

ISSN 2029-7564 (online) SOCIALINĖS TECHNOLOGIJOS SOCIAL TECHNOLOGIES 2013, 3(2), p. 316–329



#### Vilhelmina Vaičiūnienė

Mykolas Romeris University, Lithuania, vvaiciun@mruni.eu

Daiva Užpalienė

Mykolas Romeris University, Lithuania, duzpal@mruni.eu

doi:10.13165/ST-13-3-2-06

Abstract

Escola Superior de Gestão e

Tecnologia

MYKOLO ROMERIO UNIVERSITETAS

**Purpose** – this research is aimed to identify the metacognitive online reading strategies employed by MRU students and assess the interrelation between online reading strategies and metacognitive awareness.

**Design/methodology/approach** – the authors present and evaluate the findings obtained by using Online Survey of Reading Strategies (OSORS), the survey, which helped to identify MRU students' metacognitive online reading strategies in a foreign language learning context. The methods applied in the research were the following ones: literature review and descriptive analysis of the obtained quantitative data. The quantitative research and descriptive analysis of the data received from the survey was applied. The target group of the study conducted at MRU consisted of 89 full-time students having different online reading experience. The sample was composed of students from five Bachelor study programmes studying in the academic year of 2012-2013. The instrument of the research (OSORS) was composed of 38 items.

Socialines technologijos/Social Technologies

© Mykolo Romerio universitetas, 2013

**Findings** – the findings obtained through the survey revealed that readers work directly with the text to solve problems while reading online. However, a low score on any of the subscales of the inventory (i.e. Support strategies use) indicates that there may be strategies in these parts that students might want to learn about and consider using them when reading online. By focusing students' attention on the metacognitive reading strategies identified in the OSORS language, teachers could help students improve their online reading ability. Teachers should include strategy awareness as training component in their students' online learning tasks.

**Research limitations/implications** – the research sample is rather limited (89 participants).

**Practical implications** – seeking to develop students' online reading capacity, it is valuable for teachers to discover students' preferences for online reading strategies and identify encountered problems before focussing on the online reading issues, in which MRU students need the most help.

**Originality/value** – the findings in relation to the usage of metacognitive online reading strategies employed by MRU language learners imply that reading comprehension is not only a matter of language proficiency, but, in part, a matter of metacognitive reading online strategies.

**Keywords:** metacognitive awareness, online reading strategy, university studies, foreign language learning.

Research type: research paper.

## 1. Introduction

Scholars researching reading techniques and strategies emphasize differences in reading printed texts and online texts, pointing at a shift of focus in reading medium due to technologies. Students engage in diverse literacy experiences beyond conventional print texts. Anderson (2003) argues that reading should be an engaging and meaningful activity. Studies by Biancarosa and Griffiths (2012, p. 142) in this field evidence that technology is "a tool for acquiring the vocabulary and background knowledge [...]".

Students turn to the Internet, search for and browse information online, do interactive tasks with the purpose of foreign language learning. Kymes (2007) involved in online reading and online readers' behaviour research argues that students possess good computer and digital skills. However, "teachers may falsely assume that students are also able to comprehend and analyze the information they locate, it is not clear how the theories and practices of literacy, learning, and instruction are affected by the consequences of online texts" (Kymes, 2007, p. 16). Leu *et al.* (2008) indicate behavioural differences between online and offline reading. Research into metacognitive online reading and reading theories suggest that students who want to comprehend information presented online must be able to use certain strategies and techniques. Therefore, "reading in the on-line environment has become a critical literacy skill" (Lai, 2009, p. 134).

The article aims to analyse metacognitive reading strategies used by MRU students in the context of foreign language learning in pursue to identify the most common online reading patterns. To discover university students' current online reading strategies is valuable in order to help students improve their reading skills and cope with difficulties. Metacognitive online reading strategies are important for students because they browse the Internet, carry out class research, read and analyse professional texts, prepare for exams, do interactive tasks, learn professional vocabulary, etc. Anderson (2003, p. 1) assumes that "the primary purpose of instruction is to raise learners' awareness of strategies and then allow each to select appropriate strategies to accomplish their learning goals". Students' increased awareness of metacognitive reading online strategies motivates and encourages them to apply these strategies in practice. A learning atmosphere and guidance provided by teachers assist and stimulate students to choose the appropriate online reading strategies.

