The Effect of Metacognitive Instruction through Dialogic Interaction on the Reading Comprehension Performance and the Metacognitive Awareness of Iranian EFL Learners

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Abstract
The purpose of this study was to probe the effect of metacognitive strategy instruction through dialogic interaction on the reading comprehension performance and metacognitive awareness of Iranian EFL learners. The data were collected through the Survey of Reading Strategies (SORS) and a reading test to examine changes in metacognitive awareness and reading performance before and after the intervention. The participants were 60 intermediate EFL learners in two groups. The experimental group (*n* = 30) went through an intervention program in which the learners were taught metacognitive strategy instruction through dialogic interaction for ten sessions. The control group (n=30) went through a conventional reading instruction program and covered the same materials without receiving metacognitive instruction. The results revealed that metacognitive strategy instruction through dialogic interaction helped learners develop their reading ability and raise their metacognitive awareness.

Keywords: Dialogic interaction, Metacognive Strategy, Reading comprehension, Language Awareness, EFL Learners

Introduction

Reading strategy instruction should be taught to EFL learners based on the fact that English is one of the mostly used languages in the world. One can easily expand his or her own knowledge by reading materials which are originally English. Reading comprehension needs background dnowcdge of aearners' for their better understanding but learners aa y aack this knowledge and therefore, strategy instruction can help them to a large extent.

Those readers who can gain unfamiliar word meanings from texts are called successful readers since they have a vast range of vocabulary, more experience using context clues, and better schemata (Stanorich, 1980). On the contrary, integrating real text information is problematic for less skilled readers (Pressley, 1997).

As L_2 reading ability is considered to be the most needed skill for EFL learners in academic settings (Alderson, 1984), the academic and professional development of those whose careers and academic programs require accessing and obtaining information in the target language aa y be hindered by the aearners' aack of alil ity to read L_2 materials. Moreover, examining LLL learners' strategy use aa y hepp learners increase their aeta co. nitive awareness . The main focus of this study is on the strategies that learners use while reading English texts.(Flavell, 1979) assumed that when learners know the strategies, they have fewer difficulties in comprehending reading, whether in L_1 or L_2, which can be considered as an outcome of the interaction among the reader, the text, and the context reading comprehension has been considered as one of the most sufficient caaacities in one's native aanguage as well as foreign

ggnguages. Yet, the aearner's ccdk of awareness of reaging strategy knowlelle , needed to successfully comprehend expository texts is one of the major reasons resulting in the unskilled or low reading coppr ehension OOOOlley & Chamot,))))))

Invivivuvls' awareness of their own thinging as they reflect on what they already wnowws they deal with their problem-solving strategies, thoughts, and behaviors to accomplish their goal is referred to metacognition (Baker & Brown, 1984; Spring, 1985). Metacognition involves both the aearners' alil ity to ll an, monitor and reguaate their behavior towvrd learninggas well as the learners' conscious eaaluation of their own perforccnc e (Brown, 0000.. The aain focus of metacognition is on the self-regulated thinking of readers as they know and apply the appropriate knowledge necessary to complete a task (Jacobs & Paris, 1987).

The behaviors undertaken by learners to plan, arrange, and assess their own learning are called metacognitive strategies (Oxford, 1990). Since reading is a hidden process, it often goes unnoticed in the language classroom (Block, 1992). Some scholars state that reading is the interaction of two processes: a bottom-up, language-based process, and a top-down, knowledge-aased process aaarre,, 1;;;; ;r abe,)))))) Furthermore, more scholars believe that areaders actively control this hidden process, and that this control directly affects their ability to understana anl to l earn from the tent ((((,o,,, ,,,,, ,

Skilled readers typically know how to identify the strategies they use and what kinds of strategies they use in certain conditions (Carrel, 1988). Literally, the awareness and monitoring in learning is often referred to in the diterature as "aeta cognition".

