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The Relationship Between Reading Proficiency and Reading Strategy Use: A Study of Adult ESL Learners

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Abstract

This article explores the relationship between reading strategy use and reading proficiency among 121 adult ESL learners. Reading strategy use was measured by the SORS, and reading proficiency was determined by the CASAS Reading Test and BEST Literacy Test. Findings of the study reveal that (a) adult ESL learners are active strategies users; (b) they favor problem-solving strategies more than other strategies; (c) high intermediate learners use the most strategies and advanced learners use the least strategies; and (d) problem-solving and support strategies are more predictive of the reading proficiency. These findings provide implications for teachers of adult ESL students.

According to the U.S. Department of Education, 44% of students in federally funded adult education programs in the United States are English as a second language (ESL) learners (Institute for Educational Sciences, 2010). Many of these learners are at low proficiency levels, and they often face the dual challenge of developing basic literacy skills as well as proficiency in English (IES, 2010). Reading is an essential skill for adult ESL learners. For many of these learners, it is the most important skill to master in order to pursue their goals in life, some of which include acquiring and succeeding in work, participating in their children's education, becoming involved in community activities, and pursuing further education (Marshall, 2002).

Helping students become more autonomous in their learning has been one of the more prominent themes in the literature on the theory and practice of second language acquisition (Benson, 2011). Although learner autonomy in language learning includes several dimensions and factors, research in autonomous language learning has drawn heavily upon research on language learning strategies (Benson, 2011). Language learning strategies are seen as a means of learners' achieving autonomy in the process of language learning (Benson & Voller, 1997).

Over the past decade, increased attention has been given to measuring ESL students' language learning strategy use in specific skill areas, including reading. Studies have found that skilled readers use a wide range of reading strategies with high frequency, while unskilled readers use fewer strategies and use them less frequently (Mokhtary & Sheorey, 1994). This type of research is important because instructors need adequate tools for assessing reading stills and teaching students how to read efficiently and effectively (Mokhtari & Sheorey, 2002).

In spite of the importance of reading strategy use among adult ESL learners, little research to date has addressed this population. The purpose of this study is to identify the reading strategies used by adult ESL learners and explore the relationship between reading proficiency and strategy use.

Review of Literature

Learner Autonomy

Learner autonomy has been a major area of interest in language learning and teaching for over 30 years

(Benson, 2007). As noted by Brown (2007), success in mastering a foreign language depends to a large degree on "learners' autonomous ability both to take initiative in the classroom and to continue their journey to success beyond the classroom and the teacher" (p. 70). One of the most important principles of language teaching and learning is the principle of autonomy. There are many claimed benefits of learner autonomy in language acquisition. Some of these benefits are: (a) improving the quality of language learning, (b) promoting democratic societies, (c) preparing individuals for life-long learning, and (d) allowing learners to make the best use of learning opportunities in and out of the classroom (Borg & Al-Busaidi, 2012).

There have been many definitions for learner autonomy over the years; however, Holec's definition (1981) has proven to be robust and the most widely-cited definition in the field (Benson, 2007). According to Holec, learner autonomy is "the ability to take charge of one's learning … to have, and to hold, the responsibility for all the decisions concerning all aspects of this learning" (1981, p.3). Examples of such decisions identified by Holec include (a) determining objectives, (b) selecting methods and techniques to be used, and (c) monitoring the procedure of acquisition.

Benson (2011) defined learner autonomy as the capacity to control one's own learning and proposed that there are at least three dimensions of learner control: learning management, cognitive processes, and learning content. However, since researchers and practitioners often attach more importance to one dimension than another, it is helpful to consider each dimension separately. What are then the most important components of autonomy in language learning? In attempting to answer this question, Benson (2003) argues the following:

> Autonomy is perhaps best described as a capacity… because various kinds of abilities can be involved in control over learning. Researchers generally agree that the most important abilities are those that allow learners to plan their own learning activities, monitor their progress and evaluate their outcomes (p. 290).

Autonomy has been closely aligned with language learning strategies (Little, 2000; Palfreyman, 2003). Research on autonomous language learning has drawn largely upon research on learning strategies (Benson, 2011). In Pennycook's (1997) words, autonomy "is based very much on developing strategies, techniques or materials… in order to promote individual self-development" (p. 45).

