <i>Thank you. Maybe the monkey escaped from the zoo!</i> Monkey: <i>Yum!</i>	A) <i>Let's eat the banana now.</i> (distracter) B) <i>Aha! Caught you!</i> (Answer 7) C) <i>Come on, let's go and watch TV. Our programme's on.</i> (Answer 6)

The storyline of the comic strip was as follows (Szpotowicz & Lindgren, 2011):

Tony is preparing a snack in the kitchen. When he turns around to take out chocolate spread from the fridge, his bread and orange juice disappear, leaving an empty plate and an empty glass. The doorbell rings and his friend Tina appears. Tony tells her about the mystery and she gets an idea. They put a banana by the kitchen window and pretend to go out of the kitchen. A monkey appears in the window to grab the banana. The children are surprised to see it and then watch the monkey finish the banana on the table saying that it probably escaped from the zoo. (p. 134)

Using a narrative to measure children's reading comprehension skill is pedagogically justified as "literacy is no longer considered to be connected with letters exclusively" (Prošić-Santovac, 2009, p. 94). Most children become familiar with narrative structure in early childhood, before they start school, and are able to understand causal relations between events in different forms of fictional narratives: picture books, cartoons, movies, comic strips or nursery rhymes. Research indicates strong relations of children's ability to understand the causal relations of events in a cartoon as a narrative form, and of their ability to identify such relations in a story read aloud (Oakhill, Cane & Elbro, 2015). However, young children's inferencing skills related to identifying a goal in a narrative are limited and can be enhanced only if the text supports this kind of inferencing (Oakhill, Cane & Elbro, 2015). Therefore, using a comic strip, which involves a combination of visuals and texts, seems to be a good assessment tool for several reasons. First, well-integrated information from the text and the visuals has the effect similar to double presentation of information, which supports performance and affects comprehension favourably, especially with poor comprehenders (Liu, 2004). Then, comic strips make it easier for children to decode the feelings and the meaning expressed owing to the figures and faces of the characters presented visually (Goldsmith, 1987). What is more, using a comic strip as an assessment tool with young learners who are beginning readers has a special purpose: it helps assess the skills of children whose abilities are rather varied. Finally, comic strip as a genre is favoured by children (Krashen, 2004).

Comic strips and cartoons have been used in research of reading comprehension for more than four decades. Liu (2004) discussed the use of comic strips in education and in L1/L2 classrooms, and found them appropriate for building reading skills and promoting higher level thinking with elementary and secondary students if teachers used them both as a method and a medium of instruction. Liu (2004) defined a comic strip as "a series of pictures

inside boxes that tell a story” and argued that their potential was in “skillfully employing words and images together” (p. 229). Moreover, the author saw comic strips’ qualities, such as being communicative, accessible, readable, versatile, easy to use, popular and culturally relevant, as true advantages of the genre in L2 teaching. Comic strips have been found very effective in teaching ESL students with low language competence and communication skills (limited discourse and interactive competence). As learners differ in many ways (they have different learning styles and different language proficiency levels), it is very difficult to know to what extent visuals can help their reading comprehension and through which cognitive processes (Liu, 2004). Therefore, Liu (2004) designed research (participants were university ESL students) that aimed to answer the above questions: two groups of students of different proficiency were involved in reading two texts of different difficulty, administered with and without visual support. The research involved analysing the students’ immediate recall protocols (IRP). Using IRP in ESL/EFL reading research is favoured over multiple choice and true-false formats for assessing reading comprehension of foreign language students. Liu (2004) argued that IRP was the most straightforward method of assessing interaction between a reader and text, and of offering the insight into how the reader reconstructed and encoded information in a text. The reader has to understand the text very well to be able to recall it coherently, so IRP shows all gaps and misunderstandings on the part of the reader, “a feature that other methods of evaluation cannot offer” (Liu, 2004, p. 234).

The results of Liu’s research showed that using comic strips enhanced reading comprehension of low-level students, but had little effect on the performance of high-level students. The comic strip may contribute to enhanced comprehension by enabling students “to comprehend the text through matching and mapping among factors such as word recognition, phonographic features, syntax, intertextual perceptions, and background knowledge” (Liu, 2004, p. 236). Liu argued that these results were consistent with DCT,

since the comic strip facilitated reading comprehension only of low level proficiency students when reading a difficult text, but not when reading an easy text. Comic strip enables students to use two sources of information when it is needed, like with a difficult text. Discussing the role of visuals in helping readers to comprehend a text or factual information, Liu (2004) outlined five different functions of visuals in reading: 1. representation: visuals repeat the text's content or substantially overlap with the text; 2. organization: visuals enhance the text's coherence; 3. interpretation: visuals provide the reader with more concrete information; 4. transformation: visuals target critical information in the text and recode it in a more memorable form; 5. decoration: visuals are used for their aesthetic properties or to spark readers' interest in the text (Liu, 2004, p. 226). Research suggests that all but the decorative function have the property to facilitate memory, with representational function being the most significant and overlapping organizational, interpretational and transformational functions "because visuals always repeat part of the text's content, either the details or the relationships between the details" (Liu, 2004, p. 226). To further support the effects of visuals on cognition in general, and on reading comprehension in particular, Liu called upon several theories, stressing the Dual Coding Theory (DCT) as the most applicable, and emphasizing that previous studies were consistent in showing that "pictures duplicating information in the text improve reading comprehension and memory" (Liu, 2004, p. 227).

Assessing reading using an authentic text that could actively involve children in performance of the classroom task, rather than using a standardised test that requires children to reproduce their knowledge, is "in keeping with Piaget's position that children construct knowledge" over a long period of time through interrelationships in development (Wortham, 2012, p. 113) and should be encouraged to produce knowledge. Wortham (2012) argued that in making sense of reading material, "young learners use available resources such as text, prior knowledge and environmental clues" and their emergent literacy should, therefore, be

assessed in interrelationships with their language, listening, and writing development, through performance activities (p. 114), and by determining their stage towards achieving mastery in the Vygotsky's zone of proximal development, which shows what children can do with help (scaffolding) before being able to do it independently. If the above characteristics of comic strips are treated as a special kind of scaffolding provided to enhance children's reading comprehension, post-reading reflection protocol should have the capacity to indicate the level of mastery in reading achieved by individual children, including the strategies and clues employed while reading an unfamiliar text. The next section describes how the post-reading reflection protocols were devised and their aims and objectives.

3.2.3. Post-reading reflection protocol

Qualitative data were collected in the form post-reading reflection protocols, the learners' explanation of choices in the seven items of the ELLiE study reading research task. The post-reading reflection task required learners to check through their answers in the reading task and to verbalize in writing their thoughts in relation to making choices among the options given in the reading task. The learners were instructed to write down in their mother tongue (i.e. Serbian) why they had chosen each answer. They were told to write these explanations next to each statement they had chosen, thinking about the clues that had helped them to make decisions (like a certain word, or a phrase, or the whole sentence which they had understood, or an object in the picture). If they had found no clues or had not understood the text, they were instructed to note down that they had chosen a certain option at random.

Using a post-reading reflection task as a method of verbalizing the inner thoughts of the reader during the reading task can reveal the level of comprehension and the strategies used by the reader (Rankin, 1988). It brings a new dimension in measuring the process of

reading and making sense of a text, and can potentially point to adequacy/deficiency of strategic competence. It is suggested that data should be collected as soon as possible after the process of reading to increase the possibility of accessing data from short-term memory (Patton, 2002). In our study, learners were instructed to do the post-reading reflection task immediately after completing the reading task in full. It was supposed that the reasoning processes were still fresh in their minds and could successfully be verbalized in writing. Considering that “there is a strong relationship between strategy use and L2 proficiency” (Andersin, 2005, p. 762), analysis of post-reflection reading protocols was expected to give more in-depth understanding of Serbian young learners reading outcomes.

3.2.4. Individual factors questionnaire

The fourth instrument was intended to reveal a set of individual factors that might affect success in reading. Therefore, an attitudes and motivation smiley questionnaire was created, containing seven items designed to elicit young learners’ feelings to learning English, learning new English words, reading in English, reading aloud and silently in English, and reading in English on the internet, and also to reveal their self-confidence as readers. The questions were in Serbian (the native language of the whole sample), and the children were to be instructed in Serbian both in written and oral mode to listen to the questions read by the researcher and to circle a smiley face that best described their personal attitude to the issue in question. Questions number 1-6 referred to the children’s attitudes: 1. “Do you like learning English?”; 2. “Do you like learning new words in English?”; 3. “Do you like reading in English?”; 4. “Do you like reading aloud in English?”; 5. “Do you like reading silently in English?”; 6. “Do you like reading in English on the internet?”. Question number 7 related to the children’s self-concept: 7. “Do you read in English better than your

classmates?” The answers to all questions were rated on a three-level scale, and the meanings of smiley faces for questions numbers 1-6 were to be clarified to children in the following way: a smiley face = I like it very much (= 3 points); a neutral face = I am not sure (= 2 points); a sad face = I don't like it (= 1 point). The meanings of the smileys were slightly different for question number 7, to be clarified to children in the following way: a smiley face = Yes, I do (= 3 points); a neutral face = I am not sure (= 2 points); a sad face = No, I don't (= 1 point).

3.2.5. Reading strategies questionnaire

The reading strategies questionnaire was administered to the whole sample for eliciting a range of strategies the children reported using for making sense of the text where new words and structures appeared. This semistructured questionnaire comprised three items with comprehensive lists of multiple answers and an open-ended option, so that children could add answers of their own. The questionnaire was in Serbian (a common mother tongue of all learners, i.e. L1) and the children were to be instructed in Serbian both in written form and orally, to listen to the questions read by the researcher and to circle as many answers as were true for them. The first question referred to a learner's strategies when he or she has to read an unfamiliar word aloud. It was, “When you read aloud in class, what do you do when you don't know how to read a word?,” and the options were: a) I read letter by letter; b) I try to remember a similar word and then read it; c) I skip that word and go on reading; d) I ask a classmate or the teacher for help; e) (if you do anything else, write here what you do) (see Appendix 2). The last option was open-ended and the children were to be invited to add a strategy not offered in the multiple answers from a) to d).

The second question referred to the teacher's strategy instruction reported by learners. It was, "How does the teacher help you when you don't know how to read a word?," and the options were: a) by reading the word and asking me to repeat it; b) by asking me to remember a similar word and then to read it by myself; c) by asking if someone knows how to read it, and if they know, she asks me to repeat it; d) (if you do anything else, write here what you do) (see Appendix 2). The third question referred to the strategies a learner uses to understand the meaning of an unfamiliar word. It was, "When you read in class in English, what do you do when you do not understand a word?," and there were nine options: a) I look at the picture accompanying the text and try to guess its meaning; b) I reread the whole sentence and try to guess what the word means; c) I reread the word several times and try to remember what it means; d) I skip the word and read on; e) I think about how much I have understood the text I have read and I continue reading; f) I think about what will happen further in the text and I continue reading; g) I ask a classmate or the teacher what the word means; h) I look the word up in the course book or in a dictionary; i) (if you do anything else, write here what you do).

3.2.6. Reading difficulties questionnaire

The reading difficulties questionnaire was administered to the whole sample for eliciting a range of difficulties the children experienced in reading in English. This semistructured questionnaire comprised one item with a comprehensive list of multiple answers and an open-ended option, so that children could add answers of their own. The questionnaire was in Serbian (a common mother tongue of all learners, i.e. L1) and the children were to be instructed in Serbian both in written form and orally, to listen to the questions read by the researcher and to circle as many answers as were true for them.

The question referred to reading difficulties in English experienced and observed from the point of view of the learner. The question was, “What are the greatest difficulties you experience when reading in English?,” and there were seven options offered: a) I cannot pronounce some English sounds; b) I cannot remember how to read some familiar words; c) I don’t know how to read new words; d) When I don’t know a word, I cannot continue reading because I don’t understand the text; e) When I read aloud I don’t understand what I have read; f) I read very slowly and I don’t understand what I have read; g) (if you have any other difficulties, write them here). The combination of multiple answers and a related open-ended question was aimed at providing enough data for a comprehensive insight into young learners L2 reading difficulties. These quantitative data were also to be compared to the qualitative data obtained through the prompted think-aloud protocol interviews, described in the next section.

3.2.7. Prompted think-aloud protocol interview

Qualitative data were to be collected in the form of an oral interview carried out with a sub-sample of twelve learners representing all schools involved in the research, two learners per school. Oral interviews were aimed at getting a more detailed insight into young learners’ attitudes to reading and their motivation for regular extensive reading. Prompted think-aloud protocol was to be conducted face-to-face with individual learners. It was planned to last up to 45 minutes, i.e. a regular class time, to be audio recorded and later transcribed and analysed.

Since “*protocol analysis* or, more literally, *think-aloud protocol* approach, aims to elicit the inner thoughts or cognitive processes that illuminate what’s going on in a person’s head during the performance of a task” (Patton, 2002, p. 385), interviewing should be done as close to the action as possible, even while the activity is being done, and the interviewer’s

questions and probes should elicit the respondent's thoughts related to the action itself. These concurrent explanations are thought to be more reliable than retrospective descriptions that happen after the action because they are not negatively affected by short-term memory recall processes of the respondent (Patton, 2002). However, verbalising one's thoughts, i.e. 'internal dialogues', requires guidance and training and does not happen spontaneously. As training could not be organised due to very significant time burden for the researcher and big logistical problems of making schedules both for the qualitative survey and the interviews, the learners were given a lot of guidance and encouragement to speak while thinking and solving comprehension problems in the course of the interviews.

Establishing rapport with the interviewee, but staying neutral, is a key to success in the process of interviewing. Patton (2002) argues that rapport "means that I respect the people being interviewed, so what they say is important because of who is saying it," while neutrality "means that the person being interviewed can tell me anything without endangering either my favour or disfavour with regard to the content of her or his response" (p. 364). The researcher planned to establish rapport in the beginning by asking a few general questions about reading in the learner's mother tongue, by carefully listening to the interviewee and showing that in feedback by repeating the interviewee's responses neutrally, by using probes that would enable the child to keep talking on the aspect he or she personally found very important, not worrying about being judged, by observing for the signs child's of fatigue, by giving the child a lot of time to think about the questions and probes and to respond to them.

The interview questions were grouped into four sections. The purpose of the first section was to help the interviewee feel relaxed and unthreatened, so the questions were: "Do you like reading? How do you feel when reading a book in Serbian?" The second section was an introduction to the prompted think-aloud reading task and the questions related to the learner's experience in reading in English: "Do you like reading in English? Do you read in

English for pleasure in your free time? When do you usually read in English? What texts do you read in English? How do you feel when you are reading a book or a story in English? How do you choose what to read in English? Do you choose the texts that are not too difficult? Do you read in English on the internet? Do you read in English on the internet to learn something? Do you read in English with your parents or siblings? Do you like to read in English with them? Why?"

The third section was the reading task and prompted think-aloud protocol related to it. It was the most important part of the interview and was therefore placed in the middle. MacKay and Gass (2005) argue that it is the middle position is the best position for the crucial interview questions "because the interviewee may be nervous in the beginning and tired by the end" (p. 175). At the beginning of the third section the interviewer was to give the learner a page with a picture and a three-paragraph text, without a title (229 words). The learner was first to be invited to look at the picture and try to predict what the story would be about. After that the learner would be instructed to read the first paragraph aloud, and then his or her comprehension would be checked by asking him or her questions related to the content of the paragraph; after that, and the learner would be invited to say aloud his or her thoughts related to the story and its context, and also to predict the development of the story in the next paragraph. The questions and prompts were to be: "What has happened in the story so far? What are you thinking about while reading? What is important in this part of the story? What catches your attention in the picture? Can you relate it to the paragraph you have just read? What do you think will happen further in the story? How do you know it?" The learner would be allowed to look back at the story, reread parts and think aloud about the meaning. He or she would be probed to guess how to pronounce new vocabulary and to make guesses about the meaning of unfamiliar words. The same procedure was to be repeated in reading the second paragraph, but before the third, the final paragraph, the learner would be instructed to

read the paragraph silently and would be then asked a set of slightly modified questions: “What is happening at the end of the story? Can you relate this paragraph to the picture? What were you thinking about while reading silently? Did you reread some parts of the paragraph? Which ones? Why?” After this discussion, the child would be asked to read the final paragraph aloud and was to be asked a couple of questions: “When did you understand the text better, when reading silently or aloud? Why? What helped you understand better in that mode?”

The text was taken from *Cambridge English Young Learners: Young Learners English Tests: Sample Papers – Flyers* (2013) (see Appendix 2). Linguistic analysis of the reading text for prompted think-aloud protocol interview shows that it consisted of three paragraphs of different length and linguistic difficulty; it contained 229 words in 22 sentences (13 simple and 9 complex sentences), the average length of sentences being 10.4 words. Individual reading performance was rated on two dimensions of literacy: 1. reading aloud; 2. reading comprehension. Running records were used to assess sub-sample learners’ “current abilities and weaknesses in reading” by listening to them reading and recording their errors and corrections: mispronunciations, substitutions, omissions or self-corrections (Greig et al., 2012, p. 126). However, instead of using a standardised running record developed by Clay (1993), we used a copy of the reading text to highlight the parts of the text where errors and corrections appeared, which later helped in transcribing the interviews and reading sessions that had been audio recorded.

The text incorporated the topic that all participants had covered in regular classes or at least had had some contact with. It included the past tense which had already been introduced at the end of Grade 4 and in the initial months of Grade 5 (regular verbs had been introduced and practised in classes). However, it was considerably above the level of what Grade 5 learners would be given as reading material: it was longer than the usual texts for the

respective grade, contained many examples of past tense verbs, comprised nine complex sentences (40.9 per cent), and generally sentences were long (with average number of 10.4 words). To assist comprehension through strategy use, the text included schema clues, in the way Macaro and Erler (2008) described the reading texts used in studying inferencing strategies of young learners of French.

The last section of the interview referred to the story as a whole. The learner was to be asked to express his or her thoughts, feelings and attitudes related to the content, language, his or her reading difficulties and solutions to the problems encountered in reading. This part of the interview was semistructured and flexible, and would depend on each individual's level of reading proficiency. The questions were divided into four groups: Group One questions: "Do you like this story? Which part do you like most? While you were reading the story, were you thinking about how much you could understand it? Did you manage to guess what the first/second/third paragraph would be about? How did you manage to make a successful guess? What helped you to guess the content?"; Group Two questions: "How much do you understand this story? What is it about? What title would you give it? Is there a part of the story you found difficult to understand? What couldn't you understand? Do you know all words in the story? What helped you to understand the unfamiliar words? What could you have done to understand the story better in spite of not knowing all words?" Group Three questions: "Is this word familiar to you? Can you read it? How did you know how to pronounce it? What helped you? What were you thinking while getting read yto reda it? Did you remember something? Anuthing else? What does it (the word) mean? How do you know it?"; Group Four questions: "How does the reading skill in Serbian help you in reading in English? How much is reading in Serbian similar to/different from reading in English? What is your biggest difficulty in reading in English? How do you overcome it? Did you learn that strategy in your English classes? Who from? Did you ask for help? Who from? Does that

always help you when you read in English? Does anything else help you to read better in English? Do you have a plan how to practice reading in English? Have you already noticed that you are now reading better? How did you come to that conclusion?" The answers were to be analysed both quantitatively and qualitatively, within content analysis. Moreover, the results were planned to be compared to the results obtained with other instruments.

3.2.8. Teacher questionnaire

Teacher questionnaire was a semi-structured questionnaire with twenty-two questions divided into a general section, involving 9 questions, and a specific section related to the teacher's experience in teaching reading to the classes of young learners that had taken part in the survey, involving 13 questions. The questionnaire was in English, as it was addressing teachers of English (see Appendix 2). The general section was related to the respondent's qualification, their teaching experience, in general, and to their teaching experience in teaching young learners, in particular. It also comprised open-ended questions related to professional development in teaching reading, availability of authentic story/picture/nursery rhymes books at the school where the teachers worked, frequency of using these materials in classes, the kind of materials they used in teaching reading, and the frequency of practising reading with learners. The information to be provided in this section was aimed at creating teacher profile and data related to school environment and instruction, important in considering the influence of contextual factors on children's reading success.

The second section referred to the teacher's observation and reflection on teaching Grade 5 class(es) involved in the study: the teacher's views on children's reading abilities, their reading strategies and reading difficulties, and classroom activities introduced by the teachers to help children improve their reading skills. The teachers were expected to identify

the number of children with reading difficulties in respective Grade 5 classes, and also to rate their students' reading ability on a 5-degree rating scale: *very poor*, *poor*, *fair*, *good*, and *very good*. These questions combined multiple answers and a related open-ended question, for triangulating the data to be obtained through the other instruments. The procedure of actual data collecting is described in the next section.

3.3. Procedure

A pilot survey had been conducted with a Grade 4 class, involving 24 participants aged 10-11, in a local primary school a couple of months before the study as “a small scale trial of the proposed procedures, materials and methods” before finalizing them (MacKay & Gass, 2005, p. 43). The pilot survey was carried out at the end of the academic year, i.e. in May 2013, as a preparation of the research study to be conducted at the beginning of the new academic year in autumn 2013. The aim of the pilot survey was to determine if children could do the types of reading tasks tailored in the Reading Research Tool, the Post-Reading Reflection Protocol and the Prompted Think-Aloud Protocol, without prior preparation, especially if they could understand what was expected from them in the post-reading reflection protocol. As the data were to be collected during a regular English class (lasting 45 minutes), it was also very important to determine if the planned distribution of time was realistic for completing five parts of the survey. Moreover, several more considerations were the focus of the pilot survey: developing rapport with children before beginning the assessment session; using the assessment time efficiently, without hurrying children too much or creating too much lag in time, thus keeping children alert and attentive. Furthermore, the pilot survey helped uncover possible problems and assess the feasibility of the testing method. First, it helped make time management more effective by reading the questions to the whole class, verified the appropriacy of the reading task and the post-reading reflection

protocol writing, and showed which questions in the questionnaires had to be clarified for the learners. Then, it reassured the researcher about children's attitudes to being tested by the researcher herself: there was little or no anxiety in the group, no child reported feeling nervous or threatened, and when invited upon the completion of the task to express their feelings related to the procedure by showing 'thumbs up' (= *like*) or 'thumbs down' (= *dislike*), the participants voted with 'thumbs up' unanimously. Teacher questionnaire was also tested with two primary teachers and a couple of improvements and clarifications were consequently added. Conducting the pilot study was critical for improving the wording of some questions and for amending the questionnaires in the light of feedback.

Ethical considerations were fully respected in the study. General guidelines with regards to ethics were applied: consents were collected from all parties taking part in the research before starting any survey. First, English language teachers teaching in the six schools selected for the study were contacted with a request to give a consent for a survey to be done in Grade 5 classes they were teaching at the time. Upon getting their consents, school principals of the same schools were contacted with a request by the researcher to conduct a survey on particular dates in particular classes. Upon oral consents, written consents signed by school principals were obtained. These letters of consent included a brief introduction of the research being conducted, stating its purpose and scope, and also what the data would be used for and who would have access to it. Moreover, information about a possible withdrawal from the study at any time without notice was given. These letters of consent were in Serbian (see Appendix 3).

Children taking part in the study were informed by their English language teachers about the survey to be done in their regular English class on a particular date, and the children were asked for a permission which they gave orally. On the day of the survey, the researcher always began the survey by informing children in their mother tongue, i.e. Serbian, about the

general aim of the study and how the data would be used, stressing that their English language teacher would not have any insight into their scores and that the scores would in no way affect their success in English as a school subject. The children were then offered a possibility to withdraw from the survey before its beginning. No child chose to withdraw, rather most of them were looking forward to doing a survey. At the end of the survey most children showed thumbs up as a sign of their enjoyment in doing the survey. It was obvious both to the researcher and the English language teacher present in the classroom during the survey that children had not felt threatened or uneasy while doing the tasks and answering questions. On the contrary, at the end of the survey, the children often asked the researcher if they could have more similar surveys in the future.

The data from the whole sample was collected within three weeks (the shortest timeframe possible considering there was one researcher and five geographical regions), two schools being surveyed per week, each comprising three or four Grade 5 classes (the total number of participants per school ranging between 71 and 101). For the sub-sample taking part in interviews, another type of consent form was used. This sub-sample comprised one to three learners per school (twelve in total), with whom interviews were conducted in the form of prompted think-aloud protocols. These consent forms had been drafted by the researcher and sent to teachers to be given to the nominated learners for a parent's/guardian's signature of consent. These forms were also in Serbian and in the introduction they informed parents/guardians about the general aim of the research and about the particular aim of conducting an interview with the child. Parents/guardians were also informed that the child could withdraw from the interview at any time without notice and that the data would be used exclusively for the purpose of the research. Children who took part in the interviews had been nominated by their English teachers and previously asked to take part in the interview and to consult their parents about that. Only then did children receive consent forms with

instructions for parents. The written consents were collected before the beginning of the interview.

3.3.1. Data collection

In the study, the data was collected by the researcher herself during school visits, in the respective classrooms during one regular English lesson for each Grade 5 class in school. Learners were allowed to ask clarification questions about questionnaire items, but no assistance was given to the children for the reading test. The class English teacher was present during the data collection, but she did not interact with the learners in the course of filling in the questionnaires and doing the reading test. Time limits for the reading test and the post-reading reflection task were explicitly stated and kept constant throughout the survey for all research settings. All instructions given by the researcher were the same for all groups.

Contextual factors and background questionnaire (in Serbian) was administered as class activity in the beginning, before the reading task; the reading task (with oral instructions in Serbian) and post-reading reflection protocol (in Serbian) were performed as individual activities, within predetermined timeframe; individual factors questionnaire, i.e. attitudes and motivation smiley questionnaire (in Serbian), was introduced by the researcher in Serbian and completed by learners individually by circling the chosen smiley; the final part of the survey was the reading strategies and difficulties questionnaire that was filled out in the end. The whole procedure was performed within a normal 45-minute class period, within the regular school timetable, so that intrusion and burden on schools, teachers and children was minimal. Time of the day varied according to the school timetable, as schools in Serbia have morning and afternoon shifts. The data from the whole sample of 502 participants was collected within three weeks, two schools being surveyed per a week, each comprising three or four Grade

Five classes and the total number of participants ranging between 71 and 101 (see Appendix 3).

The research material containing all above instruments was distributed at the beginning of the class session, after the introductions given by the researcher, and upon obtaining the children's oral consent to take part in the study anonymously. The teacher was present and was given a questionnaire specially designed for teachers taking part in the study. The distributed research materials had already been marked on the front page with codes enabling the researcher to trace the school, the class, the time and the teacher. These codes bore the letters L (for a learner) or T (for a teacher), the town number (1-5), the school number (1-2), the class/group number (1-4), and the learner number (01-30) or teacher number (1-9), and read like this: L-1-1-1-01, for the first learner in the first class of the first school in the first town. The whole procedure of surveying learners and teachers was led by the researcher throughout the sample.

The qualitative data in the form of individual interviews, i.e. prompted think-aloud protocols, with the sub-sample of 12 learners, were collected after the above procedure. The selected learners were granted exemption from a class they were supposed to attend at the time of the interview, so that the interviewees would not be kept at school longer than the timetable hours for the day. The interview took place in a silent office or classroom, with the interviewee and the researcher being the only persons present. The interviews were digitally audio-recorded, and later anonymised and transcribed for analysis purposes. Another group of qualitative data consisted of post-reflection protocols.

3.3.2. Data analysis

The research produced two kinds of collected data: qualitative and quantitative. Different approaches were used to analyse these two sets of data, paying special attention to respecting the issues of internal and external validity in quantitative data analysis, and the concepts of credibility, transferability, confirmability and dependability in analysing qualitative data (MacKay & Gass, 2005). The use of multiple, independent methods in collecting data enabled triangulation, helped reduce bias, and provided conditions for validity and credibility. In collecting and analysing quantitative data it is essential to respect the requirements for internal and external validity, i.e. that the research findings are relevant for the setting in which they have been produced, and that they are generalizable – valid for wider population of language learners (MacKay & Gass, 2005). All quantitative data were inputted into *SPSS*, a quantitative data analysis package, and subjected to analysis by the researcher. Statistical significance was also analysed using *SPSS* software package.

In respect to analysing qualitative data, the researcher recognized the importance of credibility, transferability, confirmability and dependability. MacKay and Gass (2005) argue that a researcher should demonstrate that her or his findings are credible, transferable, confirmable and dependable, and suggest the techniques enhancing these characteristics: in the process of data collection, participants should represent a number of different contexts and should also be made to feel comfortable in order to behave naturally; in reporting her or his findings, the researcher should provide a ‘thick description’ of the research context so that similarity to other contexts can be easily spotted for determining the transferability of the findings; in interpreting his or her findings, the researcher should give all details on which he or she places the claims, so that the research can be replicated and confirmed or

disconfirmed; in drawing inferences, the researcher should evaluate the dependability of inferences on the basis of all cues available.

Application of the above requirements demanded that the researcher should use quantifications, i.e. numbers and statistics, in addition to descriptive data in order to document patterns and frequencies, and also to report findings in a concise form. Post-reading reflection protocols were, therefore, transcribed and grouped into six groups of strategies according to the coding scheme designed by the researcher. In analysing transcribed prompted think-aloud protocols three sets of coding schemes were used: for reading strategies, reading aloud and reading comprehension. These coding schemes were also designed by the researcher, for the purposes of the study.

4. RESULTS AND DISCUSSION

The chapter presents the results, both quantitative and qualitative, obtained using the eight instruments. The results are organized through the instruments applied in the research study and are presented in the order the data was collected through questionnaires and (interview) protocols. The results are discussed within the same sections in which they are analysed, addressing the difficulties of early L2 reading and the factors that contribute to or hinder L2 beginning readers' success. First, contextual factors are considered, then the reading test results are studied, followed by the analysis of the post-reading reflection protocols; after that individual factors are examined, then reading strategies, and after that reading difficulties; then, the results of the prompted think-aloud protocols are analysed, and finally the teacher questionnaire results are examined. The analysis of a range of quantitative and qualitative results should enable triangulation of results and contribute to reliability of conclusions.

4.1. Contextual factors questionnaire

4.1.1. Results

The instrument provided the learners' information about their gender, grade level, success in the mother tongue and English, duration of exposure to English, out-of-school exposure/attendance of private English language classes, and the age when they started to learn to read and write in English. Table 4.1 shows the participants average age and grades in mother tongue (Serbian was their common mother tongue) and English at the end of Grade 4 for all six schools. It can be seen that the average age did not differ much among schools,

ranging from 11.17 to 11.26 (approximately one month difference). It can be also seen that the average grade in Serbian was higher than in English for all groups, ranging from 4.39 to 4.88 (on the scale 1-5, 5 being the best grade)⁴, while in English it ranged from 4.20 to 4.76. These grades fall within the ranges of ‘very good’ and ‘excellent’ grade levels, which means that the learners were very successful in L1 and L2 learning. However, standard deviations are higher for the average grades in English, which means that the individual grades were less homogeneous than the grades in Serbian. The best average grades in Serbian and English were

Table 4.1: Participants’ average age and success in mother tongue and in English per school

Participating school		Participants’ age	Participants’ average success (grade) in mother tongue	Participants’ average success (grade) in English
S1	Mean	11.26	4.76	4.66
	Std. Deviation	.35	.51	.65
S2	Mean	11.24	4.54	4.38
	Std. Deviation	.31	.73	.89
S3	Mean	11.17	4.47	4.20
	Std. Deviation	.34	.93	1.08
S4	Mean	11.25	4.39	4.32
	Std. Deviation	.31	.71	.89
S5	Mean	11.19	4.88	4.76
	Std. Deviation	.28	.43	.60
S6	Mean	11.19	4.84	4.66
	Std. Deviation	.28	.42	.74
<i>Total</i>	Mean	11.21	4.67	4.52
	Std. Deviation	.31	.66	.83

⁴ The *Rule Book for Assessment in Primary School* determines grade ranges: grade ‘very good’ ranges from 3.50-4.49, and grade ‘excellent’ from 4.50-5.00. *Pravilnik o ocenjivanju učenika u osnovnom obrazovanju i vaspitanju*, Official Gazette 67/2013, p. 7, <http://osas.edu.rs/stranice/pravilnikOcenjivanja/pravilnik.pdf>.

in School 5 (S5), located in Jagodina, while the lowest average grade in Serbian was in School 4 (S4), located in Belgrade, and the lowest average grade in English was in School 3 (S3), located in Kragujevac (see Appendix 5).

Exposure to L2 is considered an important contextual factor that may contribute to reading outcomes. Table 4.2 shows frequencies and duration of exposure to English depending on the age when the participants started learning English. Most of the learners

Table 4.2: Frequencies and duration of exposure to English per school

Participating school		Age when participants started learning English			Total
		Grade One (7)	Preschool age (6-7)	Kindergarten (3-4, 4-6)	
S1	N	38	19	23	80
	% within school	47.5%	23.8%	28.8%	100.0%
	% within the sample	13.7%	16.4%	21.1%	15.9%
S2	N	37	39	9	85
	% within school	43.5%	45.9%	10.6%	100.0%
	% within	13.4%	33.6%	8.3%	16.9%
S3	N	56	13	6	75
	% within school	74.7%	17.3%	8.0%	100.0%
	% within the sample	20.2%	11.2%	5.5%	14.9%
S4	N	51	13	7	71
	% within school	71.8%	18.3%	9.9%	100.0%
	% within the sample	18.4%	11.2%	6.4%	14.1%
S5	N	74	15	12	101
	% within school	73.3%	14.9%	11.9%	100.0%
	% within the sample	26.7%	12.9%	11.0%	20.1%
S6	N	21	17	52	90
	% within school	23.3%	18.9%	57.8%	100.0%
	% within the sample	7.6%	14.7%	47.7%	17.9%
<i>Total</i>	N	277	116	109	502
	% within the sample	55.2%	23.1%	21.7%	100.0%
	% within the sample	100.0%	100.0%	100.0%	100.0%

(55.2 per cent) started learning English in Grade 1, while almost equal percentages of the sample started English study as preschoolers (23.1 per cent) or as kindergarteners (21.7 per cent). However, there are great variations of the duration of exposure among schools, School 6 making almost half of the cohort of kindergarten starters (47.5 per cent), despite not being the school with the largest number of the participants within the sample.

Regarding the English language study experiences of the learners, the sample shared most of the conditions. First, all participants shared Serbian as their mother tongue, and second, they had followed the English curriculum from Grade 1, with two 45-minute classes a week. At the time of the survey they had been learning English for four full school years and two months (September and October 2013), having had from 306 to 310 regular English classes (72 per a school year; see ZUOV, 2013b, 2013c, 2013d), depending on the week in November 2013 when the survey was conducted. Our survey of the learners' reading skills was conducted after two full school years of reading skill development (in the last two years of the four-year period mentioned). They had started Grade 5 with the average grade level 4.51 (excellent) achieved in English at the end of Grade 4 (success in primary school is graded from 1 to 5; 1 = unsatisfactory, 5 = excellent), which meant that Grade 4 curriculum had been fully mastered and the curriculum objectives of reading skill development achieved. According to Grade 4 curriculum prescribed for English by the Ministry of Education of Serbia, i.e. the Institute for Improvement of Education (*Zavod za unapredjivanje obrazovanja i vaspitanja*, ZUOV), some of the literacy related competence objectives state that learners will be able to: read with understanding a short text (up to 50 words), comprising mainly familiar words and phrases and language structures prescribed by the grade curriculum; read and understanding basic meanings of short written and illustrated texts about familiar topics (including the topic of family, spending free time with family members and going on family trips); reads with understanding and appropriate response written messages related to

personal experience and classroom activities (invitation to play a game, orders, instructions, events from immediate past and plans for the future (ZUOV, 2013a). The participants in our study were not streamed in relation to their English proficiency. Third, all the children were using the textbooks for primary Grade 5 approved by the Ministry of Education of Serbia. Fourth, all participants were taught by specialist English language teachers holding a bachelor's or a master's degree (see Appendix 5), with teaching experience ranging from nine to twenty-five years, which means that there were no novice teachers involved in the study.

It is common in Serbia that children attend out-of-school English classes offered by private language schools. This type of exposure is considered a significant factor that can contribute to reading success. Table 4.3 presents the number of learners attending/not

Table 4.3: Frequencies for attending/not attending out-of-school classes per school

Participating school		Out-of-school English classes		Total
		Not attending out-of-school classes	Attending out-of-school classes	
S1	N	36	44	80
	% within school	45.0%	55.0%	100.0%
	% within the sample	12.0%	21.9%	15.9%
S2	N	57	28	85
	% within school	67.1%	32.9%	100.0%
	% within the sample	18.9%	13.9%	16.9%
S3	N	62	13	75
	% within school	82.7%	17.3%	100.0%
	% within the sample	20.6%	6.5%	14.9%
S4	N	45	26	71
	% within school	63.4%	36.6%	100.0%
	% within the sample	15.0%	12.9%	14.1%
S5	N	74	27	101
	% within school	73.3%	26.7%	100.0%
	% within the sample	24.6%	13.4%	20.1%
S6	N	27	63	90
	% within school	30.0%	70.0%	100.0%
	% within the sample	9.0%	31.3%	17.9%
Total	N	301	201	502
	% within school	60.0%	40.0%	100.0%
	% within the sample	100.0%	100.0%	100.0%

attending extra English classes outside school, per each of the participating schools. The largest number of learners attending extra classes outside school was recorded in School 6 (70 per cent), who make almost a third (31.3 per cent) of the whole cohort in respect of this factor. The fewest out-of-school attendees were recorded in School 3 (17.3 per cent).

Table 4.4 gives information concerning the age when the participants' were introduced to literacy in English. Somewhat above a third of the cohort (37.6 %) started learning to read and write in Grade 3, and a third in Grade 2 (33.5 %). These differences are due to teachers' autonomy in Serbia to start introducing sight word reading by the end of Grade 2, when most of the learners have mastered Latin alphabet. As already explained in discussing the Contextual Factors Questionnaire, learning to read usually begins as sight word reading and develops slowly, which made it difficult for the learners to decide when exactly learning to read in English started for them. Therefore, the results in Table 4.4. should be interpreted with caution.