Reading for professional purposes in English requires not only adequate language proficiency but also proper training in reading skills and strategies. In Iran, English is a foreign language and reading English is important for academic purposes. Although English is learned as a subject at school, it continues to be important for university education. Iranian university EFL students are required to learn reading in the classroom in order to successfully gain access to new information for academic purposes. Therefore, academic reading comprehension has become a major challenge. Although learners in Iran learn English for several years, they are not successful enough and the system of education in this country focuses on product rather than the process of learning.

Literature Review

The Concept of Sociocultural Theory

Sociocultural Theory is associated with the work of Vygotsky, whose goal was to overcome what at the time he . haracterized as a "crisis in psychology""This crisis arose because of the diversity of perspectives and objects of study, all of which were grouped under the general rubric of psychology. At that time, various approaches to the study of psychological processes were grouped into two broad categories: one followed a natural science approach to research-and sought out causes of psychological processes; the second followed the humanistic tradition and emphasized the description and understanding of mental activity. The causal natural science branch of psychology focused its research on the study of elementary, or biologically endowed, mental processes, that is, those processes that humans shared with other species, especially primates. These processes were largely automatic and included involuntary memory and attention, and reflex reactions to external stimuli. The descriptive branch focused its concern on what Vygotsky called higher (mental) processes such as problem-solving, voluntary memory and attention, rational thought, planning, and meaning making activity (Wertsch, 1985).

The Concept of Dialogic Interactions

Drawing on Vygotskian views of knowledge building in dialogic interaction, Wells (2002) states that in the process of producing a meaningful utterance for others, the speaker has to formulate a suitable response contingent on what others have said and the particular goals and nature of the activity, and which also augments the shared understanding attained thus far.

Wells (2002) attributes speakers' mental development to this constructive and creative process in terms of the active effort involved in formulating meaningful and appropriate contributions that are clear and convincing for one's self and others.

Extensive associated L1 research, as Cross (2010) notes, supports the act of constructing explanations. That is, there seem to be benefits for mental development when speakers are involved in successively explaining their understanding to one another in problem-solving and learning.

Webb and Mastergeorge (2003) also believe that in explaining to others, speakers are uniquely challenged to create and communicate meaning effectively, and in doing so can modify, clarify, extend, and solidify their own understanding as they say things they have not said before, or state them in a new way.

L2 neo-Vygotskian researchers, as Swain (2000) notes, have also explored the effect of peer-peer dialogue on learning in terms of collaborative dialogue, the interactional talk between two or more learners in which knowledge is co-constructed in problem-solving activity.

Swain, Brooks, and Tocalli-Beller (2002) present a major review of empirical research in which peer-peer dialogue was explored in L2 learning reading, writing, listening, and speaking activities. The wider outcomes of Swain et al.'s extensive review are that (1) in the dialogue which emerges as learners work together towards task completion, the co-construction of knowledge is evident and can result in improved language ability, awareness, accuracy, and self-confidence, and few detrimental effects are evident; and (2) dialogue is a useful research tool for investigating developmental processes.

Swain and Ellis (as cited in Cross, 2010) also came to the finding that peer-peer interaction groups outperformed teacher-controlled exchange groups, and Garcia and Asenci´on (2001) found evidence of strategy verbalization in their qualitative analysis of taped peer-peer interactions.

From a SCT perspective, as Cross (2011) notes, neo-Vygotskian researchers have also more recently advocated the potential of dialog as a tool for eliciting and examining verbal protocols regarding what learners attend to as they work together to complete a task. Swain, Brooks, and Tocalli-Beller (2002) present an extensive review of studies which have used peer-peer dialog as the source of data for examining language development as learners engaged in a range of activities.

In purely methodological terms, Brooks and Swain (2009) illustrate that peer-peer dialog emerging as aearners interact durind tksk kolll etion, essentilll l aair or s– all group pthinp pdoud (Wigglesworth, 2005, as cited in Cross, 2011), is a useful tool for gaining informative insights into learners' cognitions. Cross (2010) believes that such investigations have served to bolster and broaden earlier findings into the utility of peer-peer dialogue in mediating the co-construction of L2 knowledge.