The objective of the paper is best achieved through the evaluation of the obtained data of Online Survey of Reading Strategies (OSORS) (Anderson, 2003). The survey explores MRU students' metacognitive reading online strategies applied in a foreign language learning context.

#### The research tasks:

To define the interrelation between online reading strategies and metacognitive awareness.

To identify the metacognitive online reading strategies employed by university students.

# 2. Theoretical Background

### 2.1. Online reading strategies and metacognitive awareness

Researchers in hypertext, educational technology, instructional practices and literacy wish to understand how technology has changed reading habits and practices. Despite of decades of research conducted by many scholars (Mayer, 1997; Leu, 2002; Kymes, 2007; Coiro and Dobler, 2007; Biancarosa and Griffiths, 2012; McMahon and Oliver, 2003; Leu *et al.*, 2008), there is still a hot discussion on comparability of the findings and differences between print and online texts. Kymes (2007, p. 12) goes further by considering "new conceptualizations of both literacy and literate practices", whereas Anderson (2003) discusses the ways of reading different types of texts: nonlinear texts, multiple-media texts, interactive texts. The author analyses such issues as the ways to increase online reading efficiency, what skills and strategies to use for information searching, which are just some of the challenges that teachers/learners encounter in the context of foreign language learning. Kymes (2007, p. 16) suggests that "much of the work with online texts has either argued for the possibilities and potentials afforded by these new mediums, compared the new medium (computers) to the old (print texts), or attempted to justify a new and radical approach to teaching literacy".

Ramli et al. (2011) point at appropriate reading strategies that can lead to success in text comprehension. Therefore, online reading issues resulted in need of research of "new digital- and media-literacy strategies" (Kozdras, Welsh, 2008). The research findings on reading in new medium collected by Leu et al. (2004), Leu et al. (2008), Coiro and Dobler (2007), Kymes (2007), Biancarosa, Griffiths (2012), Hodgson (2010), Ramli et al. (2011) indicate that many of the strategies used in print texts can be adapted for the reading of online texts and there is interrelation of online and offline reading behaviours, e.g., students who read a diversity of print material more frequently are also involved in frequent online searching-information activities and more enjoy reading online. However, a more-in depth comparison of print and online reading environments explored by Leu (2002), Hodgson (2010), Kymes (2007), Zhang and Duke (2008), Anderson (2002) suggests that reading skills and strategies can not be simply transferred from the print medium to the online environment as "the online reading requires greater levels of strategic knowledge, and perhaps even different forms of knowledge in order to successfully navigate the increasing amounts of information available in an online global environment" (Kymes, 2007, p. 13). Anderson (2003, p. 3) refers to strategies as the conscious actions that learners take to improve their language learning by indicating that "strategies are related to each other and must be viewed as a process and not as a single action". Kymes (2007, p. 28) differentiates skill from strategy by indicating that "strategies are effortful behaviours, as they require to allocate energy and resources to engage [...]". The researcher presents "the six attributes to characterize strategy as procedural, purposeful, effortful, wilful, essential, and facilitative" and underlines that "all of these characterizations of behaviour remove strategy from the level of automatic habit and indicates that the reader must cognitively determine that some other type of processing is required to complete the reading task" (p. 29).

A technique which learners use to evaluate, predict, regulate, plan, manage and monitor their online reading is defined as metacognitive awareness (Mokhtarti and Reichard, 2002; Ramli et al., 2011; Anderson, 2003; Suchanova, Šliogerienė, 2006; Anderson, 2002). According to Mokhtarti and Reichard (2002, p. 1), "awareness and monitoring processes are often referred to in the literature as metacognition, which can be thought of as the knowledge of the readers' cognition about reading and the self-control mechanisms they exercise when monitoring and regulating text comprehension". Anderson (2003, p. 10) divides "metacognition into five primary components: (1) preparing and planning for effective reading, (2) deciding when to use particular reading strategies, (3) knowing how to monitor reading strategy use, (4), learning how to orchestrate various reading strategies, and (5) evaluating reading strategy use". By indicating that "each of these five metacognitive skills interacts with each other" (Anderson, 2003, p. 10), the researcher recommends "rather than focusing students' attention only on issues related to reading content, effective teachers should structure a learning atmosphere where thinking about what happens during online reading will lead to stronger learning skills" (p. 5). The role of teachers is to assist readers in the process of online information processing, i.e., "to explore different learning strategies, by experimenting and evaluating, and eventually choosing their own set of effective strategies" (Chamot, 2004, p. 5). Moreover, "without this new literacy, surfing blindly and randomly could be daunting and fruitless", as it is stated by Lai (2009, p. 134). Metacognition is related to motivation and learning process results because it "fosters independent learning by providing personal insight into one's own thinking. Such awareness can lead to flexible and confident problem solving as well as feelings of self-efficacy and pride" (*Paris, Winograd,* 1990, p. 1). In this manner, Anderson (2003, p. 1) assumes that "the primary purpose of instruction is to raise learners' awareness of strategies and then allow each to select appropriate strategies to accomplish their learning goals". Mokhtari and Sheorey (2002, p. 1) indicate that students by "becoming aware of their own thinking as they read and by being informed about effective problem-solving strategies" can enhance online reading comprehension.