Table 4.4: Frequencies and age for beginning to read and write in English per school

Participating school		The age when participants began learning to read and write in English					Total
		At preschool age	In Grade One	In Grade Two	In Grade Three	In Grade Four	
S1	N	20	22	13	25	0	80
	% within school	25.0%	27.5%	16.3%	31.3%	.0%	100.0%
	% within the sample	32.8%	26.8%	7.7%	13.2%	.0%	15.9%
S2	N	2	6	77	0	0	85
	% within school	2.4%	7.1%	90.6%	.0%	.0%	100.0%
	% within the sample	3.3%	7.3%	45.8%	.0%	.0%	16.9%
S3	N	5	10	38	22	0	75
	% within school	6.7%	13.3%	50.7%	29.3%	.0%	100.0%
	% within the sample	8.2%	12.2%	22.6%	11.6%	.0%	14.9%
S4	Count	3	9	9	49	1	71
	% within	4.2%	12.7%	12.7%	69.0%	1.4%	100.0%

	school						
	% within the sample	4.9%	11.0%	5.4%	25.9%	50.0%	14.1%
S5	N	20	15	6	60	0	101
	% within school	19.8%	14.9%	5.9%	59.4%	.0%	100.0%
	% within the sample	32.8%	18.3%	3.6%	31.7%	.0%	20.1%
S6	N	11	20	25	33	1	90
	% within school	12.2%	22.2%	27.8%	36.7%	1.1%	100.0%
	% within the sample	18.0%	24.4%	14.9%	17.5%	50.0%	17.9%
Total	N	61	82	168	189	2	502
	% within school	12.2%	16.3%	33.5%	37.6%	.4%	100.0%
	% within the sample	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The statistical analysis of correlation between the reading test results and the beginning age of early foreign language learning showed that there was a statistical significance in the reading test results for the learners who had the longest exposure to English, i.e. who started learning English in kindergarten ($p = .000$, $p < 0.05$). Table 4.5 presents test statistics related to the duration of exposure to English. It can be seen that the best results were achieved by the learners who started learning English in kindergarten ($M = 5.61$, $SD = 1.52$), while there was no difference in the reading outcomes of the learners whose total period of exposure to English was shorter ($M = 4.51$, $SD = 1.92$ for preschoolers and $M = 4.51$, $SD = 1.82$ for first graders).

Table 4.5: Correlation between reading test results and age when learners started learning English

Age when participants started learning English		Statistic
Grade One (7)	Mean	4.5054
	Std. Deviation	1.82499
	Minimum	.00
	Maximum	7.00

Preschool age (6-7)	Mean	4.5086
	Std. Deviation	1.91786
	Minimum	.00
	Maximum	7.00
Kindergarten (3-4, 4-6)	Mean	5.6055
	Std. Deviation	1.52156
	Minimum	1.00
	Maximum	7.00

The Test Statistics in Table 4.6 shows that there was no significant difference in reading test results in relation to Grade 1/preschool start, but a significant difference related to kindergarten exposure to English ($p = 0.000$, $p < 0.05$). The children who started learning English in kindergarten achieved the best results, while the children who started learning English as pre-schoolers or in Grade 1 achieved almost the same results.

Table 4.6: Test statistics^{a,b} of correlation between reading test results and total duration of exposure to English

	Reading test results
Chi-Square	32.572
df	2
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Age when participants started learning English

The test of normality did not show normal distribution, so ANOVA analysis could not be used; instead, Mann-Whitney test was used for two categories and Kruskal Wallis for more than two categories, like in this case. Mann–Whitney U test⁵ is “a non-parametric test used to determine whether scores from two unrelated samples differ significantly from one another” and it determines “whether the number of times scores from one sample are ranked

⁵ “If the two sets of scores are similar, the number of times this happens should be similar for the two groups. If the samples are 20 or less, the statistical significance of the smaller U value is used. If the samples are greater than 20, the U value is converted into a z value. The value of z has to be 1.96 or more to be statistically significant at the 0.05 two-tailed level or 1.65 or more at the 0.05 one-tailed level” (Howitt and Cramer 2004, p. 96).

higher than scores from the other sample when the scores for both samples have been ranked in a single sample” (Cramer & Howitt, 2004, p. 96). Kruskal-Wallis Test (one-way analysis of variance or *H* test)⁶ is “a non-parametric test used to determine whether the mean ranked scores for three or more unrelated samples differ significantly” and “[t]he scores for all the samples are ranked together” (Siegal & Castellan, 1988, p. 84). Kruskal-Wallis Test shows that there is a statistical significance among the groups, while Mann-Whitney test examines which groups show significant difference.

Another contextual factor that was statistically analysed for an influence on the reading scores was the learners’ exposure to English outside school. Table 4.7 shows test statistics related to the participants’ attendance of out-of-school classes. It can be seen that more than a half of all the participants attended English language classes after school, while the correlational analysis of reading test results and out-of-school English classes shows that the two group’s mean results differ, being lower ($M = 4.59$) in case of the group not attending out of school classes, and higher ($M = 4.98$) for the group attending out-of-school classes). Table 4.8 shows that the test statistics of correlational analysis of reading test results and out-of-school exposure to English was significant in 95 per cent of cases ($p = .012$). There was a difference in reading test results in relation to attendance of out-of-school classes, i.e. children who attended out-of-school classes achieved better results in the reading test.

Table 4.7: Correlation between reading test results and attendance of out-of-school English classes

Attending/not attending out-of-school English classes		Statistic
Not attending out-of-school classes	Mean	4.5914
	Std. Deviation	1.82459
	Minimum	.00
	Maximum	7.00
Attending out-of-school classes	Mean	4.9751
	Std. Deviation	1.84238

⁶ “If there is little difference between the sets of scores, their mean ranks should be similar. The statistic for this test is chi-square which can be corrected for the number of ties or tied scores” (Siegal and Castellan 1988, p. 84).

Table 4.8: Test statistics of correlation between reading test results and attendance of out-of-school English classes

	Reading test results
Mann-Whitney U	26305.000
Wilcoxon W	71756.000
Z	-2.515
Asymp. Sig. (2-tailed)	.012

4.1.2. Discussion

The above data indicate that contextual factors played an important role in foreign language learning of the sample. Although the learners followed the same primary English language curriculum and shared most of the conditions in respect to the school environment, like the number of English language lessons per week and mother tongue literacy level, there were several differences within the cohort and within schools that appeared to be statistically significant for reading test results. First, the learners differed in the duration of their exposure to English, some having started to learn English in kindergarten, others in the pre-school group, and some in Grade 1. Then, the learners' age when they began learning to read and write in English also differed, from pre-school, through Grade 1 and Grade 2, to Grade 3 and Grade 4. Finally, the learners' exposure to English outside school was different, as some learners attended private English language lessons, while the others learned English only in state school environment. These factors were found statistically significant for reading achievement of the learners: children who started learning English in kindergarten, and the children who attended out-of-school English classes, achieved better outcomes in the reading test. These results are in line with recent findings stressing the statistical significance of

exposure to a foreign language for reading achievement and other linguistic outcomes of young learners (Lefever, 2010; Mihaljević Djigunović, 2013; Munoz & Lindgren, 2011).

4.2. Reading task

4.2.1. Results

The mean score in the reading test was $M = 4.75$ (total scores ranged from 0 to 7), $SD = 1.84$, and there was no difference in reading outcomes in relation to gender of the learners ($p = .565$) (Savić, 2014). For the six schools involved in the research study, the reading task results ranged from $M = 4.40$ (for School 2) to $M = 5.54$ (for School 6), with standard deviations between $SD = 1.67$ (for School 6) and $SD = 1.97$ (for School 2). Table 4.9 summarises the results for all six schools.

Table 4.9: Reading test results per school (means and standard deviations)

School	Participants N	Mean (min. 0, max. 7)	Std. Deviation
S1	80	4.94	1.80
S2	85	4.40	1.97
S3	75	4.43	1.73
S4	71	4.51	1.92
S5	101	4.57	1.73
S6	90	5.54	1.67
<i>Total</i>	502	4.75	1.84

The Serbian young learners' achievement rates are found to be comparable to the achievement of young learners in the ELLiE study, in which “the total mean result is 4.1 and mean values in different contexts range from 2.8 to 5.5” (Munoz & Lindgren, 2011, p. 113). In the 7 individual items of the reading test, the Serbian learners' scores ranged from 35 per cent correct answers (for item 3) to 86 per cent (for item 2) (Savić, 2014), as compared to the

ELLiE study reading achievement ranging from 32 per cent (for item 3) to 84 per cent (for item 2) (Szpotowicz & Lindgren, 2011). In both studies the young learners found item 2 the easiest (the Serbian and ELLiE study scores being 86 and 84 per cent, respectively), and item 3 the most difficult of the seven items. As shown in Figure 4.1, the scores in the Serbian study are slightly higher for all seven items, but the discrepancies between the Serbian and the ELLiE study scores differ across the task. In percentages, the discrepancies are 8, 2, 3, 10, 15, 6, and 22 per cent for items from 1 to 7, respectively. The biggest discrepancy is observed in item 7, in which the Serbian young learners scored 82 per cent, while young learners in the ELLiE study scored 60 per cent.

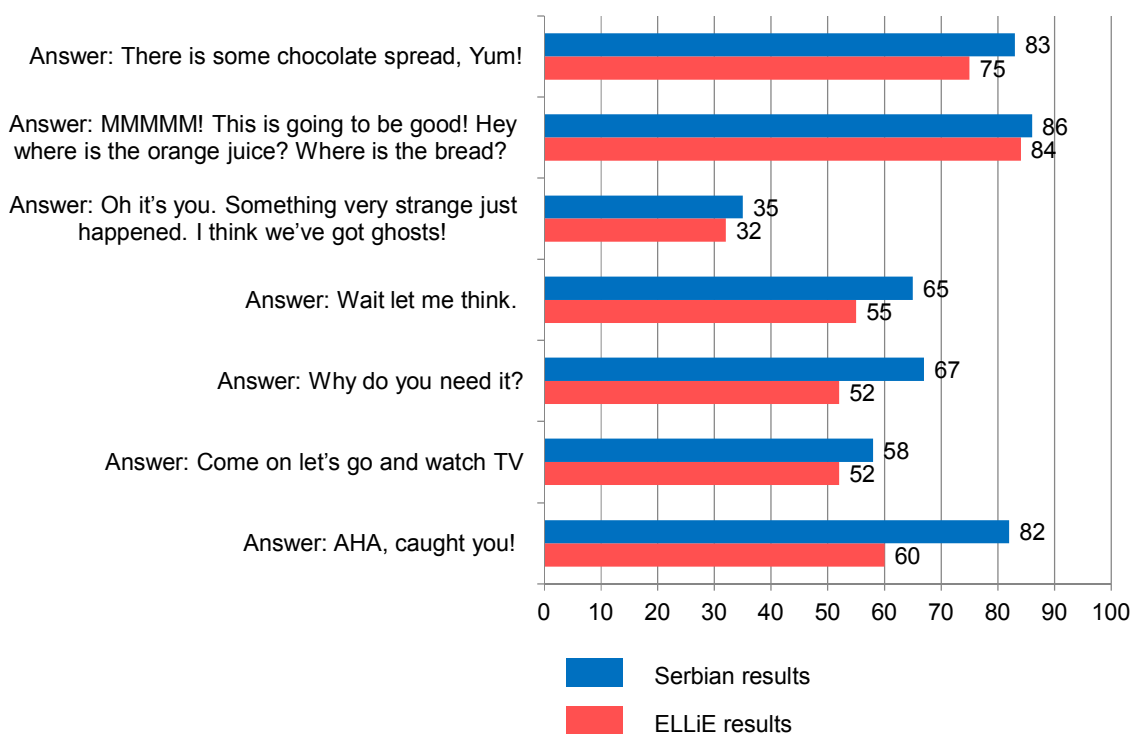


Figure 4.1: Reading task achievement rates in seven items: Serbian study vs. ELLiE study

To determine the statistical significance of the above differences the independent- samples t-test was applied, with the null hypothesis stating that there would be no difference between the two independent samples. In this kind of t-test, “scores from two different groups on the same measure are compared” (Larson-Hall, 2010, p. 267), using the mean and standard deviation for each of the two groups. However, since the only descriptive statistics available for the ELLiE sample were the mean score and the scores in each of the individual items of the reading test (continuous dependant variables), these scores were used to calculate t-values in the t-test⁷. Statistical significance of t-values obtained was determined on the basis of degrees of freedom (*df*) and a t-test significance chart. The degrees of freedom “allow us to determine whether the t-value obtained reaches a level of statistical significance” (Levon, 2010, p. 86) when compared to the t-test significance chart. The obtained t-test values, degrees of freedom ($df = 502 + 1400 - 2 = 1900$), t-test significance chart with p-values, and status of the null hypothesis for each of the seven items, are shown in Table 4.10.

The data in Table 4.10 shows that the null hypothesis is rejected for items 1, 4, 5, 6 and 7, which means that there is statistical significance of differences in reading scores for these items, i.e. some factor(s) behind the differences can be assumed. On the other hand, for items 2 and 3, the null hypothesis is true, indicating that there is no statistical significance of differences in scores. The t-test significance table for 1900 degrees of freedom gives the values for 95 per cent significance ($p < 0.05$) and for 99 per cent significance ($p < 0.01$). Table 4.10 shows that the results are statistically significant and that the analysis is 99 per cent sure for items 1, 4, 5, and 7, as the calculated t-values are greater than the required 2.58, i.e. they are 3.92, 3.98, 6.03, and 10.19, respectively; in case of item 6 the statistical significance is at the $p < 0.05$ level, as the t-value for this item is 2.33, which is greater than the required 1.96

⁷ For t-test of independent samples with equal sample size, the degrees of freedom is calculated by taking the total number of subjects in both groups and subtracting 2, while for samples larger than 200 subjects, it is insignificant if the samples are of equal size.

for statistical significance of 95 per cent, meaning that we can be at least 95 per cent sure that the null hypothesis is false.

Table 4.10: Output from the Independent-Samples T-Test (comparison of achievement in seven items in percentages) for Serbian and ELLiE studies

Items	Scores from independent samples (%)		Samples (N)	t-test values	Degrees of freedom (df)	Significance value intervals (p)*		Null hypothesis (H ₀)
	Serbia	ELLiE				0.05	0.01	
1	Serbia	83	502	3.92	1900	1.96	2.58	<i>H₀ false (p<0.01)</i>
	ELLiE	75	1400					
2	Serbia	86	502	1.09	1900	1.96	2.58	<i>H₀ true (p>0.05)</i>
	ELLiE	84	1400					
3	Serbia	35	502	1.22	1900	1.96	2.58	<i>H₀ true (p>0.05)</i>
	ELLiE	32	1400					
4	Serbia	65	502	3.98	1900	1.96	2.58	<i>H₀ false (p<0.01)</i>
	ELLiE	55	1400					
5	Serbia	67	502	6.03	1900	1.96	2.58	<i>H₀ false (p<0.01)</i>
	ELLiE	52	1400					
6	Serbia	58	502	2.33	1900	1.96	2.58	<i>H₀ false (p<0.05)</i>
	ELLiE	52	1400					
7	Serbia	82	502	10.19	1900	1.96	2.58	<i>H₀ false (p<0.01)</i>
	ELLiE	60	1400					

* results are interpreted in t-distribution for large samples significance value intervals

The reading comprehension items were sequenced in terms of lexical (syntactic and semantic) difficulty and differed in scaffolding provided by the pictures (became progressively more challenging). From syntactically simple items containing content words (the nouns *snack, glass, orange juice, bread, chocolate spread*), and assisted by pictures showing concrete objects denoted by these content words, the items became more complex linguistically as the content words (the nouns *back, idea, ghosts*, and verbs *turn, happen, need*) did not refer to concrete objects in the pictures or to the immediate context itself, but

required learners to respond to the written prompts and to activate their background knowledge of the world. Moreover, four verbs referred to the past actions (*happened, turned, caught, escaped*) not presented in the pictures, but expected to be imagined. The differences in individual items scores can be accounted for upon a detailed linguistic analysis of the prompts and multiple choice answers offered in the task, which is given in the following paragraphs (see Appendix 2 for pictures).

Items 1 and 2. Both the prompt and the options of these two items are syntactically simple (see Appendix 2): the statements have subject-verb-object structure, and the questions are not complex, containing the verb *to be* in the present simple. The content words *snack, glass, orange juice, bread, chocolate spread* are represented with concrete objects shown in the pictures. The distracter is easily understood as it makes a wrong reference to the picture: *'I'm hungry and the fridge is empty.'* – the picture shows an open fridge with many items of food on the shelves.

Children in both studies found these two tasks the easiest, with success rate over 75 per cent in the ELLiE study (Szpotowicz and Lindgren, 2011) and over 83 per cent in the Serbian study. Their understanding was very much assisted by the pictures showing concrete objects. In Item 1, children had to respond to the prompt *I'll have a snack. First, a glass of orange juice.*, and to the picture showing a boy opening the fridge and taking out chocolate spread; the answer is *There is some chocolate spread, yum.* Item 2 was prompted by a picture of a boy looking at the table from which his food had disappeared, so the answer is *Mmmmm this is going to be good! Where's the orange juice? Where's the bread?*

Items 3, 4 and 5. Items that did not have a simple subject-verb-object structure or did not refer to the immediate context or objects in the pictures were more difficult. Item 3 was the most difficult one in both studies and only about a third of learners managed to solve it. In this item there is Tony in the picture opening the door and thinking *Oh no! There's somebody*

at the door, and saying *Coming!*, and the learners had to respond to this written prompt and choose the answer consisting of three short sentences: *Oh, it's you. Something strange just happened. I think we've got ghosts.* This answer required knowledge of the world and the ability to make inferences from the context of the story. It also contained language unfamiliar to learners in the Serbian context (*something, just happened*).

Items 4 and 5 were less difficult, with success rates 55 and 52 per cent respectively in the ELLiE study and 65 and 67 per cent respectively in the Serbian study. In Item 4 children could rely on the picture showing Tina in the 'thinking' position (touching her chin with her hand), while in Item 5, Tony, who is saying *Why do you need it?* is even not visible, but the prompt is a simple polite request containing a cognate word (*banana*), *Tony, can you give me a banana, please?* Solving this item required making inferences about the situation of the text and the previous events. Establishing global coherence, i.e. using the context clues, seemed to be a problem for about a half of the learners in the ELLiE study, and for one third in the Serbian study.

Items 6 and 7. Item 6 was the second most difficult one for learners in both study contexts with success rates of 58 per cent in the Serbian study, and 52 per cent in the ELLiE study (though in the ELLiE study both items 5 and 6 got the same success rate of 52 per cent). It required activation of higher level discourse processing skills and the creation of the situation model of reading interpretation. Moreover, higher level processing required some type of executive control processing, a monitoring of information activation, text construction, and reader evaluation (within working memory): knowing that monkeys like bananas and that children were trying to play a trick on him, trap him and catch him red-handed taking the banana.

Some learners looked for repeated information and clause-level meaning, but lacked the skills to create a situation model of text interpretation, i.e. a mental model requiring

integration between adjacent clauses to establish local coherence and inferences about different events, actions and states – to establish global coherence, to make the text cohere as a whole (Kinch and Rawson, 2005). This is only possible through active, strategic processing and comprehension monitoring.

As for Item 7, it was the second easiest for learners in the Serbian study with success rate of 82 per cent, while it appeared to be very difficult for the children in the ELLiE study, with the success rate of only 62 per cent. One possible explanation of the success of Serbian children in item 7 may be a solid knowledge of narrative text structure, which is positively related to reading comprehension level and can help the reader to organize and relate events in a text, which then benefits memory and understanding (Cain et al., 2004). A plausible explanation is the cognate *AHA*, an exclamation that has exactly the same form and meaning in English and in Serbian, expressing satisfaction when something is understood or realized.

4.2.2. Discussion

The results of the present research study do not seem to confirm previous studies indicating that girls outperform boys in reading performance as a result of differences in attitudes (OECD, 2014). In respect of the somewhat higher reading scores of the Serbian young learners as compared to the ELLiE study results, it is necessary to consider several aspects related to the two studies. One of these aspects concerns some obvious differences of the two study contexts. First, the Serbian sample was smaller than the ELLiE study sample, involving 502 children, and second, it was more uniform: though aged 10-11, most of the Serbian learners were already aged 11, they all followed the same Serbian Primary Curriculum, with English being compulsory from Grade 1, with two 45-minute English lessons a week, and the EFL reading programme starting in Grade 3, were taught by

specialist English language teachers with a university degree, spoke only Serbian as their mother tongue, were drawn only from urban schools with more or less similar socio-economic status, and with some children starting learning English in kindergarten (45 per cent of the sample) and attending out-of-school English classes (40 per cent). On the contrary, the ELLiE study sample was larger, involving 1400 children, and less uniform, as children were 10 to 11 years old, came from seven different country contexts with different foreign language policies and national primary curricula (different number and duration of lessons), were taught by teachers having different qualifications, spoke different mother tongues, had different out-of-school exposure and socio-economic status, and apart from English as a foreign language in six country contexts, Spanish was taught as a foreign language in one country context (Enever, 2011).

The results show that the Serbian young EFL learners have developed reading abilities similar to their peers in the European countries that participated in ELLiE study. The reading scores of the Serbian young EFL learners indicate that they are rather good comprehenders of an unfamiliar narrative text accompanied with pictures, though there are big individual differences in reading scores among them. With English increasingly becoming a vital factor in academic and professional life of young generations, considerable attention must be paid to effectiveness of reading curricula, especially in teaching beginning EFL readers. To become more skillful readers and develop comprehension skill, learners should improve their strategic competence with the help of the EFL teacher. Since language learner strategies “offer the tools for learners to manage their own learning” and have the potential to make language learning more successful, “strategy work has a much greater potential to shape our pedagogy than has hitherto been grasped and that an overly utilitarian, ‘feed-in’ approach to strategies takes a far too limited view of that potential” (Grenfell and Ertler, 2007, p. 6). Strategic reading involves both the knowledge about strategies and the

ability to apply them strategically (Anderson, 2005; MacKay, 2006). On the other hand, reading outcomes of the sample learners indicate that between a half and almost two thirds of the learners lacked comprehension monitoring and inference making strategies necessary for solving items 6 and 3, respectively. The failure might have been the result of both poor linguistic and strategic competence. So, although the learners in the Serbian study slightly outperformed the learners in the ELLiE study, they still had problems solving the same two most difficult items as the learners in the ELLiE study, i.e. items 3 and 6, and individual achievement scores were highly varied (from 0 to 7). A possible explanation may lie in the strategic competence area, which has been surveyed in the Serbian study through the post-reading reflection task, as described in the following section.

4.3. Post-reading reflection protocol

4.3.1. Results

Post-reading reflection task was used for a qualitative study of reading comprehension. Since protocol analysis is very time consuming, a sub-sample of 90 protocols (18 per cent of the whole sample) was chosen to be analysed. This group was drawn from the school with the best reading scores in the survey in order to find out which comprehension strategies might have contributed to the sub-sample's above average reading scores in the Serbian context. Another reason for choosing this sub-sample was the fact that a very high percentage of its participants had accounted for their choices in the reading task (see Appendix 7). The sub-sample of 90 learners comprised 43 girls (48 per cent) and 47 boys (52 per cent), distributed into 4 classes in a school located in a big city in Northern Serbia. The sub-sample learners in School 6 (N=90) achieved the best reading results (M=5.54, SD=1.67)

and their post-reading reflection protocols were potentially rich in evidence of effective strategies they had applied. Considering the fact that “there is a strong relationship between strategy use and L2 proficiency” (Anderson, 2005, p. 762), the focus was on the sub-sample’s (S6) strategic competence as a variable considered significant for the reading test results. The reading task comprised seven items that were sequenced in terms of lexical (syntactic and semantic) difficulty, and also differed in scaffolding provided by the pictures and the text (became progressively more challenging), as already explained in the previous chapter. Figure 4.2 shows reading scores across seven items expressed in percentages of success achieved by the sub-sample (S6) and the rest of the sample (S1-S5 group).

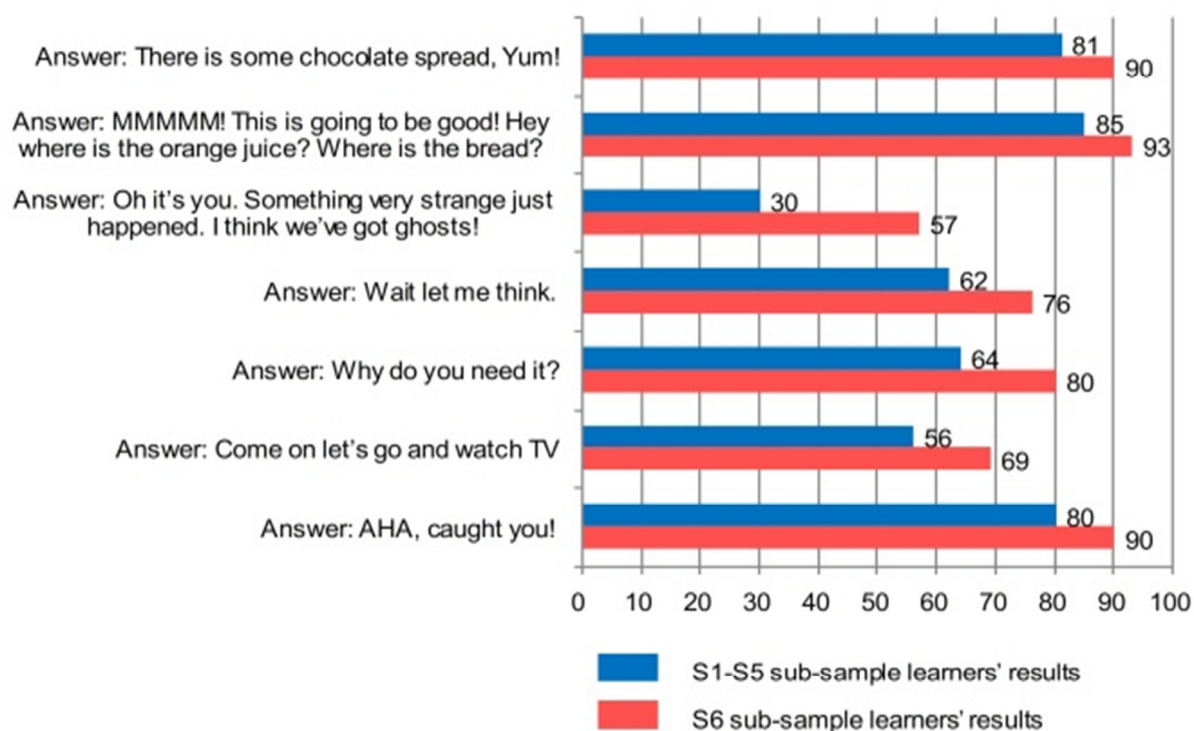


Figure 4.2: Reading task achievement rates (in seven items) of the sub-sample (S6) and S1-S5 group

It can be seen that the scores for both groups differed considerably across the items, indicating a range of item difficulty and differences in comprehension success. However, the sub-sample’s scores were significantly higher, ranging from 57 per cent (Item 3) to 93 per cent (Item 2), as compared with the results of the S1-S5 group, ranging from 30 per cent

(Item 3) to 85 per cent (Item 2); these scores indicated that item 3 was the most difficult and item 2 the easiest for both the sub-sample and the S1-S5 group.

To determine the statistical significance of the above differences the independent-samples t-test was applied, the first sample being the sub-sample (S6, N = 90) and the second being the rest of the study sample (S1-S5 group, N = 412). In this kind of t-test, “scores from two different groups on the same measure are compared” (Larson-Hall, 2010, p. 267), using the means and standard deviations for each of the two groups. Table 4.11 shows the output from the independent-sample t-test.

Table 4.11: Output from the Independent-Samples T-Test (comparison of means and SDs)

	Comparison of S6 sub-sample to S1-S5 sub-sample	N	Mean	Std. Deviation
Reading task scores	S1-S5 sub-sample	412	4.57	1.83
	S6 sub-sample	90	5.54	1.67

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Reading task scores	Equal variances assumed	1.657	.199	-4.643	500	.000	-.97406	.20978	-1.38621	-.56190
	Equal variances not assumed			-4.924	139.731	.000	-.97406	.19782	-1.36517	-.58295

It can be seen from Table 4.11 that there is a statistical significance of the difference in reading scores of the two groups as the p-value of Levene’s test is lower than $\alpha = .05$, i.e. $p = .000$, which means that the variances of the two groups are not equal. To determine the

statistical significance of the above differences for individual test items, the independent-samples t-test was applied, with the null hypothesis stating that there is no difference between the two independent samples. Statistical significance of t-values obtained was determined on the basis of degrees of freedom (*df*) and a t-test significance chart. The obtained t-test values, degrees of freedom, a t-test significance chart with p-values, and the status of the null hypothesis for each of the seven items are shown in Table 4.12.

Table 4.12: Output from the Independent-Samples T-Test (comparison of achievement in seven items in percentages)

Items	Scores from independent samples (%)		Samples (<i>N</i>)	<i>t</i> -test values	Degrees of freedom (<i>df</i>)	Significance value intervals (<i>p</i>)*		Null hypothesis (H_0)
	S1-S5	S6				0.05	0.01	
1	S1-S5	81	412	2.42	500	1.96	2.58	H_0 false ($p < 0.05$)
	S6	90	90					
2	S1-S5	85	412	2.48	500	1.96	2.58	H_0 false ($p < 0.05$)
	S6	93	90					
3	S1-S5	30	412	4.73	500	1.96	2.58	H_0 false ($p < 0.01$)
	S6	57	90					
4	S1-S5	62	412	2.73	500	1.96	2.58	H_0 false ($p < 0.01$)
	S6	76	90					
5	S1-S5	64	412	3.29	500	1.96	2.58	H_0 false ($p < 0.01$)
	S6	80	90					
6	S1-S5	56	412	2.37	500	1.96	2.58	H_0 false ($p < 0.05$)
	S6	69	90					
7	S1-S5	80	412	2.67	500	1.96	2.58	H_0 false ($p < 0.01$)
	S6	90	90					

* results are interpreted in t-distribution for large samples significance value intervals

The above data shows that the null hypothesis is rejected for all items, which means that there is a statistical significance of differences in reading scores for the seven test items. The t-test significance table for 500 degrees of freedom gives the values for 95 per cent significance ($p < 0.05$) and for 99 per cent significance ($p < 0.01$). Table 4.12 shows that the results are statistically significant and that the analysis is 99 per cent sure for items 3, 4, 5, and 7, while in the case of items 1, 2 and 6, the statistical significance is at the $p < 0.05$ level, which means that we can be at least 95 per cent sure that the null hypothesis is false.

In order to be able to interpret the above statistical data, we introduced qualitative evidence into our analysis to support our quantitative results. By combining quantitative and qualitative methods we were able to understand the statistical significance of the results obtained and the reasons behind them. In the aim of uncovering the comprehension strategies used by the successful readers in the sub-sample, we transcribed, coded and analysed the sub-sample's post-reading reflection protocols. As "more successful learners differ from less successful in their greater ability to reflect on and articulate their own language learning processes" (Oxford, 2001, p. 363), the protocols were expected to indicate how the successful comprehenders' strategic competence had contributed to their reading success. The analysis of reflection protocols requires a simultaneous analysis of the reading task items because effective strategies are "targeted in a relevant, systematic way at specific L2 tasks" (Oxford, 2001, p. 363).

The protocols were coded drawing on coding schemes from previous studies on language learning strategies (Chamot & El-Dinary, 1999) and reading strategy use (Rao et al., 2005). Six main categories of comprehension strategies were identified. Table 4.13 shows 6

Table 4.13: Reading comprehension strategies

Strategy	Definition	Example
1. Inferencing based on picture clues	Guessing meaning on the basis of something in the picture	<i>Because the boy in the picture is taking something brown, I think it is chocolate. And there is the word 'chocolate' in the text.</i>
2. Inferencing based on text clues	Guessing meaning on the basis of a word, a phrase, or a sentence	<i>I chose this answer because the boy is wondering where his juice has disappeared.</i>
3. Inferencing based on context clues	Guessing meaning by connecting new information with something already mentioned in the text	<i>I chose this answer because the boy obviously wanted to know why she needed a banana.</i>
4. Deduction	Making logical inferences based on elements not stated in the text	<i>I can see that the boy is frightened and wants the girl to know it.</i>

5. Prediction	Making educated guesses about the information that will follow	<i>Tina is pretending because she wants to catch the thief who has stolen Tony's food.</i>
6. World knowledge	Using knowledge about the topic	<i>I have chosen this answer because they wanted to cheat him.</i>

strategy types identified and gives their definitions and illustrative examples of the sub-sample learners' reflection protocols (for a detailed overview of post-reading reflection statements, see Appendix 7).

Items 1 and 2. Post-reading reflection protocols show that in solving items 1 and 2 most learners relied on picture and text clues as elements of the textbase construction (Kinch & Rawson, 2005), using word meanings, logical implications and argument overlap (coreference, like repeated words *orange juice – orange*). Most explanations referred to the character and his action in the picture as well as to the concrete objects referred to in the text (*chocolate spread*). It appeared that the visual cues encouraged the readers to look at the table/fridge first, and then at the less important details (sound effects). In the other panels, the dialogue provided the most important information and therefore appeared above the characters who spoke. The dialogues took more panel space than the sound effects. The author consciously made either the visuals or the words dominant, depending on their importance. In this way text parallels and syntactic communication contributed to the semantic effectiveness. As for the element of unity, semantic effectiveness was achieved with simple line drawings and minimal number of details that might be distracting.

The sub-sample learners achieved very high scores in items 1 and 2: 90 per cents and 93 per cent, respectively. Over 90 per cent of successful answers were explained by sample learners. Some of the explanations are given below.

Sample reflection related to Item 1:

L-5-1-3-14: *Because the boy in the picture is taking something brown, I think it is chocolate. And there is the word 'chocolate' in the text.* (picture clues; text clues)

L-5-1-1-12: *Because there is something chocolate-like in the picture and the fridge is not empty.* (picture clues; implication related to the distracter)

L-5-1-4-12: *In the picture Tony is taking chocolate spread, and it is mentioned in the answer which I have chosen.* (picture clues; text clues; deduction)

Sample reflections related to Item 2:

L-5-1-1-16: *I have chosen this answer because I see that the boy is surprised his juice and bread are not there.* (picture clues)

L-5-1-2-02: *I have chosen this answer because Tony wonders where his bread has disappeared, and I have also understood the text.* (picture clues; text clues)

L-5-1-3-20: *I have chosen this answer because Tony is surprised there is no bread and juice any more.* (picture clues; text clues)

In solving the most difficult item, i.e. Item 3, it was not enough to rely on picture and text clues only. It was also necessary to make logical inferences based on elements not stated in the text, to use context clues, and to apply world knowledge. More than a half of the sub-sample learners, i.e. 57 per cent, managed to solve this item, and 83 per cent of them explained their choices.

Sample reflections related to Item 3:

L-5-1-4-13: *Because I have seen that Tony recognised Tina and let her inside.* (picture clues; text clues; deduction)

L-5-1-4-17: *Because I see that Tony greets her and tells her about his problem.* (picture clues; text clues; context clues)

L-5-1-3-06: *I can see that the boy is frightened and wants the girl to know it.* (picture clues; context clues; deduction)

On the other hand, there were some wrong inferences made by less successful comprehenders. Sample explanations showing wrong inferences related to Item 3 are:

L-5-1-4-03: *Because he thinks that she has done it.* (wrong inference)

L-5-1-3-16: *Because he thought it was a thief.* (wrong inference)

L-5-1-1-01: *Because in the previous picture he went to the door and asked Tina for help.*
(wrong inference)

In solving items 4 and 5 success was made by 76 per cent and 80 per cent of sub-sample learners, respectively, and 74 per cent and 83 per cent, of them, respectively, explained their choice. A combination of several comprehension strategies seemed to have been needed.

Sample reflections related to Item 4:

L-5-1-3-17: *Because she was thinking who might be the thief.* (deduction; predicting; world knowledge)

L-5-1-2-19: *Because Tina is thinking how she can find out who has taken it.* (deduction; predicting; world knowledge)

L-5-1-1-20: *Because his sandwich has disappeared in no time and she was thinking about it.*
(context clues; text clues)

Sample reflections related to Item 5:

L-5-1-1-09: *I chose this answer because the boy did not know why she needed a banana.*
(context clues; deduction)

L-5-1-1-27: *I have chosen this answer because the boy was obviously interested to know why she needed a banana.* (context clues; deduction)

L-5-1-2-10: *Because Tina asked him for a banana, and he did not know why she needed it.*
(context clues; deduction)

Being the second most difficult item in our study, Item 6 was also the second most difficult for the sub-sample learners: 69 per cent answered it successfully, and 69 per cent of them accounted for their choices.

Sample reflections related to Item 6:

L-5-1-4-04: *Because she wants to play a trick on the monkey and make him come in to take a banana.* (deduction; prediction; world knowledge)

L-5-1-4-21: *Tina is pretending this, and she is taking Tony out of the kitchen to catch the thief.* (context clues; deduction; prediction; world knowledge)

L-5-1-3-15: *Because in the picture they are leaving the kitchen and she winked at him, so this answer is logical.* (picture clues, world knowledge, deduction)

The last item was as easy for the sample learners as Item 1. 80 per cent of sub-sample learners answered it successfully, and 73 per cent of them explained the choice. World knowledge seemed to be the most important comprehension strategy, but deducing and picture clues played important roles, as well.

Sample reflections related to Item 7:

L-5-1-4-11: *It says in the text: Aha, caught you! and the picture shows Tina pointing to the monkey.* (picture clues; deduction)

L-5-1-4-05: *I have chosen this because I know that monkeys love bananas.* (world knowledge)

L-5-1-2-02: *I have chosen this answer because it is obvious that the girl has caught the monkey who did not see the trap; I've also understood the text.* (text clues; deduction; world knowledge)

L-5-1-4-17: *Because I can see the girl pointing her finger at the monkey. It can only mean that she has caught the thief.* (picture clues; deduction; world knowledge)

4.3.2. Discussion

As expected, the analysis of the post-reflection reading protocols managed to provide considerable insight into the inferencing processes of reading an unfamiliar text in English as a foreign language, and the types of clues that the young beginning readers relied on. Moreover, the protocols also indicated how the successful comprehenders' strategic competence had contributed to their reading success. The protocols showed that good comprehenders were successful in making inferences about the feelings and emotional reactions of the characters in the story, and in interpreting the text in the light of deeper understanding of the context. Furthermore, the successful readers managed to follow the narrative closely, and succeeded both in integrating information from adjacent clauses and in establishing global coherence by making inferences based on their world knowledge and the context of the story. On the contrary, the poor readers in the study showed lack of understanding and insufficient monitoring either by giving wrong explanations (L-5-1-4-05: *They are waiting for the ghost to come.*), or by writing the phrase "at random," or by not giving any explanation at all, thus showing they had not spotted the clues and had not understood the text.