All in all, dialogic interactions in this study were inspired by the sociocultural perspectives of learning, which integrates two aspects of learning: learning as an individual cognitive enterprise and learning as a social enterprise. Within this framework, dialogic interactions and activities learners participate in contribute to the overall learning of each individual in the interaction. This model can further provide learners with opportunities to enrich individual learning through peer dialog and cooperation (Vandergrift & Goh, 2012).

Based on what was stated above, in order to comply with the purpose of this study, the following research questions were formulated.

RQ1. Does metacognitive instruction through dialogic interactions have any effect on the reading comprehension performance of Iranian Intermediate EFL learners?

RQ2. Does metacognitive instruction through dialogic interactions have any effect on the metacognitive awareness of Iranian Intermediate EFL learners?

Methodology

Participants

This research study was carried out on 60 Intermediate EFL male learners who were within the age range of 15 and 25. The study was conducted at Iran Language Institute, Babol Branch. The participants were all male intermediate EFL learners, who had been learning English for around two years prior to the study. Based on an actual language proficiency test, 60 out of 120 available learners were chosen as eligible candidates for the purpose of this study. Then, relying on simple random sampling method, the researcher divided them into two groups: an experimental (n= 30), and a control group (n=30).

Instrumentation

The three instruments which were used to collect data to test the research hypotheses of this study are as follows:

Actual Test of Language Proficiency

The first instrument that was used in this study was an actual test of language proficiency, already used by ETS at a worldwide test administration in 2003. The test was used both to determine the homogeneity of EFL learners and to estimate the validity of reading test in this study. The test was comprised 140 multiple choice questions in three sections: listening comprehension, structure and written expressions, and reading comprehension.

Reading Comprehension Test

The reading tests were adopted from "More Reading Power 3" (Jeffries &Mikulecky, 2009), and were then piloted (Appendix A). The test, which was used as both pre- and post-tests, comprised 20 multiple-choice items with 4 passages. The topics of the test were in line with the content of the intervention program. To estimate the reliability and validity of the reading tests, a pilot study was conducted on a similar group of 30 students before administrating the tests. The Cronaaah's aaaha reliability of the test at the lil oting stgge was caccuaatea to be ..... To determine the concurrent validity of the test, the correlation coefficient between the test of language proficiency and the reading test in the piloting stage was found to be 0.79.

The Survey of Reading Strategies (SORS)

To measure the metacognitive awareness of reading strategies in the experimental and control groups both before and after the intervention, this study employed a validated Survey of Reading Strategies, or SORS (Mokhtari & Sheorey, 2002), which included 30 items with three subscales (See appendix).

The glolll reading strategy GGLOB) constituted dd items of "intentiona,, carefully planned techniques by which learners monitor or manage their reading" (p. 4).Problem solving strategy RPROB) constituted d ite,s, inddudind "actions and procedures that readers use while

working directly with the text. These are localized and focused techniques used when problems devepop in understanding textull inforlltion lll))". The support strpteyy UUUP constituted d items which inlol le "aasic support pep hanisms intended to aid the reader in comprehending the text "(p. 4).

Procedures

The participants in the experimental group participated in a twelve-week metacognitive instruction in reading classes from Week 2 to Week 11. Each session was held once a week and lasted for about 90 minutes. Each week the participants in the experimental group were given different texts to read, which were in line with the content of the intervention program and covered a wide variety of topics. Each reading lesson from weeks 2 to 11 encompassed three stages: The first stage was a twenty-minute pre-reading task, which was based on topic-related content, to stimulate and generate background knowledge. The second stage was the reading phase during which the participants in the experimental group completed a fifty-minute of metacognitive instruction, covering the presentation, practice, and review of metacognitive strategies appropriate to the given reading task. The last step was a twenty-minute post-reading task through which the participants in the experimental group were given the opportunity to check their understanding of the content and the metacognitive strategy presented to them, and then discussed their opinions regarding the topic.