Language Learning Strategies

Language learning strategies are specific actions or steps on the part of learners that facilitate the acquisition of a second or foreign language (Chamot & O'Malley, 1996; Oxford, 1990). They can be effectively employed to enhance performance on a variety of language tasks in the domains of listening, speaking, reading, and writing. As noted by Lessard-Clouston (1997), some strategies are visible (i.e., observable behaviors, steps, or techniques), whereas others are unseen (i.e., mental processes or thoughts). For example, strategies such as using flash cards to memorize vocabulary or asking clarifying questions in a purposeful way involve observable actions/behaviors on the part of the leaner. On the other hand, strategies such as visualizing information while reading, or guessing the meaning of unknown words or phrases are unseen. Whether visible or unseen, however, language learning strategies must be consciously deployed and carefully orchestrated in order to be effective tools (Chamot & O'Malley, 1996; O'Malley, Chamot, Stewner-Manzanares, Russo,& Kupper, 1985; Oxford, 1990).

Several systems for classifying language learning strategies have been developed over the years, with Rebecca Oxford's (1990) being the most widely recognized and utilized. Oxford's taxonomy contains six major categories of strategies: (a) memory strategies, (b) cognitive strategies, (c) compensation strategies, (d) metacognitive strategies, (e) affective strategies, and (f) social strategies. Numerous studies have examined the relationship between language learning strategies and English proficiency using Oxford's *Strategy Inventory for Language Learning* (SILL), and results have consistently demonstrated a significant correlation in a variety of settings worldwide (Oxford & Burry-Stock, 1995).

Language Learning Strategies and Reading

Over the past decade, increased attention has been given to measuring ESL students' language learning strategy use in specific skill areas, including reading. In 2002, Mokhtari and Reichard developed an inventory to

identify students' metacognitive awareness of and use of language learning strategies specific to the domain of reading. This instrument, the *Metacognitive-Awareness-of-Reading-Strategies Inventory* (MARSI), was validated with a native English-speaking population. Using the MARSI as a foundation, Mokhtari and Sheorey (2002) then developed the *Survey of Reading Strategies* (SORS) for use with adolescent and/or adult learners of English as a second or foreign language. The SORS identifies three distinct categories of reading strategies: global strategies, problem-solving strategies, and support strategies.

Mokhtari and Sheorey (2002) describe each type of strategy as summarized below:

Global strategies are "intentional, carefully planned techniques by which learners monitor or manage their reading" (p. 4). Examples include having a purpose in mind while reading, or trying to predict what a given text is about. *Problem-solving strategies* are "actions and procedures that readers use while working directly with a text; these are localized, focused techniques for use when problems develop in understanding textual information" (p. 4). Strategies such as reading a portion of a text slowly to ensure comprehension, or guessing the meaning of unknown words fall under this category. Finally, *support strategies* are "basic support mechanisms intended to aid the reader in comprehending the text, such as using a dictionary, taking notes, underlining, or highlighting textual information" (p. 4).

A number of studies have utilized the SORS to examine reading strategy use among learners of English as a second or foreign language over the past decade. These investigations have primarily been conducted among university students, and findings have generally indicated a positive relationship between reading proficiency level and strategy use (e.g., Madhumathi & Ghosh, 2012; Park, 2010; Shoerey & Babcoczky, 2008; Sheorey, Kamimura, & Freiermuth, 2008). In other words, learners at higher reading proficiency levels tend to use more strategies, particularly global strategies (e.g., Sheorey & Mokhtari, 2001, Sheorey & Baboczky, 2008, Sheorey, Kamimura, & Freiermuth, 2008). A search of the literature revealed no studies which addressed reading strategy use and proficiency among learners of English as a second or foreign language in an adult education setting.

This study investigated the following research questions:

1. What reading strategies do adult ESL learners use most frequently when reading?
2. What is the relationship between the use of reading strategy categories and reading proficiency level?
3. Which reading strategy categories are useful predictors of reading proficiency score?

