

Cognitive Styles and Instructional Strategies in Improving Reading Skills of Primary School Pupils in Abia State

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INTRODUCTION

The importance of the knowledge of reading to all individuals in order to live effective and active life in the society in which they find themselves is not in doubt. Reading is one of the compulsory disciplines in Nigeria's education system. Unfortunately, many times, students complain about how to cope with the vast number of reading assignments. This is because they have not learned how to read efficiently. Although it is not only students who are worried about their slow reading pace, little wonder Nnamani (2005) states that the graduate workers or executives should be concerned about improving their reading efficiency because the average Nigerian's reading speed of about 250 words per minute (250 wpm) is not fast enough to cope with the voluminous reading materials associated with high-flying jobs. Reading efficiently means reading with an average speed of about 600 wpm and a comprehension level of 70%, depending on the complexity of the materials and purpose for reading.

Reading is a literacy skill and a fundamental life skill that is necessary for every person. It can be described as a systematic way whereby readers find readable materials by the writer in written form. Therefore, reading means responding to the writer in an understandable way to predict the meaning of the text. According to Nwokocha (2016), reading can be defined as a comprehensive exercise involving the writer, the reader, and the ability to comprehend the written information. Based on the knowledge explosion, the 21st century is faced with the challenge of how to cope with the number of print and computer-assisted media produced annually. Texts are printed to be read. There is also advancement in Information and Communication Technology (ICT), which must also be read. This print and electronic media will not be highly utilized without reading ability.

In a bid to achieve the Millennium Development Goals (MDG) and the targets under the National Economic Empowerment and Development Strategy (NEEDS), it becomes necessary to improve the reading ability of Nigerians. Reading ability will help eradicate illiteracy and improve the education system/sector. To comprehend and evaluate the relevance of the written material, one needs to be active in getting the meaning of the text. On this note, Maduekwe (2003) and Nwokocha (2016) lament that Nigerians lack reading culture and reading success. Hence, Oba (2006) had earlier suggested that something should be done to enhance the literacy education of Nigerians.

Through reading, one acquires such skills as independence, comprehension, and fluency which one can use for better understanding. Reading failure presupposes lack of comprehension of texts. Research showed that comprehension is central to reading. When comprehension accompanies reading, it becomes a rewarding exercise, and the reader is motivated to read further (Ikegbunam, 2014).

Nigeria is a multi-ethnic country with numerous indigenous languages that are mutually unintelligible. As a

result of that, English is used to bridge the gap because every aspect of human endeavour can be expressed in the English language. It is used as Nigeria's national language, as a means of social interaction, and as a medium through which instruction is obtained in specific areas of knowledge. As Nigeria's official language, English is taught at the basic level of education in Nigeria and used as a medium of instruction at the post-basic level as well as the tertiary institutions. It is learned and used at all levels of the educational system. The main objective of the English language would be proficiency in all four skills of language that are required for good listening, speaking, reading, and writing. Therefore, teaching reading as a language skill would not simply be a matter of imparting a limited amount of the language. It would be a matter of ensuring that learners have a complete mastery of the skills they will use for the rest of their lives because reading is a language activity.

As spelt out in the Federal Republic of Nigeria's National Policy on Education (FRN, 2013), the English language has two principal roles. It is the language of instruction as well as a school subject. The lower basic school is the right place for laying a solid foundation for reading skills. Unless teachers start the development of the skills early, children may not cultivate successful reading habits in life. The skills involved in reading at the lower basic school include letter identification, word identification, and sentence reading. These are the basic reading skills that should be taught at this level. Reading skills seem to be neglected in the Nigerian education system.

Reading is a basic communicative competence we acquire as we interact with the written material and is a comprehensive means involving a number of activities. Based on this, many English teachers at the lower basic, middle basic, and upper basic as well as post-basic schools, find it difficult to teach. Most of Nigerian pupils and students cannot understand what they have read, even though they have been learning. Maduike, Okezie and Ugorji (2012, p.32) agree that "reading is a process through which a child's cognitive development can be furthered, and a child becomes aware of the events in other countries". An effective teacher of cognitive strategies influences students to understand the reading material. This method is good because it involves strategies to take care of the student's characteristics and learning activities that require comprehension. When appropriate teaching methods are utilised by the teacher, the students' intellectual ability and their morale to learn are captured.

An examination of the attitudes of the English language teacher becomes even more important when we remember that not all the teachers of English are specialists in the teaching of the language. Some of them read courses ranging from religion to political science, and it becomes ironic for us to expect them to handle such a technical aspect of the languages as reading skill. An effective English language teacher must have all knowledge of his subject matter. Unfortunately, these effective English language teachers are confronted with problems in reading as it effects the individual differences in learning in terms of perceiving, remembering, and retrieving new and difficult learning tasks in English studies. That is why educators and stakeholders in education are asking whether the problem lies in the instructional strategies teachers engage in teaching school subjects such as English language.