Mokhtari and Sheorey (2002, cited by Ramli *et al.*, 2011, p. 197) distinguished the following metacognitive strategies:

1. *Global reading strategies* – readers carefully plan their reading by using techniques, such as having purpose in mind and previewing text.

2. *Problem Solving strategies* – readers work directly with text to solve problems while reading, such as adjusting speed of reading, guessing meaning of unknown words, rereading text.

3. *Support strategies* – readers use basic support mechanisms to aid reading, such as using dictionaries, highlighting and taking notes.

## 2.2. Research methodology

Before focussing on the online reading strategies, in which students are in need of assistance and training, it is useful for language teachers to find out students' current online reading strategies and reading comprehension problems encountered.

The instrument used for the research was "Online SORS (OSORS)", the survey instrument developed by Anderson (2003, p. 30). According to Ramli *et al.* (2011, p. 198), "the survey is an adaptation of Mokhtari and Sheorey's (2002) categorization of metacognitive strategies for ESL learners (MARSI)".

The primary aim of the survey was to explore the strategies used by students within the context of academic online reading. In addition, the obtained findings resulted in the discussion about what reading strategies, how and when to use them and in this way helped students increase awareness of online reading strategies. The aim of the conducted survey was to collect data about the strategies students generally use while reading online materials in the context of academic learning, e.g., surfing the Internet, doing research for class, reading textbooks for homework or examinations, reading reviews, articles, etc. The instrument of the research, "Online SORS "(OSORS), adapted by Anderson (2003, p. 1), allowed students to report on their reading habits online and provide data on the strategies employed while reading materials for foreign language learning. The survey consists of 38 items that measure metacognitive reading strategies. The items are subdivided into three categories (18 items on Global Strategies, 11 items on Problem Solving Strategies and 9 items on Support Strategies), delivered and collected manually. Each student was asked to answer the questions by using the following five-point Likert scale provided by Anderson (2003, p. 30): "each statement is followed by five numbers 1, 2, 3, 4, 5, and each number means the following:

- '1' means I never or almost never do this
- '2' means I do this only occasionally
- '3' means I do this sometimes (about 50% of the time)
- '4' means I usually do this
- '5' means I always or almost always do this".

In order to assess students' reported data, the study referred not only to the five-point Likert scale, but also to the scoring guidelines provided by Anderson (2003, p. 32): "the interpretation guidelines helped to understand averages:

high use of strategy if the mean is 3.5 or higher,

moderate use if the mean is of 2.5 to 3.4,

low use if the mean is 2.4 or lower".

The target group of the study conducted at MRU consisted of 89 full-time students having different online reading skills. They were students of five Bachelor study programmes (Financial Economics (48), Business Informatics (10), Translation and Editing (21), English for Specific Purposes and the Second Foreign Language (5), English and the Second Language Teaching (5), studying in 2012-2013.

The average for each subscale shows which strategies (i.e., Global, Problem Solving, or Support strategies) students refer most often when reading online.

# 3. The OSORS research findings

The conducted study among MRU students is based on the analysis of the findings obtained by using Anderson's (2003, p. 30–32) "Online Survey of Reading Strategies (OSORS)".

### 3.1. Top and bottom online reading strategies

On the basis of the obtained quantitative data, the top and the bottom metacognitive reading online strategies were identified. The online reading strategies favoured/not favoured by the respondents were identified by using "the Likert scale" (Anderson, 2003, p. 30). Numerals in brackets indicate the number of students using the particular strategy (see Table 1).

