

Assessing ESL Students' Awareness and Application of Metacognitive Strategies in Comprehending Academic Materials

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Abstract

Comprehension is one of the major challenges second language learners face during the reading process. One way of solving this problem is to create awareness and instruct learners to apply some learning strategies. The essence of this study is to examine students' awareness and application of metacognitive strategies in comprehending academic materials. Participants were 120 secondary students who completed a survey of reading strategies aimed at discerning the strategies readers report using when coping with academic reading tasks. Data collected were analyzed using both descriptive and inferential statistics involving frequency counts, percentages and Pearson product moment correlation statistics. The result revealed that secondary school students were aware of metacognitive strategies in reading and comprehension exercises. Finding showed that students applied these strategies in comprehending academic materials. It is also revealed that there was significant relationship between students' awareness and application of metacognitive strategies. It was therefore recommended that learners should be guided into using different metacognitive strategies in reading and comprehension since students who demonstrate a wide range of metacognitive skills perform better in examinations and complete work more efficiently.

Keywords: strategies, English as a second language, reading, awareness, application and metacognition

INTRODUCTION

Metacognition refers to a level of thinking that involves active control over the process of thinking that is used in learning situations. Planning the way to approach a learning task, monitoring comprehension, and evaluating the progress towards the completion of a task: these are skills that are metacognitive in their nature. Anderson (2002) states that the use of metacognitive strategies ignite one's thinking and can lead to higher and better performance. Students who demonstrate a wide range of metacognitive skills perform better on examinations and complete work more efficiently. They are self-regulated learners who utilize the right tool for the job and modify learning strategies and skills based on their awareness of effectiveness. Individuals with a high level of metacognitive knowledge and skill identify blocks to learning as early as possible and change tools or strategies to ensure goal attainment.

Kuhn (2000) defined metacognition as enhancing (a) metacognitive awareness of what one believes and how one knows and (b) metastrategic control in application of the strategies that process new information. This awareness is developmental and lies on a continuum. Proficient readers use one or more metacognitive strategies to comprehend text. The use of such strategies has developed over time as the reader learns which ones are best suited to aid in comprehension (Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998).

O'Malley, Chamot & Kupper (1985) stated that students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishment and future directions. Also, Oxford et al (1993) asserted that the use of appropriate language learning strategies often results in improved proficiency or accomplishment overall or in specific skills areas. Metacognitive strategies can take many forms: these include knowledge about when and how to use particular strategies for learning or for problem solving (Metcalf & Shimamura, 1994). A further description of these strategies for reading and comprehension include the following: Global strategies such as setting the purpose for reading, activating prior knowledge, predicting what is all about, using text structures and skimming. These are also called foundation strategies because they are the basis for others (Israel 2007).

The problem-solving strategies include: reading slowly and carefully, adjusting reading rate, re-reading, pausing to reflect on reading, reading text aloud and others. These strategies are applied when there is need to repair comprehension failure. Applying them strategically, meant that the students know when and why to applying them and most importantly which strategies to apply at a given time. (Muodumugo, 2009). Support reading strategies enhance real and active interaction. According to Israel (2007) examples of support reading strategies

are taking notes while reading, paraphrasing text information, asking self-questions, underlying text information, discussing reading with others, writing summaries of reading, etc. This is because it is by taking notes, summarizing and asking questions that meaning is clarified, internalized and retained. Going through literature, empirical evidence shows that strategy use results in more effective reading and recall among L1 and L2 learners using metacognitive strategies. In their study, Sheorey and Mokhtari (2001) examined differences in the reported use of reading strategies of native and non-native English speakers when reading academic materials. Participants were 302 college students (150 native-English-speaking US and 152 ESL students), who completed a survey of reading strategies aimed at discerning the strategies readers report using when coping with academic reading tasks. Results of the study revealed, first, that both US and ESL students display awareness of almost all of the strategies included in the survey. Secondly, both groups attribute the same order of importance to categories of reading strategies in the survey, regardless of their reading ability or gender: cognitive strategies (the deliberate actions readers take when comprehension problems develop), followed by metacognitive strategies (advanced planning and comprehension monitoring techniques), and support strategies (the tools readers seek out to aid comprehension). Thirdly, both ESL and US high-reading-ability students show comparable degrees of higher reported usage for cognitive and metacognitive reading strategies than lower-reading-ability students in the respective groups, and while the US high-reading-ability students seem to consider support reading strategies to be relatively more valuable than low-reading-ability US students, ESL students attribute high value to support reading strategies, regardless of their reading ability level.