The results indicated that the learners had employed different comprehension processes and used different types of strategies depending on the difficulty of an item, extending our knowledge of lower-level and higher-level comprehension processes (Grabe & Stoller, 2011). Most learners in the study relied on picture and text clues when reading, and were, therefore, successful in the reading task items that demanded making inferences based on picture clues, text clues and context clues. In forming a textbase on the basis of semantic and syntactic relations, the majority of the sub-sample readers managed to solve items 1, 2, 5 and 7 very successfully (success rate was between 80 per cent and 91 per cent). However, far

fewer learners were able to effectively integrate their world knowledge and personal experiences with the text information, or to deduce or predict when necessary for understanding more challenging task items, like items 3 and 6: the success rate was from 57 per cent to 69 per cent. These items required employing higher-level language skills of deduction and prediction, and integration of the information from the text with world knowledge. While in semantically and syntactically simple items, learners tended to infer meaning on the basis of picture and text clues, in the items that were linguistically more demanding, successful readers combined inferences based on several clues, made logical inferences based on elements not stated in the text (deducing), used their knowledge about the topic (world knowledge), and made educated guesses about the information that would follow (predicting). As strategic readers they were able to use clues flexibly, while monitoring comprehension. These results confirm previous findings of inferencing abilities of novice readers, by Cain (2009), Cain and Oakhill (1999), Cain et al. (2001), Currie and Cain (2015), and Kintsch and Rawson (2004), as well as the results in previous research of strategy use by Chamot and El-Dinary (1999), Griva (2014), Rao et al. (2005).

The sub-sample's above average success may be the result of the sub-sample learners' ability not only to use a range of comprehension strategies, but also to "orchestrate" several strategies when needed (Anderson, 2005; Oxford, 2001), as it was revealed by their reflection protocols. However, not much was learned about the problems and reading difficulties faced by the less effective readers. Wrong inferences indicate ineffective readers' lack of comprehension monitoring and their inability to create a situation model of the text and to use the deep-level strategies of inferencing, deducing and predicting (Rao et al., 2005), but the reasons for not being able to solve the difficult items in the reading test may also be in individual differences, which will be presented in the next section.

4.4. Individual factors questionnaire

4.4.1. Results

The results are grouped according to the different aspects of early reading in English related to attitudes and self-concept. The first group involves learners' attitudes to learning English, to learning new words in English, to reading in English, to reading aloud in English, to reading silently in English, and to reading on the internet, while the second one deals with the learners' self-concept/self-confidence as readers. The learners were asked to rate their L2 learning and reading attitudes on a three-level scale, level being represented with smileys, and scores ranging from 1-3 in the following order: 'I don't like it', 'I am not sure', and 'I like it very much'. Table 4.14 summarises the data obtained in relation to each of the above aspects, showing that the learners attitudes to learning English and reading in English were highly positive; the scores ranged from $M = 2.42$, $SD = .782$, to $M = 2.81$, $SD = .468$, indicating high motivation for all aspects investigated with the smiley questionnaire. The results in relation to individual aspects are first discussed separately and then correlated with each other and with the reading scores.

Table 4.14: Summary of mean values of learners' attitudes

	N	Minimum	Maximum	Mean	Std. Deviation
learning English	502	1	3	2.75	.533
learning new words in English	502	1	3	2.81	.468
reading in English	502	1	3	2.79	.493
reading aloud in English	502	1	3	2.50	.744
reading silently in English	502	1	3	2.48	.778
reading on the internet	502	1	3	2.42	.782

Table 4.15 shows the results related to the learners' attitude to learning English, indicating a very positive attitude of Serbian young learners towards learning English.

Table 4.15: Mean value of learners' attitude to learning English

	N	Minimum	Maximum	Mean	Std. Deviation
learning English	502	1	3	2.75	.533

Table 4.16 gives the frequencies of the obtained replies, showing that almost 80 per cent of the learners reported very positive feelings towards learning English, while less than 5 per cent answered they did not like learning English.

Table 4.16: Frequencies for attitudes to leaning English

Do you like learning English?	Responses		
	no	not sure	yes
frequency	24	78	400
per cent	4.78%	15.54%	79.68%

The learners' motivation for learning new words in English is presented in Table 4.17. This is the most positive of all attitudes expressed in the questionnaire, with $M = 2.81$ and $SD = .468$.

Table 4.17: Mean value of learners' attitude to learning new words in English

	N	Minimum	Maximum	Mean	Std. Deviation
learning new words in English	502	1	3	2.81	.468

Table 4.18 shows frequencies for attitudes to learning new words in English, confirming that a great majority of learners in the study expressed a very positive attitude to learning new vocabulary, with only 3.19 per cent expressing negative attitude, while a very small percentage of learners were neutral.

Table 4.18: Frequencies for attitudes to leaning new words in English

Do you like learning new words in English?	Responses		
	no	not sure	yes
frequency	16	64	422
percent	3.19%	12.75%	84.06%

The learners' motivation for reading in English is higher than their motivation for learning English, but lower than their motivation for learning new words in English. Table 4.19 presents the mean value and standard deviation of children's attitudes.

Table 4.19: Mean value of learners' attitude to reading in English

	N	Minimum	Maximum	Mean	Std. Deviation
reading in English	502	1	3	2.79	.493

As can be seen from Table 4.20, a very small minority of learners declared they did not like reading in English, while a great majority of them expressed high motivation for reading in English.

Table 4.20: Frequencies for attitudes to reading in English

Do you like reading in English?	Responses		
	no	not sure	yes
frequency	19	68	415
percent	3.78%	13.55%	82.67%

Table 4.21 shows that the learners' preferences for different modes of reading were very positive, but varied slightly, reading aloud being more popular than reading silently or reading on the internet.

Table 4.21: Mean values of learners' attitudes to reading in English aloud, silently and on the internet

	N	Minimum	Maximum	Mean	Std. Deviation
reading aloud	502	1	3	2.50	.744
reading silently	502	1	3	2.48	.778
reading on the internet	502	1	3	2.42	.782

Table 4.22 compares the frequencies for attitudes to reading aloud, silently and on the internet. Interestingly, the same number of the learners expressed positive attitude to reading aloud and to reading silently, though a slightly greater number declared they did not like reading silently than reading aloud.

Table 4.22: Frequencies for attitudes to reading in English aloud, silently and on the internet

Questions		Responses		
		no	not sure	yes
Do you like reading aloud in English?	frequency	76	98	328
	percent	15.14%	19.52%	65.34%
Do you like reading silently in English?	frequency	89	85	328
	percent	17.73%	16.93%	65.34%
Do you like reading in English on the internet?	frequency	92	106	304
	percent	18.33%	21.12%	60.56%

In summary, the above results of the smiley questionnaire point to very positive attitudes of the learners to learning English and reading in it. Table 4.23 presents the mean value of motivation for all six L2 aspects.

Table 4.23: The mean value of motivation for learning English and reading in English

	N	Minimum	Maximum	Mean	Std. Deviation
Motivation	502	1	3	2.62	.37

Correlational analysis performed by applying Spearman's rank order test⁸ is presented in Table 4.24, showing that there is a significant positive correlation between motivation for learning English and positive attitudes to: learning new words in English ($p = .000$), reading in English ($p = .000$), reading aloud in English ($p = .000$), reading on the internet ($p = .000$), and also to the learners' self-concept/self-confidence as readers ($p = .000$). Furthermore, Table 4.24 demonstrates that motivation for learning new words in English correlates significantly with reading in English ($p = .000$), reading aloud in English ($p = .000$), reading silently ($p = .003$), reading on the internet ($p = .000$), and with the learners' self-concept / self-confidence as readers ($p = .000$). As for motivation for reading in English, it correlates positively with reading aloud in English ($p = .000$), reading on the internet ($p = .000$), and a reader's self-concept ($p = .000$). Interestingly, there is a significant negative correlation

⁸ Spearman's rank order correlation test tests for the possibility of a relationship between two interval-scale variables (Larson-Hall, 2010); applied in the study as a non-parametric alternative to a Pearson's correlation test because of the nature of the task.

between motivation for reading aloud and motivation for reading silently ($p = .000$), while motivation for reading aloud correlates positively with the attitude to reading on the internet ($p = .000$) and a reader's self-concept.

Table 4.24: Correlational analysis of attitudes to L2 learning and to reading in L2

		learning new words	reading in L2	reading aloud in English	reading silently in L2	reading on the internet in L2	self-concept
L2 learning	R sig	.413** .000	.403** .000	.386** .000	.045 .312	.266** .000	.307** .000
learning new words	R sig	1.000 .	.160** .000	.210** .000	.135** .003	.215** .000	.185** .000
reading in L2	R sig		1.000 .	.479** .000	.021 .646	.207** .000	.353** .000
reading aloud in English	R sig			1.000 .	-.204** .000	.185** .000	.423** .000
reading silently in L2	R sig				1.000 .	.132** .003	.058 .95
reading on the internet in L2	R sig					1.000 .	.196** .000

Correlational analysis of the results related to the learners' attitudes and their reading outcomes is presented in Table 4.25, showing that there is a considerable difference in reading outcomes in relation to all attitudes, except in relation to the attitude to reading silently in English. There is the difference in reading test results in relation to motivation for learning English ($p = .004$), motivation for learning new words in English ($p = .006$), motivation for reading in English ($p = 0.000$), motivation for reading aloud in English ($p = .000$) and motivation for reading on the internet ($p = .000$), but there is no difference in reading test results in relation to the attitude to reading silently in English ($p = .275$). Also, there is a significant positive correlation of reading test results with the learner's self-concept

($p = .000$). The differences in means of reading test results among the three groups are presented for each question.

Table 4.25: Correlation of reading test outcomes with motivation for L2 learning and L2 reading, and with the learners' self-concept

Attitude/Motivation	Test statistics	
		Reading test results
Do you like learning English?	Chi-Square	10.952
	df	2
	Asymp. Sig.	.004
Do you like learning new words in English?	Chi-Square	10.099
	df	2
	Asymp. Sig.	.006
Do you like reading in English?	Chi-Square	30.201
	df	2
	Asymp. Sig.	.000
Do you like reading aloud in English?	Chi-Square	21.970
	df	2
	Asymp. Sig.	.000
Do you like reading silently in English?	Chi-Square	2.585
	df	2
	Asymp. Sig.	.275
Do you like reading in English on the internet?	Chi-Square	16.183
	df	2
	Asymp. Sig.	.000
Do you think you read in English better than others in class?	Chi-Square	35.829
	df	2
	Asymp. Sig.	.000

Regarding self-concept/self-confidence of the learners as readers, Table 4.26 shows the mean value that can be considered satisfactory. However, it can be seen in Table 4.27 that a majority of the learners (approximately 60 per cent) were not sure about their reading

ability or expressed negative self-concept, while only 40 per cent were satisfied with their reading skill and had a positive self-concept.

Table 4.26: Mean value of self-confidence as learners

	N	Minimum	Maximum	Mean	Std. Deviation
reading better than peers	502	1	3	2,27	,679

Table 4.27: Frequencies for self-confidence as readers

Do you read in English better than your classmates?	Answers		
	no	not sure	yes
frequency	66	235	201
per cent	13,15%	46,81%	40,04%

As previously shown in Table 4.27, the learners' self-concept correlated positively with their reading test results, i.e. the learners' self-confidence made a significant difference in their reading achievement.

Regarding the correlation of motivation, attitudes and self-concept, with the learners' gender, Table 4.28 shows that gender is a significant factor determining motivation only for reading on the internet, and not for other 6 categories, as results indicate that boys like to read more on the internet ($p = .006$).

Table 4.28: Correlation of gender and motivation for reading on the internet

			Motivation for reading in English on the internet ("Do you like reading in English on the internet?")			Total
			no	I don't know	yes	
Gender	female	frequency	56	64	140	260
		per cent	21.5%	24.6%	53.8%	100.0%
	male	frequency	36	42	164	242
		per cent	14.9%	17.4%	67.8%	100.0%
Total		frequency	92	106	304	502
		per cent	18.3%	21.1%	60.6%	100.0%

$$\chi^2=10.176, \text{ df}=2, \text{ p}=0.006$$

$$C=0.141, \text{ p}=0.006$$

4.4.2. Discussion

Not surprisingly, most young learners expressed very positive attitudes to learning English and reading in it, which indicated their high motivation both for L2 learning and L2 reading. The learners' positive attitudes correlated with each other and with the learners' self-concept. Moreover, our findings show that there was a significant difference in reading results of the learners based on their motivation, which provides additional insight into previous findings of correlation of linguistic results and motivation. This is in line with research performed in seven European countries within the ELLiE study (Mihaljević Djigunović & Lopriore, 2011). Very high motivation for learning new words in English confirms the results of the ELLiE study that showed high motivation of young learners in seven different country contexts for learning new vocabulary, indicating that vocabulary knowledge was viewed highly positively by the learners because it strengthened their confidence and a feeling of achievement (Mihaljević Djigunović & Lopriore, 2011). This also confirms previous findings reported by Mihaljević-Djigunović (2009) and further supports the belief that for young learners language learning is associated with vocabulary building, and that they like activities that are concrete and measurable.

The findings also showed that learner self-concept had an impact on reading achievement and highly correlated with attitudes and motivation for reading. The highly positive attitude is probably related to the learners' sense of achievement when reading short texts in the foreign language and their already developed self-confidence as readers. These findings corroborate the results obtained in the ELLiE study for correlation of the young learners' self-concept and their linguistic results, i.e. their listening comprehension, showing that over time the children's listening skills increased if they had a more positive self-concept (Mihaljević Djigunović & Lopriore, 2011). Popularity of reading aloud with beginning

readers is expected as reading aloud is the main mode of reading practice in the classroom as a way of providing teachers with feedback on their learners' reading development. As regards the learners' positive attitude to reading on the internet in English, it can be attributed to already developed computer skills of the Serbian Fifth graders and to the popularity of video games with their generation. Still, the results of the learners' attitudes to reading on the internet are the lowest if compared to the mean values of the other attitudes, probably due to some children's limited internet access. Moreover, the statistical significance of gender differences related to the learners' attitude to reading on the internet points to the fact that the boys probably spent more time reading on the internet while playing video games than the girls, which resulted in the boys' higher motivation for this type of reading activity.

Significantly, the findings show greater popularity of reading aloud as compared to reading silently. A possible reason for silent reading being less popular than reading aloud is the fact that beginning readers may need the aural support to enhance understanding, or that their aural learning style slightly prevails over their visual learning style. In respect to a slightly lower popularity of reading on the internet as compared to oral and silent reading, these differences could partly be explained by the fact that internet material is not graded as most of the classroom material read aloud or silently both in school and at home. Not surprisingly, a positive correlation was found between the attitude to reading silently in English and reading on the internet in English, indicating that children who liked reading silently also liked to read on the internet. Crucially, all children with high motivation achieved better in the reading test. These findings appear to be well supported by previous research of the impact of young learners' attitudes on their linguistic outcomes.

4.5. Reading strategies questionnaire results and discussion

4.5.1. Results

The findings are presented in two groups: 1. oral reading strategies; 2. reading comprehension strategies. They were obtained by using a semistructured questionnaire with multiple and open-ended questions. The results point to the two groups of strategies, i.e. to those supporting oral reading, and the ones supporting reading comprehension. Since the strategies were self-reported, their frequency depended on the learners' metacognitive awareness of strategy use. The questionnaire was filled in immediately after the reading task had been completed, so that the learners could refer to the experience of reading an unfamiliar text in the task when reporting on comprehension strategies they tended to use in similar circumstances, but strategies for oral reading had to be reported upon being drawn from memory.

Oral reading strategies. As it can be seen from Table 4.29 and Figure 4.3, the most frequently reported strategy for oral reading of unfamiliar words was asking for help (71.9 per cent, i.e. relying on external sources of information, which is not surprising, if considered in light of the most frequent mode of teacher's scaffolding for reading unfamiliar words, reported by the learners (see Table 4.30 and Figure 4.4): 82.7 per cent of the learners reported that in oral reading of new words teachers usually helped them by modelling pronunciation and asking them to repeat it, 29.5 per cent of the learners reported that teachers tended to elicit the right pronunciation from the others in the class and encouraging the reader to repeat it, while only 8.2 per cent of the learners reported being encouraged by the teacher to guess the pronunciation of a new word by remembering a similar word, i.e. by making inferences

based on the spelling patterns already encountered in similar words, which is an independent cognitive strategy of autonomous readers.

Table 4.29: Self-reported oral reading strategies (in the order of frequency)

Strategies for oral reading of unfamiliar words	Frequency	Percent
I ask a classmate or the teacher for help	361	71.9
I try to remember a similar word and then read it	117	23.3
I read letter by letter	87	17.3
I skip that word and go on reading	44	8.8

Figure 4.3 illustrates the differences in frequencies of the four strategies reported by the learners, pointing to the discrepancy between external/indirect and independent/direct strategies. The results obtained for the oral reading strategies preferred by the learners are in line with the classroom practices of strategy development, shown in Table 4.30, and reported by the learners: the most frequently reported teacher technique used to help the children pronounce new words in oral reading was giving help, i.e. encouraging children to rely on others instead of developing their independence and autonomy.

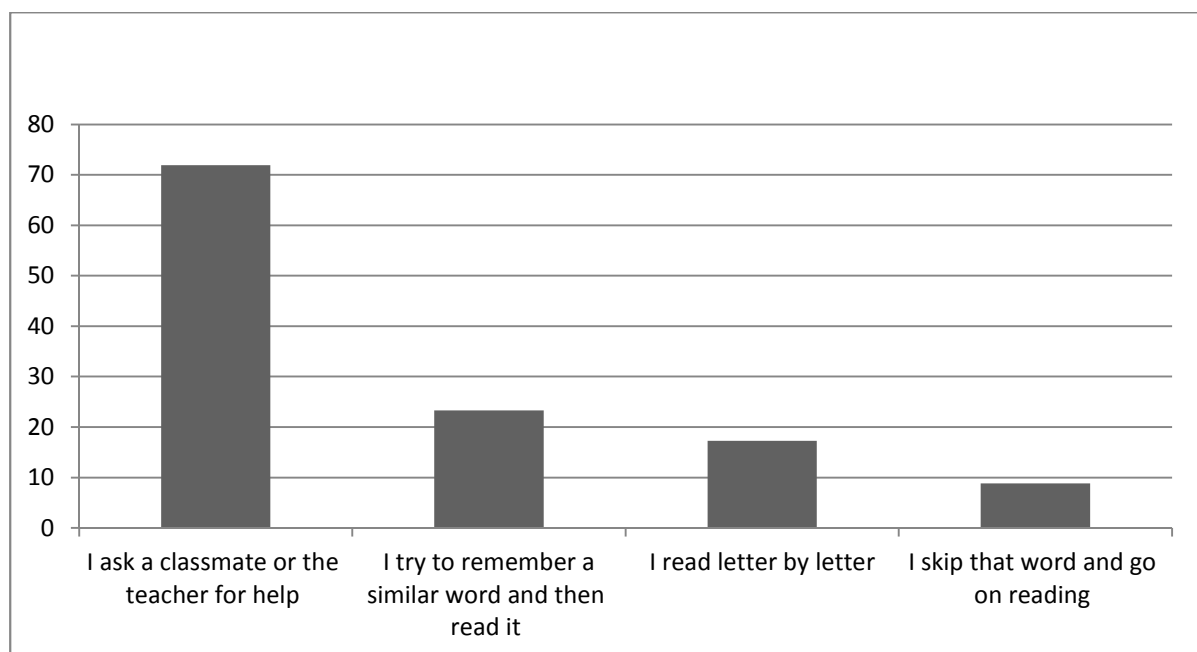


Figure 4.3: Self-reported oral reading strategies

Table 4.30: Teacher’s scaffolding for reading unfamiliar words (reported by learners) (in the order of frequency)

Teacher’s scaffolding	Frequency	Percent
<ul style="list-style-type: none"> The teacher helps me by reading the word and asking me to repeat it. 	415	82.7
<ul style="list-style-type: none"> The teacher helps me by asking if someone knows how to read it, and if they know, she asks me to repeat it. 	148	29.5
<ul style="list-style-type: none"> The teacher helps me by asking me to remember a similar word and then to read it by myself. 	41	8.2

Figure 4.4 illustrates the differences in frequencies of the three teacher techniques reported by the learners, indicating that teachers mostly encouraged direct help without engaging children to rely more on themselves. As Figure 4.3 also shows, only 23.3 per cent of sample learners reported relying on a cognitive strategy of using known patterns in reading new words. Furthermore, as little as 8.8 per cent (see Table 4.29 and Figure 4.3) of the sample learners reported skipping unknown words and continuing reading. As skipping unfamiliar words is a useful strategy in silent reading this strategy does not result in impaired

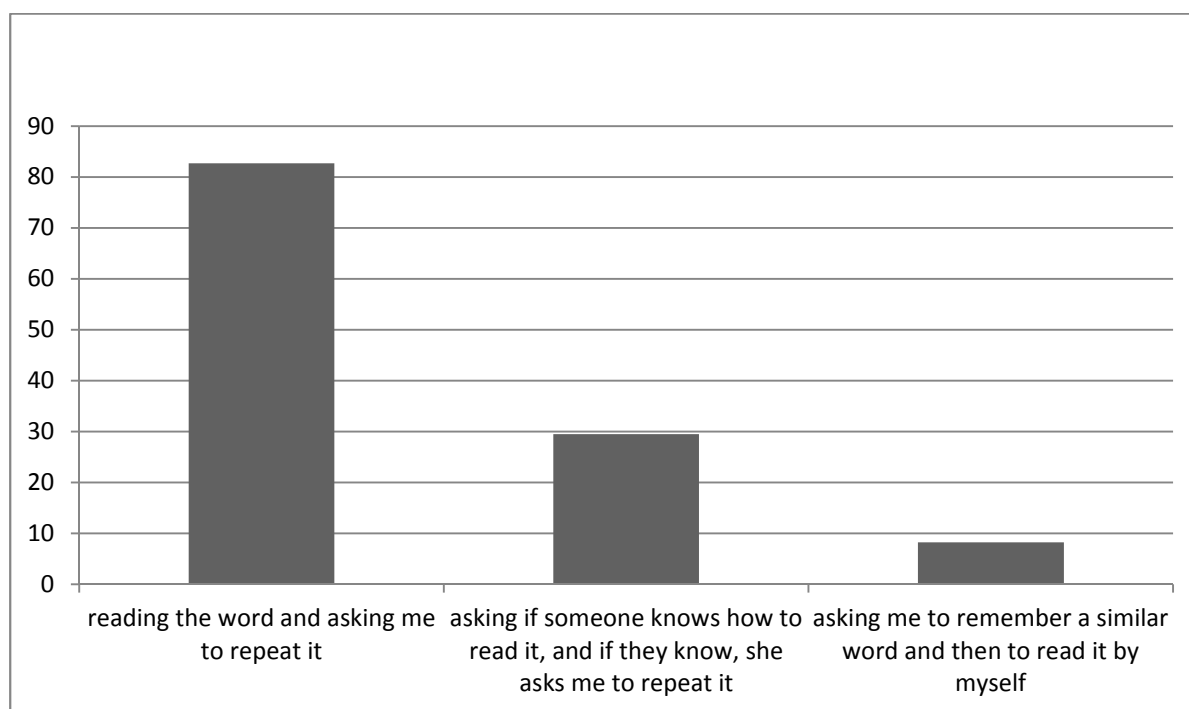


Figure 4.4: Teacher’s scaffolding for reading unfamiliar words (reported by learners)

general comprehension, it is surprising that this strategy was reported as a comprehension strategy only by 10.6 per cent of the learners (see Table 4.29 and Figure 4.3).

Reading comprehension strategies. As can be seen from Table 4.31, the range of comprehension strategies reported by the learners was much wider than the oral reading strategies reported in Table 4.29. However, the most frequently reported comprehension strategy is the same as the one reported for oral reading: asking someone for help, already recognised as a strategy that does not contribute to independent reading. Table 4.31 also shows that the second most frequently reported comprehension strategy in the study was an independent strategy of making inferences about the meaning on the basis of a picture.

Figure 4.5 compares frequencies of the comprehension strategies reported by the learners, indicating that the strategies might be grouped into three sets: 1. strategies reported by less than 20 per cent of the learners; 2. strategies reported by about 40 per cent of the learners; 3. strategies reported by more than 50 per cent of the learners.

Table 4.31: Self-reported comprehension strategies (in the order of frequency)

Comprehension (fix-up) strategies	Frequency	Percent
• I ask a classmate or the teacher for help.	309	61.6
• I try to guess the meaning by looking at the picture in the text.	264	52.6
• I try to guess the meaning by rereading the whole sentence.	207	41.2
• I try to remember what it means by reading it several times.	197	39.2
• I look that word up in the coursebook or in the dictionary.	189	37.6
• I think how much I have understood the text and read on.	82	16.3
• I think about what will happen next in the text and read on.	80	15.9
• I skip that word and read on.	53	10.6

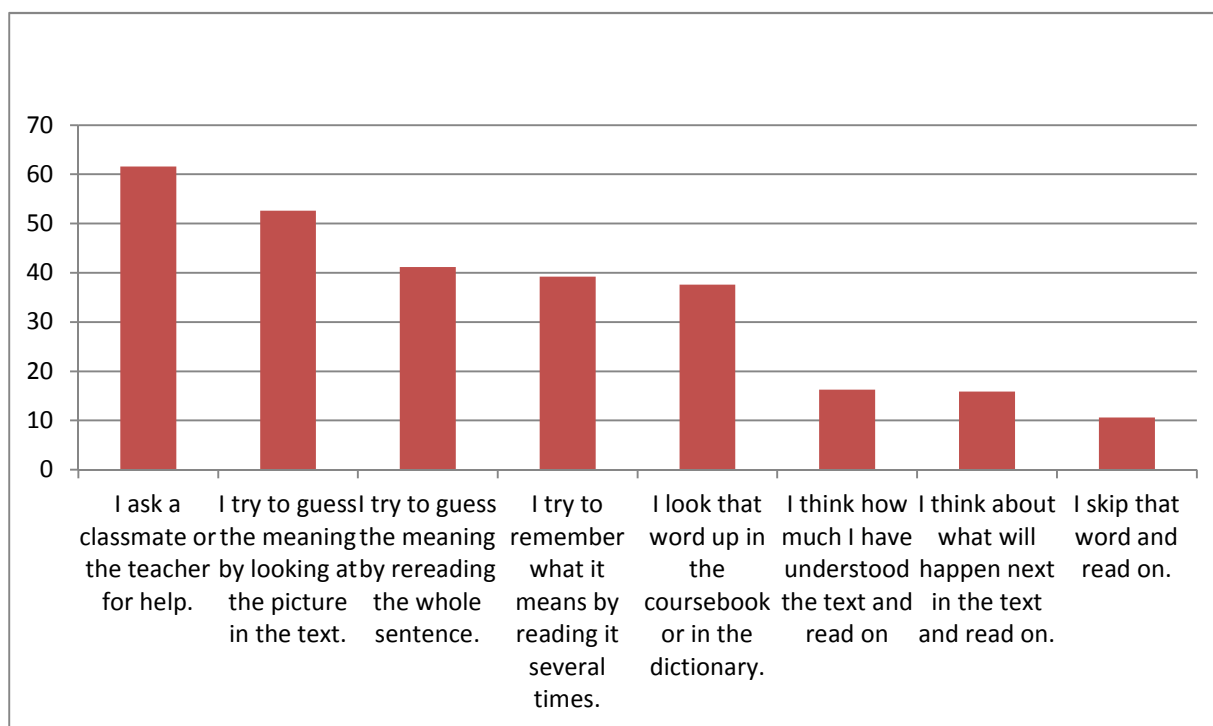


Figure 4.5: Self-reported comprehension strategies

Table 4.32 illustrates a surprising finding: the learners in the study reported using very few comprehension strategies. As can be seen from Table 4.32, one third of the learners (32.5

Table 4.32: Frequencies of self-reported comprehension strategies

	Frequency	Percent	Valid Percent	Cumulative Percent
No strategies reported	26	5.2	5.2	5.2
One strategy reported	137	27.3	27.3	32.5
Two strategies reported	93	18.5	18.5	51.0
Three strategies reported	86	17.1	17.1	68.1
Four strategies reported	65	12.9	12.9	81.1
Five strategies reported	54	10.8	10.8	91.8
Six strategies reported	25	5.0	5.0	96.8
Seven strategies reported	8	1.6	1.6	98.4
Eight strategies reported	8	1.6	1.6	100.0
<i>Total</i>	502	100.0	100.0	

per cent) reported using up to one strategy only, and a half of all learners (51.0 per cent) reported using up to two strategies, while less than 20 per cent of sample learners reported using between five and eight strategies. The most surprising finding is the fact that the greatest number of learners (N = 137; 27.3 %) reported using only one strategy.

Another surprising fact is the negative correlation between the reading test results and the number of self-reported strategies. On average, the learners reported using 2.75 comprehension strategies out of 8. As can be seen in Table 4.33, the correlational analysis calculated using Spearman's coefficient shows that there was a significant negative correlation between the reading test results and the number of self-reported strategies ($\rho = -.113$, $p = .011$). This means that sample learners who achieved the best results in the reading test, self-reported the fewest strategies, while less successful readers reported using a larger number of strategies.

Table 4.33: Correlations of reading test scores and total number of self-reported strategies

			Total number of strategies	Total points achieved in the reading test
Spearman's rho	Total number of strategies	Correlation Coefficient	1.000	-.113*
		Sig. (2-tailed)	.	.011
		N	502	502
	Total points achieved in the reading test	Correlation Coefficient	-.113*	1.000
		Sig. (2-tailed)	.011	.
		N	502	502

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

To check the significance in the differences of individual strategy use and reading task results, we carried out an independent samples t-test. The results in Table 4.34 show that the following four strategies had a significant influence on the reading scores: 1. guessing the meaning by looking at the picture in the text ($p = .000$); 2. skipping the word ($p = .014$); 3. predicting what will happen ($p = .030$); 4. asking for help ($p = .031$).

Table 4.34: Correlations of reading test scores and frequencies of self-reported strategies

Strategy		Levene's Test for Equality of Variances		Independent Samples Test t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
I try to guess the meaning by looking at the picture in the text	Equal variances assumed	3.893	.049	3.876	500	.000	.62866	.16217
	Equal variances not assumed			3.894	499.827	.000	.62866	.16146
I try to guess the meaning by rereading the whole sentence	Equal variances assumed	.419	.518	.898	500	.370	.14977	.16682
	Equal variances not assumed			.893	434.211	.373	.14977	.16779
I try to remember what it means by reading it several times.	Equal variances assumed	3.412	.065	.336	500	.737	.05655	.16829
	Equal variances not assumed			.328	385.347	.743	.05655	.17229
I skip that word and read on.	Equal variances assumed	12.626	.000	3.064	500	.002	.81187	.26497
	Equal variances not assumed			2.528	59.760	.014	.81187	.32110
I think how much I have understood the text and read on.	Equal variances assumed	3.806	.052	1.188	500	.235	.26370	.22200
	Equal variances not assumed			1.092	107.001	.277	.26370	.24156
I think about what will happen next in the text and read on.	Equal variances assumed	4.956	.026	2.438	500	.015	.54425	.22322
	Equal variances not assumed			2.202	102.389	.030	.54425	.24712
I ask a classmate or the teacher for help.	Equal variances assumed	.727	.394	2.163	500	.031	.36373	.16816
	Equal variances			2.188	422.902	.029	.36373	.16623

	not assumed							
I look that word up in the coursebook or in the dictionary.	Equal variances assumed	8.713	.003	1.898	500	.058	.32084	.16902
	Equal variances not assumed			1.836	355.604	.067	.32084	.17475

To determine the proportion of the variance shared by the reading test results and self-reported strategy, the effect size was calculated by using the Eta-squared determiner. The difference in the t-test was found significant for four strategies, and the results of their effect sizes are given in Table 4.35. It can be seen that guessing the meaning of unknown words using picture clues was the strategy that had the largest effect on the reading scores of the four strategies.

Table 4.35: Effect size between self-reported strategy and reading test results

Strategy	Eta-squared	Effect Size
• I try to guess the meaning by looking at the picture in the text.	0.03	medium effect
• I skip that word and read on.	0.01	small effect
• I think about what will happen next in the text and read on.	0.01	small effect
• I ask a classmate or the teacher for help.	0.01	small effect

As gender is considered an important variable in reading strategy use, we carried out an independent samples t-test. The results showed that the girls self-reported more frequent use of reading strategies than the boys, disconfirming a recent study by Griva (2014) that found that boys reported using strategies more often in reading in both L1 and L2. The girls' more frequently reporting the use of comprehension strategies in the present research study was found to make a significant difference in the case of the first five most frequently

reported strategies: 1. asking a classmate or the teacher for help; 2. trying to guess the meaning of new words by looking at the picture in the text; 3. trying to guess the meaning by rereading the whole sentence; 4. trying to remember what the word means by reading it several times; 5. by looking that word up in the coursebook or in the dictionary. Since there was no significant difference in the reading task results in relation to the learners' gender, two conclusions are possible: 1. that both the girls and the boys used similar strategies, but the girls' metacognitive awareness of strategy use was better developed than the boys' awareness, which would confirm Griva's (2014) findings showing that girls were found to be more aware of their strategy use; 2. that the boys were better readers, and managed to use effective strategies with automaticity, while the girls achieved results similar to the boys' results, but with the help of strategy use. However, in order to be able to claim any of these conclusions with certainty, further research would be necessary.

4.5.2. Discussion

The most striking result to emerge from the data is a small number of reading strategies self-reported by the learners for oral and silent reading and their negative correlation with the reading test results. It is remarkable to note that poor strategic competence of the learners in the study is reflected in the number and structure of the reported strategies. All self-reported reading strategies can be grouped into three categories of the taxonomy of reading strategies, based on Chamot and El Dinary (1999) and Zhang, Gu and Hu (2008), as shown in Table 4.36.

Table 4.36: Taxonomy of self-reported strategies and their frequencies

Strategy type	Reading strategies	Percent
I Metacognitive	1. Skipping a word in oral reading	8.8
	2. Skipping a word in silent reading	10.6
	3. Monitoring reading	16.3
	4. Rereading	41.2
II Cognitive	5. Predicting	15.9
	6. Decoding in oral reading	17.3
	7. Using a dictionary	37.6
	8. Guessing by imagery	52.6
III Social-Affective	9. Asking for help in oral reading	61.6
	10. Asking for help in silent reading	71.9

Although there is an inevitable strategy overlap (Oxford, 1990), these three groups of reading strategies emerged on the basis of the learners' replies. It can be seen that the most frequently reported group is the group of social-affective strategies, also called bottom-up strategies (Wilavan, 2012) or indirect strategies (Oxford, 1990), then cognitive, or direct strategies (Oxford, 1990), while the least frequently reported are metacognitive strategies, or indirect strategies. It is crucial to note that each group was found statistically significant for reading test scores. The findings of the study highlight the contribution of reading strategies to reading achievement, and point to significant pedagogical implications.

In both modes of reading the most frequently reported strategies were indirect, like social-affective, showing reliance on others for help, while independent strategies, like cognitive strategies, were rarely reported. These findings confirm some earlier studies of young learner EFL reading strategies use self-reported by children through questionnaires (Horvatić, 2013; Radišić & Pavičić-Takač, 2007; Šamo, 2009, 2015). Other indications of poor strategic competence of the learners are low frequencies reported for using analogy when reading unfamiliar words, or skipping unknown words in oral reading. Since analogy is “one of the key learning strategies available at this level” (Cameron, 2008, p. 132), a very

low percentage of sample learners who reported using it, can be considered a sign of poor strategic competence. To become independent fluent readers able to overcome difficulties related to oral reading, children need to develop effective cognitive and metacognitive strategies like guessing or skipping individual words (Chamot & El-Dinary, 1999). However, skipping unfamiliar words can be a useful strategy in silent reading and usually does not result in impaired general comprehension, while persistent decoding of unfamiliar words in reading a longer text is recognised as an ineffective strategy of less successful readers, who tend to devote too much time and effort to decoding unfamiliar words, wasting precious time for meaning making and for understanding what they are reading (Chamot & El-Dinary, 1999; Horvatić, 2013; Šamo, 2009; Zhang, Gu, & Hu, 2008).

The results obtained for the oral reading strategies preferred by the learners are in line with the classroom practices of strategy development reported by the learners: the most frequently reported teacher technique used to help the children pronounce new words in oral reading was giving help, i.e. encouraging children to rely on others instead of developing their independence and autonomy through cognitive strategy use, which is in contradiction with earlier findings emphasizing the higher frequency of independent strategies used by beginning readers (Chamot & El-Dinary, 1999; Horvatić, 2013; Radišić & Pavičić-Takač, 2007; Šamo, 2009). Nevertheless, the findings of the present research study can be justified on the basis of the learners' age and the limited period of reading skill development. Considering the young age of children and the relatively short period of developing their reading skill, it is understandable that they still were not independent readers. What is more, the complex nature of oral reading must also be considered when evaluating children's oral reading proficiency and strategy use. Oral reading in L2 is rather challenging because it "entails pronouncing the author's words, phrases, and sentences with the right sounds, emphasis, rate of speed, phrasing, and intonation" (Birch, 2008, p. 173), which may be very

problematic for nonnative readers due to the fact that they may experience anxiety, lack of vocabulary, incomplete knowledge of punctuation, and absence of background knowledge necessary for meaning making. For these reasons, oral reading should not be overused as an assessment technique as it “can be disadvantageous to children’s confidence and motivation when they are not successful in a highly visible situation” (McKay, 2006, p. 234). Moreover, if the teacher asks a child to read to the whole class, and if the child does not read loudly enough or stumbles over words, this affects other children and they “will lose the meaning and probably the motivation to listen” (Cameron, 2008, p. 142). Children often tend to ‘word call’ or ‘bark at words’, i.e. read “word by word in a meaningless stream” (McKay, 2006, p. 234), recognizing words or letters, but not understanding what they are reading. Reading unknown words letter by letter was reported by a small number of the learners, which is understandable knowing that this is a key strategy in learning to read in Serbian as a language with a completely transparent orthography. This, however, indicates that there might have been some negative transfer from L1 reading as a result of orthographic differences between English and Serbian, and that a certain proportion of the readers tended to rely on this often ineffective strategy when decoding English deep orthography.

In respect of comprehension strategies, the most frequently reported comprehension strategy was the same as the one reported for oral reading: asking someone for help. This is the strategy already reported by Horvatić (2013) as an external strategy used mostly by less successful readers, as concluded through interviews and learner journal analysis. In this respect, the present research study findings confirm previous studies (Horvatić, 2013). However, our findings have to be interpreted with caution as they do not distinguish the type of reader in terms of reading success. It is remarkable that inference making based on picture clues was frequently reported. These findings confirm previous studies (Horvatić, 2013) reporting independent strategies being favoured by successful readers, though they also have

to be interpreted with caution as there is no support for the type of reader reporting them in the present study.