Methodology

Participants

A non-random sample of 121 students enrolled in ESL classes at an adult learning center in northern Virginia participated in this study. Participants were 99 females and 22 males, ranging in age from 19 to 67 at the time of data collection. As a group, they reported speaking 20 different native languages, with the top three languages represented being Spanish (N = 87), Arabic (N = 10), and French (N = 4). In response to a question regarding length of time spent studying English, participants indicated a range from one month to 10 years. Sixty-seven students reported their CASAS reading test scores and 54 reported their BEST Literacy scores.

Instrumentation

This study examined the variables of reading strategy use and English proficiency through scores generated from the following instruments: (a) the Survey of Reading Strategies (SORS), (b) the Comprehensive Adult Student Achievement Systems (CASAS) Reading Test, and (c) the BEST Literacy Test.

English proficiency was measured using scores from the Comprehensive Adult Student Achievement Systems (CASAS) Life and Work Reading Test, and the BEST Literacy Test. The CASAS *Life and Work Reading Test* is a standardized reading assessment designed to measure student progress in both adult ESL programs and Adult Basic Education Programs. Test items are focused on everyday life and workplace reading skills (CASAS, n.d.). Like all CASAS tests, the Life and Work Reading test has undergone rigorous test development and validation procedures (CASAS, 2011). The BEST Literacy Test is a 68-item assessment which measures adult English reading and writing skills, using authentic situations as the basis for test questions.

Developed by the Center for Applied Linguistics, the test is designed for use in placement, instructional planning, and determination of progress of adult ESL students. Extensive data concerning the validity, reliability, and measurement precision of the instrument are provided in the *BEST Literacy Technical Report* (Center for Applied Linguistics, 2008). The report is available for download at http://calstore.cal.org/store/p-224-best-literacy-technical-report-electronic-version.aspx.

Both the CASAS Life and Work Reading Test and the BEST Literacy Test are aligned with the National Reporting System (NRS) and the Student Performance Level ESL descriptors (Center for Applied Linguistics, 2010), and scores within this study are interpreted using those descriptors.

Reading strategy use was measured using The *Survey of Reading Strategies* (SORS), developed by Mokhtari and Sheorey (2002). This valid and reliable instrument contains 30 likert-scale items, and it generates a measure of overall strategy use, as well as scores on three subscales: Global Reading Strategies, Problem-Solving Reading Strategies, and Support Reading Strategies. As reported by the instrument's authors, the internal estimate of reliability for the scale using Cronbach's coefficient alpha was .89; and the instrument is valid and reliable for use with adolescent and adult non-native speakers of English. See Mokhtari and Sheorey (2002) and Sheorey and Mokhtari (2001) for additional information on the development and validation of the SORS. The instrument, along with its scoring guide, is available as a free download at http://laurenyal.myefolio.com/Uploads/Survey2002Mokhtari.pdf.

Procedures

Students enrolled in ESL classes at the adult learning center were invited by their teachers to participate in this study at the end of a regular class session. They were informed that their involvement was voluntary and that all information would be confidential. Those who agreed to participate were asked to complete the Survey of Reading Strategies (SORS), provide demographic information, and report their scores from a standardized English proficiency test that they had taken earlier in the semester. To aid in the reporting process, teachers who administered the surveys also provided each student with a separate slip of paper containing his or her proficiency score. Each student then transferred his or her score to the appropriate section of the survey data form. From that point forward, a coded numbering system was utilized to identify participants in order to maintain confidentiality.

Data Analysis

Descriptive statistics, including means and standard deviations, were computed in order to identify overall strategy use. Paired sample *t* tests were used to see if there were significant differences among the different strategy categories. To determine if there were any significant differences among learners of different proficiency levels with regard to strategy use, a one-way multivariate analysis of variance (MANOVA) was conducted. Analyses of variance (ANOVA) were then conducted as follow-up tests to the MANOVA, using a traditional Bonferroni procedure to control for Type I error. Finally, a multiple regression analysis was conducted to determine which reading strategy categories were more predictive of reading proficiency measured by CASAS Life and Work Reading Test.