An effective teacher of cognitive strategies influences students to understand the reading materials. This method is good because it is one of the strategies that takes care of the students' characteristics and learning activities that require comprehension. According to Persaud (2021), teaching methods are different kinds of skills used by instructors to deliver their lessons and assist learners to study on their own with understanding. Questioning, planned repetition, and lecture methods are the three teaching methods employed in this study.

The questioning method is a method of teaching reading skills in the English language. It is a fact-provoking method, and it is a good teaching strategy that can be used at various stages of class instruction to direct or redirect the students' attention to the teaching objectives (Ukwungwu & Oyedapo, 2014).

In the teaching and learning process, planned repetition is regarded as one of the teaching skills that is helpful both for teachers and learners in eliciting information in the course of instruction as well as internalizing it. In the lecture method, the teacher is the custodian of knowledge who dishes it out to the students. It does not attract much contribution from the students. However, it is imperative to know that many factors contribute to these differences. One of them is the cognitive style of each learner.

In cognitive psychology, cognitive style refers to an individual's mode of internalization of information to solve problems. According to Nwokocha (2016), cognitive style refers to the unique manner by which learners process, perceive, organize and retrieve information which is distinctive and consistent. Olatunde (2012) maintains that cognitive style is the way by which individuals group their information processing in the environment in which they live in. Researchers are of the opinion that the way one learns determines how well one understands and achieves.

Cognitive styles involve both sides that mean they can go from one side to the other in achieving different purposes. Each end of the pole has different implications for cognitive functioning. We have field dependent/independent, reflective/impulsive, analytic/non-analytic, complex/simple and so on (Kintsch, 2005; Carol, 2009 & Frank, 2007). Thus, the study employed field dependent/independent cognitive style. Field dependent groups are students who cannot construct correct sentence, read, and answer questions on their own except with the help of the researcher/teacher or fellow pupils, while independent groups are pupils who could read on their none, construct correct sentences, and answer questions without the help of the teacher or pupils. Hence, cognitive style is considered an individual's preferred mode of information processing, in particular, field independency which is found to be a positive way of measuring cognitive style.

Some studies have been done in the area of cognitive styles and instructional strategies. Studies like those of Gross (2011), Dike (2010), Mbakwem (2001), and Nwahunanya (2003) all investigated the relationship between cognitive style dimension of field dependent-independent and instructional strategies. For instance, Mbakwem (2001) investigated the effects of cognitive styles and instructional strategies and found that field independent subjects taught with discovery method scored significantly higher than their counterparts taught using expository method. Nwahunanya (2003) also carried out a study to determine systematic assessment procedure, cognitive style, and gender as determinates of learning outcomes in chemistry. The findings revealed that field dependent learner experiences more science anxiety than did field-independent learners. It was also discovered that significant interaction exists between sex and Cognitive style and between achievement level and cognitive style. To the best knowledge of the researchers, there appears to be dearth of studies on cognitive styles and instructional strategies for improving reading skills of primary school pupils in Abia State. Hence, the purpose of the study is to determine the effects of cognitive styles and teaching strategies in improving reading skills of primary school pupils in Abia State. More specifically, this study seeks to investigate the differential effectiveness of three instructional strategies (questioning, planned repetition and lecture method) on pupils' achievement in reading skills.

RESEARCH QUESTION

One research question was posed to guide the study.

1. How did each of the three instructional strategies (questioning, planned repetition and lecture method) bring improvement in reading skills achievement among the groups at post-test?

Hypotheses

The following null hypotheses were formulated and tested at 0.09 level of significance.

HO1 There is no significant difference in the mean scores of the three learning groups (questioning, planned repetition and lecture method) as measured by English Studies Reading Assessment Test (ESRAT) at post-test.

HO2 There is no significant difference in the mean score of field-dependent (FD) and field – independent (FI) subjects taught using the three instructional strategies as measured by ESRAT at post-test.

METHOD

The study adopted pre-test, post-test and control group design. It employed “3x2x2” factorial design comprising three levels of teaching methods (questioning, planned repetition and lecture method), and two levels of cognitive style dimensions (field-dependent and field- independent). The three treatment groups, namely; questioning, planned repetition and control groups constituted the row. The columns were made up of cognitive styles. The subjects in the six groups were randomly assigned after categorizing them into field-dependent versus field- independent using the Group Embedded Figures Test (GEFT).