The most surprising correlation in the study is between the reading test results and the number of self-reported strategies, which appeared to be negative. Although this confirms some earlier studies that reported young learners' use of few reading strategies (Gong et al., 2011), the current study does not support previous research in this area reporting that skilled readers used more strategies (Griva, 2014), or the studies claiming that metacognitive awareness of strategy use develops at an early age (Chamot & El-Dinary, 1999). The present study findings can be compared to some previous studies of young learner reading strategies self-reported through a questionnaire: Horvatić (2013) reported a negative but not significant correlation between success in reading and independent strategies self-reported by children through questionnaires; the author concluded that either children were not aware of their strategy use or found it difficult to evaluate their strategy use, also argued by Rubin et al. (2007). Though we agree with these two possible reasons, we believe that another possible reason may be the difficulty of the reading task/reading in English in general: the learners who found the reading task and reading in English challenging, might have been more aware of the strategies they had used to make meaning of the unfamiliar text, while the sample learners for whom the reading task and reading in English had not been so difficult, were not aware of all the strategies they had applied in meaning making, either because of their poor metacognitive awareness, or the strategies had been used with a high degree of automaticity, as argued by Grabe and Stoller (2011). It is, however, surprising that the learners who achieved low scores in the reading task, self-reported a larger number of strategies, but still had not managed to achieve success in reading comprehension. For these sample learners, using a larger number of strategies had not contributed to better comprehension, nor had it yielded satisfactory reading test results. This confirms the studies that indicated that it is not

the number of reading strategies, but their appropriateness to the task demands and to the learners learning strengths, that enhances comprehension (Chamot, 2004; Chamot & El-Dinary, 1999).

Although these results widen our knowledge of young learners' awareness and probable use of reading strategies, more research is needed to uncover correlation between reading outcomes and strategy use, and between gender and strategy use.

4. 6. Reading difficulties questionnaire

4.6.1. Results

The results obtained are presented in two groups: 1. oral reading difficulties; 2. reading comprehension difficulties. They were obtained by using a semistructured questionnaire with multiple and open-ended question. The difficulties were self-reported and their frequency depended on the learners' metacognitive awareness of the difficulties they commonly experienced in reading. The questionnaire was filled in immediately after the reading task had been completed, so that the learners could refer to the experience of reading an unfamiliar text in the task when reporting comprehension difficulties, but the difficulties in oral reading had to be reported upon being drawn from memory and previous experiences.

As it can be seen from Table 4.37, the most frequently reported difficulties were related to oral reading, or more precisely, to pronouncing both new and known words, as well as some English sounds (from 32.5 per cent to 44.4 per cent), while comprehension difficulties were much less frequently reported (from 9.4 per cent to 19.1 per cent).

Table 4.37: Frequencies for self-reported reading difficulties

Self-reported reading difficulties	Frequency	Percent
• inability to pronounce new words	223	44.4
• inability to pronounce some known words	204	40.6
• inability to pronounce some English sounds	163	32.5
• inability to continue reading a text if I don't understand it due to some unfamiliar words in it	96	19.1
• inability to understand what I have read because I read too slowly	52	10.4
• inability to understand what I have read when reading aloud	47	9.4

Figure 4.6 illustrates the gap in frequencies between the two groups of reported difficulties, each represented with three difficulties. Although the learners were asked in the questionnaire to identify exactly the sounds they found difficult to pronounce, they did not provide the answer to this question, neither did the teachers in the teacher questionnaire.

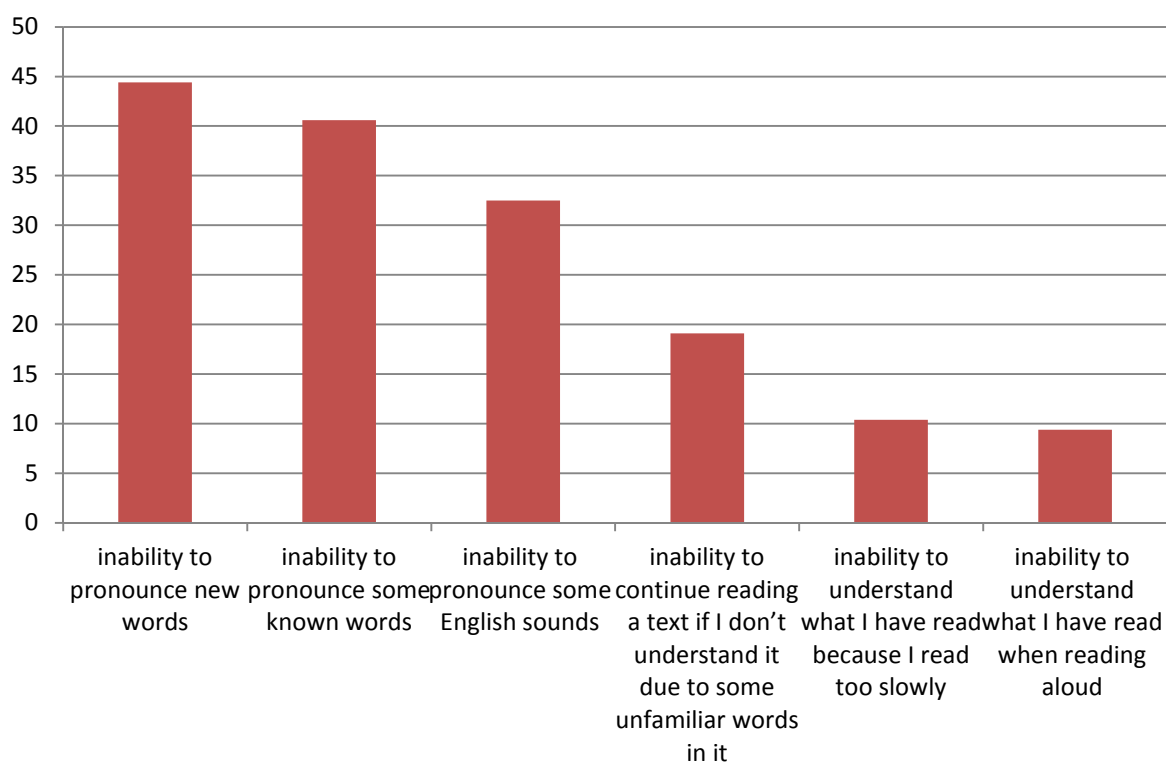


Figure 4.6: Self-reported reading difficulties

Surprisingly, the learners reported a small number of difficulties. It is quite remarkable that about 60 per cent of the learners self-reported either no difficulties (20 per cent) or only one difficulty (about 40 per cent), while only 9 per cent of the learners self-reported between four and six difficulties (see Table 4.38).

Table 4.38: Frequencies of self-reported difficulties

	Frequency	Percent	Valid Percent	Cumulative Percent
No difficulties reported	104	20.7	20.7	20.7
One difficulty reported	192	38.2	38.2	59.0
Two difficulties reported	109	21.7	21.7	80.7
Three difficulties reported	52	10.4	10.4	91.0
Four difficulties reported	21	4.2	4.2	95.2
Five difficulties reported	9	1.8	1.8	97.0
Six difficulties reported	15	3.0	3.0	100.0
<i>Total</i>	502	100.0	100.0	

To examine the significance of difficulties for reading task results, we carried out an independent samples t-test. The results in Table 4.39 show that all six difficulties correlated with the reading scores ($p = .000$), i.e. were statistically significant for the reading test results. To determine the proportion of the variance shared by the reading test results and self-reported difficulty, the effect size was calculated by using the Eta-squared determiner. The difference in the t-test was found significant for all difficulties, and the results of their effect sizes are given in Table 4.40. The effect size is the greatest in respect to the difficulty related to the inability to understand a text when reading aloud: the average score of the learners who self-reported this difficulty was $M = 2.94$, $SD = 1.82$, while the learners who did not self-report this difficulty achieved much better results: $M = 4.93$, $SD = 1.74$ (the scores ranged from 1-7).

Table 4.39: Correlations of reading test scores and frequencies of self-reported difficulties

Difficulty		Levene's Test for Equality of Variances		Independent Samples Test t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
inability to pronounce some English sounds	Equal variances assumed	.265	.607	3.912	500	.000	.67626	.17289
	Equal variances not assumed			3.844	305.943	.000	.67626	.17593
inability to pronounce some known words	Equal variances assumed	1.589	.208	5.165	500	.000	.84215	.16304
	Equal variances not assumed			5.104	417.599	.000	.84215	.16501
inability to pronounce new words	Equal variances assumed	9.602	.002	5.375	500	.000	.86446	.16082
	Equal variances not assumed			5.278	435.595	.000	.86446	.16379
inability to continue reading a text if I don't understand it due to some unfamiliar words in it	Equal variances assumed	.674	.412	4.431	500	.000	.90830	.20499
	Equal variances not assumed			4.167	134.207	.000	.90830	.21798
inability to understand what I have read when reading aloud	Equal variances assumed	.003	.958	7.457	500	.000	1.99570	.26764
	Equal variances not assumed			7.177	55.008	.000	1.99570	.27807
inability to understand what I have read because I read too slowly	Equal variances assumed	5.606	.018	6.524	500	.000	1.68923	.25891
	Equal variances not assumed			5.583	59.217	.000	1.68923	.30257

Table 4.40: Effect size between self-reported difficulty and reading test scores

Difficulty	Eta-squared	Effect Size
• inability to pronounce some English sounds	0.03	medium effect
• inability to pronounce some known words	0.05	medium effect
• inability to pronounce new words	0.05	medium effect
• inability to continue reading a text if I don't understand it due to some unfamiliar words in it	0.04	medium effect
• inability to understand what I have read when reading aloud	0.10	great effect
• inability to understand what I have read because I read too slowly	0.06	medium effect

As gender is considered an important variable in metacognitive awareness, we carried out an independent samples t-test. The results showed that the girls self-reported reading difficulties more frequently than the boys. However, in the reading test outcomes, there was no statistical difference in relation to gender.

4.6.2. Discussion

The two groups of difficulties reported by the learners were found to be statistically significant for the reading outcomes of the learners. However, there was a big gap in the reported frequencies, difficulties in oral reading being much more frequently reported than comprehension difficulties. Pronunciation difficulties may have been related to EFL/ESL phonological awareness that was still developing, to word recognition skills, and to transfer effects. What is more, the great difference in frequencies between the two groups of difficulties may have been caused by the fact that the young learners were still developing their reading skills in English as L2, and were very much aware of pronunciation problems they experienced while reading aloud. Another possible reason may have been the differences in English and Serbian orthographies and the negative transfer of the Serbian shallow

orthography to the pronunciation of some English words. Yet another reason might have been the fact that all difficulties in oral reading were more transparent and thus appeared more prominent to the learners, making them more aware of this group of difficulties.

Generally speaking, the learners reported a small number of difficulties. This contradicts previous findings in which fifth and sixth graders appeared to be fully aware of their own reading difficulties, reporting a number of reading problems experienced (Griva, 2014). Surprisingly, the girls reported more reading difficulties than the boys, which does not support some recent studies indicating that boys were more aware of their reading difficulties (Griva, 2014). A possible explanation for the girls' more frequently reporting the reading difficulties in comparison to the boys may be the girls' better metacognitive awareness, and these are the issues prompted think-aloud protocol interviews can shed more light on.

4.7. Prompted think-aloud protocol interview

4.7.1. Results

Our thinking-aloud research involved a sub-sample of 12 learners of similar levels of proficiency, i.e. good language learners, but with different background (school, family background, social status, interests, etc.). Since learners had received no instruction in thinking-aloud, it was crucial to involve the learners who would spontaneously respond to the researcher's prompts and express own streams of thoughts in relation to the reading text and its challenges. The subjects in our thinking-aloud study spoke the same native language, i.e. Serbian, had had the same amount of formal English language instruction, i.e. two lessons a week for four years, from grades 1-4, but they differed in after school exposure to English and family background. The respondents were 7 boys and 5 girls, drawn from all 6 schools

surveyed in the study, who had already done the reading task and responded to the questionnaires used in the study before the interviews were carried out. The main objective of the interviews was to gain a deeper insight into the processes of reading, especially the skills and strategies used by successful readers, as well as to observe how other factors, intrinsic and extrinsic, contributed to success or caused difficulties in reading in English.

The dominant themes that emerged from the analysis of the respondents' answers helped interpretation of the data in the light of the study objectives, resulting in the consequent categories induced from the data. The analysis used quantification for the detection of patterns and themes, which further supported research findings and the generation of hypotheses (MacKay & Gass, 2005, 179-182). Categories appearing in the interview responses were colour coded in the transcripts. The large themes that appeared comprised the following areas: extensive reading in L1; extensive reading in L2; attitudes to reading in L1 and L2; attitudes to reading aloud and reading silently; reading difficulties related to fluency; reading difficulties related to comprehension; reading strategies; home environment and L2 reading. The main method used was content analysis: all of the interviews were audio recorded and transcribed verbatim, and the transcriptions were analysed by means of content analysis (see Appendix 4 for an example protocol). The researcher did not use any predesigned coding scheme, but assembled categories through a combination of responses. Analysis and discussion of the interviews is presented in clusters/themes of the interview questions (see Table 4.41), running records of oral reading (see Appendix 8), and reading fluency scores (see Table 4.42) of 12 focal readers. Table 4.41 lists all topics and probes used by the researcher to get significant information about each topic.

Table 4.41: Interview themes and specific interview questions

No	Topic	Questions
1.	The reader's interest in reading & extensive reading habits	<p>Do you like reading? What do you like to read?</p> <p>How do you feel when reading a book in Serbian?</p> <p>Do you like reading in English?</p> <p>Do you read in English for pleasure in your free time?</p> <p>When do you usually read in English?</p> <p>What texts do you read in English?</p> <p>How do you feel when you are reading a book or a story in English?</p> <p>How do you choose what to read in English?</p> <p>Do you choose the texts that are not too difficult?</p> <p>Do you read in English on the internet?</p> <p>Do you read in English on the internet to learn something?</p> <p>Do you read in out-of-school classes?</p>
2.	The reader's home background for reading in English	<p>Can your parents or siblings read in English?</p> <p>Do you read in English with your parents or siblings?</p> <p>Do you like to read in English with them? Why (not)?</p> <p>Do you ask them for help when you are reading in English?</p> <p>How do they help you?</p>
3.	The reader's ideas about reading in L1 and L2	<p>How does the reading skill in Serbian help you in reading in English?</p> <p>How much is reading in Serbian similar to/different from reading in English?</p>
4.	The reader's strategies for reading	<p>When did you understand the text better, when reading silently or aloud? Why? What helped you understand better in that mode?</p> <p>While you were reading the story, were you thinking about how much you could understand it?</p> <p>Did you manage to guess what the first/second/third paragraph would be about?</p> <p>How did you manage to make a successful guess?</p> <p>What helped you to guess the content?</p> <p>How much do you understand this story? What is it about? What title would you give it?</p> <p>Do you know all the words in the story?</p> <p>What helped you to understand the unfamiliar words?</p> <p>What could you have done to understand the story better in spite of not knowing all words?</p> <p>Did you learn that strategy in your English classes? Who from?</p> <p>Did you ask for help? Who from?</p> <p>Does that always help you when you read in English?</p> <p>Does anything else help you to read better in English?</p> <p>Is this word familiar to you? Can you read it?</p> <p>How did you know how to pronounce it? What helped you?</p> <p>What were you thinking while getting ready to read it?</p> <p>Did you remember something? Anything else?</p> <p>What does it (the word) mean? How do you know it?</p>
5.	The reader's difficulties in	<p>Is there a part of the story you found difficult to understand?</p> <p>What couldn't you understand?</p>

	reading in English	What is your biggest difficulty in reading in English? How do you overcome difficulties in reading?
6.	The reader's self-esteem as a reader & plans for improvement	Do you think you are a successful reader in English? Do you have a plan how to develop further your reading in English? Have you already noticed that you are now reading better? How did you come to that conclusion?

1. *The reader's interest in reading.* All of the interviewed learners reported they liked learning English, learning new words in English, and reading in English, thus confirming their attitudes already reported through the smiley questionnaire. To support their choices, the respondents explained further: "When I read in English, I sometimes do not understand some words, but I still feel satisfied. Reading in a foreign language somehow differs from reading in Serbian, it is more beautiful" (L-1-1-1-08); "I do love reading in English" (L-2-2-1-15); "I love reading both in Serbian and in English" (L-3-1-3-16); "I read in Serbian when I choose to do it. I take two to three books from the library a month, and I finish each of them in four to five days. But I do not read books or stories in English, I only read and translate coursebook texts" (L-3-1-3-05).

The respondents' attitude to reading on the internet was mostly favourable: nine of them liked reading in English on the internet (L-1-1-2-13, L-1-1-1-08, L-2-1-1-02, L-2-2-1-15, L-3-1-3-16, L-3-1-3-21, L-4-1-1-09, L-5-1-2-09, L-5-1-1-27), one was undecided (L-4-1-1-10), and two were not fond of it (L-2-1-2-03, L-3-1-3-05). Although nine of the respondents reported liking to read in English on the internet, the internet was reported as a regular source of reading material in English only by half of the respondents. Reasons reported for not reading texts from the internet more often involve young learners' inability to surf the internet successfully: "I may try to find an interesting text on the internet by myself, but I think I will need help to do it" (L-1-1-2-13). One of the respondents (L-5-1-2-09) reported spending 7-8 hours a day playing video games online and reading on the internet, while communicating with other gamers worldwide; this activity resulted in almost native-

like pronunciation of English, extremely few errors (miscues) in reading aloud, and a high level of comprehension of the text read in the think-aloud. Another respondent (L-5-1-1-27) reported reading often on the internet to get the information for school assignments and feeling very motivated to read on the internet if he or she found the texts comprehensible.

Extensive reading involved coursebooks other than the school coursebooks, either for out-of-school classes, attended by five out of the twelve respondents, or borrowed from elder siblings and above Grade 5 level, then family books in English, i.e. fiction books, like fairy tales, books about pirates, and other story books they have at home, comic strips in English (*Colin in Computerland* on the internet), internet texts accompanying video games, and internet texts related to films, music bands and favourite singers. Three respondents (L3-1-3-16, L-3-1-3-05 and L-5-1-2-09) reported reading a lot in English regularly, both books and internet texts. It can be concluded that the sub-sample learners were interested in reading both books and texts already available at home and materials they found on the internet; when reading on the internet, their choices reflected their interests other than English, like texts for school assignments, then video games, and film and music, as forms of entertainment, indicating that the true reading purposes and interests made a positive influence on their motivation. Generally, the focal learners expressed a wish to read in English more regularly, having praised the experience of reading an unfamiliar text in the interview with great satisfaction. Put in the words of one of the readers, “Reading such a story does not take more than fifteen minutes. If I had such stories at home, I would read every day” (L-2-1-2-03). However, they seemed confused about the way of obtaining such material: one learner mentioned that it would be difficult to find stories like the one read in the interview because “libraries rarely have such texts” (L-1-1-1-08). There was no evidence of teachers encouraging extensive reading, or interviewees’ reporting being given some extra material by their teachers for out-of-school reading.

2. *The reader's home background for reading in English.* The data about the learners' family background explained the focal learners' attitude to extensive reading and the importance of out-of-school exposure to English for fostering extensive reading. All learners came from families where both parents had completed secondary education (3 learners), where one parent had a secondary diploma and the other one possessed a university degree (2 learners), or where both parents possessed university degrees (7 learners). Most of the focal learners' parents spoke English, some of them helped the children with reading. Some parents possessed books in English that the learners often read. The role of elder siblings (7 learners had elder brothers or sisters: L-2-1-2-03, L-2-1-1-02, L-3-1-3-16, L-3-1-3-21, L-4-1-1-09, L-4-1-1-10, L-5-1-2-09) in developing the learners' reading was significant and very beneficial: the learners reported often reading together or getting help with reading at home from them, e.g. by having elder sibling listen to them reading, correct their pronunciation mistakes, or help them with the right pronunciation/meaning of unfamiliar words.

3. *The reader's ideas about reading in L1 and L2.* The respondents' explanations indicated their metacognitive awareness about similarities and differences between L1 and L2 reading. One of the focal learners tried to explain similarities in terms of reading content, viewing the differences from the point of linguistic demands:

Well, it is similar because a book that is interesting in Serbian will certainly be interesting in English. Only, maybe in English there will be more descriptions and interesting words. And in English some books are more difficult, so I read a bit more slowly, to pay attention to every word and to create an image with all details; I do not skip the words that I don't know, but ask my parents or my sister to help me with the meanings. (L-3-1-3-16)

Some of the sub-sample readers viewed the two processes as supportive, in terms of cognates or general reading skill: "It is both similar and different. We have borrowed some words from English" (L-2-1-2-03); "If I don't understand something in Serbian, I cannot understand in a foreign language, either" (L-2-1-1-02); "My reading skill in Serbian helps me a lot when I read in English. Also, when I'm reading something in Serbian, I get interested in

a topic, I ask my sister or parents to teach me the English words for that topic, and I learn new words that way; when I think I know enough of those words, I take a book in English about the topic and read it” (L-3-1-3-16); “The reading skill in Serbian helps me a lot in reading in English. When you know to read in one language, there are greater chances that you will know to read in English, too” (L-3-1-3-05).

On the other hand, several respondents were sure L1 reading skill hindered the development of their L2 reading due to the differences in orthographic systems: “My reading in Serbian seems to hinder my reading in English. The reason is the fact that in our language one letter is always one sound, while in English two letters can make one sound. The reading rules are different” (L-1-1-1-08). The differences between two reading processes were mostly viewed from the point of the differences in orthographic systems: “I think these two processes are more different than similar, because when we read in Serbian, a word is written in the way we pronounce it, while when we read in English, a word is written differently from the way it is pronounced” (L-2-1-2-03). Still, a respondent compared reading in L1 and L2 referring to the need for understanding the context: “It is different because when I read a story in English, I cannot translate after the first sentence, but have first to read the whole text and then to start translating slowly. I cannot understand without translating to myself” (L-2-1-1-02); “It is different when you pronounce words, the letters are the same in both languages, and it makes reading easier, but the words are foreign” (L-3-1-3-05). “It is not very different, except that in English there are certain sounds that are typical of English, like /θ/, or the word order. For example, they say ‘fruit bowl’ for ‘činija sa voćem’, the word order is different. If we translated a sentence word-by-word into Serbian, it would sound a little strange” (L-4-1-1-10).

4. *The reader’s strategies for reading.* The strategies were observed by the researcher in the process of a focal learner’s reading a narrative text consisting of three paragraphs of

different difficulty, accompanied with a picture (see Appendix 2). The running records in Appendix 8 summarise the miscues, while Table 4.42 shows the focal learners' reading fluency.

The respondents' preferences were different in relation to oral and silent reading: 7 of them preferred reading aloud, and 5 reading silently. The preference for oral reading was supported with the following arguments: "Reading aloud helps me understand better" (L-1-1-2-13, L-1-1-1-08, L-2-2-1-15, L-4-1-1-10), "I prefer listening to myself reading in English to being silent while reading" (L-2-1-2-03), "I understand better when reading aloud because words are more successful in making images in my mind when I read aloud" (L-5-1-2-09), "It's easier to understand when you say the words" (L-5-1-1-27). Another respondent (L-4-1-1-10) added that he or she was confused when reading silently. One respondent preferred reading aloud, but added: "I think I understand better when I read silently [. . .] For me the most important thing is to know what something means, not how it sounds. Of course, it is important how I pronounce words, but I think it is more important to know what something means than how it sounds" (L-2-1-2-03).

The preferences for silent reading were supported with the following arguments: "I find reading silently easier" (L-2-1-1-02); "I prefer reading silently because I can focus on meaning and understanding" (L-3-1-3-16); "I prefer reading silently because I understand better that way" (L-3-1-3-05, L-4-1-1-09); "I prefer reading silently because I have more time to think about the meaning of the text" (L-3-1-3-21). The analysis of the accuracy and error ratio of the respondents (see Table 4.42) and their preferences of either mode of reading, indicated that the respondents who preferred reading silently had made fewer mistakes and achieved 97-100 per cent accuracy in reading orally, i.e. the level of independent reading, while the respondents who preferred reading aloud had achieved 87-99 per cent accuracy and

error ratio, their fluency level ranging from 87-99 per cent, i.e. from frustration level, through instructional level, to independent reading (Rasinski, 2004a).

Table 4.42: Reading fluency of twelve focal learners' oral reading

Learner	Accuracy & error ratio (Independent Level: 97-100%; Instructional Level: 90-96%; Frustration Level: < 90%)	Rate (WCPM = words correct per minute)	Fluency level (Levels: 1- inexperienced reader; 2 – beginning reader; 3 - developing reader; 4 – mature reader)
L-1-1-2-13	Accuracy (first 100 words): 98% (3 errors: omission – 1, mispronunciation – 1 (2-1 SC)) Total miscues (in 229 word narrative text): 10; accuracy: 96%; error ratio: 1:22.9. Level: instructional	Rate: (first 60 sec): 134-5 errors= 129 wcpm	Level 3
L-1-1-1-08	Accuracy (first 100 words): 99% (1 error: substitution – 1, mispronunciation/SC – 1) Total miscues (in 229 word narrative text):12; accuracy: 95%; error ratio: 1:19.1; Level: instructional	Rate: (first 60 sec): 118-2 errors= 116 wcpm	Level 3
L-2-1-2-03	Accuracy (first 100 words): 94% (6 errors: substitution – 1, mispronunciation – 5 (no SC)) Total miscues (in 229 word narrative text): 20; accuracy: 91%; error ratio: 1:11.5; Level: instructional	Rate: (first 60 sec): 92-6 errors= 86 wcpm	Level 2
L-2-1-1-02	Accuracy (first 100 words): 99% (1 error: mispronunciation) Total miscues (in 229 word narrative text): 6; accuracy: 97%; error ratio: 1:38.2; Level: independent	Rate: (first 60 sec): 153-4 errors= 149 wcpm	Level 4
L-2-2-1-15	Accuracy (first 100 words): 95% (5 errors: substitution – 1, mispronunciation – 4 (no SC)) Total miscues (in 229 word narrative text): 23; accuracy: 90%; error ratio: 1:10;	Rate: (first 60 sec):103-6 errors= 97 wcpm	Level 2

	Level: instructional		
L-3-1-3-16	Accuracy (first 100 words): 98% (2 errors: insertions) Total miscues (in 229 word narrative text): 6; accuracy: 97%; error ratio: 1:38.2; Level: independent	Rate: (first 60 sec): 161-3 errors= 158 wcpm	Level 4
L-3-1-3-05	Accuracy (first 100 words): 100% Total miscues (in 229 word narrative text): 1; accuracy: 100%; error ratio: 1:229; Level: independent	Rate: (first 60 sec): 161-1 errors= 160 wcpm	Level 4
L-3-1-3-21	Accuracy (first 100 words): 97% (3 errors: insertions – 1, omissions – 2) Total miscues (in 229 word narrative text): 6; accuracy: 97%; error ratio: 1:38.2; Level: independent	Rate: (first 60 sec): 125 words - 6 errors= 119 wcpm	Level 3
L-4-1-1-09	Accuracy (first 100 words): 92% (8 errors: insertion – 1, mispronunciation – 7 (no SC)) Total miscues (in 229 word narrative text): 24; accuracy: 90%; error ratio: 1:9.5; Level: instructional	Rate: (first 60 sec): 129-11 errors = 118 wcpm	Level 3
L-4-1-1-10	Accuracy (first 100 words): 91% (9 errors: substitution – 4, mispronunciation – 5 (no SC)) Total miscues (in 229 word narrative text):29; accuracy: 87%; error ratio: 1:7.9; Level: frustration	Rate: (first 60 sec): 100 words – 9 errors = 91 wcpm	Level 2
L-5-1-2-09	Accuracy (first 100 words): 99% (1 error: mispronunciation – 1 (one SC)) Total miscues (in 229 word narrative text): 3; accuracy: 99%; error ratio: 1:76.3; Level: independent	Rate: (first 60 sec): 107 words - 1 error= 106 wcpm	Level 3
L-5-1-1-27	Accuracy (first 100 words): 95% (5 errors: substitutions – 1, insertions – 3, mispronunciations – 1 (no SC)) Total miscues (in 229 word narrative text): 22; accuracy: 90%; error ratio: 1:10.4; Level: instructional	Rate: (first 60 sec): 158 words - 13 errors= 145 wcpm	Level 3

5. *The reader's difficulties in reading in English.* Although focal readers considered themselves as successful readers, they showed awareness of reading difficulties and described their own difficulties related to reading in English. The self-reported difficulties concerned either oral reading or comprehension of a text. The former involved reporting pronunciation difficulties related to new words, to pronouncing some known but difficult words, and to pronouncing inflections, like regular past tense affixes: “The biggest difficulty for me is pronunciation, like this word in the text [. . .] pronunciation of new words. I find pronunciation of names the most difficult, like the dog’s name in this story” (L-2-1-1-02), “The most difficult for me was to pronounce the past tense of verbs [. . .] I find grammar structures the most difficult in reading in English” (L-1-1-1-08), or “My biggest difficulty are the unfamiliar words that I cannot pronounce properly. There are also words whose meanings I know, but I have difficulties pronouncing them. My biggest difficulty is the fact that I cannot read some words even though I know what they mean.” (L-2-2-1-15). Our running records of the sub-sample/focal learners indicated other difficulties related to pronunciation, rate and fluency. Appendix 8 shows that misreading resulted in non-words produced by 11 out of 12 focal learners, mostly when pronouncing past tense affixes, irregular past tenses, a conjunction, some adjectives, adverbs, and determiners. Another group of miscues involved substitutions, mainly of verbs (e.g. infinitive for past tense), prepositions, pronouns (prepositions for pronouns), nouns and adverbs (adjectives for adverbs). Omissions included the omissions of articles and conjunctions, while insertions involved inserting prepositions and auxiliaries. With respect to comprehension, the difficulties reported by the learners concerned limited knowledge of vocabulary and grammar structures: “My difficulties are unfamiliar words. I learn new words best when I copy them several times in my notebook for homework [. . .] I learn new words from watching films. There is also one TV show in

English, I watch it very often and I can understand some new words I haven't learned at school" (L-2-1-2-03).

While reading the unfamiliar text in the interview (see Appendix 2), the comprehension difficulties were caused by unsuccessful guessing of meaning of new words and making wrong inferences. Some examples of unsuccessful guessing included the words 'lake', wrongly understood as 'river', then 'swings', wrongly understood as 'river bank', then 'sweaters' wrongly understood as 'small plates' and 'small towels'. Wrong inferencing involved attributing the meaning 'swimming' to the unknown word 'swings', relying both on the context of the story in which the characters were having a picnic near the lake, and on orthography, i.e. the beginning syllable 'swi-'.

6. *The reader's self-esteem as a reader and plans for improvement.* The metacognitive awareness of sample learners was rather developed: seven of them readily evaluated themselves as successful readers (L-1-1-2-13, L-2-1-2-03, L-2-1-1-02, L-3-1-3-16, L-3-1-3-05, L-3-1-3-21, L-5-1-2-09), while five were not sure about that (L-1-1-1-08, L-2-2-1-15, L-4-1-1-09, L-4-1-1-10, L-5-1-1-27). One of the self-confident readers elaborated as follows: "I think I am a good reader, but there are some mistakes in my reading that I notice when I reread two or three times [. . .] when I read a word, it is not difficult for me to pronounce it, but when I hear the word, I see that pronunciation is somewhat different; maybe I should look it up on the internet and listen to it on my computer, and say it several times [. . .] I have already done that" (L-1-1-2-13).

All interviewees, no matter how successful they felt as readers, had concrete ideas or plans how to develop their reading skill: "I think it is important to read a lot [. . .] every day; it is important to read at least one story like this, not too short or too long, every day, it takes only about ten minutes. I think this is the most important thing to do [. . .] And pronunciation is very important. Also, paying more attention to new words" (L-1-1-2-13). Another

respondent also recognised the importance of practice in improving reading skills: “My plan is to keep on practising reading, and I will certainly become a more successful reader, if I wish” (L-2-1-2-03). However, yet another respondent made *ad hoc* plans like this: “I do not have a plan, I read for pleasure. I love reading in English. I think I am an excellent reader [. . .] If I had stories like this one, I would read them every evening in bed, or when I have time, I would certainly love them [. . .] It would be better if the story is a little longer, one to two paragraphs more, it would be more interesting for me [. . .] It is important not to read mechanically, but with understanding, to think and translate in our mind” (L-1-1-1-08). Another respondent stresses the importance of reading materials: “I know that I have become a better reader because this year we have been reading texts that are more difficult [. . .] It is important to read the texts that are not too difficult, but not too easy, either; if I had such texts, I would read them every day, and when I think that I have developed my reading skill, I would take a more difficult text [. . .] I think to become a better reader one needs to practise a lot, to read and look up the new vocabulary in a dictionary” (L-2-1-1-02). Another respondent had a similar view: “When I decide to practise reading, I first take some text that is easier, and then I read more difficult ones” (L-2-1-2-03).

It is interesting to note that most focal learners considered extensive reading as an activity with a purpose other than enjoyment in reading. One of the respondents viewed making a regular reading plan as a way of expanding vocabulary: “My plan would be reading in English for an hour every day, two or three texts, in order to learn new words [. . .] It would not be too much work for me, when I want to learn something, I have to work hard. I could find texts similar to this one in some coursebooks” (L-3-1-3-05). For another respondent it is more important that the story is interesting than that it can teach him or her new words: “I like reading both when there are difficult words and when there aren’t such words in a text. If I had stories like this one, I would read them every day, or twice a day, I

would even have time to read them three times a day. I would try to find a book in English in a bookshop, a thin one, not too thick, but a good one, and to start reading it, to see if I like it. I can also find a text on the internet, and print it [. . .] I would be able to do that on my own” (L-3-1-3-16). One of the focal learners thought about the value of translating for reading improvement: “My reading improvement plan would involve reading a text like this one two-three times, then translating it into Serbian, and reading the translation in Serbian for deeper understanding; after an hour’s break, I would take another text [. . .] I would repeat this procedure every day” (L-3-1-3-21) Most of the learners expressed enthusiasm for extensive reading: “I could read two or three stories of similar length a day, on some days I may be able to read one, then on the other days I could read three stories [. . .] I don’t know if I could find such stories on the internet. Maybe I could [. . .] I would enjoy reading a collection of stories if I got it” (L-4-1-1-09). However, one of them doubted he or she could devote much time to reading in English in her or his free time: “I would be able to read in English only at weekends, less than I read in Serbian because there are new words in the English texts [. . .] I would look the new words up in a doctionary or on the internet and I would copy them in my notebook” (L-5-1-1-27).

The protocols indicated that although the focal learners were interested in extensive reading in English, they considered it as a challenging language learning activity, rather than as a pleasurable free-time activity.

4.7.2. Discussion

The aim of our prompted think-aloud protocols was to learn more about the processes underlying reading, like inference making, language cueing systems used for making sense of the text, and mental model formation of text information. When measuring children’s

comprehension, scores do not tell the researchers much about these processes: reading tests provide information about the product of reading comprehension, rather than about “the processes (or deficiencies in particular processes) that resulted in the child arriving at that particular score” (Oakhill, Cain & Elbro, 2015, p. 30). Interview, as performance-based assessment, is a response to demands to assess young learners appropriately, i.e. to evaluate their progress in development by assessing their performance on a real or designed task, or activity relevant to learning and real life demands (naturalistic research). Listening to children reading can give a lot of information about their development as readers. The prompted think-aloud protocols of the present research study yielded significant information related to the learners’ background knowledge relevant to understanding a particular text, about their inference making ability, and the ability to connect ideas in the text and to monitor comprehension. What is more, the interview results point to other factors affecting reading success, like motivation, attitudes and contextual factors. The focal readers in the research study provided information about their own accuracy, fluency, graphophonic awareness, reading comprehension, strategies, and difficulties, as well as about other individual and contextual factors of developing reading.

The major findings related to the reading and fluency levels of the focal learners. With respect to the reading levels, were: 5 learners (42 per cent) read at independent reading level as they were at least 97 per cent accurate in their oral reading, 6 learners (50 per cent) read at instructional level as they were at least 90 per cent accurate in their oral reading, and 1 learner (8 per cent) was at frustration level as he or she was less than 90 per cent accurate in his/her reading (see Table 4.42). Fluency levels distribution differed from the above distribution of the reading levels: 3 learners (25 per cent) read at the beginning level, slowly, with little expression, mostly with two or three word phrases; 6 learners (50 per cent) read at the developing level, smoothly and expressively, with some appropriate pauses and

observation of punctuation, primarily with three or four word phrase groups; 3 learners (25 per cent) read at the mature level, smoothly and expressively, observing punctuation, emphasizing key words and phrases, and at a steady rate, which is crucial for comprehension (Pinnell et al., 1995). Since according to Rasinski (2004a) developing and mature levels are the levels of fluent reading, it can be concluded that 9 (75 per cent) of the focal learners were fluent readers, while a quarter of the cohort had not reached the level of fluent reading yet. The reason for differences in fluency and reading levels may be individual and contextual differences related to the focal learners, primarily motivation for reading and regular extensive reading supported by the family members.

Interest in reading in L2, especially outside school, was reported by all focal learners, but the materials differed as well as the learners' use of the internet for reading texts in English. The interviews strengthened our belief that individual factors, like attitudes and motivation, were very important for oral reading success. However, only in the case of one focal learner, regular extensive reading had managed to produce a British English native-like pronunciation and comprehension. For this respondent, playing online video games was a starting point of the process that Dörnyei, Muir and Ibrahim (2014, p. 14) termed 'directed motivational currents' (DMC), which eventually took him or her "forward towards a goal at a startling velocity" (Dörnyei, Ibrahim & Muir, 2015, p. 97). Dörnyei, Ibrahim and Muir (2015) explain that individuals experiencing such a state are able to function "at a heightened state of productivity [and] to perform with increased intensity, over and above what they may have believed possible" (p. 97). Apart from video games, the focal learners were also interested in reading fiction books, comic strips and internet text related to their personal interests, which they found beneficial for their reading skill development. The learners' extensive reading habits were supported by family members more or less fluent in English, creating a context the learners found beneficial for their L2 reading development. All these

findings are in line with the results of previous research showing that motivation, attitudes and extensive reading are significant for reading skill development and linguistic achievements of young learners (Drew, 2009; Lefever 2010; Lopriore & Krikhaar, 2011; Macaro & Erler, 2008; Mihaljević Djigunović, 2013; Mihaljević Djigunović & Lopriore, 2011; Mihaljević Djigunović & Krevelj, 2009; Munoz & Lindgren, 2011; Nikolov, 1999).