Findings

The first research question concerned the frequency of strategy use. Descriptive statistics revealed that overall strategy use was high (M=3.67, SD = .65). Students favored problem-solving strategies the most (M=3.98, SD = .76), followed by support strategies (M=3.77, SD = .71). Their least-used strategies were global strategies (M=3.48, SD = .69).

Paired sample *t* tests comparing the adjacent strategy means (see Table 1) revealed significant differences among the three strategy categories. The mean use of problem-solving strategies was significantly higher than the mean use of support strategies and global reading strategies. The mean use of support strategies was significantly higher than that of global strategies. To avoid Type I error with repeated *t* tests, the Significance Level was changed from .05 to .017 (.017 was chosen by dividing .05 by 3, the number of *t* tests conducted) (Green & Salkind, 2011). The results indicated that the *p* value is smaller than the Significance Level ($p = .000$).

According to Green and Salkind (2011), *d* values of .2, .5, and .8 are interpreted as small, medium, and large effect sizes, respectively. The *d* values for the differences

between problem-solving/support strategies, problem-solving/global strategies, and support/global strategies were .37, .99, and .62 respectively, indicating medium to large effect sizes.

Table 1

Descriptive Statistics for the Strategy Categories and Paired Sample t-Tests for Mean Difference between the three Strategy Categories (N = 121)

Str. Categories	Mean	Rank	S. D.	Min.	Max.	Paired *t*-test	*t*
PROB	3.98	1	.76	1.38	5	PROB - SUP	4.05**
SUP	3.77	2	.71	1.67	5	PROB -GLOB	10.90**
GLOB	3.48	3	.69	1.46	4.8	SUP -GLOB	6.77**
Total	3.67		.65	1.5	4.9		

Note. ***p* =.000 GLOB = Global Reading Strategies, PROB = Problem-Solving Strategies, SUP = Support Strategies

Table 2 shows the use of reading strategies arranged in descending order by mean score (that is, from the most frequently used to least used strategies). As shown in Table 2, overall, students in this study reported medium to high use of reading strategies. Seventeen of the 30 strategies (57%) fell in the high usage group (mean score of 3.5 or above), while the remaining 13 strategies (43%) had mean scores ranging from 2.5 to 3.49, indicating medium-frequency use of the strategies. Among the 17 strategies that learners used with high frequency (3.5 and above), eight fall under the category of problem-solving strategies, and six under the category of support strategies. Interestingly, only three of the top 17 (displayed in Table 2) are global strategies.

Table 2

Distribution of Strategy Use

	Strategy	**Strategy Category**	**Mean**
High Use	1. Reread the text	PROB	4.32
	2. Read slowly to make sure I understand	PROB	4.25
	3. Translate from English into native language	SUP	4.20
	4. Pay close attention to reading	PROB	4.18
	5. Try to get back on track	PROB	4.11
	6. Think about information in English and native language	SUP	4.09

	7. Underline or circle information	SUP	4.04
	8. Use dictionaries	SUP	3.94
	9. Check understanding	GLOB	3.90
	10. Check if guesses are right or wrong	GLOB	3.83
	11. Stop from time to time and think	PROB	3.78
	12. Ask myself questions	SUP	3.70
	13. Guess the meaning of unknown words	PROB	3.70
	14. Adjust reading speed	PROB	3.69
	15. Paraphrase	SUP	3.69
	16. Think about what I know	GLOB	3.65
	17. Try to picture information	PROB	3.62
Medium Use	18. Use context clues	GLOB	3.49
	19. Review the text first before reading	GLOB	3.42
	20. Take an overall view of the text before reading	GLOB	3.41
	21. Have a purpose in mind	GLOB	3.38
	22. Take notes while reading	SUP	3.38
	23. Think about whether the text fits my purpose	GLOB	3.36
	24. Go back and forth to find relationships	SUP	3.34
	25. Decide what to read closely and what to ignore	GLOB	3.31
	26. Critically analyze and evaluate information	GLOB	3.31
	27. Use typographical features like bold face and italics to identify key information	GLOB	3.29
	28. Try to guess what the text is about	GLOB	3.27
	29. Read aloud	SUP	3.21
	30. Use tables, figures, and pictures to increase understanding	GLOB	3.13

NOTE. GLOB = Global Reading Strategies, PROB = Problem-solving Strategies, SUP = Support Strategies
High Use (mean score of 3.5 or higher): Items #1-17, Medium Use (mean score of 2.5 to 3.49): Items #18-30

The second research question aimed to explore the relationship between levels of reading proficiency and use of reading strategy categories. Table 3 contains the means and the standard deviations on the dependent variables for the four proficiency levels. Figure 1 shows strategy use by reading proficiency level.