Global Strategies			
Тор	Bottom		
Strategy 32. "I scan the on-line text to get a basic idea of whether it will serve my purposes before choosing to read it". (18)	Strategy 3. "I participate in live chat with native speakers of English" (29)		
Strategy 6. "I look at the overall view of the text before I start reading online". (17)	Strategy 30. "I check to see if my guesses about the on-line text are right or wrong". (22)		

Table 1.	Top and	bottom	reading	strategies
----------	---------	--------	---------	------------

Strategy 33. "I read pages on the Internet for fun". (17)	Strategy 23. "I use typographical features like bold face and italics to identify key information". (18)		
Strategy 14. "When reading online, I decide what to read carefully and what I can choose to ignore". (15)	Strategy 2. "I participate in live chat with other learners of English". (16)		
Strategy 5. "I think about what I already know to help me understand what I am reading online". (13)	Strategy 27. "I try to guess what the content of the on-line text is about when I read". (9)		
Strategy 27. "I try to guess what the content of the on-line text is about when I read". (10)	Strategy 32. "I scan the on-line text to get a basic idea of whether it will serve my purposes before choosing to read it". (7)		
Problem S	trategies		
Тор	Bottom		
Strategy 16. "When the online text becomes difficult, I pay closer attention". (26)			
Strategy 11. " <i>I try to get back on track when I lose concentration</i> ". (25)			
Strategy 9. "I read slowly and carefully to understand what I am reading online". (18)			
Strategy 28. "When on-line text becomes difficult, I re-read it to increase my understanding". (17)			
Strategy 13. "I adjust my reading speed according to what I am reading online". (15)			
Strategy 31. "When I read on-line, I guess the meaning of unknown words or phrases". (12)			
Strategy 31. "When I read on-line, I guess the meaning of unknown words or phrases". (10)			
Support S	-		
Тор	Bottom		
Strategy 15. "I use the links to reference materials (like online dictionaries) to help me when I don't understand what I am reading". (38)	Strategy 12. "I print a copy of the online text so I can write on it and make notes". (22)		
Strategy 37. "When reading on-line, I translate from English into my native language". (25)	Strategy 7. "I read out loud to myself when the online text gets confusing or difficult to understand". (20)		
Strategy 38. "When reading on-line, I think about information in both English and my mother tongue". (17)	Strategy 29. "I ask myself questions I like to have answered in the on-line text". (20)		
	Strategy 4. "I take notes while reading online to help understand what I read". (17)		
	Strategy 37. "When reading on-line, I translate from English into my native language". (11)		

The analysis of the students' responses indicates that 7 out of the top reading strategies used by the students are "*Problem Solving*", "*Global*" – 6, and "*Support strategies*" – 3.

The obtained data shows that 6 out of the bottom online reading strategies used by the students are *Global*, 5 strategies are *Support*, and no *Problem Solving* strategies are marked among the bottom online reading strategies. The most widely used among Global strategies are Strategy 32 (*"I scan the on-line text to get a basic idea of whether it will serve my purposes before choosing to read it"*) employed by 20% of the sample and Strategy 6 (*"I look at the overall view of the text before I start reading online"*) used by 19% of the respondents. The latter strategy indicates the importance of graphics for text comprehension. Among *Problem Solving* strategies, the most popular are Strategy 16 (*"When the online text becomes difficult, I pay closer attention"*) and Strategy 11 (*"I try to get back on track when I lose concentration"*), which are practised by a similar part of the sample (29% and 28%). Only three strategies were ranked as top in the group of Support strategies, among them the most frequently used are Strategy 15 (42.4 %) and Strategy 37 (28%).

Although nearly half of the surveyed students (38 out of 89) prioritized the use of Support strategy No. 15 (*"I use the links to reference materials (like online dictionaries) to help me when I don't understand what I am reading"*), the proportion of the top online reading strategies, however, is in favour of Problem Solving and Global strategies.

## 3.2. Distribution of OSORS scores

In order to identify how often students use strategies when reading online, the study referred to the scoring guide provided by Anderson (2003). The interpretation guidelines of the inventory suggest that overall mean scores which are "above 3.5 indicate high scores, while 2.5-3.4 represent average scores, and those falling below 2.4 are law scores" (Anderson, 2003, p. 32).

For the entire sample of students (89), the reported online strategy mean falls into the high range (4.05). Table 1 presents the distribution of scores for the sample of students.

No. of students	of students Minimum Maximum		Mean
89	3.00	5.2	4.05

The average for each subscale shows which strategies (*Global, Problem Solving, Support strategies*) students use most often when reading online. By using scoring interpretation guidelines, the mean score of each subscale (*Global, Problem Solving, and Support Strategies*) was identified (see Table 2).