Muodumogu (2009) evaluated the university students' and application of metacognitive strategies to reading in Benue state, Nigeria. 250 undergraduates were involved in the study. Findings revealed that undergraduates have low knowledge of metacognitive strategies and that their application of the strategies was minimal and non-directional.

Xiyang and Gang (2010) using questionnaires and interviews, conducted an empirical study of the gender differences in English reading strategies. Findings indicated that meta-cognitive reading strategies were used more frequently than cognitive ones.

However, Pressley et al (1998) found that students' comprehension was not enhanced by merely reading more text. If the students used even one of the strategies, for example summarizing, comprehension was improved. If students were given a host of

strategies that they could apply at their discretion, comprehension was greatly improved.

Boulware-Gooden et al (2007) examined how instruction of metacognitive strategies enhances reading comprehension and vocabulary achievement of third-grade students. Comprehension gains were found to be greater in the intervention school (20%) compared to the comparison school. Both groups read the same expository text, answered many of the same questions, and were engaged in the same introductory activities, which included metacognitive strategies such as understanding the purpose for reading and activating background knowledge. However, the intervention school students incorporated more metacognitive strategies during and after their reading. From the review of literature above, it could be seen that researchers have examined differences in the use of reading strategies of native and non-native English speakers when reading academic materials. It was also shown that meta-cognitive reading strategies were used more frequently than cognitive ones. In all, reading strategies were not used as much as they were supposed to be.

In Ekiti state, the problem is that students exhibit a lot of reading problems which inhibit their academic performance in other subjects. Some researchers have attributed the problem to lack of strategy use (Onuokaogu, 2002; Ofodu, 2009). Perhaps, this problem is traceable to students' lack of awareness of the strategies at their disposal? Perhaps, it could also be that these students are aware but they do not apply these strategies in reading and comprehension. There is therefore the need to fill this gap. This present study seeks to survey the awareness and application of metacognitive strategies of basically English as Second Language students in comprehending their academic materials in Ekiti state, Nigeria. This study also looks at the relationship between the variables which makes it quite different from the past studies.

Methodology

The study used a descriptive research method which was designed to obtain information from representatives' sample of secondary school students in Ekiti State. The subject for the study consisted of 120 students of both Junior and Senior Secondary Schools. The research instrument was a questionnaire titled "Students' Awareness and Application of some strategies to Reading and Comprehension". The instrument had three sections: A, B and C. Section A deals with bio data of the respondents on variables such as name, sex and class. Section B consisted of 15 items. 2-point rating scale was designed to elicit responses on the students' awareness of reading skills and strategies. All statements on the scale were rated as "Yes" or "No". Section C contained 5 questions used to obtain information about students' purposes of reading. The face and content validity of the

instrument were done by allowing the instrument to undergo items' evaluation. The researcher visited the selected schools and therefore had the opportunity of administering the questionnaire personally on the students. Data collected were analyzed using frequency counts, percentage, t-test and Pearson Product Movement Correlation Statistics. All the hypotheses were tested at 0.05 level of significance.

RESULTS AND DISCUSSION

Two research questions earlier raised in the study were answered descriptively using frequency counts and percentages.

Question 1: To what extent are students aware of metacognitive strategies?