Although Figure 1 indicates that Level 3 learners used more strategies across the categories than did Level 4 learners, a one-way multivariate analysis of variance (MANOVA) was calculated to determine if there were any significant differences among learners of various levels in regard to their strategy use. The three categories of reading strategies and overall strategy use were used as dependent variables, with reading proficiency level as the independent variable. Significant differences were found among proficiency levels on the four strategy categories, Wilks's Lambda = .78, $F(12, 302) = 2.48$, $p < .01$. The partial η^2 based on Wilks' Lambda was .08.

Table 3

Means and Standard Deviations on the Dependent Variables for the Four Proficiency Levels

	GLOB		PROB		SUP		TOTAL	
Levels	M	SD	M	SD	M	SD	M	SD
1	3.44	.85	3.82	.89	3.85	.77	3.66	.81
2	3.50	.59	3.91	.81	3.80	.70	3.70	.63
3	3.69	.54	4.31	.49	3.93	.54	3.93	.45
4	3.17	.67	3.83	.68	3.35	.71	3.40	.58

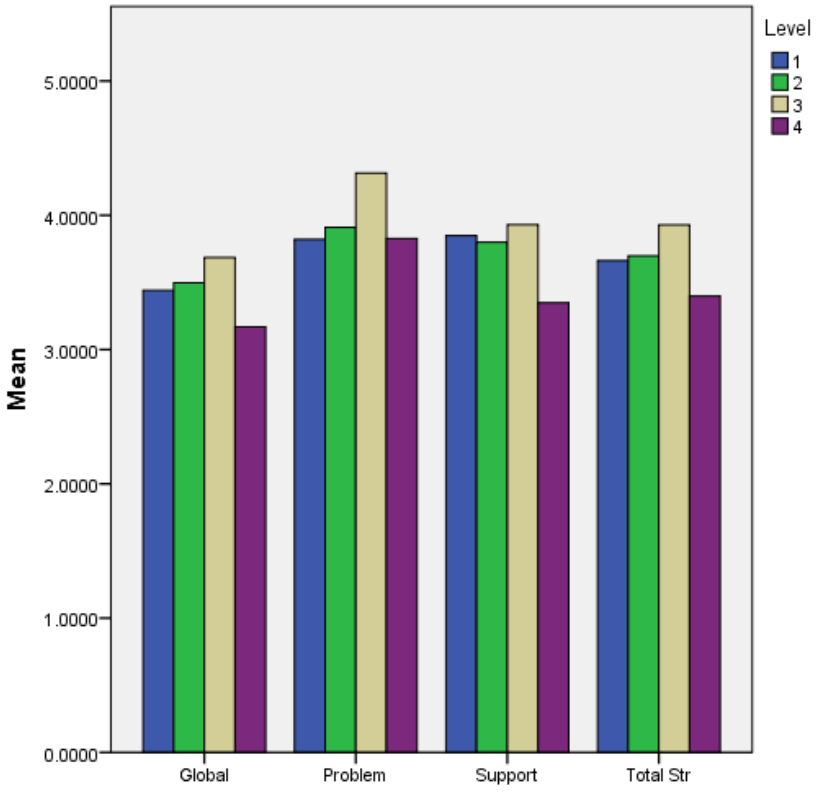

Figure 1. Strategy Use by Reading Proficiency Levels

Analyses of variance (ANOVAs) on the dependent variables were conducted as follow-up tests to the MANOVA. In order to control for Type I error, we used a traditional Bonferroni procedure and tested each ANOVA at the .0125 significance level (.05 divided by 4, the number of ANOVAs conducted), (Green & Salkind, 2011). None of the ANOVAs conducted on the dependent variables was significant at the .0125 level. Consequently, no further post hoc analyses were conducted.