Table 2. M	ean score	e by subscales
------------	-----------	----------------

Global strategies	Support strategies	Problem-solving strategies
3.14	3.14 3.38	

The evaluated data reveals that means of all three subscales fall into the medium strategy use range (2.5 to 3.4). However, there is little variance in the mean scores: students scored highest on *Problem Solving strategies* **3.43**, and lowest on *Global strategies* **3.14**. *Support strategies* if mathematically rounded from **3.38 to 3.4** outscored *Global strategies* and are close to the mean score of *Problem Solving strategies*.

The distribution of OSORS scores of each subscale for the sample of students reveals that there is little difference in the number of students (58, 42, 49) of three types of strategies which mean scores fall into the medium use range from 2.5 to 3.4, i.e., below 3.5. However, the largest number of students (46) in this research sample scored highest on *Problem Solving strategies* in comparison to *Global and Support strategies*, which are intensively employed by a much lower number of students, 21 and 26 respectively (see Table 3).

Global strategies use	Students	Problem solving strategies use	Students	Support strategies use	Students
Low (2.4 or lower)	10	Low (2.4 or lower)	1	Low (2.4 or lower)	14
Medium (2.5 to 3.4)	58	Medium (2.5 to 3.4)	42	Medium (2.5 to 3.4)	49
High (3.5 or higher)	21	High (3.5 or higher)	46	High (3.5 or higher)	26

Table 3. Use of strategies by number of students

It is important to note that *Global reading strategies* "can be thought of as generalized, intentional reading strategies aimed at setting the stage for the reading act (e.g., setting purpose for reading, making predictions" (Mokhtari, Reichard, 2002, p. 4). They include reading activities activating prior knowledge, choosing which ideas to ignore or retain, skimming the text for characteristics, using typographical features of the online text to identify important information and some other language learning activities.



Figure 1. Use of Global Strategies

The findings evidence that the majority of the surveyed students (58) assessed their use of *Global strategies* as medium, ranging from 2.5 to 3.4. However, a lot less of respondents, only 21 out of 89, fall into the high strategy use range, i.e., 3.5 or higher (see Figure 1).

Mokhtari and Reichard (2002, p. 4) stated that "Problem Solving strategies provide readers with action plans that allow them to navigate through text skilfully". The findings on the use of *Problem Solving strategies* indicate that readers deal closely with a text in order to cope with problems, such as adjusting speed of reading, guessing meaning of unknown words and rereading texts, visualizing information, pausing to reflect on reading.



Figure 2. Use of Problem Solving Strategies

*Problem Solving strategies* are employed by almost all the surveyed students, indicating medium (42 respondents) or high range use (46 respondents) of them (see Figure 2).

The findings provide significant information about university students' priorities of reading strategies, implying that most of them read online texts meaningfully, guessing meaning of unknown words, rereading and visualizing information. These findings are highly important for university foreign language teachers while dealing with professional, study-subject related online texts which very often are difficult in terms of content and complex vocabulary.

The *Support strategies* according to "Mokhtari and Sheorey (2002) categorization use basic support mechanisms such as dictionaries, online reference links, highlight and take notes, print a hard copy, paraphrase information, and self-question" (Ramli *et al.*, 2011, p. 197).



Figure 3. Use of Support Strategies

Referring to the scoring guide, it was identified that the largest number of students (14) employ low use of *Support strategies* in comparison to *Global and Problem-solving strategies*, which were indicated as low by very few students, just 10 and 1 respectively

(see Figure 3). Using a dictionary or note taking is an important language learning activity, which is not favoured by a part of the respondents. Therefore, university students should be taught how and when to use a dictionary or take notes, especially when learning difficult lexis or professional terms.

# 4. Conclusions

The OSORS based findings provide with important information for researchers and teachers how students could take control of their online reading within the context of foreign language learning.

The conducted research into MRU students' online reading strategies through the OSORS evidences a variety of strategies that readers reported using while reading materials online. Interesting findings in the data reported are the following:

Although for the entire sample of students (89), the reported online strategy mean falls into the high range (4.05), there is a moderate use of all three subscales of reading strategies: the mean for Global Reading strategies is 3.14 and its usage can be regarded as the most moderate, Support strategies are employed slightly higher (3.38), whereas the mean for the Problem Solving subscale points out the highest use (3.43).