The interviews revealed that a preference for silent reading always correlated with highly fluent independent reading, while reading aloud was preferred by both less fluent and fluent readers. The respondent's commented on how the two modes of reading contributed to their reading comprehension should not, therefore, be generalized, but rather regarded individual factors related more to learning styles than to attitudes. For this reason, the statistical difference in reading outcomes of the learners in our study resulting from the preference for reading aloud (preference for reading aloud correlated significantly with the reading test results ($p = .000$); see Table 4.25), which was found through Individual Factors Questionnaire should be interpreted with caution. As for the interview indication that silent reading preference correlated with higher proficiency of some of the focal learners, a possible explanation may be the fact that this group had spent many hours reading silently in English, thus achieving reading proficiency and independent level of reading fluency, while less proficient readers had had restricted exposure to print and needed the support of the oral component of reading for making meaning of a text (Rasinski, 2004a).

In respect of awareness of the similarities and differences between reading in Serbian and in English, the focal learners expressed well-developed metacognitive awareness, good knowledge of differences between Serbian and English and how they affected reading in English, and awareness of positive and negative transfer of their L1 reading abilities. However, when reading aloud, the non-fluent focal learners tended to read letter-by-letter, not aware of the ineffectiveness of this reading strategy when reading in English. The structure of

the learners' miscues pointed to some other difficulties experienced in oral reading, like These findings highlighted poor strategic competence already indicated by the results of the Reading Strategies Questionnaire and the Teacher's Questionnaire.

Another remarkable finding is that the focal learners who preferred reading silently had made fewer mistakes in reading aloud, strengthening our belief that the preference for reading silently correlated with fluency in reading. The difficulties reported by the focal learners and observed by the researcher (see Appendix 8) indicated that the learners had pronunciation difficulties related both to unknown and known words, and comprehension difficulties revealed through checking understanding of the text being read in the interview, which often involved translation as a form of retelling the text. Since "translation is considered to be a reliable method for measuring accurate understanding" (Alderson, 2000, cited in Macaro, 2008, p. 99), we accepted it as a valuable measure of comprehension.

Some pronunciation difficulties may have been caused by using the sublexical strategy at the expense of lexicality (Perfetti & Dunlap, 2008), transferred from L1 reading, producing non-words by applying the learned letter-sound correspondences, instead of responding with a real word similar to the target one. In reference to comprehension difficulties, most of the miscues were high quality, i.e. semantically and syntactically acceptable, and did not interfere with comprehension (Goodman, 1998). Some focal learners were very good at guessing the meanings of unfamiliar words after being prompted. However, several focal learners found it difficult to guess the meanings of unknown words even with heavy prompting, or they were stuck to their misinterpretations, i.e. low quality miscues (Goodman, 1998), lacking awareness that their guesses were wrong. Moreover, they were unable to draw from long-term memory the words already learned in the English classes a year or two before the interview, which severely interfered with comprehension. These findings corroborate previous results by Oakhill et al. (2015) suggesting that although

young learners can make inferences, they sometimes do not do it even upon explicit prompting with questions. These individual differences may have been the result of the differences in cognitive development or in the capacity of working memory (Oakhill et al., 2015), since reading unfamiliar words requires heavy grapheme-phoneme processing and also semantic and syntactic processing (Sadoski & Paivio, 2004, pp. 16-17). However, insufficient exposure to L2 texts and lack of extensive reading may have been a primary cause of majority of difficulties experienced by some focal learners, as already stressed by previous research (Pinnell et al., 1995; Rasinski, 2004b). Pinnell et al. (1995) emphasise that “being able to anticipate the language and text structure of passages depends, in part, on readers’ prior knowledge and experiences with language and texts, as well as their background with the passage topic” (p. 31), and add that fluency depends on instructional practices, i.e. how often non fluent readers get the opportunity to read aloud in class or select their own reading materials for reading practice.

It is interesting to note that the focal learners’ self-image as readers was very positive, they felt proud of their achievement in L2 reading and were very enthusiastic about developing their L2 reading abilities in the future, though expressing some concern if they themselves would be able to find appropriate reading materials. None of them mentioned or questioned the teacher’s role in providing such materials.

4.8. Teacher questionnaire

4.8.1. Results

Teacher questionnaire provided data related to significant contextual factors, like teacher profile, the teachers’ provision of reading practice and reading strategy development

in EFL classes, as well as the teachers' evaluation of the learners' reading skill, reading strategies and reading difficulties. The total number of 9 teachers were involved in the study, all being specialist English language teachers, with different experience in teaching English to young learners.

When the subjects were asked about the materials they used in teaching reading, the majority (7 out of 9) reported using audio recordings, but only one third (3 out of 9) reported using audio recordings of story books, and less than a half (4 out of 9) reported using authentic picture books or nursery rhymes, in spite of the fact that two thirds (6 out of 9) reported having picture books available in their schools. Not surprisingly, none of the respondents reported using e-materials for the interactive whiteboard, as they did not have smart boards available in their schools/classrooms, and only 2 schools (out of 6) provided special language classrooms with whiteboards and desks arranged in the form of U-shaped seating. Only a minority of the teachers (2 out of 9) reported using the self-created materials, such as copies of texts or Power Point presentations for storytelling, although almost a half (4 out of 9) reported using internet material to teach reading. These findings indicate that the materials most often used for teaching reading to learners in the surveyed classes were coursebooks, some accompanied by audio recordings, and that the learners rarely had an opportunity to read materials from other sources in their regular English classes. Authentic picture books were scarcely used in teaching reading and only a minority of teachers (2 out of 9) reported using them once a month. Two thirds of the teachers reported practising reading in every class, and one respondent commented further, reporting that he or she provided 10-minute reading practice in every class, while yet another respondent reported having children practise reading at least a couple of sentences in every class.

It is fundamental to note that all the teachers claimed that most of their learners involved in the survey liked reading in English. This result correlates with the findings

obtained through the smiley questionnaire that surveyed the learners' attitudes to reading in English, showing that 82.7 per cent of learners reported liking to read in English (see Table 4.20). The teachers in the study were asked to rate their learners' reading comprehension skill and to identify the learners' comprehension strategies observed in classroom settings. On a five-level Likert-type scale, ranging from 'very poor = 1' to 'very good = 5', most teachers (6 out of 9 participating in the study) rated the participants' reading level as 'good = 4', two rated it as 'fair = 3', and one as 'very good = 5', the average grade being $M = 3.88$ (see Table 4.43).

In response to the questions related to the learners' reading skills, the respondents provided valuable information of how they viewed their learners' reading achievement. On average, they rated their students' oral reading as good, $M = 4.11$ (on the same 1-5 scale explained above). As Table 4.43 shows, the majority of teachers, i.e. two thirds (6 out of 9), rated both their learners' oral reading and their reading comprehension as good (grade 4), while a significant minority evaluated their learners' oral reading and their reading comprehension as very good (grade 5): 2 out of 9 and 1 out of 9, respectively.

Table 4.43: Teachers' rating of learners' oral reading and reading comprehension skills

Rating scale	Teachers' rating of learners' oral reading (N)	Teachers' rating of learners' reading comprehension (N)
very poor (1)	-	-
poor (2)	-	-
fair (3)	1	2
good (4)	6	6
very good (5)	2	1

However, the majority of teachers (7 out of 9) reported having students with reading difficulties in their classes, ranging from 1-3 students per class (reported by 3 out of 9 respondents), 4-6 students per class (reported by another 3 respondents), and 7-10 students per class (reported by 1 respondent). Table 4.44 shows sample learners' oral reading

difficulties identified by the teachers, in the order of frequency. As might have been expected, our findings show that the most commonly observed oral reading difficulties were inadequate reading fluency (identified by all 9 respondents), reading too slowly or too fast (identified by 6 out of 9 teachers), and difficulty with pronouncing new words. A range of other oral reading difficulties was identified by minority of the respondents (1 to 3 teachers).

Table 4.44: Learners’ oral reading difficulties identified by teachers (in the order of frequency)

Learners’ oral reading difficulties	Frequency
• lacking fluency (i.e. not reading at the right speed or with expression)	9
• pronouncing new words	7
• reading at appropriate speed (reading too slowly or too fast)	6
• articulation problems (making sounds)	3
• matching letters to sounds accurately	3
• recognising and pronouncing certain consonants	3
• substituting words (saying another word instead the one in the text)	3
• omitting words (not saying the word in the text)	3
• reversing syllables (changing the order of syllables in a word)	2
• repeating words or parts of sentences	2
• respecting punctuation	2
• recognising and pronouncing certain vowels	1
• recognising known words fast (sight reading)	1
• inserting words (adding a word that is not in the text)	1

What is surprising is the fact that the teachers reported using a limited number of techniques and strategies to foster oral reading development: all or almost all of them (8-9 of the respondents) reported modelling accurate pronunciation and reading rate, and having children practise reading in pairs or as a choral drill activity, while a significant minority (one third of the teachers) reported using techniques for developing phonological strategies and orthographic processing skills (see Table 4.45).

Table 4.45: Classroom activities for developing learners’ oral reading skills (reported by teachers) (in the order of frequency)

Teacher’s scaffolding for improving oral reading skills	Frequency
• by having learners practise reading in pairs	9
• by modelling pronunciation and reading rate	9
• by using choral/responsive reading	8
• by developing learners’ phonological awareness	3
• by developing learners’ orthographic processing skill	2

The above results are also shown in Figure 4.7 which points to the fact that a much needed activity of developing learners’ phonological awareness is greatly neglected by the teachers.

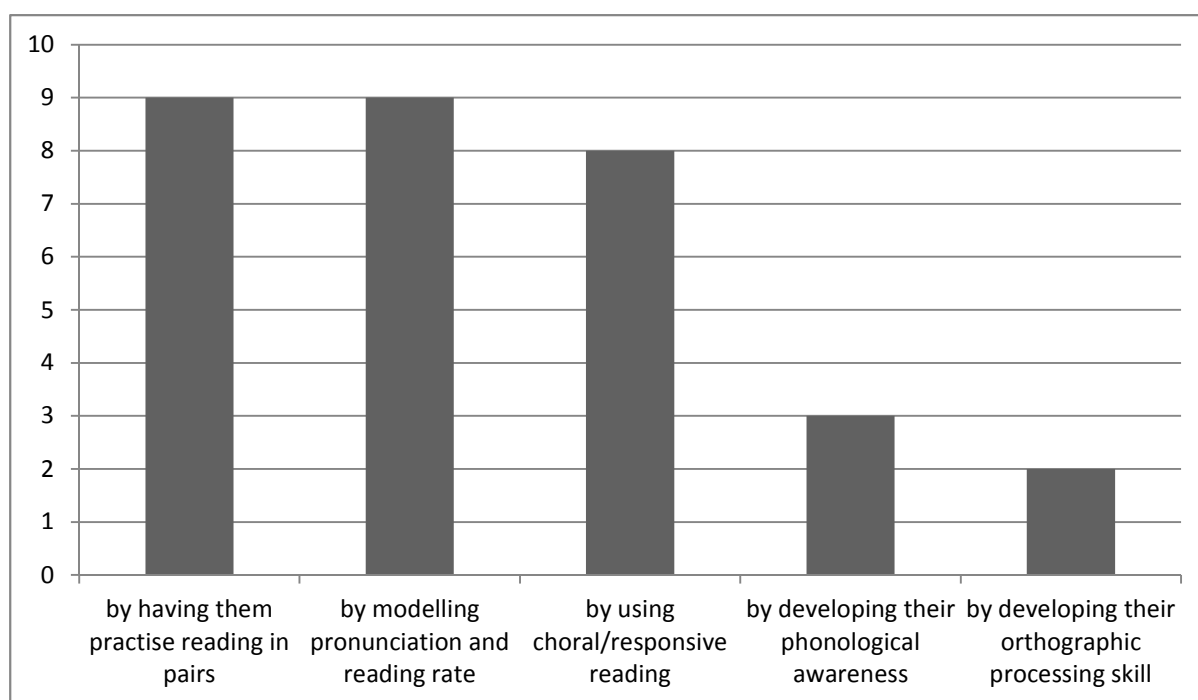


Figure 4.7: Classroom activities for developing learners’ oral reading skills (reported by teachers)

Regarding the use of comprehension strategies, it was found that the teachers’ awareness of the learners’ comprehension strategies was rather detailed (see Table 4.46) and correlated highly with the results of the Post-Reading Reflection Protocol (see Table 4.13) and with the Reading Strategies Questionnaire results (see Table 4.32).

Table 4.46: Learners' comprehension strategies identified by teachers (in the order of frequency)

Comprehension strategies	Frequency
• using picture clues	9
• using background knowledge	9
• using semantic clues (meaning)	7
• asking and answering comprehension questions	7
• translating	7
• summarising	5
• asking for help	5
• using syntactic clues (grammar)	2
• paraphrasing	2
• retelling	2
• using a dictionary	2
• reading punctuation	0

The teachers identified a total number of 11 reading comprehension strategies used by Grade 5 learners, but only 2 strategies were identified by all participating teachers (N = 9), and 5 more strategies by the majority of the teachers (5-7 out of 9), while 4 strategies were identified only by 2 teachers (see Table 4.48 and Figure 4.8). Figure 4.8 reports the above results as a graph, showing that a third of all learner comprehension strategies identified by the teachers (4 out of 12) were reported by a significant minority of the teachers (N = 2).

In response to the question to identify techniques they use in the classroom to help the learners develop their reading comprehension strategies, the teachers listed 15 different techniques, the most frequent being those that fostered independent strategies, such as

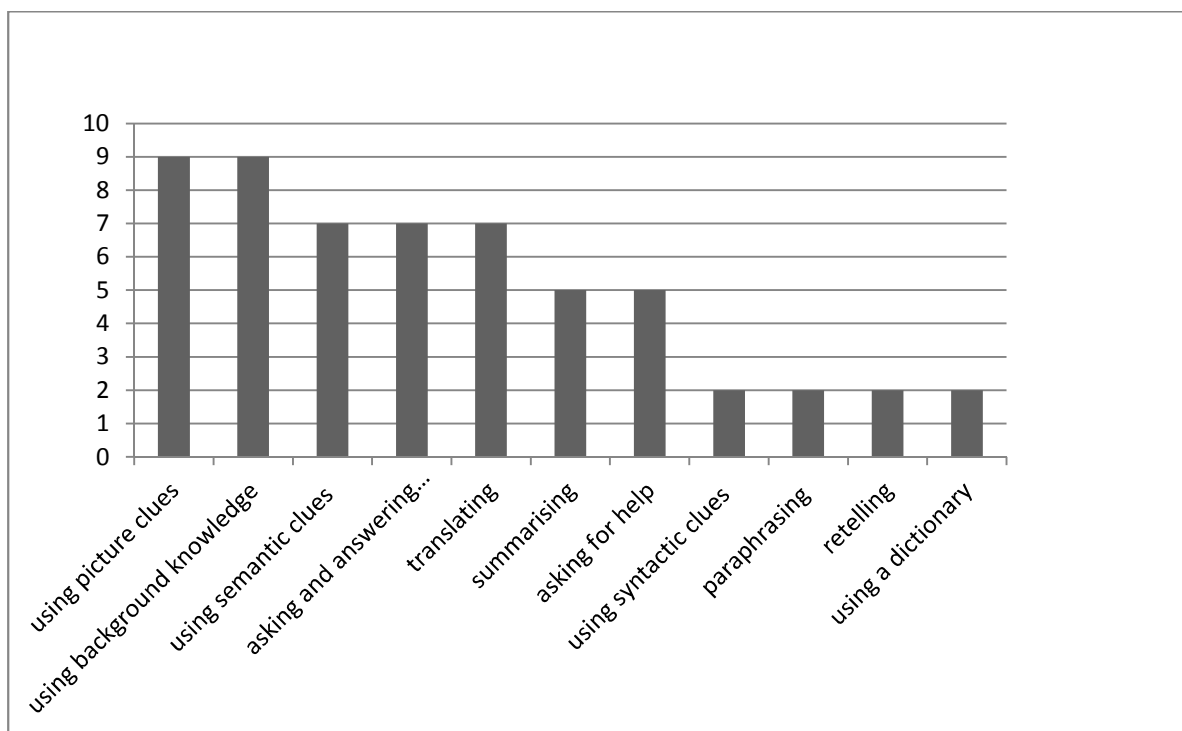


Figure 4.8: Learners' comprehension strategies (identified by the teachers)

guessing word meaning in context (identified by all 9 teachers), or guessing word meaning by using picture clues (identified by 8 teachers) and encouraging the learners to read in their free time (identified by 8 teachers) (see Table 4.47). Some other independent strategies were reported by the majority of the teachers, like focusing on the meaning of a text as a whole (identified by 7 teachers), asking comprehension questions (identified by 6 teachers), learning new words (identified by 6 teachers), visualising the content of a text (identified by 5 teachers), and retelling and summarising the text (identified by 5 teachers). Less than a half of the teachers identified some other comprehension strategies, like using knowledge of the world, using the dictionary, encouraging the learners to read on the internet (all three identified by 4 teachers), teaching syntactical clues, encouraging the learners to ask a peer, or to skip an unfamiliar word (all three identified by 3 teachers), and only 2 teachers reported encouraging the learners to translate the unknown word, while none of them modelled think-aloud procedure.

Table 4.47: Teachers' techniques for developing learners' reading comprehension strategies
(in the order of frequency)

Teachers' techniques for developing learners' reading comprehension strategies	Frequency
• by encouraging them to guess the meaning of unfamiliar words in context	9
• by encouraging them to guess the meaning by looking at a picture accompanying the text	8
• by encouraging them to read in their free time	8
• by encouraging them to focus on the meaning of a text as a whole	7
• by asking pre-reading, while-reading and post-reading comprehension questions	6
• by encouraging them to develop vocabulary (i.e. learn new words)	6
• by encouraging them to visualise what they have read	5
• by encouraging them to retell and summarise what they have read	5
• by encouraging them to use knowledge of the world to decode unfamiliar words	4
• by encouraging them to use the dictionary	4
• by encouraging them to read on the internet	4
• by showing them how a new word functions in the sentence	3
• by encouraging them to ask a peer for help	3
• by encouraging them to skip unfamiliar words	3
• by encouraging them to translate unfamiliar words	2
• by modeling think-aloud procedure (i.e. you read a text and stop after each sentence to say what you think it means and how you understand it)	0

4.8.2. Discussion

The teachers in the study provided valuable information about a number of contextual and individual factors affecting the development of early EFL/ESL reading in the Serbian primary context. The information obtained through the Teacher's Questionnaire was used to triangulate the results collected by other questionnaires and protocols applied in the research study. The teachers' reports further supported the data related to the learners positive attitudes to reading in English and to different aspects of L2 reading. The learners' oral reading skill was assessed by the teachers with a higher grade than the learners' comprehension skill,

indicating that there was a room for improvement of the learners' L2 comprehension through the development of their language knowledge and comprehension strategies. Surprisingly, while the techniques that teachers reported using to develop the learners' oral reading skills correlated highly with the learners' reports, the techniques the teachers reported using to develop the learners' comprehension skills were in contrast to the learners' reports. Remarkably, there is a large discrepancy between the techniques self-reported by the teachers and the ones reported by the learners: the learners listed a very limited group of comprehension strategies taught by the teachers explicitly and practised in the classroom, mostly the ones that did not encourage independent reading, but reliance on external sources (e.g. asking for help). A possible explanation of this contrast may be the fact that the learners' metacognitive awareness was not developed enough to notice all of the teachers' techniques, or that these strategies were not taught explicitly by the teachers reporting them. In both cases, there are important pedagogical implications for classroom discussion and explicit strategy development.

With respect to the learners' reading difficulties, the teachers reported a range of pronunciation and comprehension difficulties, some of them correlating with the learner self-reported reading difficulties in the Reading Difficulties Questionnaire and the Prompted Think-Aloud Protocol. The interviews revealed that the sub-sample learners self-reported mostly difficulties related to pronouncing unfamiliar and known words and pronouncing certain sounds, which was also confirmed by the recordings; moreover, the recordings showed that some of the sub-sample learners also had difficulty reading at appropriate speed and with expression. The learners' responses in the Reading Difficulties Questionnaire also confirmed that the three top self-reported difficulties were inability to pronounce new words, inability to pronounce some unknown words, and inability to pronounce some English sounds. However, the teachers seemed to ignore the need of the learners' for developing their

phonological awareness. A noticeable disagreement is evident between the learners' need for improving oral reading skills and strengthening their phonological strategies in the beginning stages of learning to read in English, and the practices self-reported by the teachers and observed by the students. Since teachers and their instructional techniques have been recognized as significant contextual factors that may be crucial for early language development (Mihaljević Djigunović, 2013) and reading achievement of beginning readers, it can be concluded that phonics approach might be one of the instructional techniques needed by the learners to strengthen their word tackling strategies, improvement of word recognition, and development of reading fluency (Grabe, 2002; Saville-Troike, 2006). The teachers' failure to recognize the importance of developing the learner' phonological skills unexpected, considering the teachers' reports on having on average between 1 and 10 learners with reading difficulties in a class. A possible reason for this failure may be the teachers' limited knowledge on teaching reading to young learners, or over-reliance on the whole-word reading approach.

5. CONCLUSIONS

The research study into the reading difficulties of young EFL/ESL learners and its results led to a number of conclusions presented in this chapter. The conclusions are organized through research questions and instruments applied in the research study, and are presented with reference to the main research question that guided the present study: early L2 reading difficulties. The conclusions are also presented in relation to the hypotheses posed in the first chapter.

Although the previous chapter indicated that the results gathered through different research instruments were somewhat different, conclusions aim to show that this study contributed to the “impetus to make sure that doing research with children is seen as a discipline in its own right” (Greig, Taylor & McKay, 2012, p. 182) and that employing special techniques within quantitative and qualitative research paradigms was likely to yield results that are both reliable and valuable. Although children do not represent a homogenous group, they share general characteristics of cognitive, emotional and social development typical of this age group. What is more, the learners in this research study shared many of the contextual factors, as well. Consequently, the results of our study point to the fact that in the context of teaching English to young learners in Serbian state schools there seem to be common variables that are statistically significant for reading achievement nationwide, and that the reading outcomes obtained in the Serbian EFL context are comparable to the results of the large-scale ELLiE study (Enever, 2011) conducted with L2 learners in seven European countries. The reading difficulties reported and identified in the study should be seen as data crucial for leading a design of any young learner reading programme, both in similar and different teaching contexts.

Research question 1. The first research question sought to explore the types of reading difficulties experienced in early reading in English as a foreign language. The response to this research question was based on the data collected through several instruments: Reading Difficulties Questionnaire, Post-Reading Reflection Protocol, Prompted Think-Aloud Protocol Interview, and Teacher Questionnaire. The questionnaire answers (quantitative data) and protocol information (qualitative data) are summarised in the Taxonomy of Reading Difficulties in Table 5.1, where it can be seen that all collected data pointed to the two sets of reading difficulties experienced by the learners in the research study, i.e. oral reading difficulties and comprehension difficulties, comprising the total number of 25 reading difficulties.

Table 5.1: Taxonomy of Reading Difficulties

Type of difficulties	Difficulty	Reported by Learners N = 502	Reported by Focal Learners N = 12	Reported by Teachers N = 9	Protocol analysis N = 90 + N = 12
Oral reading difficulties	1. inability to pronounce new words	√	√	√	√
	2. inability to pronounce some known words	√	√		√
	3. inability to pronounce some English sounds	√	√	√	√
	4. lacking fluency			√	√
	5. not reading at appropriate speed		√	√	√
	6. not matching letters to sounds accurately (mispronunciation)		√	√	√
	7. inability to pronounce some structure inflexions		√		√
	8. substituting			√	√

	words				
	9. omitting words			√	√
	10. reversing syllables			√	
	11. repeating words or parts of sentences			√	√
	12. not respecting punctuation			√	√
	13. not recognising known words fast		√	√	√
	14. inserting words			√	√
Reading comprehension difficulties	15. inability to continue reading a text due to some unfamiliar words in it	√	√		√
	16. inability to understand what has been read due to too slow reading	√	√		√
	17. inability to understand what has been read when reading aloud	√	√		√
	18. inability to understand what has been read due to limited knowledge of vocabulary		√		√
	19. inability to understand what has been read due to limited knowledge of grammar structures		√		√
	20. making wrong inferences when guessing meaning of unfamiliar words				√
	21. inability to use text clues				√
	22. inability to use context clues				√
	23. inability to make logical inferences based on elements not stated in the text				√
	24. inability to make educated guesses about the information that will follow in the text				√
25. inability to integrate knowledge of the world with the text information				√	

The Reading Difficulties Questionnaire filled in by the whole sample gave just a partial answer to this research question as the learners (N = 502) reported a very small number of difficulties, i.e. 3 oral reading and 3 comprehension difficulties, and gave priority to the former group (higher frequencies were reported). All 6 reading difficulties reported by the learners were found statistically significant for the reading test outcomes, the greatest effect size being found for the inability to comprehend a text when reading aloud, and the learners who reported it scored much lower in the reading test than did the learners who did not report this difficulty (M = 2.94, SD = 1.82, for the ones who reported it, M = 4.93, SD = 1.74, for the ones who did not report it; scores ranged 1-7). Oral reading difficulties were also given priority in the Teacher Questionnaire results, with a total number of 12 different reading difficulties reported, 3 of which were also reported by the learners. Although the teachers rated the learners' oral reading skill as more successful than their reading comprehension skill, means being M = 4.11 for oral reading, M = 3.88 for reading comprehension (scale 1-5, 1 = very poor, 5 = very good), they also focused on the learners' oral reading, identifying a large number of reading difficulties in that mode of reading, some being more prominent (frequent) than the others.

Qualitative data provided by the two protocols gave a more comprehensive picture of the number and nature of the difficulties reported in the questionnaires. First, the focal learners reported a wider range of reading difficulties within each of the two types, giving equal significance to both sets of difficulties; all the difficulties reported in the Reading Difficulties Questionnaire were restated by the focal learners, i.e. inability to pronounce unfamiliar words, inability to pronounce some known words, inability to pronounce some English sounds, inability to continue reading a text due to some unfamiliar words in it, inability to understand what has been read due to too slow reading, inability to understand what has been read when reading aloud, but a new set of reading difficulties appeared, such

as not reading at appropriate speed, not matching letters to sounds accurately, not recognising known words fast, inability to pronounce some structure inflexions, inability to understand what has been read due to limited knowledge of vocabulary or grammar structures. Second, the focal learners showed high metacognitive awareness of the problems they experienced in reading in English as L2, and managed to reflect on them both in relation to the concrete reading problems experienced in the think-aloud protocol interview, and in general terms. Still, there were some obvious difficulties that focal were not aware of and did not report on in the interviews. Some of them were related to reading aloud, appearing in the form of miscues like omission, repetition, substitution, syllable reversal, or not respecting punctuation. It is a group of difficulties that was reported by the teachers in the Teacher Questionnaire. Another group of the difficulties not reported on either in the questionnaires or the interview with the focal learners became prominent only through the analysis of the post-reading reflection protocols and the transcripts of the prompted think-aloud protocols. These difficulties were related to reading comprehension and referred to the learners' (in)ability to make a range of inferences within higher-level comprehension processes, necessary for creating a situation model of an L2 text (Grabe & Stoller, 2011). These difficulties referred to making wrong inferences when guessing meaning of unfamiliar words, and to the learners' inability to use text clues or context clues, to make logical inferences based on elements not stated in the text (deducing), to make educated guesses about the information that would follow in the text (predicting), and to integrate their knowledge about the topic (world knowledge) with the information in the text. This group of difficulties was critical in determining the reading outcomes in the reading test, and appeared to distinguish successful and less successful readers.

The quantitative data obtained through the questionnaires could not fully depict the area of reading difficulties of the Serbian young learners learning English as a foreign

language in state school settings. Two protocols shed more light on this research question and were critical for answering it.

Research question 2. The second research question aimed to study the correlation between phonological strategies and reading comprehension. The answer to this question was based on the data collected through the following instruments: Reading Difficulties Questionnaire, Prompted Think-Aloud Protocol Interview, and Teacher Questionnaire. As phonological processing strategies are closely related to phonemic awareness, they affect discrimination and segmentation of the English sounds in reading (Birch, 2007), and become critical for grapheme-phoneme matching and word decoding, which are lower level processing skills that should be rather automatised to facilitate fast word recognition in the working memory, so that higher level processing skills can be activated for the formation of text and situation models of text interpretation (Grabe, 2002a; Grabe & Stoller, 2011). As beginning readers, the learners in the present research study showed great individual differences in phonemic awareness and in applying phonological strategies. The quantitative data collected through the Reading Difficulties Questionnaire showed that the three most frequently reported reading difficulties were related to phonological strategies: inability to pronounce some English sounds and unfamiliar/known words. The Teacher Questionnaire also revealed that frequently reported difficulties included pronouncing new words, matching letters to sounds accurately, recognising and pronouncing certain consonants and vowels, and articulation problems. These results were strengthened with interview data and with data obtained through think-aloud protocol analysis, which showed a range of other pronunciation problems, like mispronunciation of past tense inflection for regular verbs *-ed* as /ed/, then mispronunciation of vowel clusters like *-ai-*, *-au-*, *-ea-*, *-ie-* when they appear between consonants, and also substitution, omission, insertions and rereading (see Appendix 8). However, these pronunciation problems did not necessarily result in comprehension

problems as only the readers' "oral reading will be affected by their ability to pronounce what they read," not their silent reading, or their reading comprehension, nor even the learning of new words (Birch, 2007, p. 65).

A correlational analysis of the difficulties related to the learners' phonological abilities and their reading scores showed that there was a statistically significant difference in the reading scores based on these difficulties ($p = .000$), which means that they affected reading comprehension and the learners who reported them, achieved lower scores in the reading test than the learners who did not report them. However, as less than a half of the learners reported phonological difficulties (from 32.5 per cent to 44.4 per cent), it can be concluded that more than a half of the learners managed to use their phonological strategies to aid text comprehension. A potentially successful reading strategy reported by 23.3 per cent of the learners in the Reading Strategies Questionnaire is reading a new word after trying to remember a similar word, i.e. using analogy, which can be a useful strategy for young learners (Cameron, 2008). On the basis of the quantitative and qualitative data analysed in the study, it can be concluded that there was a correlation between phonological strategies and reading comprehension, and that phonological strategies, were indirectly (through pronunciation difficulties) reported as critical strategies for reading success.

Research question 3. The third research question aimed to study the correlation between the number of reading miscues and reading comprehension. The response to this question is based on the data collected through Prompted Think-Aloud Protocol Interview with 12 focal learners. The data presented in Table 4.43 show how miscues were used to determine accuracy, error ratio, the rate of reading, and eventually, the reading fluency of the focal learners, while Appendix 8 summarises all types of miscues transcribed from audio recordings of the sub-sample learners' oral reading.

The discussion of the correlation between the number of miscues and reading comprehension in the research study must consider the fact that miscues do not necessarily impair understanding as “many of the errors, especially those made by better readers, preserve the meaning of the context,” and if the errors change the meaning, they “are often subsequently corrected by children who are reading for meaning” (Smith, 2004, p. 291). On the other hand, “[c]hildren who read more literally, perhaps because of an emphasis on ‘accuracy’ during instruction, may, however, make nonsensical errors without being aware of them” (Smith, 2004, p. 291). Therefore, the correlation between the number of miscues and reading comprehension must evaluate the types of miscues and their adverse effect on reading comprehension.

The number of miscues was recorded for the focal learners’ reading of the first 100 words, and for the whole text (229 words), so that two accuracy rates were calculated. The reason was the difference in difficulty between the two parts of the text, i.e. the first 100 words and the rest of 129 words, the second part being more difficult in terms of unfamiliar vocabulary and unknown grammar structures. Four different fluency levels were used to distinguish between fluent (levels 3 and 4) and non-fluent readers (levels 1 and 2) (see Table 2.4), i.e. good and poor comprehenders, since reading fluency is considered a key to successful reading comprehension (Rasinski, 2004a). Of the 12 focal learners, 9 were found fluent readers, and 3 non fluent. Among fluent readers 3 were found to be mature readers, achieving fluency level 4, while the rest 6 learners achieved fluency level 3 and were found to be developing readers. What distinguished the level 4 readers from level 3 readers was a narrower gap between the two accuracy rates, ranging from 0 per cent to 2 per cent, while the level 3 readers’ accuracy rates ranged from 0 per cent to 5 per cent. Also, the average number of miscues made when reading the whole text differed between these two groups of fluent

readers: level 4 readers made 4.33 miscues on average, while level 3 readers made 12.83 errors on average. In the contrary, the group of non fluent readers made 24 errors on average.

The types of errors differed between the fluent and the non fluent readers. The non fluent readers' miscues involved mostly mispronunciation of a large number of known and unfamiliar words, not recognized as wrong pronunciations, and substitutions that did not fit the context, while the fluent readers mispronounced known and unfamiliar words, but usually corrected themselves and managed to guess the meaning of new words; also, they inserted some words (mostly prepositions), which did not interfere with their understanding of the text. The running records data of the focal learners' oral reading was a useful tool for determining correlation between the number and type of miscues and reading fluency, i.e. success in reading comprehension, at the same time giving an insight into the process of comprehension and how the readers constructed meaning (Goodman & Goodman, 1998).

Research question 4. The fourth research question sought to study the factors that correlated with reading difficulties. The response to this research question was based on the data collected through several instruments: Reading Difficulties Questionnaire, Post-Reading Reflection Protocol, Prompted Think-Aloud Protocol Interview, and Teacher Questionnaire. In order to give a detailed answer to this question, the quantitative results were discussed through the qualitative data gathered in the protocols.

The group of oral reading difficulties identified in the research study (see Table 5.1) was related to pronunciation difficulties, phonological processing, word recognition, miscues and fluency problems. Although the learners reported only 3 out of 14 of the difficulties in this group, and the frequencies were low (less than 50 per cent of the learners reported them), the analysis of think-aloud protocols revealed that all these difficulties frequently appeared even in reading of successful readers. The first factor that correlated with pronunciation difficulties is the difference in orthographic and phonological systems

between English and Serbian. Taking into account the differences between Serbian shallow (transparent) orthography and English deep (opaque), Serbian learners beginning to read in English experienced both positive and negative transfer of their L1 reading ability in this respect: the English alphabet was mostly familiar, as its 23 letters were already used in Serbian, and only 3 more remained to be learned; the learners were formally introduced to the Roman letters in Serbian classes and practised reading L1 texts in Grade 2 curriculum of the Serbian language; however, automatic application of 1 grapheme = 1 phoneme correspondence in Serbian made it difficult for some learners to read the words in English where such correspondence could not be applied; moreover the analytical-synthetical (letter-by-letter) approach used in learning to read in Serbian “can make knowledge, skills and strategies used in reading in Serbian ineffective when reading in English” (Savić, 2012, p. 311), i.e. the sublexical strategy transferred from Serbian produced non-words (Perfetti & Dunlap, 2008). A special challenge was posed by the complex system of English vowels, “as the Serbian vowel system consists of five vowels only, while English has twelve pure vowels and eight diphthongs,” most of whom differ in quality from the Serbian ones, “and it takes a lot of practice to master the English vowel system” (Savić, Paunović & Stojanović, 2007).

Another factor closely related to the differences in orthography, which correlated with reading difficulties, was the method of teaching and practising reading in the beginning stages. In spite of the fact that the teachers reported the learners’ difficulties related to pronunciation of English consonants and vowels, and to matching phonemes to graphemes, they did not respond appropriately to the learners’ needs: only 2 of them reported using classroom activities for developing the learners’ orthographic processing skill, while as few as 3 teachers reported using activities for developing the learners’ phonological awareness. As for developing the learners’ reading comprehension skills, i.e. the skills for using a range

of clues in the text and for connecting the information from the text with previous knowledge and the knowledge of the topic, the teachers in the study reported using a variety of activities to develop these strategies, which partly explained the low frequencies of reading comprehension difficulties reported by the learners.

Some other factors behind oral reading difficulties might have been related to specific reading difficulties or specific language learning problems, which could not be identified with the instruments used in this research study. The teachers reported having from 1 to 10 learners with reading difficulties in each class, but did give more information about the types of reading difficulties these learners experienced, or if some of them had been diagnosed as being dyslexic. Still, the possibility of specific reading difficulties being experienced by some of the learners should not be rejected.

Referring to reading comprehension difficulties (see Table 5.1), the factors that appeared significant were related to individual differences of the learners: lack of vocabulary and grammar knowledge, inability to draw inferences using text clues, context clues, to make logical inferences based on elements not stated in the text (deducing), to make educated guesses about the information that would follow in the text (predicting), and to integrate their knowledge about the topic (world knowledge) with the information in the text. Although possible factors might involve the learners' capacity of working memory, their linguistic knowledge already stored in long-term memory, and the level of cognitive development, i.e. the maturity of the learners and whether they have reached the formal operational stage and the ability to use metacognition, a more plausible factor might be insufficient exposure to texts in English, both in and outside the classroom. All fluent readers in the sub-sample of 12 focal learners, shared a habit of reading extensively in English, being often exposed to unfamiliar texts in English that interested them. The analysis

of prompted think-aloud protocols gave thus a much deeper insight into the factors behind success and failure of reading in English as L2.

Research question 5. The fifth research question aimed to study the types of reading strategies used by more/less successful readers. The response to this research question is based on the data collected through Post-Reading Reflection Protocol, Reading Strategies Questionnaire, Prompted Think-Aloud Protocol Interview, and Teacher Questionnaire. To answer this research question, the quantitative results were discussed together with the qualitative data obtained in the protocols.

The quantitative data pointed to the fact that the learners reported using an extremely small number of reading strategies: a half of the learners (51.0 per cent) reported using only up to 2 strategies when reading. The statistical analysis showed that the number of strategies correlated negatively with the reading test results, meaning that the more successful readers used fewer strategies, while the less successful readers used a greater number of strategies. Correlational analysis of the significance of strategies for reading success indicated that only 4 out of 12 strategies had a significant influence on the reading test scores: guessing the meaning by looking at the picture in the text, skipping the word, predicting what will happen in the text, and asking for help. The most frequently reported strategy both for oral reading and for reading comprehension is asking for help. The learners also reported that it was a technique encouraged by the teachers for learning the pronunciation of an unfamiliar word or its meaning. Although this strategy correlated with the reading score, it cannot be regarded as a strategy of successful readers as it does not encourage independent reading and thus limits the exposure to reading in English only to situations where external help is available.