To answer the research question regarding which reading strategy categories were more predictive of reading proficiency, a multiple regression analysis was conducted. The predictors were the three strategy categories of global, problem-solving, and support strategies, while the criterion variable was reading proficiency. Only the CASAS Reading Test scores were used to measure reading proficiency. Since the BEST Literacy is a reading and writing test, which is not solely a reflection of students' reading proficiency, it was not included in the multiple regression analysis.

Based on the CASAS Reading scores (n = 67), the regression model revealed that the linear combination of the three strategies was significantly correlated with the reading proficiency measure, $R^2 = .14$, $R^2_{adj} = .10$, $F(3, 63) = 3.35$, $p < .05$. Approximately 14% of the variance of the reading proficiency measure in the sample can be accounted for by the linear combination of the strategy categories. The prediction equation is as follows:

$$Y_{\text{Predicted CASAS Score}} = 217.15 - 3.17\,(x_1) + 8.24\,(x_2) - 6.95\,(x_3)$$

where Y represents the predicted CASAS reading score, x_1 represents global strategies, x_2 represents problem-solving strategies, and x_3 represents support strategies. According to Cohen (1988), the effect size of $R^2 = .14$ is in the medium range.

Beta coefficients express coefficients in terms of the same standard deviation units; they are useful in comparing the relative importance of each IV to the regression model (Rovai, Baker, & Ponton, 2014). Since the beta weights of the problem-solving strategies ($\beta = .55$, $p = .008$) and the support strategies ($\beta = -.42$, $p = .032$) are substantially larger than that of the global strategies ($\beta = -.176$, $p = .417$), they are more important predictors. It is interesting to note that the beta coefficient for support strategies is negative, which means the higher the reading score, the lower score of support strategy use.

Discussion and Implications

Few studies have examined the relationship between reading strategy use and reading proficiency among adult learners of English as a second language (ESL). This study revealed some similar findings, as well as some different findings when compared with investigations conducted in other settings. Data analysis revealed several significant findings. First, the adult learners in this study indicated that they are active users of reading strategies; and they reported preferring problem-solving strategies over other strategies. Secondly, high intermediate ESL learners used more strategies in all categories than advanced learners. Finally, problem-solving strategies and support strategies were found to be useful predictors of reading proficiency.

Overall Strategy Use

Overall, students in this study reported medium to high use of reading strategies. Students favored problem-solving strategies, followed by support strategies. Global strategies were the least used. This finding is somewhat different from the findings of other studies examining reading strategy use among native and non-native speakers in a variety of settings, most of which were conducted in university settings. The overall trend of strategy use in these studies (e.g. Anderson, 2003, Poole, 2008, Sheorey & Mokhtari, 2001) is that students generally favor problem-solving strategies, followed by global strategies and support strategies.

The fact that the adult ESL learners in this study did not favor global strategies (although they are still in medium use range) might be indicative of the different characteristics of adult ESL learners in comparison with university students. Global strategies are metacognitive in nature, and play a more significant role in language learning than other strategy types (Anderson, 2005). Metacognitive strategies involve functions such as overseeing (e.g. having a purpose in mind or previewing the text before reading), regulating (e.g. deciding what to read closely and what to ignore), and evaluating (e.g.

critically analyzing and evaluating information). These strategies correlate with what university students use in academic learning and can be transferred to language learning. Adult ESL learners might be less aware of these strategies due to a lack of higher level academic learning experiences.

Another possible explanation is that strategy use varies by cultural group (Oxford, 1996). Culture includes beliefs, perceptions, and values, which affect language learning and the use of learning strategies. Although there have been studies examining the cultural differences in language learning strategy use in general (e.g. Oxford & Burry-Stock, 1995; O'Malley & Chamot, 1990), there has been little research examining the effect of culture on the use of reading strategies. Given the fact that 20 different languages are represented by the participants of this study, cultural differences might be a partial explanation for the different patterns of strategy use.