After administering the pre-test and the survey of reading strategies (SORS) to the participants, the researcher started the intervention by elaborating on the concept of language learning strategies. Drawing on Oxford's (1990) classification of Language Learning Strategies, a number of language learning strategies including cognitive, metacognitive, and socio-affective were briefly exaaainea to the target partiaiaantsa Then the researcher drew the students' dttention to metacognitive strategies and clarified the ways students could receive assistance through planning, monitoring, evaluation to deal with reading tasks more successfully. To achieve the aim of this study, the participants were constantly encouraged to negotiate the strategies with one-another through dialogic interactions during all phases of the study. The steps taken for the implementation of this intervention during the twenty-week metacognitive instruction program were as follows:

Every session, the participants in the experimental group were given a handout containing a new reading task for that session. Then based on their knowledge of the topic and the type of text, they were asked to brainstorm the kinds of information they might have read, as well as any related vocabulary, and write their predictions down. This prediction phase was done in pairs or in small groups. The focus of the intervention at this phase was on planning.

After completing their predictions, the participants in the experimental group (EG) were thoroughly taught the three main components of metacognitive strategies in reading, i.e., "planning" (sessions 2-4), "Monitoring" (sessions 5-8), and ""evaluation" (sessions 9-11). It should be reiterated that the participants were constantly encouraged to negotiate the strategies with one-another through dialogic interactions during all phases of the study.

After implementing this intervention, the researcher administered both the post-test and the post-SORS to the participants in experimental group (EG) to explore the probable effect(s) of the intervention.

The participants in the control group went through a conventional reading instruction program through which they were provided with the same reading materials and read the same texts the same number of times, but without any attention to the process. No pair or group work

was allowed, and the participants were not allowed to get involved in the process of reading comprehension and doing the tasks.

Results

In order to investigate the effect of metacognitive strategy instruction through dialogic interaction on the reading comprehension performance of Iranian EFL learners, the data collected from the two groups in this study were analyzed through independent-sample *t*-test for both pre and post-tests. The results of the descriptive statistics for the two groups before and after the intervention are presented in Table 1.

Table 1. *Descriptive statistics of the two groups in pre and post-tests of reading*

Groups	Pre-test		Post-test	
	Mean	SD	Mean	SD
Experimental	12.63	1.75	17.53	1.73
Control	12.50	2 .68	12.56	2.54

Table 1 indicates that there was a very slight difference in means between the experimental (*M*= 12.63; *SD*= 1,75) and the control (*M*= 12.50; *SD*= 2.68) groups before the intervention.

To check the normality of both pretest Shapiro-Wilk was conducted for both groups. The following table illustrates the result of Shapiro-Wilk test for the two groups.

Table 2. *Shapiro-Wilk results of the two groups for the pretest of reading*

Shapiro-Wilk	Statistic	df	Sig.
Experimental	.946	30	.129
Control	.955	30	.226

Table 3. *Independent-samples t-test of the two groups in pre-test of reading*

	t	df	p
Pre-test	.228	58	.821

In order to investivate the aearners' reaging gerforccnc e before the intervention and compare the pre-test scores to see whether the differences in the mean scores of the experimental and the control groups were statistically significant or not, the Independent-sample t-test (Table 3) was used to analyze the data considering the normality assumptions in the pre-test (Table 2; P. > .05).The results, however, revealed that there was not a statistically meaningful difference between the scores obtained from the two groups in the pre-test of reading as the P. value is more than .05 (.821> .05). To check the normality of posttest Shapiro-Wilk was conducted for both groups. Table 4 presents the results of the violation of normality assumptions in the post-test based on the results of Shapiro-Wilk test of normality (P. < .05).

Table 4. *Shapiro-Wilk results of the two groups for the post-test of reading*

Shapiro-Wilk	Statistic	df	Sig.
Experimental	.930	30	.049
Control	.960	30	.317

To investivate the learners' reading performance after the intervention a aann -Whitney test was conducted. The results are presented in table 5below.