The largest number of students (46 students out of 89) employs Problem Solving strategies while reading online. The majority of the top strategies used by online readers are *Problem-solving strategies*. Moreover, this type of strategies is most frequently used. The mean score of the Problem Solving subscale indicates a higher use of this type of strategies (3.43) in comparison to the use of Global and Support strategies (3.14 and 3.38).

The findings imply that online readers work closely with the text to cope with difficulties of reading online. They adjust speed of reading, guess meaning of unknown words and reread difficult text, pause to think about what one is reading. However, the best possible use of the strategies depends on students' reading skills in English and their motivation. A low score on the use of Global and Support strategies evidences that there are types of strategies in these subscales that students need to know about and think over while reading online. By focusing learners' attention on the strategies which usage was identified as insufficient, language teachers should "promote awareness by simply informing students about effective problem-solving strategies and discussing cognitive and motivational characteristics of thinking" (Mokhtari and Reichard, 2002, p. 2). Language teachers should also include the training component of metacognitive online reading strategies in students' online reading tasks. A learning atmosphere and guidance provided by teachers could encourage students to make use of metacognitive online reading strategies in the context of foreign language learning.

### References

- Anderson, N. J. 2002. The Role of Metacognition in Second Language Teaching and Learning. *ERIC Digest*. April 2002, p. 3–4 [interactive]. [accessed on 05-08- 2013]. <a href="http://www.cal.org/resources/digest/0110anderson.html">http://www.cal.org/resources/digest/0110anderson.html</a>.
- Anderson, N. J. 2003. Scrolling, Clicking, and Searching English: Online Reading Strategies in a Second/Foreign Language. *The Reading Matrix.* 3(3) [interactive]. [accessed on 25-07-2013]. <a href="http://www.readingmatrix.com/">http://www.readingmatrix.com/</a> articles/anderson/article.pdf>.
- Biancarosa, G.; Griffiths, G.G. 2012. Technology Tools to Support Reading in the Digital Age. *The Future of Children*. 2(22) [interactive]. [accessed on 25-07- 2013]. <a href="http://futureofchildren.org/futureofchildren/publications/docs/22\_02\_08.pdf">http://futureofchildren/publications/docs/22\_08.pdf</a>>.
- Chamot, A. U. 2004. Issues in Language Learning Strategy Research and
- Teaching. *Electronic Journal of Foreign Language Teaching*. 1(1): 14–26 [interactive]. [accessed on 25-09-2013]. <a href="http://e-flt.nus.edu.sg/v1n12004/chamot.pdf">http://e-flt.nus.edu.sg/v1n12004/chamot.pdf</a>>.
- Coiro, J.; Dobler, E. 2007. Exploring the Online Reading Comprehension Strategies Used by Sixth-grade Skilled Readers to Search for and Locate Information on the Internet. *Reading Research Quarterly*. 42(2): 214– 257 [interactive]. [accessed on 20-09-2013]. <http://www2.warwick.ac.uk/fac/soc/wie/ teaching/masters/newtech/readings/online\_ readingcomprehension\_strategies.pdf>.
- Emily, R. L. 2011. Pearson Research Report: Metacognition: A Literature Review [interactive]. [accessed on 20-09-2013]. <http://www.pearsonassessments.com/hai/ images/tmrs/Metacognition\_Literature\_ Review\_Final.pdf>.
- Hodgson, K. 2010. Strategies for Online Reading Comprehension. *Learn NC* [interactive]. [accessed on 25-09-2013]. <a href="http://www.learnnc.org/lp/pages/6958">http://www.learnnc.org/lp/pages/6958</a>>.
- Kozdras, D.; Welsh, J. L. 2008. Readwritethink. IRA/NCTE. Lesson Plan Hoax or No Hoax?

Strategies for Online Comprehension and Evaluation [interactive]. [accessed on 25-09-2013]. <a href="http://www.readwritethink.org/classroom-resources/lesson-plans/hoax-hoax-strategies-online-1135.html#tabs">http://www.readwritethink.org/classroom-resources/lesson-plans/hoax-hoax-strategies-online-1135.html#tabs</a>.