Seven hundred and fifty-six (756) basic four pupils made up the population of the study in the 40 primary schools in Isuikwuato Local Government Area of Abia State in the 2019/2020 academic session. There are 51 primary four (4) teachers and only 17 are graduates of English language. Primary four (4) was chosen because English language as a medium of instruction for all the subjects is introduced at this level, hence, 90 basic four pupils constituted the sample for study.

The instrument titled ‘Group Embedded Figures Test’ (GEFT), made up of 25 test items were written, and where the puzzles were hidden in the complex geometric forms, was administered to the entire 90 pupils. The test was administered to determine a student’s cognitive style, that is, how students perceive and process information. The test required students to trace the outlines of the simple forms located. Pupils were identified as field-dependent or field independent on the 25-point continuum reflecting the degree of recognition of the embedded figures in the test. GEFT was hand scored and responses were scored as 0 or 1. Pupils who correctly locate the figures within the geometric design were given 1. The test score is the total number of figures correctly located. The maximum possible score on this test is 25. A high score (20⁺) suggests an interpretation of field-independent.

Two experts in measurement and evaluation from the Faculty of Education, Abia State University, Uturu; two experienced primary four teachers and three English language teachers validated the achievement test items. In order to test the reliability of the instrument, it was administered on 30 pupils in Okigwe Urban Primary School who were not part of the study. To test for reliability of the instrument, the Cronbach Alpha reliability statistics was used and the reliability index was 0.96 which was suitable for the study.

TREATMENT PROCEDURE

Permission was sought from the head teachers to use their schools and pupils for the study. The assistance of the classroom teachers of primary four were also sought to fix the treatment periods for the group used for the study. The researchers spent two periods to talk and group the pupils for the study exercise. GEFT was administered which was used to categorize the subjects into field-dependent and field-independent and thus, select the sample. The subjects were assigned to experimental and control groups using table of random numbers. The treatment phase lasted for six (6) weeks, that is, six (6) lesson periods of 60 minutes for each of the groups. There were two experimental groups. Group A and B constituted the experimental groups

while Group C was the control group. Group A was taught with questioning strategy, Group B was taught with planned repetition while Group C, the control group, was taught with lecture method, and was not given treatment like the other two groups. The post-treatment was taken at the last week of the treatment period. Frequency counts, percentage as well as mean deviation were used to analyze the research question and bar chart was also used to illustrate the performances in different cognitive styles. Analysis of covariance (ANCOVA) was used to test the hypotheses.

RESULTS

Research Question One: How did each of the three instructional strategies (questioning, planned repetition and lecture method) bring improvement in reading skills achievement among the groups at post-test?

Table 1a: Nature of English Studies Reading Skills Improvement among the Three Groups of Instructional Strategies at Post-test

Group A: Subjects Treated with Questioning

Group A										
FD					FI					
S/N	R ₁	R ₂	RD	^a RD	R _D	Y ₁	Y ₂	YD	^a YD	YD Mean Improvement
Mean Improvement										
1	8	18	10			11	18	7		
2	9	16	7			12	20	8		
3	6	15	9			10	20	10	129	8.6
4	7	16	9	15.7	10.47	11	20	9		
5	5	15	15			12	20	8		
6	5	15	10			10	18	8		
7	6	14	8			11	20	9		
8	4	13	9			9	19	10		
9	5	18	13			10	20	10		
10	7	16	9			8	20	12		
11	6	18	12			11	20	9		
12	8	17	9			10	19	9		
13	6	18	12			11	20	9		
14	6	19	13			12	20	8		
15	5	17	12			17	20	3		

Note: R₁ Y₁ = Pre-test

R₂ Y₂ = Post-test

Group A subjects treated using questioning are made up of field dependent and field independent subjects a

presented in table I. The result showed that field dependent subjects improved by 10.47, better than the field independent who had 8.6. This result indicates that questioning method improves the English reading skills achievement of the subjects (field dependent) better than the questioning field independent group at post-test.

Table 1b: Group B – Subjects Treated with Planned Repetition

Group B										
FD					FI					
S/N	R1	R2	RD	Δ RD	RD	Y1	Y2	YD	Δ YD	YD
					Mean improvement					Mean Improvement
1	6	20	14			15	20	5		
2	7	20	13			14	20	6		
3	5	19	14			13	20	7		
4	8	20	12			14	20	6		
5	7	18	11			11	20	9		
6	6	19	13			12	19	8		
7	6	19	13			16	20	4		
8	7	18	11	19.7	13.13	14	20	6	94	6.27
9	8	18	10			15	20	5		
10	5	19	14			14	20	6		
11	4	20	16			15	20	5		
12	6	20	14			13	19	7		
13	6	20	14			12	20	8		
14	5	17	12			13	20	7		
15	4	20	16			15	20	5		

Note: R_1 Y_1 = Pre-test

R_2 Y_2 = Post-test

Group B, the subjects treated with planned repetition is made up of two groups; the field dependent and field independent. The result as presented in table 1b showed that the planned repetition field dependent group made improvement (13.13) than the field independent group (6.27). This result therefore, indicates that planned repetition is a very effective instructional strategy for improving the English reading skills of the field dependent than field independent subjects to a high extent.