Table 5. *Mann-Whitney test of the two groups in post-test of reading*

	N	Mean Rank	Sum of Ranks	Z	Asymp. Sig. (2-tailed)
Experimental	30	43.72	1311.5	-5.89	.000
Control	30	17.28	518.5		
Total				60	

The table indicates that there was a statistically meaningful difference between the scores obtained from the two groups in the post-test of reading (*Z*= -5.89; *P*= .000). This suggests that metacognitive strategy instruction through dialogic interaction did have a positive effect on the reading comprehension performance of EFL learners in the post-test.

The second research question in this study made an attempt to explore the degree to which metacognitive strategy instruction through dialogic interaction resulted in varian. e in aearners' metacognitive awareness. The results of the descriptive statistics for the two groups before and after the intervention are presented in Table 6.

Table 6. *Descriptive statistics in pre and post-tests of strategy Questionnaire*

Groups	Pre-test		Post-test	
	Mean	SD	Mean	SD
Experimental	79.33	4.75	96.90	8.15
Control	79.43	7.41	77.93	8.51

Table 6 indicates that there was a very slight difference in means between the experimental (*M*= 79.33; *SD*= 4.75) and the control (*M*= 79.43; *SD*= 7.41) groups before the intervention.It should be mentioned here that it was the mean score of the control group that exceeded that of the experimental one in the pre-test of strategy questionnaire.

Table 7. *Shapiro-Wilk for the pre-test of strategy Questionnaire*

Shapiro-Wilk	Statistic	df	Sig.
Experimental	.952	30	.188
Control	.979	30	.786

Table 8. *Independent-samples t-test for the pre-test of strategy questionnaire*

	t	df	SIG.
Pre-test	-.062	58	.951

In order to investivate the aearners' aeta cognitive awareness before the intervention and compare the pre-test scores to see whether the differences in the mean scores of the experimental and the control groups were statistically significant or not, the Independent-samples t-test (Table 8) was used to analyze the data considering the normality assumptions in the pre-test (Table 7; P.

> .05). The results revealed that there was not a statistically meaningful difference between the scores obtained from the two groups in the pre-test of strategy questionnaire (P. >.951).

Table 9 below presents the results of Shapiro-Wilk on the normality of data and the Independent-samples t-test

Table 9. *Shapiro-Wilk test for the post-test of strategy questionnaire*

Shapiro-Wilk	Statistic	df	Sig.
Experimental	.991	30	.842
Control	.948	30	.153

Table 10. *Independent-sample t-test for the post-test of strategy questionnaire*

	t	df	sig.
Pre-test	8.814	58	.000

Table 10 showed that there was a difference between the two groups after the intervention. The post-test scores, however, revealed that there was a statistically significant difference between the scores obtained from the two groups as the P. value is less than .05 (.000 < .05), suggesting that metacognitive strategy instruction through dialogic interaction did have an effect on the metacognitive awareness of EFL learners in the post-test of strategy questionnaire.

Discussion

In an attempt to make further contribution to the body of research, the present study strove to investigate the effect of metacognitive strategy instruction through dialogic interaction on the reading comprehension performance and metacognitive awareness of Iranian EFL learners. As regards the first research question as to whether metacognitive strategy instruction through dialogic interaction have any effect on the reading comprehension performance of Iranian EFL learners, the results revealed that metacognitive strategy instruction through dialogic interaction did have a positive effect on the reading comprehension performance of Iranian EFL learners. This finding seems to be congruous with those of the previous studies (e.g., Ghafar Samar & Dehqan, 2013; Mokhtari&Reichard, 2002; Mokhtari & Reichard, 2008; Mokhtari&Sheorey, 2002; Sheorey & Mokhtari, 2001; Shokrpour & Fotovatian, 2009; Zhang &Seepho, 2013; Zhang & Wu, 2009). The results from all of the above-mentioned studies suggest that the process-based instruction of metacognitive strategies can facilitate L2 reading comprehension and help the learners improve in L2 reading. This finding is, nevertheless, inconsistent with the results of two other studies by Anderson (1991) and Brantmeier (2001). In his study, Anderson (1991) found that no specific strategies were associated with successful reading comprehension. In other words, his study showed that no specific strategy, or groups of strategies, , ontributed more to aearners' su.. essful l oppre hension of the texts. Similarly, Brantmeier (2001) found no relationship between the types of strategies that second-language aearners' used dnd their vevd of reading coppr ehension. As regards the effect of aeta cognitive strategy instruction on the reading comprehension performance of EFL learners, the results of this study proved that metacognitive strategy instruction through dialogic interaction did help EFL learners improve their the reading comprehension performance.