- Kymes, A. D. 2007. *Investigation and Analysis* of Online Reading Strategies. Dissertation [interactive]. [accessed on 20-07-2013]. <http://dc.library.okstate.edu/utils/getfile/ collection/Dissert/id/73293/filename/73984. pdf>.
- Lai, L. M. 2009. Reading Strategy Awareness Training to Empower Online Reading. *The English Teacher*. (38): 133–150 [interactive]. [accessed on 15-11-2013]. <a href="http://www.melta.org.my/ET/2009/ET2009\_p133-150">http://www.melta.org.my/ET/2009/ET2009\_p133-150</a>. pdf>.
- Leu, D. J. 2002. The New Literacies: Research on Reading Instruction with the Internet and Other Digital Technologies. In: A.E. Farstrup & S.J. Samuels (eds.). *What ResearchHas* to Say about Reading Instruction. 3rd ed. Newark, DE: International Reading Association, p. 310–336.
- Leu, D. J. et. al. 2004. Toward a Theory of New Literacies Emerging from the Internet and Other Information and Communication Technologies. In: R.B. Ruddell & N. Unrau (eds.). *Theoretical Models and Processes of Reading*. 5th ed. Newark, DE: International Reading Association, p. 1570–1613.
- Leu, D. J. et al. 2008. Research on Instruction and Assessment in the New Literacies of Online Reading Comprehension. To appear in: C.
  C. Block & Sh. R. Parris. Comprehension Instruction: Research-Based Best Practices. New York: Guilford Press.
- Luke, S. D. 2010. The Power of Strategy Instruction. *Evidence for Education*. 1(1) [interactive]. [accessed on 25-09-2013]. <http://nichcy.org/research/ee/learningstrategies>.
- Mayer, R. E. 1997. Multimedia Learning: Are We Asking the Right Questions?

- *Educational Psychologist*. 32(1): 1-19[interactive]. [accessed on 25-09-2013]. <a href="http://www.uky.edu/~gmswan3/544/mayer\_1997.pdf">http://www.uky.edu/~gmswan3/544/mayer\_1997.pdf</a>>.
- McMahon, M.; Oliver, R. 2003. Teaching Metacognitive Regulation of Reading Comprehension in an On-line Environment. *Edith Cowan University Research Online*. ECU Publications Pre. 2011 [interactive]. [accessed on 16-09-2013]. <a href="http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=4341&c">http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=4341&c</a> ontext=ecuworks>.
- Mokhtari, K.; Sheorey, R. 2002. Survey of Reading Strategies [interactive]. [accessed on 10-04-2013]. <a href="http://laurenyal.myefolio.com/Uploads/Survey2002Mokhtari.pdf">http://laurenyal.myefolio. com/Uploads/Survey2002Mokhtari.pdf</a>>.
- Mokhtari, K.; Sheorey, R. 2002. Measuring ESL Students' Awareness of Reading Strategies. *Journal of Developmental Education*. 25(3): 2–10 [interactive]. [accessed on 25-04-2013-04]. <a href="http://www.chabotcollege.edu/learningconnection/ctl/FIGs/jumpstart/MARSIpacket.pdf">http://www.chabotcollege.edu/learningconnection/ctl/FIGs/jumpstart/MARSIpacket.pdf</a>.
- Mokhtari, K.; Reichard, C. R. 2002. Assessing Students' Metacognitive Awareness of Reading Strategies. *Journal of Educational Psychology*. 94(2): 249–259 [interactive]. [accessed on 25-04-2013-04]. <a href="http://www.chabotcollege.edu/learningconnection/ctl/FIGs/jumpstart/MARSIpacket.pdf">http://www.chabotcollege.edu/learningconnection/ctl/FIGs/jumpstart/MARSIpacket.pdf</a>>.

- Paris, S. G.; Winograd, P. 2009. Promoting Metacognition and Motivation of Exceptional Children. Special Issue Article, p. 1–9 [interactive]. [accessed on 10-11-2013]. <http://deepblue.lib.umich.edu/bitstream/ handle/2027.42/69089/10.1177\_0741932590 01100604.pdf?sequence=2>.
- Ramli, et al. 2011. Metacognitive Online Reading Strategies of Adult ESL Learners Using a Learning Management System. Theory and Practice in Language Studies. 1(3): 195–204 [interactive]. [accessed on 25-09-2013]. <a href="http://www.academia.edu/466893/">http://www.academia.edu/466893/</a> Metacognitive\_Online\_Reading\_Strategies\_ of\_Adult\_Esl\_Learners\_Using\_a\_Learning\_ Management System>.
- Suchanova, J.; Šliogerienė, J. 2006. Metakognityvinės taktikos ir strategijos įtaka užsienio kalbos mokymosi rezultatams. *Santalka*. 14(2): 98–105.
- Zhang, Sh.; Duke, N. K. 2008. Strategies for Internet Reading with Different Reading
- Purposes: A Descriptive Study of Twelve Good Internet Readers. *Journal of Literacy Research.* 40: 128–162 [interactive]. [accessed on 25-09-2013]. <a href="http://jlr.sagepub.com/content/40/1/128.full.pdf">http://jlr.sagepub.com/content/40/1/128.full.pdf</a>+http://jlr.sagepub.