These findings suggest that adult ESL learners may benefit from strategy training aimed at enhancing reading strategy awareness, including awareness for global strategies. Research has indicated that metacognition, which includes knowledge of strategies that students use and should use, is related to reading comprehension (Anderson, 2005). Students with greater metacognitive awareness know the strategies required for successful learning, and anticipate success as a result of knowing "how to learn."

An implication for future research is to identify the relationship between cultural background and reading strategy use among adult ESL learners.

Strategy Use by Reading Proficiency Level

Although the differences in strategy use by proficiency level were not statistically significant, participants in this study showed a clear pattern of strategy use. High intermediate learners used more strategies across all categories, while advanced learners used the least strategies. Beginning and low intermediate learners used all the strategies at approximately the same rate. This finding is somewhat different from other studies that utilized the Survey of Reading Strategies or SORS (Mokhtari & Sheorey, 2002). Several studies conducted in university settings (e.g. Sheorey & Baboczky, 2008; Sheorey, Kamimura, & Freiermuth, 2008; Sheorey & Mokhtari, 2001) revealed that higher proficiency readers used more strategies. In addition, higher proficiency readers used more global strategies than lower proficiency readers.

Interestingly, studies that used other language learning strategy instruments such as the SILL generally revealed a curvilinear relationship between strategy use and L2 proficiency (Park, 1997), which is similar to our finding. A possible interpretation of our finding is that advanced learners might be more autonomous in their use of reading strategies. They also may be using more global strategies than they are consciously aware of or focused on while reading, considering the important role that metacognitive strategies play in language learning. At the same time, they may not need support strategies such as using dictionaries, reading aloud, or thinking about information in both English and the native language.

This finding suggests that task difficulty and level of language proficiency have a major effect on the strategies that students use. Therefore, strategy training should focus on the different needs of learners and the characteristics of reading tasks at various proficiency levels. Students need to understand the characteristics of a given reading task and be able to identify and use appropriate strategies for task completion. With appropriate training, students will be able to choose an appropriate strategy to help them complete a reading task.

It is important, however, to note that the finding is based on the current study and might not be generalizable. More studies involving different measures of reading proficiency and with larger sample sizes should be conducted.

Strategies Predictive of Reading Proficiency

The multiple regression model revealed that the three reading categories of global, problem-solving, and support reading strategies as a whole explained approximately 14% of the variance in reading proficiency, as measured by students' CASAS reading scores. The categories of problem-solving and support, however, were found to be better predictors, as the beta weights of the problem-solving and the support strategies were substantially larger than that of the global strategies.

This finding indicates the importance of active mental engagement while reading texts through problem-solving strategies such as paying close attention to reading, trying to get back on track, guessing the meaning of unknown words, and adjusting reading speed. Why global strategies were not a significant predictor of reading proficiency is not clear, particularly considering the important role that metacognitive strategies play in reading proficiency. One speculation, as we indicated earlier, is that advanced learners might be more autonomous, and they might not be consciously focused on their own use of higher order strategies of monitoring, regulating, and evaluating while reading. In addition, adult ESL learners might be less familiar with global reading strategies due to a lack of higher level academic learning experiences.

This finding points to a need for future research on the relationship between learner autonomy and reading strategy use. Theoretically, language learning strategies, including reading strategies, are essential for cultivating learner autonomy, and autonomous learners should be able to apply appropriate strategies in completing reading tasks. The specific relationships identified between learner autonomy and reading strategy use will help us understand the nature of the relationships in order to help all students become better language learners.

Conclusion

This study aimed to identify the reading strategies that adult ESL learners favored the most and the least, and explored the relationship between reading strategies and reading proficiency. Considering that students' use of reading strategies was identified through a self-report survey, and the ANOVAs (after the Bonferroni correction procedure was applied) examining the relationship between reading proficiency levels and strategy use were not significant, one should be cautious in making generalizations based on the findings of the study. Nevertheless, for this sample of adult ESL learners, the study does show that (a) adult ESL learners were active strategies users; (b) they clearly favored problem-solving strategies more than other strategies; (c) high intermediate learners used the most strategies and advanced learners used the least strategies; and (d) problem-solving and support strategies were useful predictors for reading proficiency scores.

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