With regard to the second research question striving to investigate the extent to which aeta cognitive strategy instruction through giggogg interaction resulted in aariance in aearners' metacognitive awareness, the results demonstrated that metacognitive strategy instruction

through lillo l ic interaction did raise the learners' metccognitive awareness in reading. This finding supports the results of other studies (Alhaqbani & Riazi, 2012; Jafari & Shokrpour, 2012; Karbalaei, 2010; Mokhtari & Reichard, 2002; Mokhtari & Reichard, 2008; Mokhtari&Sheorey2002; Sheorey & Mokhtari, 2001; Shokrpour & Fotovatian, 2009), which all suggested that the process-based instruction of metacognitive strategies could help learners raise their metacognitive awareness in reading.

The results of the present study are consistent with the findings of some studies which have specifically sought to investigate the effect of metacognitive instruction on the reading comprehension performance and the metacognitive awareness of EFL learners. In this regard, In a socioculturally-informed study, Ghafar Samar and Dehqan (2013), for instance, investigated the possible effects of Sociocultural-based teaching techniques on the reading comprehension performance of Iranian EFL learners. They sought to clarify how learners reading comprehension and strategy use could be affected by the types of teaching techniques and how high and low proficiency learners profited from the intervention. The results of their study demonstrated that the sociocultural teaching techniques positively influenced the reading comprehension performance and the reading strategy use of EFL learners. In another study, Soleimani & Hajghani (2013) taught a group of 53 EFL learners to employ reading comprehension strategies in reading some English texts during a period of 15 sessions. The results demonstrated that while strategy training appeared to raise the aearners' awareness of reading strategies and coudd encourage strategy use by some learners, the reading strategy instruction failed to statistically enhance the learners' reaging perforaan ce. In another study on eighty Iranian EFL learners, Zare (2013) also found that learners can be categorized as medium strategy users and that there is no significant difference in the use of reading strategies between male and female language learners. He also found that the use of reading strategies had a strong positive correlation with reading comprehension achievement. Jafari & Shokrpour (2012) also conducted a study through which they explored the reading strategies of Iranian ESP learners when they read authentic expository texts in English. Their findings revealed that the participants were moderately aware of reading strategies and the most frequently used strategies were support strategies, followed by global strategies, and then problem-solving strategies. In the same vein, Shokrpour & Fotovatian (2009) sought to investiv. te the effect of aeta cognitive strategies instruction on Iranian aaa readers' comprehension. The results showed a significant improvement in the experimental group who were trained to use metacognitive strategies in their reading tasks as compared with the control group. In another study, Sheorey and Mokhtari (2001) found that there was a relationship between the students' reaging glil ity and the reported reading strategies, su,, esting that skilled readers use more strategies than less skilled readers as a result of their high metacognitive awareness of the variety of reading strategies. Chern (1993) also found that there was a positive reaationshia between readers' aeta cognitive reaging strategy awareness and their reading comprehension process in EFL/ESL learners. Barnett (1988), for instance, carried out a study of L2 reading with French language students, and the results indicated that the proficient readers showed more awareness of their use of metacognitive reading strategies in reading comprehension than less proficient readers.