The three other strategies that correlated with the reading success were cognitive and metacognitive strategies, enhancing independence in reading: guessing by using picture clues, predicting and skipping the unfamiliar word. The usefulness of these strategies was revealed

through the analysis of the post-reading reflection protocols, showing that independent strategies correlated with success in reading. The sub-sample learners' reflections on the process of solving the items of the reading task were coded and analysed. The analysis showed that successful readers used six strategies, mostly combining them to solve the most difficult items (see Appendix 7). These strategies involved: inferencing based on picture clues, inferencing based on text clues, inferencing based on context clues, deduction, prediction, and world knowledge. Inference making was the critical strategy that distinguished successful and less successful readers. Less successful readers are limited by lack of general knowledge, inability to connect text information to their world knowledge, and lack of knowledge when to make inferences (Perfetti et al., 2004; Cain et al., 2001). Another strategy of successful readers was revealed through the analysis of prompted think-aloud protocols: active and constructive monitoring of reading comprehension. This metacognitive strategy distinguished fluent readers from non-fluent ones.

Hypotheses. Our hypothesis that Serbian young learners would benefit from the positive transfer from their L1 literacy has been partly confirmed, since there was both positive and negative transfer from L1 literacy. The hypothesis that the difficulties would appear with a small number of learners has also been confirmed, as well as the hypothesis that some difficulties would result from the differences in the Serbian and English orthographic and phonological systems. However, the hypothesis about individual differences in reading achievement resulting from individual learner's strategic competence has not been fully confirmed. Although the differences in individual reading ability were large, it appeared on the basis of the results of the Reading Strategy Questionnaire that there was a negative, not positive, correlation between the number of reported strategies and the reading outcomes of the participants. On the contrary, the Post-Reading Reflection Protocol indicated high correlation between comprehension strategy use and the reading test results.

5.1. Implications for pedagogical practice

The study has revealed the factors, both individual and contextual, that are significant for developing reading skills of beginning L2 readers. Focusing on reading difficulties, the study has also unveiled a variety of factors that cause or enhance reading difficulties, and should, therefore, be minimised both in formal classroom teaching and in out-of-school exposure to L2 texts. There are several pedagogical implications for teachers of English as a foreign/second language that follow this study.

First, the most prominent difficulties of oral reading seemed to relate to the complexity and depth of the English orthographic system, aggravated by the negative transfer of the Serbian learners' L1 literacy skills. The current practices of the teachers involved in the study, showing almost complete negligence of the need of the learners to enhance their phonological skills, call for the introduction of the interactive approach to teaching reading, i.e. a balanced application of a whole-word reading and phonics approach. The aim should be to improve reading fluency by strengthening the learners' word tackling strategies and word recognition skills (Grabe, 2002a; Saville-Troike, 2006).

Second, an important implication concerns preventive and remedial instruction for developing phonological awareness of beginning readers. With kindergarten learners exhibiting reading failure, "teachers do not need to provide explanations to link the steps of correction" because "it imposes additional language demands and may distract them from the focus on critical phonological discriminations" already practised (Gerber et al., 2004, p. 242). Moreover, the results of the study in the area of cognitive neuroscience that has provided evidence about direct neural impact of the phonic approach in teaching reading, could be used to lead interventions for helping struggling readers (Yoncheva, 2015). Struggling beginning readers benefit from specific training in decoding practice with manipulative

letters, as Pullen and Lane (2014) have found in their experimental study with first-graders. Pullen and Lane (2014) stress that “interventions that focus on the development of phonological awareness and understanding of the alphabetic principle [and] include instruction in a combination of phonological awareness and letter-sound correspondences,” should be explicit and systematic, which does not mean that children should be taught phonics rules, but they should be guided in noticing letter patterns in words in meaningful context (p. 2). The authors engaged children in practising decoding skills using manipulative letters “to make the abstract concepts of phoneme blending and segmentation more concrete for struggling readers” (Pullen & Lane, 2014, p. 2) and found that struggling readers’ early literacy skills, particularly phonological awareness, decoding, and word recognition skills, were significantly improved through the technique they had applied (Pullen & Lane, 2014).

Since development of phonological awareness aids learning of phonic decoding skills, children should be exposed to language that will help them develop awareness of spoken sounds and words. A number of studies have shown that an effective way to do it is by using rhymes, songs and stories with pre-school children and beginning readers. Letter rhyme tasks strengthen letter name knowledge and phonological awareness, “the two best predictors of ease of learning to read” (Coch et al., 2008, p. 242). Listening to and repeating rhymes, finding words that rhyme and working out a new word to rhyme with a given word, all help children to recognise and later use the letter groups in the rhymes and rhyming units (Westwood, 2008, p. 21). Rhymes, songs and stories often exhibit examples of alliteration (repeated beginning consonant), useful in teaching letter names and developing phonological awareness (Coch, Hart, & Mitra, 2008; Goswami & Bryant, 1990; Shin & Crandall, 2014). Activities for developing blending, segmentation and isolation abilities are powerful in developing phonological awareness and discovering mappings between spelling patterns and sound patterns: children practise combining sounds into syllables and syllables into words

(blending), or analyse sentences into words, words into syllables and syllables into separate sounds, onset and rime, focusing on rime units (segmentation), and identifying initial, medial and final sounds in words (isolation) (Westwood, 2008). Research evidence supporting phonics instruction strongly, direct and systematic teaching of analytic, synthetic or embedded phonics is recommended: developing the skills of breaking down words known by sight into phonic components (analytic phonics), practising letter-to-sound correspondences and then sounding out and blending words (synthetic phonics), or learning phonic units by decoding unfamiliar words in a meaningful text (embedded phonics) (Westwood, 2008). These are just the first steps of learning the numerous orthographic units by using 26 letters of the English alphabet to form 44 speech sounds. As children learn with experience, drawing their attention to regular graphophonemic patterns and regular grammar patterns, introducing metalanguage carefully and slowly, and giving explanations when they make sense to children (Cameron, 2008), summarises some of general pedagogical implications.

Third, as Stoller (1994) argues, L2 students can greatly benefit from teacher-guided instruction in three areas: 1. word/phrase recognition; 2. rate development; 3. contextual strategy training. These areas should be introduced explicitly and practised regularly for achieving skilled reading. An obvious goal for teaching learners who experience reading difficulties due to poor word recognition skills should be to increase their sight vocabulary. Westwood (2008) contends that this can be achieved by helping children first master recognition of common, known words, that should be read in context and out of context until automaticity is achieved; then, these learners should be taught how to apply phonics by using books with “a high percentage of regular and decodable words” (p. 19). A precondition to using phonics to help children with word recognition strategies is fostering their development of phonological awareness, i.e. the recognition of English sounds/phonemes and grapheme-phoneme correspondences, because “readers learn sight words by forming connections

between letters in spellings and sounds in pronunciations of the words” (Ehri, 2005, p. 170). This can be done by providing beginning readers and children with reading difficulties with training in listening for specific sounds within a word, and instructing them explicitly in letter-to-sound correspondences.

Fourth, when children have problems to retrieve words already stored in memory, i.e. word finding difficulty (WFD), they should be helped to memorise by stressing several aspects of the word to aid memorisation and recall: the word’s meaning, pronunciation and spelling (Westwood, 2008). What is more, allowing children who have word finding difficulty to read silently can be beneficial, according to a study done by German and Newman (2007), who found that silent reading recognition was superior to oral reading (OR) for primary-grade learners with word finding difficulty. Moreover, assessing children with WFD through oral reading may underestimate their reading skills because they “may produce miscues during OR because of their difficulties in accessing the semantic or phonological features of the word to be read aloud” (German & Newman, 2007, p. 436). A better solution is to assess this group of learners through silent reading and using multiple choice questions, ‘find the answer’ or ‘select the answer’ formats when checking comprehension than “the traditional ‘write’ or ‘tell me’ what happened in the read story” (German & Newman, 2007, p. 436).

Westwood (2008) offers a number of word identification strategies, and stresses that competent readers usually combine two or more strategies in order to achieve automaticity in word recognition. Some of these strategies are readily available to beginning readers, while some have to be developed and practised extensively. Studies of the eye movements during reading have suggested that the eye ‘fixates momentarily’ on individual orthographic units, so using orthographic units within the word, or clusters of letters whose pronunciation is already known, can help readers recognise the whole word swiftly (Westwood, 2008). Pullen

and Lane (2014) have found that repeated reading (rereading a text) improves struggling readers' ability to recognize words easily and automatically. Another useful strategy is using analogy: comparing a new word or its part with a familiar word. Finally, word can be predicted based on the meaning of the sentence or paragraph, thus using context to aid word recognition. Nonetheless, Westwood (2008) warns that "children should not be encouraged simply to guess words they do not recognise," which is in line with the phonic approach to developing reading skills and opposes the whole language approach which advocates just the opposite (p. 17).

Oral reading fluency needs to be given appropriate attention in a young learner English L2 reading instruction for several reasons. First, it contributes to general oral fluency, i.e. "the better one can read out loud, the better one can use intonation, pronunciation, and proper rate in speech" (Birch, 2008, p. 174). It can be achieved by helping children expand vocabulary and practise pronunciation of new words, by teaching children how to use syntactic clues to distinguish function words and content words, and how to use punctuation to aid comprehension (Birch, 2008). Second, children should be discouraged to read word-by-word, as L2 readers usually do, but should be instructed to read phrase-by-phrase, as native speakers usually do (Birch, 2008). A teacher should "consider the difference between 'sounding out' and 'reading with understanding' in her English class" (Brewster, Ellis & Girard, 2004, p. 111). Third, beginning L2 readers should be encouraged to guess pronunciation and meanings of new words to achieve higher levels of autonomy in reading.

Fifth, there are some general recommendations for reading development and improvement. According to the Ofsted Study Report (2011), teachers should engage in the following:

Develop a systematic approach to reading, including the use of dictionaries and reading authentic materials as required, that helps students to attain Level 5 and beyond in reading from as early as possible in their language learning; develop cross-departmental reading practice which is enjoyable and engaging (for example, older

students reading to and writing books for younger ones) and encourages pupils to read for interest and pleasure; incorporate reading activities beyond those in the text book into schemes of work and lessons; use reading to develop good pronunciation, expand students' knowledge about language and their intercultural understanding, and stimulate communicative speaking and writing activities. (pp. 44-45)

Children who experience reading difficulties should be allowed to practise reading in the way early reading is introduced. In early reading the child should be asked to read the language that is very similar to the spoken language which the child already uses, containing known words and grammatical structures. In later stages of reading development, children who do not experience reading difficulties are introduced to new words and grammatical structures through reading, while “with children who have reading difficulties, the principle of maintaining grammatical familiarity stays relevant until well into their teens” (Crystal, 2003, p. 432).

Sixth, pedagogical implications ask for consistent development of reading strategies through well-planned classroom activities. Although research has demonstrated that “the teaching of comprehension strategies has a crucial role to play as a continuation of elementary literacy instruction, explicit comprehension instruction is still rare in classrooms in grades 4, 5 and 6” (Tengberg & Olin-Scheller, 2013, p. 690). Strategy training should be explicit and integrated into EFL teaching/learning over a long period of time, rather than done as short interventions (Grabe, 2002b; Oxford, 1994; Westwood, 2008). When children experience reading comprehension difficulties, it is necessary to teach comprehension skills and strategies explicitly (Westwood, 2008). Although teachers should avoid using texts that are too difficult for particular learners, “recent research studies have yielded information suggesting that using books a little above the reader's present level can be useful for advancing reading skills if the student's attempts are effectively supported and if they are given help with interpretation” (Westwood, 2008, p.35). Intervention programmes usually rely on very careful matching of texts to children's reading skills, but in the presence of the

teacher or another adult or peer helping the child, the text can be slightly higher because immediate correction is possible. Teachers should strengthen learners' self-confidence by using "various interesting and challenging tasks as well as praise of persistent behavior in overcoming difficult tasks" (Wang & Guthrie, 2004, p. 182).

Seventh, thinking aloud while reading a challenging text should be modelled by the teacher, and regularly practiced by the learners. Weak readers' understanding of a text can be increased by development of their strategic competence, because "students with learning difficulties tend to benefit most from strategy instruction," i.e. by teaching children to reflect, infer, predict, make connections or ask questions, summarise, self-monitor and self-correct (Westwood, 2008, p. 36). The teacher should first explain the strategy, then demonstrate it while thinking aloud and reflecting on the meaning of the text; the procedure should be discussed with children before ample guided practice is organised (Westwood, 2008). The study has revealed the learners' active engagement with the text looking for clues for meaning making at several levels: within the sentence, within the paragraph, within the text as a whole, within own background knowledge and experience. Instead of insisting on accurate reading and correcting mistakes, teachers should encourage learners to look for the main content, to make inferences and guess the meaning of unfamiliar words and structures by identifying how information in the text is organised (Rao et al., 2005). Thinking-aloud procedure can be used as a learning tool, helping children see what they have/have not understood in a text. So, "rather than focusing students' attention only on issues related to learning content, effective teachers can structure a learning atmosphere where thinking about what happens in the learning process will lead to stronger learning skills [while] developing metacognitive awareness may also lead to the development of stronger cognitive skills as well" (Anderson, 2005, p. 767). Reading comprehension intervention programmes focus on teaching children how to "self-monitor for understanding, find the main idea in a paragraph,

self-question as they read, make inferences and connections, retell key information (e.g. restate the gist of the paragraph), summarise a key point” (Westwood, 2008, p.44). Guided reading is an approach that can be used with the whole class to enhance comprehension of difficult texts. It involves a sequence of pre-reading, during-reading and post-reading activities designed to help children, especially poor comprehenders, understand a text better (Shin & Crandall, 2014). Partner reading and peer tutoring techniques have been used with weak readers and have proved to be very beneficial for increasing reading skills.

Overcoming difficulties caused by undeveloped reading fluency requires introducing new methods in developing reading (Rasinski, 2013b). Rasinski (2013b) argues that “supportive (scaffolded) reading provides struggling readers with the supports that allow them to be successful in the reading experience” (p. 2), and suggests applying the following methods: modelling fluent reading, assisted reading, wide reading, and deep (repeated) reading. Each of these instructional techniques can improve reading fluency, but when the teacher integrates them into a remedial programme, their potential is even greater. Modelling fluent reading involves modelling by the teacher or a student or a recorded modelling. In the beginning stages of learning to read and with children experiencing reading difficulties it is beneficial to assist children’s reading by having a child read a text while simultaneously listening to fluent reading of the same text (by the teacher, by a more proficient learner, in a group as choral reading, or recorded), giving the child direct support with reading difficulty. Wide reading involves reading a text, discussing it, and moving to a new text; the most important prerequisite is to read authentic texts for real purposes. Finally, deep or repeated reading requires learners to read the same text several times, until they achieve fluency. A synergy of these instructional techniques will result in reading improvements in word identification, reading fluency, and reading comprehension (Rasinski, 2013b, p. 4).

Consequently, “reading fluency instruction and monitoring should be made an integral and significant part of the reading curriculum from the earliest grades” (Rasinski, 2004a, p.12)

Eighth, teachers must be able to evaluate their students’ oral reading skill realistically. Therefore, learners should “regularly read aloud individually to their teacher, since it is only by listening carefully to how children are making sense of written words that we [the teachers] can understand their progress in learning” (Cameron, 2008, p. 142). Teaching children how to guess pronunciation, recognise syllable patterns, or onsets and rimes, and monitor their reading and evaluate the importance of unknown words may lead to the development of effective oral reading strategies. The study shows that Serbian young EFL learners have developed reading abilities similar to their peers in the European countries that participated in the ELLiE study. However, to become skilled readers, children should develop further their strategic competence. The main pedagogical implication of the study is inclusion of reading strategy development in Serbian young learner reading programme.

Ninth, instruction directed towards improvement of reading skills, in general, and reading comprehension, in particular, should take into account the results of miscue analysis, whose potential is to indicate the paths to improving reading for meaning. Goodman (1973) suggests that “if the reader shows insufficient concern for meaning, the teacher can devote attention to building this concern” and that “[i]f a specific problem occurs, such as confusion of ‘wh’ and ‘th’ words (with, that; when, then; where, there), strategy lessons can be designed to help the reader cope with the problem” by using “meaning and grammatical structure to detect when he [sic] has made a miscue of this type” (p. 5). In this way, the learners learn how to make better predictions, which helps them correct miscues and eventually eliminate them. The role of the teacher is crucial both in using the information gained from miscue analysis and in designing a lesson that may develop learner’s awareness of the miscues and of possible ways for correcting them.

Tenth, children should have some training in generating inferences, since inference making ability is critical to reading comprehension. Poor comprehenders may lack awareness of when inference making is necessary and how to make inferences (Oakhill, Cain & Elbro, 2015). Children who experience reading comprehension difficulties due to poor syntactic knowledge would benefit from successful reading experiences that can help them “become familiar with the specific and complex syntactic structure of written language” (Oakhill, Cain & Elbro, 2015, p. 71). The best way to do that is “to expose children to well-written text,” instead of trying to teach them explicitly more complex syntactic structures (Oakhill, Cain & Elbro, 2015, p. 71). If reading comprehension difficulties result from children’s poor comprehension monitoring skills, there are several techniques that can be used to improve monitoring: self-directed summarisation modelled by the teacher has been found to be effective in improving comprehension monitoring, while encouraging children to visualise the story events by using mental images has been effectively used for teaching children how to think about the text (Oakhill, Cain & Elbro, 2015). Strategies for effective comprehension also include asking questions and generating questions about different aspects of a story, and the teacher’s task is to “help children by encouraging them to view reading as a problem-solving task, and helping them to think strategically about how to solve comprehension problems” (Oakhill, Cain & Elbro, 2015, p. 109). In summary, only if teachers have a comprehensive understanding of how reading processes function and how mental representation of the text is formed, can they support and scaffold children’s improvement of comprehension skills.

Eleventh, pedagogical implications of DCT for reading comprehension and retention indicate that children can use mental imagery to comprehend texts and to make accurate predictions about the text, while students with problems in reading comprehension can be helped to answer implicit questions. Paivio (2006) argued that “beginning readers learn to

read concrete words by sight much faster when the words are accompanied by referent pictures than when paired only with their pronunciations” and added that reading comprehension and vocabulary learning were enhanced with instructing learners to make images while reading (p. 11). Understanding and learning from the text is even more increased if we combine pictures, mental imagery and verbal elaboration. Pointing to the practical application of DCT, Paivio (2006) suggested using words and pictures rather than words alone, presenting pictures and corresponding words or narrations close together in space or time while minimizing extraneous, i.e. irrelevant details, and presenting words as speech rather than as ‘on-screen text’ in animations. According to Paivio (2006), DCT has many implications for methods used in remedial education for reading difficulties. These methods rely on nonverbal stimuli and are used to complement traditional teaching methods. Remedial literacy education has traditionally focused on decoding as a basic skill necessary for recognizing printed words, and has been tested through naming letters or reading words aloud, without measuring comprehension of the word or text. Paivio (2006) concluded that decoding and comprehension are two different abilities and were not highly correlated. Comprehension as a skill can be enhanced through visualizing, i.e. building up images, and verbalizing, i.e. describing images, from the smallest to the largest segments: words, phrases, sentences, texts (Paivio, 2006). Development of higher order comprehension, needed for predicting, inferencing and evaluating, is achieved through imagination and verbal elaboration. Research has shown the efficiency of such an approach in grades 3, 4 and 5 of low reading achievement schools (Paivio, 2006).

Twelfth, we believe that our research can improve understanding of the role of motivation in developing early L2 reading skills. Development of reading fluency seems to depend very much on learner’s motivation for reading, so our findings might be useful in encouraging teachers to, first, develop their own motivational skills, and, second, regularly

apply motivational techniques “to promote the learners’ language-related vision [and] create a positive motivational climate in the classroom” (Dörnyei, 2014, p. 523). Dörnyei (2014, describes twenty components of motivational teaching practice grouped into four very broad stages: 1. creating the basic motivational conditions; 2. generating initial motivation; 3. maintaining and protecting motivation; 4. encouraging positive retrospective self-evaluation. The introduction of motivational self system should involve motivational strategies for strengthening the learner’s future vision of their ideal and ought-to L2 selves, and also strategies for improving the learners’ learning experience, both individually and as learner group (social unit) experience. The impact of motivation and linguistic self-confidence on reading outcomes proved to be very strong and the study of their interactions shed more light on the process and outcomes of developing young learners reading skill. More attention is needed to nurturing young learners positive attitudes to various aspects of reading in English. There is a lot that can be done to strengthen the learners’ self-perception as readers (Dörnyei, 2009; Dörnyei & Csizér, 1998). Providing more opportunities for authentic reading experiences (the internet, story reading, storytelling, comic strips) at young ages can be very beneficial for developing the learners’ reading skill (Krashen, 1989, 2013).

Finally, in case of language disability, irrespective of the fact if it is mild, moderate or severe, an extensive study is essential “including medical, psychological, social, educational, and linguistic components” (Crystal, 2003, p. 434). Regarding linguistic components, it must be determined which areas of language have been affected: phonetics, phonology, graphology, lexicon, discourse, grammar, or functional language; if a child falls seriously behind his or her peers (e.g. in case of dyslexia), specialist intervention will be needed (Crystal, 2003). Montgomery (2007) argues that “many of the difficulties in dyslexia could be overcome during early in-school intervention by nursery and reception teachers if they were suitably trained” (p. 92). Instead of teaching poor readers to use top-down processing, “they

need perhaps to be equipped with the basic skills to proceed to this level of operation [so that] 'bottom-up' and 'top-down' processing may reflect two developmental levels of reading that students pass through either slowly or more quickly to reach fluency" (Montgomeri, 2007, p. 21). A multisensory approach to word learning has been suggested for learners with severe reading difficulties "involving kinaesthetic activities such as tracing, writing, typing and highlighting words with colour," using flashcards and activities with visual and visual-motor memorisation (Westwood, 2008, p. 26), aiming to enhance memory and learning by using all learning pathways in the brain (visual, auditory, kinesthetic and tactile).

In conclusion, this dissertation has proved a critical component to reading fluency development, already stressed by previous research (Pinnell et al., 1995; Rasinski, 2004b): the need for exposure to print and for extensive reading. Teachers should regularly provide children with interesting reading material that will spark a genuine reading desire, ensure continuous exposure to L2 texts and inspire extensive reading.

5.2. Limitations of the research

The study has yielded useful information regarding the reading difficulties experienced by young learners in Serbian primary schools, the children's patterns of reading strategy use, and other individual and contextual factors that affect their reading skills. It must be acknowledged, however, that the study has several limitations. First, the most important limitation lies in designing the framework scope of the research. Reading skills, and reading difficulties as well, are too complex to be the theme of one dissertation. Second, literature suggests that any reading research should involve measures of listening comprehension because with beginning readers it is not always possible to distinguish between their word reading problems and comprehension problems, and in such cases the

solution is to assess word reading separately and to check language comprehension by assessing their listening comprehension in order to see if they can make inferences necessary for understanding the text (Harrison & Salinger, 2002; Oakhill, Cain & Elbro, 2015), which has not been included in this research study. Third, although think-aloud interviews allowed us to examine what was going on in a reader's mind while she or he was performing a reading task, we must bear in mind that this technique cannot reveal the thinking processes in full.

Fourth, the present study has only investigated reading skills of learners attending relatively big urban schools, without involving any small or village school, thus not fully representing the population. There are two reasons for this: first, village schools are mostly branches of the nearest town/city schools, comprising only the classes of Grades 1-4, and the children are supposed to transfer to a town/city school to continue primary education; second, eight-year primary schools (comprising Grade 5) are rare in a village setting, and usually have one or two classes of Grade 5 and with fewer children than city schools. Involving village schools in our survey would have slowed the procedure of data collection and increase the costs of the study.

As our data represent a convenience sample, we cannot claim generalizability across countries due to the fact that the respective wider environments may vary considerably. Reading outcomes may be significantly affected by a number of contextual factors, limiting the generalizability of the results of the present study. What can be generalized, though, is the evidence that out-of-school factors, i.e. school environment and teachers, out-of-school exposure and home related factors, must be considered together with individual factors as variables significant for L2 linguistic achievement. Consequently, the findings of the present study could contribute to English language teaching in Serbian primary schools and other

EFL/ESL contexts, both similar and different. Moreover, we believe that it could be the basis for further studies of young learners' early reading abilities.

5.3. Recommendations for future research

Our results suggest that a variety of variables interact with young learners' success in English L2 reading, and that in many of them more research is needed for a deeper and more comprehensive understanding of the area. New research should allow comparison of L2 in different contexts across the globe and thus help identify the variables significant for predicting success in children's L2 learning, relevant to their reading skill development.

In respect to transfer of L1 reading ability to L2 reading development, it is important for future research to shed more light on linguistic threshold and how it varies according to task type, i.e. the demands placed on the reader, as "it is important to know what variables allow or inhibit such transfer" (Alderson, 2005, p. 39). Future studies should target the cross-linguistic L1-L2 relationships in longitudinal studies of reading development in young EFL learners, especially struggling readers. As Farrall (2012) noted, "significant progress has been made in understanding the underlying mechanisms that contribute to reading disabilities in young monolingual students," there is a need to shed more light on "how reading-specific disabilities can be meaningfully discriminated from difficulties experienced when learning to speak and understand English as a second language" (p. 242). Such studies should centre on vocabulary development (e.g. automatic word recognition, roles of cognates), the role of extensive reading in developing reading comprehension and reading fluency, the role of intrinsic and extrinsic motivation in developing reading skills, influence of teacher training on reading instruction, and the effects of explicit reading strategy training on reading comprehension.

Since motivation is an important issue in L2 teaching, and our study has shown that positive attitudes and motivation contribute to reading success, it is crucial to determine how motivation can be kept and how learners, rather than teachers, become agents who shape their own motivation. It would be useful to investigate intrinsic motivation of young learners in terms of true interest in personal growth and in determining the appropriate challenge in becoming independent readers. Bearing in mind the fact that silent reading can increase fluency and enhance motivation to read, more research is needed to get a better understanding of the processes of silent reading, “how to optimize its power in classroom reading practice,” and how to improve the way silent reading is taught (Hiebert & Ray, 2014, p. xiii) to young EFL/ESL readers.

With respect to reading strategies, studies have mostly focused on distinguishing between successful and less successful readers, providing indirect clues of the strategies that might be useful for poor readers. Our study has not been an exception in this respect. However, future studies should focus on reading strategy instruction and interventions on reading outcomes. Also, it would be useful to investigate microstrategies, like coping with unfamiliar language in a text, e.g. tackling unfamiliar words or grammar structures. As a theory of general cognition, DCT is very comprehensive in explaining reading in all its psychological aspects. Such theories are very young and subject to change with accumulation of evidence. Sadoski and Paivio (2004) held that language and mental imagery and the constructs of mind will keep being the focus of research into the knowledge of reading (p. 51). With reference to readers’ content shemata, i.e. knowledge of the topic of a text being read and culture knowledge, future research should focus on distinguishing between the influences of vocabulary knowledge and world knowledge necessary to understand the text on reading scores (Alderson, 2005).

Yoncheva et al. (2015) have connected cognitive neuroscience and educational research in their study of brain response to two different approaches to teaching new words. The study is a breakthrough in the field of educational neuroscience, indicating that both brain researchers and educational researchers can contribute to our deeper understanding of how instructional strategies can be designed to support the development of learning. Further research in this field may shed more light on the process of fluent reading and reading comprehension and thus guide reading programme developers and practising teachers towards more effective instruction, especially in cases when readers exhibit a range of reading difficulties.

Another area that should be investigated is young learners' attitudes to reading in a foreign language compared to motivation to reading in L1. Such a study could help to determine how L1 and L2 reading experiences shape learners' self-confidence as readers and their motivation for reading in both languages, as well as what kind of relationship there is between L1 and L2 reading attitudes with L1 and L2 reading comprehension, as well as on their interconnectedness. Moreover, a longitudinal study of L2 motivation for reading in L1 and L2 could provide invaluable information on correlation of attitudes and learners' academic success. Taking into account Grabe and Stoller's (2011) report on how self-efficacy, motivation and expectations for success predict reading comprehension and the amount of reading, a longitudinal study of motivational variables could give significant information on aspects of reading that should receive special attention in instruction, pointing to a wider applicability of research results.

5.4. A general conclusion

This study has gone some way towards enhancing our understanding of the process of developing beginning reading in EFL/ESL. Our research could help EFL/ESL teachers design more effective reading programmes and enhance effectiveness of their instruction of beginning reading in English as L2, by contributing to their knowledge and understanding of the process, and to their ability to notice reading difficulties in their learners. As Grabe (2002a) argues, “[i]f teachers and curriculum developers are to help students make significant progress in reading instruction, they need to understand how reading works [to be able to] make informed decisions to guide effective reading instruction” (n.p.). It is true that theory can inform teachers about fluent reading, but it cannot tell them how to teach beginning L2 learners so that they all become fluent readers. We are confident that our results may improve knowledge about the role of a number of individual and contextual factors in improving reading skills, both in oral reading and in reading comprehension, so that reading difficulties can be minimized. Therefore, this research study may be of interest to researchers, teacher educators and English language teachers, as it explores a variety of methods for data collection, presents the reading results obtained by using a range of research instruments, and discusses the findings within a framework in which different variables interact in the ways that are meaningful and understandable. As reading in L2 settings is gaining in importance, we hope that this research study will inspire more researchers to thread along the same path.

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APPENDIX 1: Permission to use ELLiE reading research instrument



Janet Enever
Professor of Language Teaching and Learning
Department of Language Studies/ Institutionen för språkstudier
Umeå University, SE-901 87 Umeå, Sweden
Tel: +46 (0)90 786 56 74
Email: janet.enever@sprak.umu.se

Date 9th May 2013

For the attention of:

Vera Savic, MA
Lecturer in English Language and TEFL
Faculty of Education in Jagodina
University of Kragujevac
Milana Mijalkovica 14,
35000 Jagodina, Serbia

Dear Ms Savic

Permission for use of ELLiE research tool

I write to confirm that the ELLiE research team is able to grant you permission to use the ELLiE Reading Research Instrument for the purposes of your doctoral research study. The Research Instrument includes a set of comic strip pictures adapted from the original cartoon 'Pesquis i Baliga', published in Catalan by Cavall Fort. I confirm permission to use this cartoon strip for educational purposes, on the condition that the following copyright acknowledgement is attached to publication of any part of the cartoon.

Pesquis i Baliga-CF1119 © Cavall Fort 2009, by Viladoms – All rights reserved.

We anticipate that this research instrument will be placed on the ELLiE research website in July/August 2013, so therefore suggest you quote the following reference in your thesis:

ELLiE team (2013) *Reading Research Instrument*. Retrieved on (insert date) from www.ellieresearch.com.

With many good wishes for a successful research study.

Yours sincerely

Janet Enever
ELLiE Project Director

Umeå universitet www.umu.se

APPENDIX 2: Instruments

Contextual factors questionnaire [in Serbian]

Истраживање: *Тешкоће у читању на енглеском као страном језику*

Истраживач: мр Вера Савић, Факултет педагошких наука Универзитета у Крагујевцу

Инструмент: Упитници за ученике (3) и ELLiE тест читања

Место: _____

Датум и време: _____

Код: _____

Напомена: Истраживање је анонимно и сви подаци ће се користити искључиво у сврху израде докторске дисертације и писања научних и стручних радова.

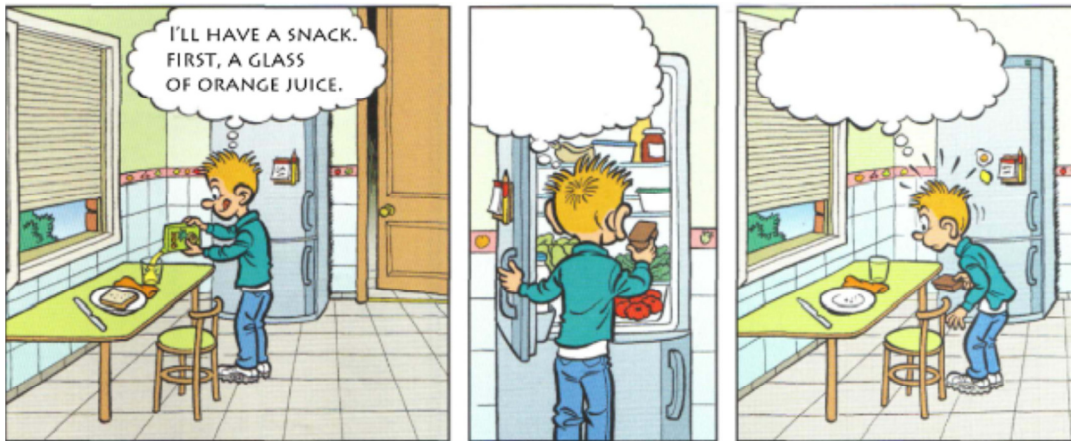
УПУТСТВО: Слушај пажљиво следећих девет тврдњи, па уз сваку допиши податке или изабери тврдње који важе за тебе:

1.	Ја похађам пети разред у школи _____ у граду _____ .	
2.	Ја сам _____	(заокружи одговор који важи за тебе) а) девојчица б) дечак
3.	Рођен(а) сам месеца _____ године _____ .	
4.	Мој матерњи језик је _____ .	
5.	Моја оцена из матерњег језика на крају 4. разреда била је _____ .	
6.	Моја оцена из енглеског језика на крају 4. разреда била је _____ .	
7.	Енглески језик учим: _____	(заокружи одговор који важи за тебе) а) од 1. разреда б) од предшколског узраста в) од млађе или старије групе у вртићу.
8.	Поред часова енглеског језика у школи, _____	(заокружи одговор који важи за тебе) а) не похађам додатне часове б) похађам додатне часове.
9.	Почео/ла сам да учим да читам и пишем на енглеском: _____	(заокружи одговор који важи за тебе) а) на предшколском узрасту б) у 1. разреду в) у 2. разреду г) у 3. разреду д) у 4. разреду

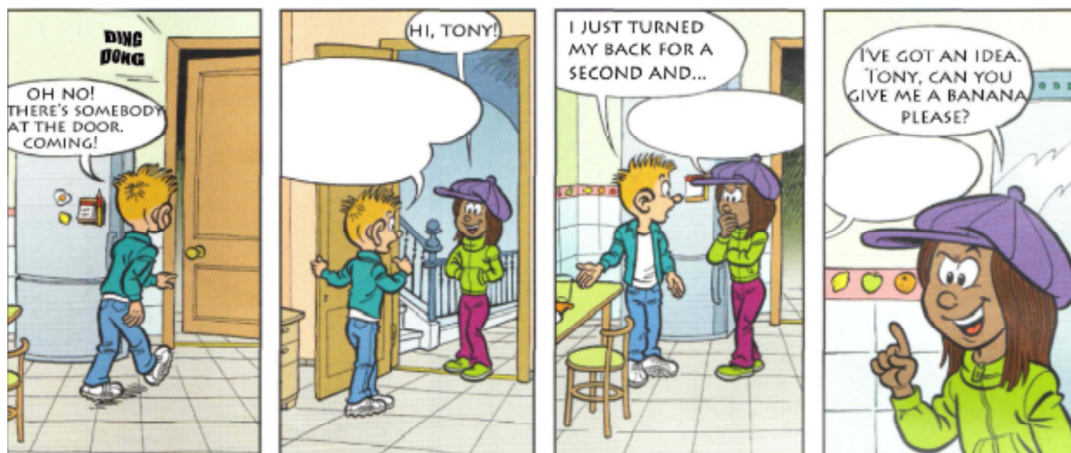
Learner reading research instrument and post-reading reflection protocol

Pesquis i Baliga---CF1119© Cavall Fort 2009, by Viladoms – All rights reserved.

WRITE A LETTER IN EVERY BUBBLE. THERE IS AN EXTRA LETTER.



- A) I'M HUNGRY AND THE FRIDGE IS EMPTY.
- B) THERE IS SOME CHOCOLATE SPREAD, YUM!
- C) MMMMM! THIS IS GOING TO BE GOOD! ...HEY! WHERE IS THE ORANGE? WHERE IS THE BREAD?



- A) WHY DO YOU NEED IT?
- B) OH, IT'S YOU. SOMETHING VERY STRANGE JUST HAPPENED. I THINK WE'VE GOT GHOSTS!
- C) HI TINA, I JUST HAD A SNACK.
- D) WAIT. LET ME THINK...



A) LET'S EAT THE BANANA NOW.

B) AHA! CAUGHT YOU!

C) COME ON, LET'S GO AND WATCH TV. OUR PROGRAMME'S ON.