Table 1: Descriptive analysis showing students' awareness of metacognitive strategies

S/N	ITEMS	YES	%	NO	%
1	Skimming	92	76.7	28	23.3
2	Scanning	113	94.2	7	5.8
3	Questioning	109	90.8	11	9.2
4	Inference	75	62.5	45	37.5
5	Verifying	93	77.5	27	22.5
6	Prediction	91	75.8	29	24.2
7	Monitoring	96	80.0	24	20.0
8	Summarizing	107	89.2	13	10.8
9	Visualizing	90	75.0	30	25.0

Extent of awareness of metacognitive strategies by students is presented in table 2. The result reveals that 92 (76.7%) of the sample are aware of skimming, 113 (94.2%) of scanning, 109 (90.8%) of questioning, 75 (62.5%) of inference, 93 (77.55) of verifying, 91(75.8%) of prediction, 96 (80%) monitoring, 107 (89.2%) summarizing and 90 (75%) visualizing. From the responses of students on awareness of various metacognitive strategies, it can be said that secondary school students are aware of metacognitive strategies to a large extent since over 60% affirmation was obtained on each of the aspects of metacognitive strategies.

Table 2 presents the extent of students' application of metacognitive strategies in reading and comprehension. The result shows that 98 (81.7%) of the total respondents receive assistance from friends while reading about meaning of expressions and difficult words, 95 (79.2%) of the sample adjust their reading rate to suit their reading materials, 92 (76.7%) paraphrase text information while reading, 110 (91.7%) set purposes for reading always, 97 (80.8%) derive meaning of what they read instantly, 101 (84.2%) remember what they have just read. It can be inferred from the responses on items 1-6 that secondary school students apply metacognitive strategies in reading and comprehension to a reasonable extent.

Question 2: To what extent do students apply metacognitive strategies in reading and comprehension?

Table 2: Descriptive analysis showing students' application of metacognitive strategies in reading and comprehension

S/N	ITEMS	YES		NO	
1.	Do you get assistance from friends while reading about meaning of expressions and difficult words	98	81.7	22	18.3
2.	Do you adjust your reading rate to suit your reading materials?	95	79.2	25	20.8
3.	Do you paraphrase text information while you are reading?	92	76.7	28	23.3
4.	Do you set purposes for reading all the time?	110	91.7	10	8.3
5.	Do you get meaning of what you read instantly?	97	80.8	23	19.2
6.	Do you remember what you have read?	101	84.2	19	15.8

HYPOTHESIS TESTING

The hypothesis formulated for the study was tested using Pearson Product Moment Correlation Statistic at 0.05 level of significance.

Hypothesis 1: There is no significant relationship between students' awareness and application of metacognitive strategies.

Table 3: Pearson Correlation of Students' Awareness and Application of Metacognitive Strategies.

Variable	N	Mean	SD	Rcal	Rtable
Awareness of Metacognitive Strategies	120	16.22	1.31	0.28	0.19
Application of Metacognitive Strategies	120	10.94	1.04		

Table 3 shows that rcal (0.28) is greater than r table (0.195) at 0.05 level of significance. The null hypothesis is rejected. Therefore, there is significant relationship between students' awareness and application of metacognitive strategies.

DISCUSSION

The result of the finding revealed that secondary school students are aware of various metacognitive strategies and apply these strategies in reading comprehending academic materials. It showed that students were not just aware of the strategies but they applied global, problem-solving and support strategies in reading comprehension. The finding agrees with Sheorey and Mokhtari (2001) that both US and ESL students display awareness of almost all of the strategies. The finding contradicts Muodumogu (2009) where undergraduates displayed low knowledge of metacognitive strategies and their application of the strategies was minimal and non-directional.

The result of the finding showed that there was significant relationship between students' awareness and application of metacognitive strategies. This

reaffirms the fact that it is just enough for students to be aware of the strategy but the application since there is a close alliance between the two. The finding is in consonance with the assertion of Muodumogu (2009) that applying them strategically meant that the students know when and why to applying them and most importantly which strategies to apply at a given time.

CONCLUSION AND RECOMMENDATIONS

From the findings of the study, it could be concluded that secondary school students are aware and apply metacognitive strategies in comprehending academic materials. The implication of this finding is that the problem with students' poor reading and comprehension is not because of their awareness and application of metacognitive strategies but they need to be trained on how to apply these strategies for successful comprehension of academic materials.

It was therefore recommended that learners should be guided into using different metacognitive strategies in reading and comprehension since students who demonstrate a wide range of metacognitive skills perform better in examinations and complete work more efficiently. Finally, teachers are to be trained on how to use metacognitive strategies so that they can help their students.

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