The results of this study can be regarded as firm empirical support for those of the previous studies in which the participants went through metacognitive instruction, which helped them improve their reading comprehension performance, and consequently raised their metacognitive awareness. This study is somehow akin to the previous empirical studies in its pedagogy for teaching reading, and its focus on the process of teaching reading through metacognitive instruction. However, what makes this study distinct from the previous studies of

its kind is the use of a socioculturally-informed intervention program, which involved the learners in the experimental group to engage in dialogic interactions that led to a great enhancement in their reading comprehension performance and raised their metacognitive awareness.

Conclusion

This study investigated the effect of metacognitive strategy instruction through dialogic interaction on the reading comprehension performance and metacognitive awareness of Iranian EFL learners**.** The results provided some empirical support for the notion that metacognitive strategy instruction through dialogic interaction can prove beneficial to assist EFL readers in developing their reading comprehension ability and raise their metacognitive awareness. The findings of this study can also be regarded as another contribution in support of the use and training of metacognitive strategies in language learning during reading comprehension process, suggesting that there needs to be a shift in conventional reading instruction where teachers target reading product rather than reading process. The findings of the present study may, therefore, have pedagogical implications for teachers, learners, and materials developers in the field of teaching English as a foreign language.

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SURVEY OF READING STRATEGIES
Kouider Mokhtari and Ravi Sheorey, 2002

The purpose of this survey is to collect information about the various strategies you use when you read **school-related academic materials in ENGLISH** (e.g., reading textbooks for homework or examinations; reading journal articles, etc.). Each statement is followed by five numbers, 1, 2, 3, 4, and 5, and each number means the following:

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

After reading each statement, ***circle the number*** (1, 2, 3, 4, or 5) which applies to you. Note that there are **no right or wrong responses** to any of the items on this survey.

Statement	Never				Always
1. I have a purpose in mind when I read.	1	2	3	4	5
2. I take notes while reading to help me understand what I read.	1	2	3	4	5
3. I think about what I know to help me understand what I read.	1	2	3	4	5
4. I take an overall view of the text to see what it is about before reading it.	1	2	3	4	5
5. When text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
6. I think about whether the content of the text fits my reading purpose.	1	2	3	4	5
7. I read slowly and carefully to make sure I understand what I am reading.	1	2	3	4	5
8. I review the text first by noting its characteristics like length and organization.	1	2	3	4	5
9. I try to get back on track when I lose concentration.	1	2	3	4	5
10. I underline or circle information in the text to help me remember it.	1	2	3	4	5
11. I adjust my reading speed according to what I am reading.	1	2	3	4	5
12. When reading, I decide what to read closely and what to ignore.	1	2	3	4	5
13. I use reference materials (e.g. a dictionary) to help me understand what I read.	1	2	3	4	5
14. When text becomes difficult, I pay closer attention to what I am reading.	1	2	3	4	5
15. I use tables, figures, and pictures in text to increase my understanding.	1	2	3	4	5
16. I stop from time to time and think about what I am reading.	1	2	3	4	5
17. I use context clues to help me better understand what I am reading.	1	2	3	4	5
18. I paraphrase (restate ideas in my own words) to better understand what I read.	1	2	3	4	5
19. I try to picture or visualize information to help remember what I read.	1	2	3	4	5
20. I use typographical features like bold face and italics to identify key information.	1	2	3	4	5
21. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
22. I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
23. I check my understanding when I come across new information.	1	2	3	4	5
24. I try to guess what the content of the text is about when I read.	1	2	3	4	5
25. When text becomes difficult, I re-read it to increase my understanding.	1	2	3	4	5
26. I ask myself questions I like to have answered in the text.	1	2	3	4	5
27. I check to see if my guesses about the text are right or wrong.	1	2	3	4	5
28. When I read, I guess the meaning of unknown words or phrases.	1	2	3	4	5
29. When reading, I translate from English into my native language.	1	2	3	4	5
30. When reading, I think about information in both English and my mother tongue.	1	2	3	4	5