Individual factors questionnaire [in Serbian]

Слушај пажљиво следећих седам питања и упиши одговор који важи за тебе заокруживањем једног од три смајлија:

😊 = ДА (3) 😐 = НЕ ЗНАМ; НИСАМ СИГУРАН (2) ☹️ = НЕ (1)

1. Да ли волиш да учиш енглески?	😊	😐	☹️
2. Да ли волиш да учиш нове речи на енглеском?	😊	😐	☹️
3. Да ли волиш да читаш на енглеском?	😊	😐	☹️
4. Да ли волиш да читаш наглас на енглеском?	😊	😐	☹️
5. Да ли волиш да читаш у себи на енглеском?	😊	😐	☹️
6. Да ли волиш да читаш на интернету на енглеском?	😊	😐	☹️
7. Да ли читаш на енглеском боље од других у одељењу?	😊	😐	☹️

Reading strategies and difficulties questionnaires [in Serbian]

Слушај следећа питања и пажљиво заокружи <u>све одговоре</u> који важе за тебе:	
<p>8. Када читаш на енглеском наглас на часу, шта радиш када не умеш да прочиташ неку реч?</p>	<p>(заокружи <u>све одговоре</u> који важе за тебе)</p> <p>а) читам слово по слово</p> <p>б) покушам да се сетим неке сличне речи и онда прочитам</p> <p>в) прескочим ту реч и наставим да читам</p> <p>г) питам наставницу или друга из клупе како се реч чита</p> <p>д) (ако радиш нешто друго, напиши шта радиш): _____</p> <p>_____</p> <p>_____</p>
<p>9. Како ти помаже наставница када не знаш да прочиташ неку реч?</p>	<p>(заокружи <u>све одговоре</u> који важе за тебе)</p> <p>а) она прочита ту реч и тражи да поновим за њом</p> <p>б) она ме пита да ли могу да се сетим неке сличне речи и да онда сам/а прочитам</p> <p>в) она пита да ли неко у одељењу зна да прочита ту реч, па ако неко зна, каже ми да поновим за њим</p> <p>г) (ако она ради нешто друго, напиши шта ради): _____</p> <p>_____</p> <p>_____</p>
<p>10. Када читаш на енглеском на часу, шта радиш када не знаш шта значи нека реч?</p>	<p>(заокружи <u>све одговоре</u> који важе за тебе)</p> <p>а) гледам слику уз текст и покушам да погодим шта та реч значи</p> <p>б) читам поново целу реченицу и покушам да погодим шта та реч значи</p> <p>в) читам ту реч неколико пута и покушам да се сетим шта значи</p> <p>г) прескочим ту реч и читам даље</p> <p>д) размишљам колико сам разумео/ла оно што сам прочитао/ла и наставим да читам</p> <p>ђ) размишљам шта ће се десити даље у тексту и наставим да читам</p> <p>е) питам друга из клупе или питам наставницу</p> <p>ж) потражим ту реч у уџбенику или речнику</p> <p>з) (ако радиш нешто друго, напиши шта радиш): _____</p> <p>_____</p> <p>_____</p>
<p>11. Које су ти највеће тешкоће када читаш на енглеском?</p>	<p>(заокружи <u>све одговоре</u> који важе за тебе)</p> <p>а) не могу да изговорим неке енглеске гласове</p> <p>б) не могу да се сетим како се читају неке</p>

	<p>речи које сам учио/ла в) не знам како да прочитам нове речи г) када не знам неку реч, не могу да наставим даље да читам јер не разумем текст д) када читам наглас, не разумем шта сам прочитао/ла ђ) читам веома споро и не разумем шта сам прочитао/ла е) (ако имаш још тешкоћа, напиши које су):</p> <hr/> <hr/>
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Prompted think-aloud protocol interview [in English and Serbian]

Универзитет у Новом Саду, Филозофски факултет

Истраживање: *Тешкоће у читању на енглеском као страном језику*

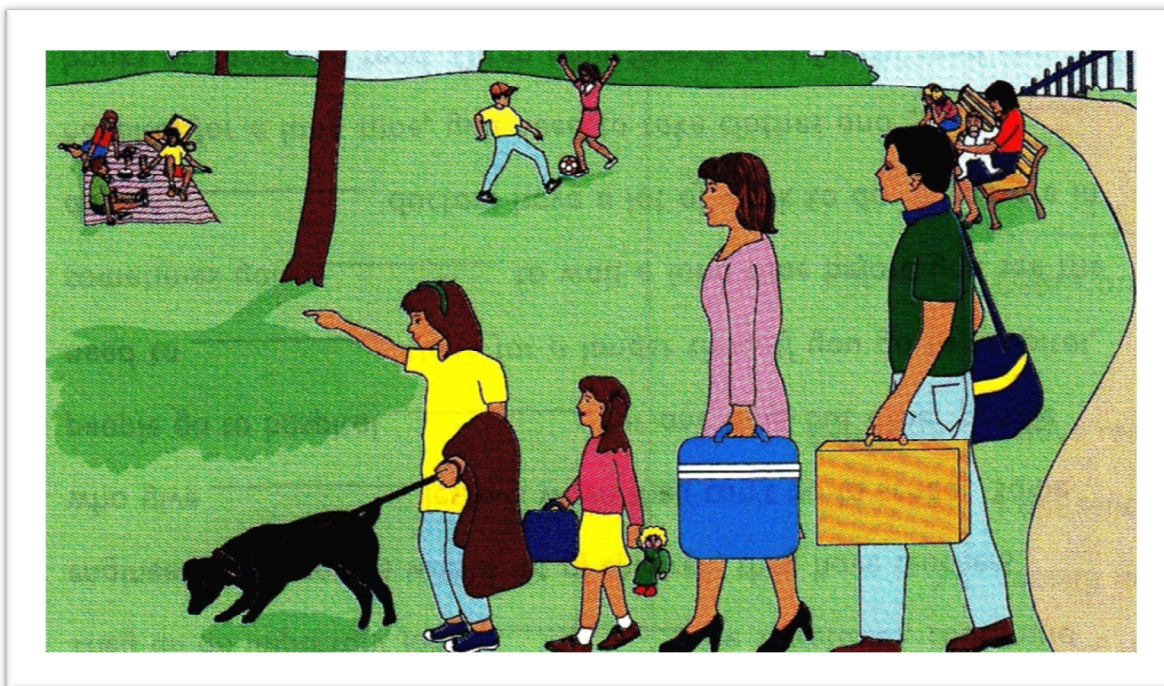
Кандидат: мр Вера Савић, Факултет педагошких наука Универзитета у Крагујевцу

Инструмент: Prompted think-aloud protocol interview

Место: _____ основна школа _____

Датум и време: _____, почетак у _____ сати

Код: L _____



My name is Betty and I have a little sister called Emma. She has lots of dolls, but her favourite one is called Daisy. Mum and Dad gave it to her when she was a baby and she takes it everywhere with her. She takes it to school and to her bedroom and when we sit down to eat, the doll always sits next to Emma.

Last Sunday, our family went to the park to have a picnic. We took our dog, Treasure, with us and of course, Emma took Daisy too. There were a lot of people in the park because it was sunny. We found a place near the lake to have our picnic. After lunch, Emma and I went on the swings. After a few minutes, Emma said to me, "Betty, I want Daisy on the swing with me. Can you go and get her for me?" "OK!" I answered.

But when I went back to our picnic, Daisy wasn't there. "Mum!" I shouted, "we've lost Daisy!" Dad looked in all the bags and Mum and I looked under our sweaters and other things, but we couldn't find her. I went to tell Emma the bad news, but when I got there, I saw Treasure. He carried Daisy carefully in his mouth. "Look!" said Emma, "Treasure has brought Daisy to play with me. He's very kind."

Фазе	Ток интервјуа
1.	Да ли волиш да читаш? Како се осећаш док читаш неку причу или књигу на српском?
2.	Да ли волиш да читаш на енглеском? Да ли читаш на енглеском из задовољства у слободно време?Када обично читаш на енглеском? Шта све читаш на енглеском?.... Како се осећаш док читаш неку причу или књигу на енглеском?.... Како бираш шта ћеш да ћиташ на енглеском? Да ли бираш текстове који нису сувише тешки? Да ли читаш на енглеском на интернету? Да ли на интернету читаш да би сазнао нешто ново? Да ли некада читаш на енглеском са родитељима или братом или сестром? Да ли волиш да читаш на енглеском са њима? Зашто? (based onCohen & Oxford (2002), <i>Young Learners' Language Strategy Use Survey</i>)
3.	(Ученик чита прва два пасуса наглас, са паузама после првог и другог пасуса, када добија иста питања): <ol style="list-style-type: none"> 1. ШТА СЕ ДЕШАВА У ПРИЧИ ДО САДА? ... 2. О ЧЕМУ РАЗМИШЉАШ ДОК ЧИТАШ? ... 3. ШТА ЈЕ ВАЖНО У ПРИЧИ ДО САДА? ... 4. ШТА НА СЛИЦИ ПРИВЛАЧИ ТВОЈУ ПАЖЊУ САДА? 5. ШТА НА СЛИЦИ МОЖЕШ ДА ПОВЕЖЕШ СА ПАСУСОМ КОЈИ СИ ПРОЧИТАО? ... 6. ШТА МИСЛИШ ДА ЋЕ СЕ ДОГОДИТИ ДАЉЕ У ПРИЧИ? 7. КАКО ТО ЗНАШ? (Ученик чита трећи пасус најпре у себи, добије модификована горња питања за проверу разумевања, а затим чита наглас) (питања после читања у себи): <ol style="list-style-type: none"> 1. ШТА СЕ НА КРАЈУ ДЕШАВА У ПРИЧИ? 2. ДА ЛИ ТО МОЖЕШ ДА ПОВЕЖЕШ СА СЛИКОМ? 3. О ЧЕМУ СИ РАЗМИШЉАО ДОК СИ ЧИТАО У СЕБИ? 4. ДА ЛИ СИ НЕКЕ ДЕЛОВЕ ЧИТАО ВИШЕ ПУТЕ? КОЈЕ? ЗАШТО? (питања после читања наглас): <ol style="list-style-type: none"> 5. ДА ЛИ СИ БОЉЕ РАЗУМЕО КАДА СИ ЧИТАО У СЕБИ ИЛИ НАГЛАС? ЗАШТО? ШТА ТИ ЈЕ ПОМОГЛО ДА БОЉЕ РАЗУМЕШ ТАДА? (based on Serafini (2010), <i>Classroom reading assessment: more efficient ways to view and evaluate your readers</i>)
4.	(После прочитане приче у целини, питања за интервју су следећа: Да ли ти се допада ова прича? Који део ти се највише допада? Док си читао причу, да ли си размишљао о томе колико је разумеш? Да ли си погодио шта ће се десити у причи после првог/другог пасуса? Како си то погодио? Шта ти је помогло да то погодиш? Колико разумеш причу коју си прочитао? О чему се ради у њој? Који би наслов дао овој причи? Да ли у причи постоји неки део који ти је било тешко да разумеш? Шта ниси могао да разумеш у том делу приче? Да ли разумеш све речи у овој причи? Шта ти је помогло да разумеш причу ако ниси разумео све речи у њој?..... Шта си још могао да урадиш да би разумео причу иако ниси разумео све речи у њој?

Да ли си видео ову реч раније? Да ли умеш да је прочиташ? Како си знао како да је прочиташ? Шта ти је помогло? Како си размишљао док си се спремао да прочиташ ту реч? Да ли си се нечег сетио? О чему си још размишљао? Шта значи та реч? Како то знаш?

Како ти помаже то што знаш да читаш на српском? Колико је читање на српском и енглеском слично или различито? Шта теби представља највећу тешкоћу када читаш на енглеском? Како решаваш тај проблем? Да ли си то научио на часовима енглеског? Од кога? Да ли си тражио помоћ? Од кога? Да ли ти то увек помаже када читаш? Да ли ти још нешто помаже да боље читаш? Да ли имаш план како да вежбаш читање? Да ли си већ приметио да читаш боље? ... Како си то закључио?

(based on: a) Serafini (2010), *Classroom reading assessment: more efficient ways to view and evaluate your readers*; b) Trehearne & Doctorow (2006), *Comprehensive Literacy Resource: Grades 3-6*)

Teacher questionnaire

Универзитет у Новом Саду, Филозофски факултет

Истраживање: *Тешкоће у читању на енглеском као страном језику*

Кандидат: мр Вера Савић, Факултет педагошких наука Универзитета у Крагујевцу

Инструмент: Teacher Questionnaire

Место: _____

Датум и време: _____

Код: Т _____

PART ONE	
Question	Answers
1. What is your qualification?	(circle as appropriate) a) Class teacher (BA) + B1 / B2 / C1 CEFR) b) English teacher (BA) c) English teacher (MA) d) other: _____
2. How long have you been teaching English?	_____ years
3. How long have you been teaching English to young learners (children aged 7-11)?	_____ years
4. Have you ever had any training (seminars or workshops) to teach reading to young learners?	(circle as appropriate) a) YES b) NO (if YES, please specify the programme and its duration: _____ _____)
5. Do you have professional books about teaching reading to children (at home or in school)?	(circle as appropriate) a) YES b) NO (if YES, please specify the titles/topics: _____ _____ _____)
6. Do you have authentic picture books and/or nursery rhymes in school?	(circle as appropriate) a) YES b) NO (if YES, please specify the titles/topics _____ _____ _____)
7. What materials do you use in teaching reading?	(circle all that apply) a) coursebook (title: _____ _____); children's attitude to the book: _____ _____) b) audio recordings

	<p>c) authentic picture books and nursery rhymes d) online materials e) e-materials for interactive whiteboard f) audio recordings of stories with story books g) materials you have created (please specify: _____ _____)) h) (other): _____ _____ _____)</p>
8. How often do you read authentic story books with children?	<p>(circle as appropriate) a) once a month b) once in two months c) once a semester d) once a year e) never f) (other): _____</p>
9. Do you practise reading with children in every class?	<p>(circle as appropriate) a) YES b) NO (comment: _____ _____))</p>
PART TWO	
Question	Answers
10. How many fifth graders are you teaching this academic year?	<p>(please specify the number) Approximately _____ students</p>
11. When did they start learning to read in English?	<p>(please specify the grade) in Grade _____</p>
12. When did they start learning to write in English?	<p>(please specify the grade) in Grade _____</p>
13. Do most of your students like to read in English?	<p>(circle as appropriate) a) YES b) NO (comment: _____ _____))</p>
14. How good are your students at reading aloud?	<p>(circle as appropriate) 1) very poor 2) poor 3) fair 4) good 5) very good</p>
15. Are there students with reading difficulties in your class?	<p>(circle as appropriate) a) YES b) NO (comment: _____</p>

	<p>_____) _____)</p>
<p>16. If YES, what oral reading difficulties do they experience?</p>	<p>(circle all that apply)</p> <p>a) articulation problems (making sounds) b) matching letters to sounds accurately c) recognising and pronouncing certain consonants (please specify the consonants: _____) d) recognising and pronouncing certain vowels (please specify the vowels: _____) e) recognising known words fast (sight reading) f) pronouncing new words g) reading at appropriate speed (reading too slowly or too fast) h) reversing syllables (changing the order of syllables in a word) i) substituting words (saying another word instead the one in the text) j) omitting words (not saying the word in the text) k) inserting words (adding a word that is not in the text) l) repeating words or parts of sentences m) respecting punctuation n) lacking fluency (i.e. not reading at the right speed or with expression) o) (other): _____ _____)</p>
<p>17. How many students in the class experience some or all of these reading difficulties?</p>	<p>(please specify the number)</p> <p>Approximately _____ students per class</p>
<p>18. How do you help them improve their oral reading skills?</p>	<p>(circle all that apply)</p> <p>a) by developing their phonological awareness (i.e. letter-to-sound correspondence, understanding rhyme, analogy, and minimal-pairs) b) by developing their orthographic processing skill (i.e. choice of letters, distinguishing homophones) c) by modelling pronunciation and reading rate (i.e. showing them how to pronounce words and read at the right speed) d) by using choral/responsive reading (you read, all learners repeat after you) e) by having them practise reading in pairs f) (other): _____ _____)</p>
<p>19. Based on your experience, how good are your students at reading comprehension?</p>	<p>(circle as appropriate)</p> <p>a) very poor b) poor c) fair d) good e) very good</p>
<p>20. Based on your experience, what comprehension strategies do they use?</p>	<p>(circle all that apply)</p> <p>a) using picture clues b) using syntactic clues (grammar) c) using semantic clues (meaning)</p>

	<ul style="list-style-type: none"> d) using their background knowledge e) paraphrasing f) retelling g) summarising h) asking and answering comprehension questions i) reading punctuation j) translating k) using a dictionary l) asking for help m) (other): _____
<p>21. Do you teach them how to develop their reading comprehension strategies?</p>	<p>(circle as appropriate)</p> <p>a) YES b) NO</p> <p>(comment: _____)</p> <p>_____)</p>
<p>22. How do you help them develop their reading comprehension strategies?</p>	<p>(circle all that apply)</p> <ul style="list-style-type: none"> a) by encouraging them to guess the meaning of unfamiliar words in context b) by encouraging them to use knowledge of the world to decode unfamiliar words c) by showing them how a new word functions in the sentence d) by encouraging them to guess the meaning by looking at a picture accompanying the text e) by encouraging them to visualise what they have read f) by encouraging them to use the dictionary g) by encouraging them to ask a peer for help h) by encouraging them to translate unfamiliar words i) by encouraging them to focus on the meaning of a text as a whole j) by encouraging them to skip unfamiliar words k) by asking pre-reading, while-reading and post-reading comprehension questions l) by encouraging them to retell and summarise what they have read m) by encouraging them to develop vocabulary (i.e. learn new words) n) by encouraging them to read in their free time o) by encouraging them to read on the internet p) by modeling think-aloud procedure (i.e. you read a text and stop after each sentence to say what you think it means and how you understand it) q) (other): _____
<p>Please add final comments on teaching reading to young learners:</p>	

Thank you for taking part in the research!

APPENDIX 3: Summary overview of dataset

Table summarising dataset gathered in the study

Type of data	School 1	School 2	School 3	School 4	School 5	School 6	Total
Contextual factors questionnaire	80	85	75	71	101	90	502
Reading research tool	80	85	75	71	101	90	502
Post-reading reflecton protocol	0	0	0	0	0	90	90
Individual factors questionnaire („smiley questionnaire“)	80	85	75	71	101	90	502
Reading strategies questionnaire	80	85	75	71	101	90	502
Reading difficulties questionnaire	80	85	75	71	101	90	502
Teacher questionnaire	2	1	2	1	1	2	9
Prompted think-aloud protocol	2	2	1	3	2	2	12

APPENDIX 4: Consent forms [in Serbian]

Филозофски факултет у Новом Саду

САГЛАСНОСТ ЗА УЧЕСТВОВАЊЕ У ИСТРАЖИВАЊУ

Информације о истраживању:

Истраживање: *Теškoће у читању на енглеском као страном језику*

Кандидат: мр Вера Савић, Факултет педагошких наука Универзитета у Крагујевцу

Истраживање је у форми теста и упитника за све ученике петог разреда у школи, интервјуа са два изабрана ученика, и упитника за наставнике који предају енглески језик ученицима петог разреда. Истраживање тестом и упитником биће спроведено у току редовне наставе у просторијама школе, у трајању од једног школског часа. Интервју ће трајати око 60 минута и његов ток биће сниман диктафоном (аудио снимање) у току редовне наставе у просторијама школе (по добијеној писаној сагласности родитеља).

Сврха анкетања, тестирања и интервјуа јесте прикупљање података о развоју вештине читања на енглеском језику за потребе израде докторске дисертације. Сви подаци добијени истраживањем биће анонимни и користиће се искључиво у сврху израде дисертације. Уколико резултати буду презентовани (у научним радовима или на конференцијама), анонимност ће бити загарантована.

Учешће ученика је добровољно и ученик може одустати у било ком тренутку. Уколико се ученик повуче из истраживања пре него што сви подаци буду прикупљени, добијени подаци неће бити увршћени у коначну обраду.

САГЛАСНОСТ ДИРЕКТОРА ШКОЛЕ

Потврђујем да сам прочитао-ла и разумео-ла све наведене информације и да сам сагласан-на да се поменуто истраживање спроведе у школи у којој радим као директор.

Датум: _____

_____ (име и презиме директора штампаним словима)

_____ (потпис директора)

Филозофски факултет у Новом Саду

САГЛАСНОСТ ЗА УЧЕСТВОВАЊЕ У ИСТРАЖИВАЊУ

Информације о истраживању:

Истраживање: *Теškoће у читању на енглеском као страном језику*

Кандидат: мр Вера Савић, Факултет педагошких наука Универзитета у Крагујевцу

Истраживање је у форми интервјуа са учеником у току редовне наставе у просторијама школе. Интервју ће трајати око 60 минута и његов ток биће сниман диктафоном (аудио снимање).

Сврха интервјуисања ученика јесте прикупљање података о развоју вештине читања на енглеском језику за потребе израде докторске дисертације. Сви подаци добијени истраживањем биће анонимни и користиће се искључиво у сврху израде дисертације. Уколико резултати буду презентовани (у научним радовима или на конференцијама), анонимност ће бити загарантована.

Учешће ученика је добровољно и ученик може одустати у било ком тренутку. Уколико се ученик повуче из истраживања пре него што сви подаци буду прикупљени, добијени подаци неће бити увршћени у коначну обраду.

САГЛАСНОСТ РОДИТЕЉА

Потврђујем да сам прочитао-ла и разумео-ла све наведене информације и да сам сагласан-на да моје дете учествује у поменутом истраживању.

Датум:

(име и презиме родитеља штампаним словима)

(потпис родитеља)

APPENDIX 5: School profiles

No	Date of Survey	Geographical Region	Size of City/Town	School Size and Location	No. and Size of Classes Surveyed	Total No. of Learners Surveyed	No. of Teachers Interviewed	Think-Aloud Protocol
S1	5-6 Nov. 2013	Southern Region	Niš, big city – 300,000 inhabitants	S-1-1, a large school (750 learners) located in the centre of the city;	four classes (no. of learners: 16, 20, 25, 19, respectively); average no. of learners per class: 20.	80	two teachers 1. T-1-1-1, BA, 25 years of teach. exper. 2. T-1-1-2, BA, 20 years of teach. exper.	L-1-1-2-13 L-1-1-1-08
S2	7-8 Nov. 2013	Central Region	Kragujevac, big city – 180,000 inhabitants	S-2-1, a large school (750 learners), located in the outskirts; attended mostly by children from villages close to the city;	three classes (no. of learners: 26, 30, 29,); average no. of learners per class: 28.	85	one teacher: T-2-1-1, MA, 12 years of teach. exper.	L-2-1-2-03 L-2-1-1-02
S3	7-8 Nov. 2013	Central Region	Kragujevac, big city – 180,000 inhabitants	S-2-2, a large school (700 learners), located in the outskirts of the city;	three classes (no. of learners: 26, 25, 24, respectively); average no. of learners per class: 25.	75	two teachers 1. T-2-2-1, BA, 13 years of teach. exper. 2. T-2-2-2, Ba, 15 years of teach. exper.	L-2-2-1-5
S4	13 Nov. 2013	Northern Region	Belgrade, metropolis – 1.7 million inhabitants	S-3-1, a large school (800 learners), located in the suburbs	three classes (no. of learners: 23, 21, 27, respectively); – average no. of learners per class: 24.	71	one teacher: T-3-1-1, MA, 10 years of teach. exper.	L-3-1-3-16 L-3-1-3-05 L-3-1-3-21
S5	20 Nov 2013	Central Region	Jagodina, small town – 50,000 inhabitants	S-4-1, a large school (800 learners), located in the centre of the town	four classes (no. of learners: 29, 25, 25, 22, respectively); – average no. of learners per class: 25.	101	one teacher: T-4-1-1, BA, 10 years of teach. exper.	L-4-1-1-09 L-4-1-1-10
S6	21-22 Nov. 2013	Northern Region	Novi Sad, big city – 250,000 inhabitants	S-5-1, a large school (900 learners), located in the suburbs	four classes (no. of learners: 27, 19, 20, 24, respectively); – average no. of learners per class: 23.	90	two teachers 1. T-5-1-1, MA, 8 years of teach. exper. 2. T-5-1-2, BA, 17 years of teach. exper.	L-5-1-2-09 L-5-1-1-27

APPENDIX 6: Sample interview

Think-Aloud Protocol, 5th November 2013

L-1-1-2-13	
Starting time: 13.55; duration: 40 min 57 sec; I = Interviewer; L = Learner	
I	Da li voliš da čitaš?
L	Da.
I	Koje knjige voliš da čitaš na srpskom jeziku?
L	Najviše volim da čitam naučno fantastične knjige.
I	Zašto?
L	Zanimljivo mi je, zanimljivo mi je šta se u njima dešava i [pauza]
I	Kako se osećaš dok čitaš neku knjigu na srpskom?
L	Pa, ja kad čitam ja zamišljam da sam tamo i onda mi bude mnogo zabavnije.
I	Jel redovno čitaš? Koliko knjiga pročitaš mesečno?
L	Mesečno pročitam dve-tri knjige.
I	A da li voliš da čitaš na engleskom?
L	Volim.
I	Da li čitaš na engleskom u slobodno vreme, iz zadovoljstva?
L	Pa ponekad.
I	I šta tada čitaš?
L	Pa nadjem nešto na internetu ili uzmem neke knjige koje su na engleskom pa uzmem i čitam.
I	A gde nalaziš te knjige?
L	Pa nadjem ako imam neke stare knjige od moje mame i tate, pa čitam.
I	A da li tvoji roditelji čitaju na engleskom?
L	Pa retko.
I	Dobro, a da li znaju engleski?
L	Znaju.
I	Da li koriste engleski na poslu ili ne?
L	Ne.
I	Znači čitaš neke knjige i ono što nadješ na internetu. Šta je to na internetu što te zainteresuje?
L	Na internetu ako imamo nešto da nadjemo za domaći, pa ne nadjem na srpskom, potražim na engleskom, pa pokušam da razumem šta tamo piše [pauza]
I	Aha, i koliko si to uspešno do sada radio?
L	Skoro sve sam razumeo.
I	Aha, a šta radiš kada ti je neki tekst mnogo težak?
L	Pa pokušam da nadjem te reči u rečniku i na internetu, na prevodiocu,
I	Dobro. A da li imaš brata ili sestru?
L	Imam mlađeg brata.
I	Da li on uči engleski?
L	Uči.
I	A da li on voli da čita sa tobom?
L	Voli, ali on uzme one knjige koje koristi u toj školici engleskog i onda čita.
I	On ide na daodatne časove?

L	U toj školici, on ide u vrtić, ima pet godina.
I	A da li ti ideš na dodatne časove iz engleskog jezika?
L	Pa idem, dolazi mi nastavnica.
I	Kod tebe kući? Koliko često?
L	Svake druge nedelje dva puta nedeljno.
I	Aha, svake druge nedelje dva puta nedeljno. Da li su ti ti časovi zanimljivi?
L	Jesu.
I	Da li te ona malo podstiče da čitaš na engleskom?
L	Pa i ona i sam
I	A kako se osećaš kada si uspešan dok čitaš na engleskom?
L	Zadovoljan sam sobom i ponosan sam na uspeh.
I	Aha, a da li se hvališ nekom?
L	Pa mami i tati.
I	Znači imamo sada jednu priču i ta priča ima ovde i svoju sliku. Videćeš sada. Pročitaćeš odmah sada prvi pasus i kada pročitaš prvi pasus onda ćeš da staneš i ja ću tada da ti postavim neka pitanja u vezi sa tim tekstom. Ti mene ne možeš da pitaš, ali ja ću pokušati da vidim koliko ti razumeš taj tekst. Ovo je tekst za tebe.
L	Znači ovo čitam.
I	Da, znači počinješ od početka i čitaš do kraja prvog pasusa.
L	[čita]: <i>My name is Betty and I have a little sister called Emma. She has lots of dolls, but her favourite one is called /ka:led/ Daisy. Mum and Dad gave it to her when she was a baby and she takes it everywhere with her. She takes it to school and to her bedroom and when we sit down to eat, the doll always sits next to Emma.</i>
I	Hvala. Šta se dešava u ovoj priči do sada?
L	Devojčica Beti ima mladju sestru koja se zove Ema i, i, njena mladja sestra Ema ima mnogo lutaka, ali njena najomiljenija se zove Dejzi. Mama i tata su joj dali dok je bila beba i nosi je svugde sa sobom.
I	Aha, ti sada meni prevodiš to, ali reci mi, dok si čitao, da li si ti to sve razumeo?
L	Da.
I	Dobro, kaži mi šta je važno u ovoj priči. Šta misliš da je važno u ovoj priči do sada?
L	Ja mislim da je ta lutka Dejzi važna.
I	Da li ima još nešto na slici što privlači tvoju pažnju a vezano je za ovaj deo teksta koji si pročitao?
L	Pa njena mladja sestra i ova lutka koju drži u ruci.
I	Da li su još neki likovi koji se javljaju u prvom pasusu predstavljeni na slici?
L	Predstavljena je njena sestra Beti, mama i tata.
I	A šta ti sada misliš da će se desiti dalje u priči?
L	Pa možda će da Ema izgubi svoju lutku, da je zaboravi pa da se vraća kući.
I	Aha. Odakle?
L	Pa možda će da idu na piknik i možda će ona da je zaboravi kada počnu da se pakuju i ostaće joj u parku.
I	A kako to zaključuješ? Na osnovu slike ili na osnovu teksta?
L	Na osnovu slike i po tekstu sam video da je Emi lutka važna.
I	Hoćeš da mi kažeš kako razumeš ovaj deo ovde [pokazuje rečenicu koja

	sadrži reč <i>called</i>]. Još jednom pročitaj ovo odavde. Kako to razumeš?
L	[čita]: <i>She has lots of dolls, but her favourite one is called /ko:ld/ Daisy. U prevodu bi to značilo „ali njena omiljena se zove Dejzi”.</i>
I	Dobro, hvala ti. Možemo dalje. Čitaj drugi pasus.
L	[čita]: <i>Last /lest/ Sunday, our family went to the park to have a picnic. We took our dog, Treasure, with us and of course, Emma took Daisy too. There THERE were a lot of people in the park because /bikaz/ it was sunny. We found a place near the lake to have our picnic. After lunch, Emma and I went TO on the swings. After a few minutes, Emma said to me, “Betty, I want Daisy on the swing with me. Can you go and get her for me? ”, “OK!” I answered.</i>
I	Dobro, hvala ti. Šta se sada dešava u priči dalje?
L	Pa oni su [pauza] otišli u park da bi imali piknik i poneli su, povelu su psa [pauza] Trežura
I	Šta misliš da je to što si mi sada rekao ... šta misliš da je to?
L	Pa mislim da je to ime psa.
I	Dobro.
L	I naravno povelu su, Ema je povelu Dejzi. Bilo je puno ljudi u parku i bilo je suinčano. Našli su mesto blizu reke za piknik i posle ručka otišli su [pauza]
I	Jesi li nekada video tu reč? [pokazuje reč <i>swings</i>]
L	Nisam.
I	Da li misliš da si je dobro pročitao?
L	Pa mislim.
I	Da li uopšte možeš da predpostaviš šta znači? [pokazuje reč <i>swings</i>]
L	Mislim da znači obala
I	A šta znači ova reč? [pokazuje reč <i>lake</i>]
L	To znači reka.
I	Dobro. A ovo misliš da je ova reč [pokazuje reč <i>swings</i>]
L	Mislim da je to obala [pokazuje reč <i>swings</i>] Ema mi je rekla da hoće i Dejzi da bude na [pauza] ovo ne znam [pauza] i pitala je da li može da ode da je uzme za nju.
I	Da li možeš da povežeš ovo što vidiš na slici sa ovim što se dešava u priči? Šta se dešava na slici?
L	Na slici oni traže mesto za piknik i Beti verovatno pokazuje da je videla dobro mesto.
I	A jel vidiš to što si meni sada rekao. Da li ima tih objekata, tih predmeta, na slici?
L	Nema.
I	A zašto nema, šta misliš?
L	Ne znam, možda je to mesto za piknik malo dalje.
I	A šta misliš da će se dešavati dalje u priči?
L	Možda Dejzi neće da bude tu kada Beti bude došla po nju. Dejzi možda neće biti tu.
I	I šta bi onda bila posledica toga?
L	Ema bi se rastužila i bila bi veoma tužna i tražila bi lutku i možda bi je pas našao. Ili je možda on uzeo.
I	Aha. Hajdemo sada ovako. Da poslednji pasus pročitaš u sebi. Ali dok čitaš, molim te obrati pažnju na ono što ti je nejasno. I kaži mi koliko te je to obeshrabrilo da možda dalje čitaš i koliko si siguran da si razumeo. Hajde sada pročitaj, pa ćemo odmah da razgovaramo o ovom delu.

L	[čita u sebi]: Pročitao sam.
I	Da li ima tu neki deo koji ti je nejasan, nešto što ti je teško da razumeš, zbog koje si se odmah zapitao?
L	Pa jedino ova reč. I ta. [pokazuje reči <i>shouted</i> i <i>sweaters</i>]
I	Nisi ih nikada do sada video. One su ti nove. Da li možeš uopšteno da mi kažeš kako se priča završava?
L	Pas je uzeo Dejzi [pauza] i doneo je Emi [pauza] Dejzi je bila u njegovim ustima i on je doneo Emi.
I	Da li ti se sviđa ovaj završetak priče?
L	Aha.
I	Da li ti se sviđa cela priča?
L	Da.
I	Hajde sada da pročitaš naglas ovaj deo u kome si mi rekao da dve reči ne znaš, ali videćemo kako će to da ide.
L	[čita]: But when I went back to our picnic, Daisy wasn't there. "Mum!" I shouted /ʃaut/, "we've lost Daisy!" Dad looked in all the bags and Mum and I looked under our sweaters /swi:trs/and other things, but we couldn't COULDN'T find her. I went to tell Emma the bad news, but when I got GOT there, I saw Treasure. He carried /kariəd/ Daisy carefully /kerful/ in his mouth. "Look!" said Emma, "Treasure has brought Daisy to play with me. He's very kind."
I	Dobro, hvala ti. Da li si sada bolje razumeo, posle ovog drugog čitanja?
L	Pa jesam.
I	Šta misliš, kada bolje razumeš, kada čitaš u sebi ili kada čitaš naglas?
L	Kada čitam naglas.
I	Aha, a sada mi reci da li ima nešto na slici što možeš da povežeš sa ovim delom?
L	Pa ...
I	Šta u stvari slika prikazuje?
L	Slika prikazuje kako oni idu, dolaze u park, mislim da tu Beti pokazuje na mesto za piknik, i [pauza] oni [pauza] su [pauza] i oni kreću sa svojim torbama i Ema nosi Dejzi.
I	Hajde da vidimo ovaj poslednji pasus, da vidimo tačno šta se dešavalo. Šta ovo kaže Ema na početku?
L	[prevodi]: Dezji nije bila tamo.
I	Dobro, a onda kaže, šta je ovo? Da li znaš ovu reč? [pokazuje reč <i>shouted</i>]
L	Pa, u žargonu da je ispalila
I	Na koju te reč to podseća? Kako se to kaže na engleskom?
L	/ʃat/
I	Da li si tu reč naučio u školi ili u video igricama?
L	U video igricama.
I	I to te podsetilo na tu reč. Ali pogledaj ovde, imaš ovo, zašto su ovde znaci navoda?
L	To je Beti rekla mami.
I	Pogledaj ovde, to što si shvatio da li bi odgovaralo toj situaciji?
L	Pa možda bi bilo „rekla sam.“
I	Kad ponovo razmisliš, to bi se bolje uklopilo?
L	Da.
I	Da li si ti obratio pažnju na ove znake navoda?

L	Jesam.
I	I sada ti je logičnije. I ovde, kome su ove reči upućene?
L	Isto mami.
I	Da li znaš ovu reč ili ? [pokazuje reč <i>lost</i>]
L	Izgubljeno, izgubili smo.
I	Da li je i to iz škole? Odakle znaš tu reč?
L	Vidjam je i kad čitam na engleskom kod kuće, i u školi se nekad pominje.
I	Misliš da si je video u knjizi?
L	Da.
I	A veliki je problem ova reč ovde, jel tako?
L	Da.
I	Hajde da vidimo da li možemo da pogodimo šta znači. Kako bi ti sada razmišljao? Odakle bi krenuo da čitaš ponovo? Da li bi čitao celu rečenicu da bi video šta ta reč znači?
L	Ne, ja bih čitao odavde: " <i>Mum and I looked</i> " [pauza] Možda su to neki tanjirići.
I	A šta posle toga sledi. A šta ovo znači? [pokazuje <i>and other things</i>]
L	" <i>and other things</i> ", i druge stvari.
I	To znači tako razumeš. I šta se onda desilo?
L	I nisu je našli.
I	I šta se tada dešava u priči?
L	Pa ona je otišla do Eme da joj kaže loše vesti, ali kada je stigla tamo, videla je psa kako pažljivo nosi Dejzi u ustima i Ema je rekla: „Gledaj, Treže je doneo Dejzi da se igra sa mnom.”
I	A šta ti misliš, je li ovo neko uobičajeno ime za psa?
L	Pa mislim da nije.
I	A jel te to podseća na neku reč? Da li si je ranije video?
L	Jesam, to je „blago”.
I	A gde si to ranije video?
L	To sam obično u igricama vidjao.
I	Da li postoji neka igrica koja se tako zove?
L	Pa ne, ali ima neka igrica sa piratima, volim pirate, pa često igram takve igrice, a oni traže blago.
I	I tu si reč tamo naučio. Sad me interesuje, kako si pročitao ovu reč? [pokazuje <i>sweaters</i>]
L	/swi:ters/
I	Zašto si je tako pročitao, da li te podseća na neku reč?
L	Kao /swi:t/, to je kao slatko, pa sam onda po tome
I	Pa si onda pomislio da tako treba da se pročita. Kada pogledaš priču u celini, da li ti se ona dopada?
L	Aha.
I	Kakav bi joj ti naslov dao na engleskom?
L	Ja bih joj dao naslov <i>Daisy's Lost</i> . Izgubljena Dejzi. Ili <i>Lost Daisy</i> .
I	A koji ti se deo priče najviše dopada?
L	Pa ovaj zadnji.
I	A zbog čega?
L	Zato što tu ima najviše radnje, i zanimljivo je pošto se tu izgubila Dejzi.
I	Jesi li ti taj deo najbolje razumeo?
L	Pa ne, ali onoliko koliko sam razumeo, on mi je onako najzanimljiviji.
I	A koji si deo najbolje razumeo?

L	Ovaj prvi.
I	A zbog čega misliš da si ga najbolje razumeo?
L	Zato što nema tu toliko novih reči.
I	Dobro. A sećaš li se da sam te pitala da predpostaviš šta će se desiti posle prvog pasusa. Jesi li pogodio?
L	Pa desilo se da jem, da se na neki način izgubila Dejzi. I to tek u trećem pasusu.
I	Šta si još pogodio?
L	Pa da je pas uzeo Dejzi.
I	A šta ti je pomoglo da pogodiš to?
L	I ovako kad gledam crtane filmove i čitam knjige, obično se to dešava [pauza] da se izgubi tako neka stvar koju mnogo volimo. Neko je drugi uzme.
I	A da li misliš da se isto tako i u životu dešava?
L	Pa može da se desi, ali ne verujem da se to dešava baš često.
I	A zašto nam je to zanimljivo u pričama? Zašto je to tebi zanimljivo?
L	Pa zanimljivo mi je zato što se ne dešava svakodnevno. A sviđa mi se zato što su pomenuli da Ema mnogo voli Dejzi, da joj je ona mnogo draga, pa je onda nekako, kada ju je izgubila, više se [pauza]
I	Da li si ovakve priče, sa sličnim događajima, čitao na engleskom?
L	Jesam, jednu takvu priču sam pročitao.
I	Sada je čitanje trajalo oko 10-15 minuta, da li bi ti voleo svakodnevno da čitaš ovakve interesantne priče?
L	Voleo bih.
I	Šta misliš, da li sam treba da se potruđiš da pronadeš ovakve priče, ili neko treba da ti pomogne?
L	Pa mislim da bih mogao sam da ih nađem, ali možda bi mi trebala nečija pomoć da bih pronašao knjige o tome.
I	Da li je ovo bila za tebe predugačka priča?
L	Ne.
I	Da li je bila prekratka?
L	Pa ne, bila je onako srednja.
I	Da li ti voliš priče te dužine?
L	Da, ne volim da budu mnogo dugačke, ali kada su kratke, onda mi je dosadno.
I	A kako bi se osećao da čitaš neku priču i u njoj se u svakom redu javljaju po tri nove reči?
L	Pa ne bi mi bilo prijatno. Ja volim da čitam, a kada ne mogu nešto da pročitam, to me nervira, i onda bih verovatno uzeo rečnik i tražio bih reči ili bih na internetu pogledao. A ako nisam u kući i nemam rečnik, onda bih pokušao ako znam neku sličnu reč, probao bih nenkako da razumem, ili da pogodim ako ima neka slika, pa da pogodim na osnovu slike, ili prethodne radnje. Obično tako radim kada ne znam neku reč, a nemam rečnik, pročitam šta se pre toga dešavalo, onda preskočim tu reč, pa posle probam tu reč da razumem.
I	Da povežeš dva dela teksta?
L	Da.
I	A kako bi tebi izgledala ta priča bez slike?
L	Pa bila bi mi jasnija sa slikom. Jer ovako, ja bih možda mogao da zamislim kako bi to izgledalo, ali sa slikom je mnogo lakše da se to zamisli.
I	Da li slika služi samo da ti bude lakše ili ima i neku drugu ulogu?
L	Pa ima, na primer, kod ovih reči koje ne znam, kod novih reči, ona mi pomaže ako uočim nešto na slici, možda je to ta reč, možda to znači.