# METAKOGNITYVINIŲ STRATEGIJŲ TAIKYMAS SKAITANT Elektroninius išteklius universitenių Užsienio kalbos studijų kontekste

#### Vilhelmina Vaičiūnienė

Mykolo Romerio universitetas, Lietuva, vvaiciun@mruni.eu

#### Daiva Užpalienė

Mykolo Romerio universitetas, Lietuva duzpal@mruni.eu

**Santrauka**. Straipsnyje analizuojami studentų strategijų pasirinkimo ir taikymo, skaitant internetinius šaltinius, tyrimo, taikant OSORS instrumentarijų, rezultatai. Gautų duomenų pagrindu buvo įvertintas studentų naudojamos strategijos ir metakognityvinio žinojimo ryšys elektroninių šaltinių skaitymo procese. Tyrimo duomenys analizuoti, taikant literatūros apžvalgos bei kiekybinį ir aprašomosios analizės tyrimo metodus. Tikslinę grupę sudarė 2012–2013 metų 89 įvairių bakalauro studijų programų MRU studentai, taikantys įvairius skaitymo internete strategijas ir įgūdžius. Tyrimui taikyta OSORS anketa (Mokhtari ir Sheorey, 2002; Anderson, 2003), sudaryta iš 38 klausimų (Bendrosios strategijos – 18 klausimų, Problemų-sprendimo strategijos – 11 klausimų, Paramos strategijos – 9 klausimai). Tyrimo duomenų analizei taikyta Mokhtari ir Reichard (2002) vertinimo skalių sistema, kuri rėmėsi penkių balų Likerto skale.

Prieš atkreipiant dėmesį į problemas, su kuriomis susiduria studentai, skaitydami originalius straipsnius internete, naršydami internetinius puslapius ir t. t., užsienio kalbų dėstytojams yra tikslinga išsiaiškinti, kokias strategijas ir kokiu dažniu studentai naudoja skaitydami internete. Įvertinus MRU studentų pateiktus duomenis, buvo nustatyta, kad skaitymo internete pasiekimai priklauso ne vien nuo užsienio kalbos žinių ir gebėjimų, bet iš dalies ir nuo teisingai pasirenkamų bei taikomų metakognityvinių strategijų ir taktikų.

Įvertinus, kokioms strategijoms studentai teikia prioritetus ir gavus trijų strategijų subskalių vidurkius, buvo nustatyta, kurios strategijos yra svarbiausios ir dažniausiai studentų taikomos skaitymo internete procese. Rezultatų analizė atskleidė, kad studentų mėgstamiausios skaitymo procese yra problemų sprendimo strategijos. Taip pat didžiausias studentų skaičius (46) nurodė, kad dažniausiai jie renkasi ir taiko būtent šias, problemų sprendimo strategijas, t. y. tiesiogiai dirba su tekstu ir sprendžia internetinių šaltinių skaitymo problemas, reguliuodami skaitymo greitį, skaitydami tekstą keletą kartų, atspėdami nežinomų žodžių prasmę, skaitydami garsiai, vizualizuodami informaciją ir t. t. Pagal strategijų naudojimo dažnį ir joms teikiamą svarbą nustatyta, kad studentai nelabai mėgsta ir retai naudoja paramos ir bendrąsias strategijas.

Apibendrinant tyrimo rezultatus, galima teigti, jog, siekiant skaitymo efektyvumo ir spartesnio teksto suvokimo, užsienio kalbų dėstytojai turėtų supažindinti studentus su būtinybe naudoti įvairių tipų strategijas. Dėstytojų patirtis, mokymai ir pagalba pratybų metu gali padėti studentams tobulinti strategijų pasirinkimo ir taikymo įgūdžius. Studentai, valdantys metakognityvines strategijas internetinių šaltinių skaitymo procese, paprastai pasiekia geresnius studijų rezultatus.

**Raktiniai žodžiai:** metakognityvinis žinojimas, skaitymo internete strategijos, skaitymas internete, universitetinės studijos, užsienio kalbos mokymasis.