I	Da li kada čitaš stalno gledaš u sliku?
L	Pa svaki put kada pročitam jednu rečenicu, ja pogledam u sliku. Često to radim jer mi slika pomaže da bolje shvatim šta sam pročitao.
I	A pre nego što počneš da čitaš, da li gledaš sliku?
L	Svaki put kada čitam, i na srpskom i na engleskom, ja prvo deset, pet do deset minuta, gledam u sliku, i onda opet na osnovu slike skoro pogodim šta se dešava.
I	Da li slika može da bude razlog da t uzmeš nešto da čitaš?
L	Pa često. Kada vidim neku sliku koja je privlačna, privuče me da pročitam baš to.
I	Šta bi prvo izabrao da čitaš – tekst sa slikom ili tekst bez slike?
L	Pa prvo bih uzeo tekst sa slikom, a posle bez slike.
I	Kako bi se osećao da imaš tekst bez slike i bez naslova?
L	Pa ne bi mi bilo toliko zanimljivo da čitam. I možda bi mi bio nejasan u nekim delovima, jer slika mi puno pomaže da shvatim šta se dešava.
I	Da li ti je ova slika zaista pomogla da razumeš sve delove teksta?
L	Pa pomogla mi je da razumem i da pogodim šta će se dalje dešavati.
I	Da li si pogodio uglavnom na osnovu slike ili na osnovu teksta?
L	Pa i na osnovu teksta, ali možda više na osnovu slike. Jer video sam kako Beti pokazuje prstom pa sam pretpostavio da ona traži .
I	Pročitaj još jednom poslednju rečenicu.
L	[čita] <i>He is very kind.</i>
I	A gde si tu poslednju reč naučio?
L	Tu reč sam naučio kada sam čitao kod kuće .
I	Kada čitaš na internetu, pa posle čitaš u školi, da li si primetio da bolje čitaš nego drugi?
L	Pa jesam, jer ja na internetu, na Youtube-u gledam neke eksperimente, pošto moja mama predaje fiziku, volim da gledam eksperimente, i ona gleda, pa me to privuče, a često su na engleskom, ja pokušavam da ih razumem, od 4. razreda sam napredovao pošto sam za letnji raspust puno gledao eksperimente.
I	Znači, tvoja mama koristi engleski za posao.
L	Pa da, ona koristi, ali samo kada pravi prezentacije i snalazi se dobro na računarima. Koristi engleski kada priprema čas.
I	Kako bi mogao sebe sada da opišeš što se tiče tvoje veštine čitanja? D ali si zadovoljni da li imaš nrki plan kako bi mogao da napreduješ još više?
L	Pa mislim da dobro čitam, ali ima tu nekih grešaka koje primetim kada pročitam dva, tri puta, tada primetim da ima nekih grešaka u čitanju.
I	Kako znaš da si pogrešio?
L	Pa kada čitam neku reč, kada je izgovaram, nije meni teško da je izgovorim, nego vidim da je drugačiji izgovor kada čujem reč na engleskom, i onda bi možda trebalo da uzmem na Google prevodiocu da ukucam tu reč i onda mogu da čujem kako ona zvuči i da nekoliko puta ponovim izgovor.
I	Da li si to već radio?
L	Jesam.
I	Šta misliš da bi bilo najvažnije i prvo što treba da uradiš da bi još bolje čitao?
L	Pa mislim da treba puno da se čita, svaki dan bar jednu ovakvu priču, ne baš dugačku priču, onako neku srednju, i da se pročita svaki dan po jedna priča, jer to oduzima deset minuta najviše. Ja mislim da je to najvažnije da bi se

	poboljšalo čitanje na engleskom.
I	A šta treba posebno da se zna? Kako ti razmišljaš o jeziku kada čitaš? Šta je tebi najvažnije da bi razumeo tekst?
L	Pa mislim da je izgovor jako bitan.
I	Za razumevanje teksta?
L	Možda da nove reči, da se više obrati pažnja na nove reči.
I	Kako ti učiš nove reči?
L	Isto tako kada čitam, uzmem da čitam, retko kada uzmem da čitam nešto što je primereno za moj uzrast, čitam više ono što je za malo starije od mene, i tu nalazim puno novih reči, uzmem rečnik i proverim šta znače, i onda ih stalno ponavljam, i onda naučim te nove reči, i kasnije nemam problem da ih razumem.
I	Da li ih negde zapišeš, ili su samo u tvojoj glavi?
L	Pa zapišem ih nekoliko puta u nekom blokčetu ili ...
I	Gde si to naučio?
L	To su mi rekli mama i tata i ova nastavnica što dolazi. Napišem nekoliko puta u blokčetu, ali to blokče stalno otvaram i onda vidim šta znači, napišem i šta znači, tako lakše zapamtim. Ili uzmem veliki papir kod kuće pa napišem velikim slovima pa zakačim na vrata, i pošto stalno gledam u vrata, pamtim tu reč.
I	Koju si poslednju reč tako naučio?
L	Pa to često radim kad učim da pišem reči, pošto ja imam taj problem u pisanju, teško mi to ide, ali onako kada vežbam, posle mi postane lako.
I	Imaš li problem kada pišeš na srpskom?
L	Ne, na srpskom nemam, ali na engleskom imam male poteškoće.
I	Kako ti je izgledao ceo naš raugovor? Jesi li se osećao prijatno ili neprijatno, da li ti je bio dosadan ili interesantan?
L	Mislim da je bio interesantan, i da bi trebalo da se [pauza]
I	Da li misliš da će tebi koristiti ovaj razgovor?
L	Pa mislim da hoće.
I	Zbog čega?
L	Pa zato što sad nekako mi lakše ide engleski, ne znam zašto, mislim da ću bolje da znam engleski.
I	Želim da ti se zahvalim i da ti poželim mnogo uspeha u čitanju na engleskom. Mislim da si odlično razumeo koliko je važno čitanje na engleskom, ne samo zbog uživanja i čitanja priča, već i zbog učenja mnogih novih stvari.
L	Da, sad se mnogo koristi engleski.
I	Ti si to već otkrio sa svojom mamom, što je zaista divno. Mislim da će ti koristiti.

APPENDIX 7: Post-reading reflection protocol results (sample)

1 – picture clues; 2 – text clues; 3 – context clues; 4 – deduction; 5 – prediction; 6 – world knowledge (based on Chamot and El-Dinary, 1999, and Rao et al., 2005)

Learner	Q1	Q2	Q3	Q4	Q5	Q6	Q7
L-5-1-4-01	<i>Zato što je uzima iz frižidera. (1)</i>	<i>Toni izgleda zbunjeno na slici, zato sam to stavio. (1, 4)</i>	(incorrect)	<i>Zato što Tina razmišlja na slici. (1, 4)</i>	<i>Zato što Toni upituje nešto, tako izgleda. (1)</i>	(incorrect)	(incorrect)
L-5-1-4-02	<i>Zato što je Toni otvorio frižider i video je čokoladu. (1, 3)</i>	<i>Toni je ušao u kuhinju i video da nema hrane koju je malo pre ostavio na stolu. (1, 3)</i>	(incorrect)	(incorrect)	(incorrect)	(incorrect)	<i>Zato što su Toni i Tina uhvatili majmuna na delu. (4, 6)</i>
L5-1-4-03	<i>Zato što ovde piše čokolada, a on uzima čokoladu. (1, 2)</i>	<i>Zato što on pita gde su mu sve stvari koje su bile na slici jedan. (1, 2, 3)</i>	<i>Zato što on misli da je to ona uradila. (WRONG INFERENCE)</i>	<i>Zato što vidim da ona nešto razmišlja. (1, 4)</i>	<i>Zato što vidi da ona ima ideju.</i>	(incorrect)	<i>. (2, 4, 6)</i>
L-5-1-4-04	<i>Toni uzima čokoladu. (1)</i>	<i>Zato što je nestalo jelo. (1)</i>	<i>Na prvoj slici se nije obradovao, a onda je video da je to njegova drugarica. (1, 3, 4, 6)</i>	(incorrect)	<i>Zato što ona traži bananu a ne objašnjava zašto. (2, 3, 4)</i>	<i>Zato što želi da prevari majmun a da dodje. (5, 6)</i>	<i>Pokazuje prstom na majmuna. (1, 4)</i>
L-5-1-4-05	<i>Uzima čokoladu iz frižidera. (1)</i>	<i>Nema ničeg na stolu, neko mu je uzeo. (1, 4)</i>	<i>Misli da imaju duha u kući. (2, 4)</i>	<i>Izabrao sam jer je vidim da razmišlja. (1, 4)</i>	<i>(Zašto će ti?) Da bi stavili i čekali. (5)</i>	<i>Čekaju da duh dodje. (WRONG INFERENCE)</i>	<i>Izabrao sam ovo zato što znam da majmuni vole banane (4, 6)</i>
L-5-1-4-06	<i>Opređelila sam se za ovo jer on uzima čokoladu iz frižidera. (1)</i>	<i>Opređelila sam se za ovo jer on nešto što je uzeo iz frižidera nije zatekao na</i>	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)

		<i>stolu.</i> (1, 3)					
L-5-1-4-07	<i>Zaokružio sam ovo jer on otvara frižider i uzima čokoladu.</i> (1)	<i>Zaokružio sam ovo zato što on kada je zatvorio frižider i okrenuo se ka stolu ništa nije bilo na njemu što je stavio.</i> (1, 3)	(incorrect)	(incorrect)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)
L-5-1-4-08	(correct, no explanation)	Na slici vidim da on uzima čokoladu i vidim da se pita ... (1, 4)	(incorrect)	(incorrect)	(incorrect)	(incorrect)	<i>Vidim!</i> (1)
L-5-1-4-09	<i>Zato što Toni uzima čokoladu iz frižidera.</i> (1)	<i>Vidim da je Tonijeva hrana nestala.</i> (1, 3)	<i>Zato što Toni misli da ima duhove.</i> (2, 4)	<i>Zato što Tina ima ideju.</i> (3)	<i>Zato Tini treba banana a Toni se pita zašto.</i> (2, 4)	(at random)	<i>Videli su majmuna.</i> (1, 4)
L-5-1-4-10	<i>Zato što piše da uzima čokoladni krem, i zato što to vidim na slici.</i> (1, 2, 4)	<i>Zato što piše da se pita gde mu je hleb i to vidim na slici.</i> (1, 2, 4)	(correct, no explanation)	(incorrect)	(incorrect)	(incorrect)	(incorrect)
L-5-1-4-11	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)	(incorrect)	(incorrect)	<i>Zato što piše: idemo da gledamo TV. A na slici vidim Tonija i Tinu kako odlaze.</i> (1, 2, 4)	<i>Izabrao sam ovo zato što piše: Aha, uhvaćen si, a na slici vidim da Tina pokazuje prstom na majmuna koji krade banane.</i> (1, 2, 4)
L-5-1-4-12	<i>Na slici Toni drži čokoladni namaz, a to piše u ovom odgovoru, pa sam ga zato izabrala.</i>	<i>Na slici se Toni čudi što muje (sic) nestao hleb. U ovom odgovoru takodje</i>	(incorrect)	<i>Devojčica na slici razmišlja, a to je ovde ponudjeno.</i> (1, 2)	<i>Toni je pita šta je smislila, a ona na slici odgovara.</i> (WRONG INFERENCE)	(incorrect)	(correct, no explanation)

	(1, 2, 4)	<i>piše o tome kako se on čudi nestanku hleba, pa sam ga zato izabrala.</i> (1, 4)					
L-5-1-4-13	<i>Zato što sam video da Tony ima neku kutijicu u ruci.</i> (1)	<i>Zato što sam video da je Tony zbog nečeg začuđen.</i> (1, 4)	<i>Zato što sam video kako je Tony prepoznao Tinu i kako ju je pustio unutra.</i> (1, 2, 4)	<i>Zato što sam video Tinu kako stavlja ruku na bradu i kako razmišlja.</i> (1, 4)	<i>Zato što sam video Tonija kako nešto pita Tinu.</i> (WRONG INFERENCING)	<i>Zato što sam video Tinu i Tonija kako odlaze i kako Tina namiguje.</i> (1, 4, 6)	<i>Zato što sam video Tinu kako upire prstom u majmuna.</i> (1)
L-5-1-4-14	<i>Zato što piše da Toni pravi užinu i vidim da uzima čokoladu.</i> (1, 2)	<i>Zato što vidim da je Toni iznenadjen jer mu nema hleba i soka.</i> (1, 4)	<i>Jer piše da je neko na vratima i vidim da Toniju nestaju namirnice</i> (1, 2, 4)	<i>Zato što vidim da Tina razmišlja.</i> (1)	<i>Jer vidim da Toni razume Tinin plan.</i> (4, 6)	<i>Jer vidim da Tina i Toni odlaze.</i> (1, 4)	<i>Jer vidim da je Tina videla majmuna.</i> (1, 2)
L-5-1-4-15	<i>To sam izabrao zato što Toni vadi nešto lepo iz frižidera.</i> (1)	<i>Izabrao sam to zato što Toni izgleda začuđen.</i> (1, 4)	<i>Izabrao sam to zato jer (sic) je začuđen i objašnjava a Tini šta se dešava.</i> (1, 3)	<i>Izabrao sam to jer izgleda kao da smišlja nešto.</i> (1, 4)	<i>Izabrao sam to zato što Toni želi da zna šta će Tini banana.</i> (2, 3)	<i>Izabrao sam to zato što želi da uhvati majmun a.</i> (4, 5)	<i>Izabrao sam to zato što su uhvatili majmuna.</i> (4)
L-5-1-4-16	<i>Videla sam da uzima nešto čokoladno, a pisalo je da on to uzima.</i> (1)	<i>Na slici on deluje začuđen, a u tekstu piše da ne vidi gde mu je hleb i narandža.</i> (1, 4)	<i>Zato što mu je u prošlom stripu nestala narandža i hleb.</i> (2, 3)	<i>Na slici izgleda zamišljeno.</i> (1, 4)	<i>Zato što želi da nauče kradljivca koji je to uradio.</i> (5, 6)	(correct, no explanation)	(correct, no explanation)
L-5-1-4-17	<i>Zato što vidim u tekstu i na slici da Toni nalazi čokoladu.</i> (1)	<i>Zato što vidim u tekstu da je Toni zbunjen zbog nestanka njegove hrane.</i> (1, 4)	<i>Zato što vidim da se Toni javlja i priča sa njom o njegovom problemu.</i> (1, 2, 3, 6)	<i>Zato što vidim njenu ruku na njenim ustima i u tekstu piše „wait, let me think“.</i> (2, 4, 5, 6)	<i>Zato što vidim u tekstu da Toni postavlja jedino normalno pitanje.</i> (2, 4)	<i>Zato što vidim da moraju da čekaju negde dok njihova zamka deluje.</i>	<i>Zato što vidim da pokazuje prstom na majmuna. To jedino može da znači da je uhvatila kradljivca.</i>

						(4, 5, 6)	(1, 2, 4, 6)
L-5-1-4-18	<i>Jer uzima čokoladni preliv.</i> (1)	<i>Jer su sendvič i sokovi nestali.</i> (1)	<i>Jer se iznenadio ko je bio.</i> (4)	<i>Jer se postavila u pozu razmišljanja.</i> (1, 6)	<i>Jer se začudi šta će joj.</i> (4)	<i>Jer su hteli da ga prevare.</i> (4, 6)	<i>Jer su bili iza vrata i posmatrali</i> (1, 3, 4)
L-5-1-4-19	<i>Zato što ovde piše da je video čokoladu, a na slici je on uzima.</i> (1, 3)	<i>Zato što ovde piše da se Toni pita gde mu je hleb i sok, a na slici je to nestalo.</i> (1, 3)	<i>Zato što je Tina došla i njemu je nestala užina, a ovde piše da joj je rekao da mu se nešto čudno dogodilo.</i> (1, 2, 3, 4)	(correct, no explanation)	<i>Zato što ona na slici traži bananu, a ovde on pita šta će mu to.</i> (1, 3)	(correct, no explanation)	(correct, no explanation)
L-5-1-4-20	<i>Jer Toni vadi iz frižidera čokoladni puding.</i> (1)	<i>Jer su na stolu bili hleb i narandža a sad ih nema.</i> (1, 3)	(incorrect)	<i>Toni joj je rekao da su nestali hleb i pomorandž a pa Tina razmišlja.</i> (3)	<i>Tina je rekla da joj treba banana, a Toni se začudio pa ju je pitao šta će joj.</i> (1, 3, 4)	(at random)	<i>Uhvatili su majmuna da krade hranu sa stola.</i> (4, 6)
L-5-1-4-21	<i>Iz frižidera vadi čokoladni puding.</i> (1)	<i>Odjednom se začudi i time je prekinuo svoje misli o izvrsnoj hrani koju je hteo da pojede.</i> (1, 3, 4)	<i>Objašnjava Tini da se nešto čudno dogodilo i da misli da ima duhove.</i> (2, 3)	<i>Tina je zamolila Tonija da je pusti da razmisli o svemu.</i> (3)	<i>Upitao je Tinu zašto joj treba banana, pošto ga je ona pitala da li može da joj da bananu.</i> (2, 3)	<i>Tina blefira i odvodi Tonija iz kuhinje da bi otkrili kradljivca</i> (3, 4, 5, 6).	<i>Otkrivaju kradljivca Tonijeve hrane</i> (4, 6)
L-5-1-4-22	(correct, no explanation for the selected answer, but explains the incorrect answer) (1)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation)	(correct, no explanation for the selected answer, but explains the incorrect answer)
L-5-1-4-23	<i>Zato što na slici Toni drži čokoladu.</i> (1)	<i>Zato što je sa čudjenjem pogledao i nema soka.</i> (1, 4)	<i>Zato što nije bio srećan već odma (sic) želi da ona</i>	<i>Zato što svi kada misle imaju takav položaj.</i> (6)	(incorrect)	<i>Zato što je želela da ode u drugu sobu da bi</i>	<i>Zato što je uperila prstom u majmuna.</i> (1)

			<i>pogleda.</i> (1, 4)			<i>uhvatila krivca tako što će odjedno m ući u kuhinju kad ga upazi (sic).</i> (3, 4, 5)	
L-5-1-4-24	<i>Jer uzima čokoladu.</i> (1)	<i>Jer su sok i pomorandže i hleb nestali.</i> (1)	(incorrect)	(incorrect)	(incorrect)	(correct, no explanation)	(correct, no explanation)

APPENDIX 8 – Running records of focal learners oral reading

Miscues

Type of miscue	Examples	Cueing system used
misreading (non-words)	<p>mispronunciation of past tense inflection for regular verbs <i>-ed</i> as /ed/ in all cases: N = 7 (<i>called, last, because, said, sweaters, carried, carefully</i>)</p> <p>mispronunciation of vowel clusters like <i>-ai-, -au-, -ea-, -ie-</i> when they appear between consonants (non-words): N = 11 (<i>called, near, shouted, looked, sweaters, other, couldn't, saw, carried, said, brought</i>)</p> <p>(non-words): N = 17 (<i>called, her, takes, few, shouted, looked, sweaters, couldn't, find, took, Treasure, because, other, saw, said, brought, kind</i>)</p> <p>(non-words): N = 5 (<i>because, minutes, answered, shouted, Treasure</i>)</p> <p>(non-words): N = 20 (<i>took, Treasure, course, because, few, minutes, answered, shouted, looked, sweaters, couldn't, find, tell, saw, carried, carefully, mouth, said, brought, kind</i>)</p> <p>(non-words): N = 3 (<i>because, answered, brought</i>)</p> <p>(non-words): N = 1 (<i>answered</i>)</p> <p>(non-words): N = 18 (<i>called, gave, her, took, Treasure, us, because, our, shouted, looked, sweaters, couldn't, saw, carried, carefully, said, brought, kind</i>)</p> <p>(non-words): N = 21 (<i>called 2x, our x2, few, said, answered, Treasure, us, looked, shouted, other, couldn't, find,</i></p>	Graphophonic (negative transfer of mother tongue – shallow orthography of Serbian (one letter=single sound))

	<p><i>sew, carried, brought, kind, took, found, her)</i></p> <p>(non-words): N = 1 (<i>Treasure</i>)</p> <p>(non-words): N = 11 (<i>called, Treasure, near, few, looked, sweaters, carried, couldn't, answered, other, kind</i>)</p>	
substitution	<p><i>shout (for) shouted</i></p> <p><i>has (for) was</i></p> <p><i>go (for) got</i></p> <p><i>balls (for) dolls</i></p> <p><i>play (for) place</i></p> <p><i>give (for) gave</i></p> <p><i>give (for) gave,</i></p> <p><i>has (for) was</i></p> <p><i>careful (for) carefully</i></p> <p><i>your (for) our</i></p> <p><i>five (for) few</i></p> <p><i>your (for) our</i></p> <p><i>want (for) went</i></p> <p><i>wants (for) wasn't</i></p> <p><i>on (for) one</i></p> <p><i>in (for) it</i></p> <p><i>he (for) she</i></p> <p><i>in (for) it</i></p> <p><i>want (for) went</i></p> <p><i>bag (for) bad</i></p> <p><i>give (for) gave</i></p> <p><i>was (for) wasn't</i></p> <p><i>the (for) her</i></p> <p><i>live (for) have</i></p> <p><i>in (for) it</i></p> <p><i>to (for) and</i></p> <p><i>go (for) got</i></p> <p><i>found (for) find</i></p>	
omission	<p>omission of the indefinite article (<i>a</i>)</p> <p>omission of a conjunction: <i>and</i></p> <p>omission of the definite article: <i>the</i></p> <p>(<i>swings</i>), <i>the</i> (<i>swings</i>)</p>	
insertion	<p>insertion of a preposition:</p> <p><i>to (went <u>to</u> on the swings)</i></p> <p><i>to (went <u>to</u> on the swings)</i></p> <p><i>to (went <u>to</u> on the swings)</i></p> <p><i>to (went <u>to</u> on the swings)</i></p> <p><i>to (went <u>to</u> on the swings)</i></p> <p><i>to (<u>to</u> near)</i></p> <p>insertion of an article:</p>	

	<i>the (to <u>the</u> school)</i> <i>the (<u>the</u> Emma)</i> <i>the (<u>the</u> Emma)</i> <i>a (<u>a</u> lots of dolls)</i> insertion of an auxiliary verb: <i>is (the doll <u>is</u> always sits)</i> <i>is (<u>is</u> always sits)</i>	
rereading	repetition of individual words	

APPENDIX 9: Key terminology⁹

Accuracy – ability of readers to decode text accurately; a component of reading fluency, determined by the percentage of words a reader can read correctly (independent level: 97-100%; instructional level: 90-96%; frustration level: < 90%).

Alphabetic principle – principle that written spellings systematically represent spoken words in letter – sound correspondences (necessary for reading new words).

Anaphor – a cohesive device that signals the link between parts of text, like pronouns and verb phrase ellipses, which take the meaning from another part of the text.

Aptitude – a set of individual characteristics that correlates with language learning success.

Automaticity – ability to carry out a skill accurately and rapidly, without being able to reflect on the processes involved, and without being able to suppress the skill; a component of reading fluency.

Background knowledge – prior knowledge that readers use in interpreting a text; includes general, cultural and topic-specific knowledge.

Blending – the act of combining sounds rapidly, to accurately represent the word.

Bottom-up processing – interpreting language meaning using knowledge of graphophonic cues and the language system.

Bottom-up models of reading – metaphorical depiction of reading as a mechanical process in which the reader creates a unit-by-unit mental translation of the information in the text, with little interference from the reader's own background knowledge.

Chunking – a decoding strategy for breaking words into manageable parts (e.g., /yes /ter/ day); also refers to the process of dividing a sentence into smaller phrases where pauses might occur naturally.

⁹ The definition of the terms is based on Birch (2008), Cameron (2008), Grabe and Stoller (2011), McKay (2006), Oakhill, Cain and Elbro (2015), Rasinski (2011), and Saviile-Troike (2006).

Cognates – words, related in origin, with similar forms and meanings in another language.

Cohesive devices – words and phrases that signal the link between parts of a text (like connectives, lexical links, anaphors).

Collocation – ways in which words combine with one another regularly (e.g. *vanilla ice cream*).

Comprehension difficulties – appear when children do not make many necessary inferences for meaning making due to poor memory, lack of lexical and background knowledge and the reader's low standards of coherence for reading.

Comprehension monitoring – a metacognitive skill of reflecting on one's own comprehension and attempting to remedy if the text does not make sense (due to misreading or missing a word in a text, or meeting an unfamiliar word); depends on prior knowledge and inferencing skill.

Connectives – cohesive devices that can explicitly signal the relation between events in a text (e.g. temporal, causal, contrastive, and continuity).

Context – knowledge of the part of text that has been read and understanding of the writer's ideas and the discourse pattern.

Context clues – using words or sentences around an unfamiliar word to help clarify its meaning.

Cueing systems – sources of information the reader uses to make sense of text: semantic system (meaning), syntactic system (grammatical patterns and language structures), grapho-phonetic system (sounds and symbols, visual information of print conventions).

Cues – linguistic signals showing a specific semantic or grammatical function.

Decoding – understanding the relations between letters or letter combinations (graphemes) and the corresponding sounds (phonemes) in the language; the ability to translate a word

from print to speech, usually by employing knowledge of sound symbol correspondences; also the act of deciphering a new word by sounding it out.

Deep orthography – the alphabetic code where there are many irregularities in grapheme-phoneme correspondence (e.g. English).

Discourse – a linguistic unit larger than a sentence.

Discourse knowledge – knowledge of discourse organisation, i.e. patterns and features of discourse.

Discourse organisation – structural framework of discourse, patterns and features of discourse that reflect genre, writers' intentions, flow of information, text structure and types of information being presented.

Dual Coding Theory (DCT) – a unified theory of reading and writing stating that our linguistic and nonlinguistic experiences are retained in our mental representations in two separate mental systems/codes: the verbal code (for representing and processing language) and the nonverbal code, or imagery system/code (for processing nonlinguistic objects and events).

Dyslexia – specific word reading problems, inability to map phonemes to corresponding graphemes and to blend letter-sounds into recognisable words.

EFL – English as a foreign language (see also L2), learned formally in school, usually not needed for communication, education and/or employment in the society, but having some future purpose.

ESL – English as a second language (see also L2), learned both informally and formally in schools as an official language of the society, needed for communication, education and employment.

Executive control processing/processor – operation of working memory that focuses attention selectively, attends to priority tasks, allocates task operations strategically, sets goals for reading, monitors comprehension and repairs comprehension problems.

Exposure to print – total amount of reading done by learners over a long period of time.

Extensive reading – approach to the teaching and learning of reading in which learners read large quantities of material that are within their linguistic competence.

Expository text – a factual text type (non-fiction text, informational text, like textbooks, web pages, journal articles) aiming to inform, describe, discuss, or explain the content.

Fix-up strategies – strategies, like rereading, checking the meaning of a word, making inferences, which are applied by skilled readers upon detecting a miscomprehension.

Fluency – ability to read text quickly, accurately, and with proper expression; it provides a bridge between word recognition and comprehension, and involves a combination of speed, accuracy and fluidity of processing in reading; a relative concept that must take into consideration reading task, reading topic, reader's age and amount of L2 exposure.

Function words – a set of words which carry grammatical information (nouns, verbs, adjectives, and adverbs) and make the core vocabulary.

Graphophonic cues – a combination of reading cues using letter shapes and sound–symbol correspondences.

Hyperlexics – readers (usually children) with good word reading skill (that is unusual and premature), but poor comprehension (may also have a range of behavioural, emotional and intellectual problems).

Inferencing – understanding that goes beyond the explicit information of the text; ability to draw a logical conclusion based on explicit information in a text and background knowledge; necessary inferences integrate the sentence meaning into the mental model of the text, through local cohesion (connecting words and phrases) and global cohesion (connecting parts

of the text); non-necessary inferences (elaborative inferences) are not necessary for comprehension, but are made to enrich the mental model.

Interactive models of reading – metaphorical depictions of reading as some combination of bottom-up and top-down processes, though typically not a full combination of all aspects of top-down and bottom-up models.

Interference – also called negative transfer; influence of L1 rule or structure on L2 use in an inappropriate way.

L1 – first language, also called mother tongue or native language; learned in childhood informally.

L2 – foreign language, or second language, or target language (see also EFL and ESL); usually studied formally in school.

Language Threshold – general level of second-language ability that allows a reader to understand a text fluently according to the reader's purpose; above the threshold, a reader is able to call on strategic reading processes (both first-language and second-language) effectively; the threshold varies with specific tasks, topics and reader purposes.

Letter-sound knowledge – ability to relate letters and sounds; knowledge that a sound may have more than one spelling, and a spelling may have more than one sound (like in English deep orthography).

Letter-sound relationships – consistent relations between a given letter and its phonemic variants, and a given sound and its orthographic variants.

Lexical sets – sets of words that have semantic or grammatical similarities (e.g. words for food, classroom terms, words related to botany, words for hedging, nouns, transition words, adverbs).

Linguistic threshold – a threshold that must be reached by L2 readers to allow them to transfer their L1 reading abilities to an L2 reading situation.

Literacy – ability to read and write (both in L1 and L2), involving knowledge and skills necessary for processing written language and for sharing meanings; it is both social and cognitive.

Mental model of a text – (also called 'a situational model') a mental representation of text information; developed in the course of reading a text, integrating inferences and background knowledge with explicitly stated information from the text itself.

Metacognition – higher-level thinking (thinking about thinking,) that enables understanding, analysing, monitoring and reflecting on one's memory and understanding a text; ability to reflect on what one knows.

Metacognitive strategies – strategies, like planning and monitoring, applied consciously by the L2 learner to regulate learning.

Miscue – a misreading of a word or group of words in oral reading; using miscue analysis, it is possible to determine some of the reasons behind this misreading, which often rest in the reader's use of the cueing systems of reading.

Miscue analysis – diagnostic procedure of using the differences between the children's reading and the written words.

Morphology – the study and description of the meanings of morphemes, the smallest meaning components of words.

Morphological awareness – knowledge of word prefixes, word suffixes, word stems and word formation processes.

Narrative text – a text type (usually fictional, like stories) comprising a sequence of causally related events, narrated from the narrator's point of view, concerning characters, their actions, their emotions and mental states, their interactions with other characters and the environment.

Oral reading – reading aloud, by activating motor commands to the mouth to pronounce words audibly; it is usually individual intentional reading for the teacher, but can also be

unintentional whispering (as a form of subvocalizing); oral reading requires effort and attention to produce good pronunciation and intonation; it is useful for learning new words.

Orthography – a writing system for a particular language (can be alphabetic, syllabic or logographic in nature); a script including spelling rules; deep orthography is a script with (e.g. English orthography); shallow orthography (e.g. Serbian orthography).

Parsing – the act of breaking clauses down into their smaller constituent units.

Phoneme – the smallest unit of sound within a language system; it combines with other phonemes to make words.

Phonemic awareness – ability to recognise sounds in words, i.e. to notice, think about, or manipulate the individual phonemes (sounds) in words; the ability to understand that sounds in spoken language work together to make words; the term is used to refer to the highest level of phonological awareness: awareness of individual phonemes in words.

Phonics – a teaching methodology in which letters (graphemes) are matched to sounds (phonemes) in reading aloud.

Phonemic awareness – identifying individual sounds in words.

Phonological awareness – general ability of learners to recognise phonemic sounds in a word, syllables in a word or syllable parts within a syllable (onset and rime), to break words into components and to synthesize the sounds of words.

Phonological processing – the processing of auditory information of speech (e.g. in remembering spoken language and doing tasks that require somebody's phonological awareness).

Prior knowledge – the knowledge of the world a reader brings to reading and uses to construct meaning of a text; see 'background knowledge'.

Productive vocabulary – number of words produced (used in speaking and writing).

Propositions – sentences, clauses, clause-level meaning units.

Prosody – the ability of readers to appropriately use phrasing and expression in oral reading (by interpreting the meanings of punctuation marks and making sense of text); a component of reading fluency, involves intonation, stress, pitch variations, volume, tone, rate, pace, smoothness, emphasis, phrasing and pausing for meaningful interpretation of text.

Punctuation – written symbols, such as full stops/periods, commas, question marks, quotation marks, apostrophes, and the like, that tell the readers how to interpret the text they are reading and how to pronounce the sentences with understanding; the ability to interpret punctuation marks is necessary for fluent reading and comprehension.

Read-alouds – classroom procedure in which the teacher reads aloud to students and students follow along, often reading silently along with the teacher.

Reading – prototypical reading for meaning; components of prototypical reading are reading words aloud, interpreting texts or patterns or scales.

Reading comprehension – (also referred to as ‘language comprehension’) prototypical reading for meaning, reading with comprehension; understanding written language; building a mental model of the contents of the text using identified words; involves activating word meanings, understanding sentences, making inferences (using prior knowledge), comprehension monitoring (using prior knowledge) and understanding text structure.

Reading difficulties – word reading difficulties, text reading difficulties and reading comprehension problems.

Reading processes – cognitive operations that occur in working memory and that draw upon long-term memory.

Reading skills – linguistic abilities used for processing, relatively automatic (e.g. word recognition).

Reading strategies – a set of abilities consciously controlled by the reader.

Receptive vocabulary – number of spoken words understood.

Rereading – activity in which learners reread the same passage or text, searching for new information, repairing comprehension, completing a post-reading activity, or doing fluency-development exercises.

Running records – a type of miscue analysis, involving five levels: graphemic, phonemic, morphological, syntactic and semantic.

Scaffolding – guidance provided by an expert to help the L2 learner do a linguistic task.

Scanning – specialised type of reading in which the reader searches quickly for a specific piece of information or a specific word.

Schemata – background and cultural knowledge that a reader uses to construct meaning of a text being read.

Semantics – the study of the meanings of words, phrases, symbols and signs.

Semantic cues – clues used to recognize words in reading which derive from knowledge of the meaning of the text.

Semantic proposition formation – process of combining word meanings and structural information into basic clause-level meaning units.

Shallow orthography – the alphabetic code with rather regular grapheme-phoneme correspondence (e.g. Serbian); also called ‘transparent’ orthography.

Sight reading – word reading by recognising the unique letter sequence automatically (automaticity in decoding).

Silent reading – matching the letters with abstract mental images of the sounds stored in memory, without producing physical sounds like in reading aloud, which makes reading quicker.

Simple View of Reading – a view that argues that successful reading demands both successful word reading (decoding) and language comprehension (listening comprehension).

Situation model of reader interpretation – reader’s elaborated interpretation of information from the text in terms of his or her own goals, expectations, feelings and background knowledge.

Skimming – specialised type of reading in which the reader reads quickly for a general understanding of the text, for the gist of a passage; involves the strategic skipping of segments of the text and the reading of key parts.

Subvocalizing – a type of nonsilent reading in which a reader is activating the motor commands to produce the sounds of a word, but the word is not audible; it slows down the reading process, but assists the reader to process unfamiliar words and to comprehend better.

Sustained Silent Reading (SSR) – (also referred to as DEAR: Drop Everything And Read) classroom time devoted to silent reading, when teacher and students are reading materials of their own choice; SSR sessions occur on a regular basis, without instruction, evaluation or interruptions.

Syntactic cues – clues used to recognize words in reading which derive from knowledge of sentence grammar.

Syntactic parsing – reader’s ability to take in and process words as larger units of structure so that basic grammatical information can be extracted to support clause-level meaning.

Syntax – the principles and processes defining the rules by which words are put together to form phrases, clauses, sentences in a particular language (grammar).

Text model of reading comprehension – fundamental higher-level comprehension process involving the coordination of ideas from a text that represent the main points and supporting ideas.

Text structure – language features that mark text information and writers’ intentions (e.g. new versus given information, paragraphing, sequence markers, signalled rhetorical patterns, transition phrases and sentences).

Text structure awareness – conscious awareness of the ways in which text information is organised and the signals that provide cues to this organisation; good readers use text structure awareness for reading comprehension.

Think-alouds – learners’ revealing of their thinking processes by verbalizing (connections, questions, inferences, and predictions) during reading aloud.

Top-down processing – interpreting language meaning by using prior knowledge of the content and the context to guess the meaning of unfamiliar words and larger chunks of written text.

Top-down models of reading – metaphorical depiction of reading that characterises the reader as someone who has a set of expectations about text information, directs the eyes where to look on the page and samples enough information from the text to confirm or reject the hypothesised expectations.

Transfer – use of L1 knowledge (e.g. phonological, syntactic, strategic) in L2 tasks; these cross-linguistic influences can be positive or negative (see ‘interference’).

Vocabulary access – (also termed ‘lexical access’) the speed and automaticity of identifying words during reading by retrieving them from long-term memory; in second-language contexts it is possible to recognise a word (word recognition), but not have any useful meaning entry for that word stored in the lexicon.

Vocabulary breadth – the number of words in the vocabulary; a typical adult’s vocabulary is estimated at around 50,000 words; children acquire several new words a day.

Vocabulary depth – the amount and detail of knowledge of words (relations and associations between individual words); levels of knowledge of the meaning(s) of a word; knowledge of the meanings of ambiguous words.

Word reading – decoding single written words either by making grapheme-phoneme associations (phonics) or by recognising the unique letter sequence (sight reading, automaticity in decoding).

Working memory – active component of memory processes in cognition; the sort of memory used for remembering words within a sentence, necessary for meaning making when processing a text; it is limited in capacity, retains active information for a relatively short period of time and integrates information and processes to construct comprehension; it contrasts both with short-term memory (needed for repetition of facts) and long-term memory (permanent memory store).

Working memory activation – process in which information that is sufficiently excited (electrically and chemically in the brain) becomes part of the working network of information being used actively in cognitive processing.