Table 1C: Group C – Subjects Treated with Lecture Method

Group C										
FD					FI					
S/N	R1	R2	RD	Δ RD	RD	Y1	Y2	YD	Δ YD	YD
					Mean Improvement					Mean Improvement
1	13	14	1			14	18	4		
2	12	14	2			15	18	3		

3	10	13	3			15	19	3		
4	13	14	1	28	1.8	12	16	4	56	3.7
5	14	15	1			15	16	1		
6	10	11	1			13	19	6		
7	9	11	2			14	19	5		
8	9	10	1			17	17	3		
9	10	12	2			16	19	3		
10	10	13	4			16	19	3		
11	14	15	1			15	29	4		
12	10	10	1			16	20	4		
13	10	13	3			18	19	2		
14	10	14	4			14	19	5		
15	13	14	1			18	19	6		

Note: $R_1 Y_1 =$ Pre-test

$R_2 Y_2 =$ Post-test

Group C, the subjects treated with lecture method is made up of two groups; the field dependent and field independent. The result, as presented in table 1c showed that field dependent (1.8) and field independent (3.7) does not have any appreciable improvement in the English reading skills at post-test. This result therefore, indicates that lecture method is not an appropriate instructional strategy for improving the English reading skills of both fields dependent subjects. However, field independent groups performed better in lecture method. Thus, lecture method is best for field independent group.

Hypothesis One: There is no significant difference in the mean scores of the three learning groups (questioning, planned repetition and lecture method) as measured by English Studies Reading Assessment Test (ESRAT) at post-test.

The data analysis of this hypothesis is summarized and presented in table 2 using SPSS version 20.

Table 2: One-way ANCOVA for Differences in the Mean Scores of the Three Learning Groups

Table 2a: Levene’s Test of Equality of Error Variances^a

Dependent Variable: Improvement

F	df1	df2	Sig.
1.055	11	18	.444

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- Design: Intercept + Lecture + Questioning + Planned + Questioning *
- Table 2a Levene’s test of equality of error variance shows that any of the assumption has been violated. The significant value is 0.444 which is greater than 0.05. In this case, no assumption has

been violated since the significance level is above the criterion 05.

Table 2b: Test of Between-Subjects Effects

Dependent Variable: Improvement

Source	Type III Sum of squares	df	Mean square	F	Sig.	Partial ETA Squared
Corrected Model	1040.609 ^a	12	86.717	1.480	.224	.511
Intercept	1276.926	1	1276.926	21.794	.000	.562
Lecture	70.419	1	70.419	1.202	.288	.066
Questioning	323.273	6	53.879	.920	.505	.245
Planned	187.777	3	62.592	1.068	.389	.159
Questioning*Planned	41.416	2	20.708	.353	.707	.040
Error	996.058	17	58.592			
Total	70200.000	30				
Corrected Total	2036.667	29				

- R Squared = .511 (Adjusted R Squared = .166)

The table 2b test of between-subject effects, presents no difference between the independent variables (planned and questioning) and dependent variable (improvement in reading skill). The F-value is 0.71 which is greater than 0.05, therefore the result is not significant. Hence, we conclude that there is no significant difference between the two experimental strategies but a significant difference exists between the experimental methods and lecture method at post-test. The effect size, as indicated by the corresponding partial ETA squared value is 0.04 which is a small effect size as explained in the method of data analysis. This value indicates how much of the variance in the dependent variable is explained by the independent variable which is 4%. There was no difference between the two methods of interventions (planned repetition and questioning method) scores in the improvement of reading skills but a significant difference exists between the two interventions and lecture method. Hence, we state that there is a significant difference in the mean score of subjects exposed to planned repetition and questioning with the lecture method.

Hypothesis Two: There is no significant difference in the mean score of field-dependent (FD) and field – independent (FI) subjects taught using the three instructional strategies as measured by ESRAT at post-test.

The analysis of data for this hypothesis is summarized and presented in table 3a using SPSS version 20.

Table 3a: Levene’s TEST of Equality of Error Variances^a

Dependent Variable: Improvement

F	df1	df2	Sig.
1.704	5	24	.172

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- Design: Intercept + Lecture + Planned + Group + Planned*
- The table 3a Levene’s test of equality of error variance shows that significant value is 172 which is

greater than the criterion value of 0.05. This means that the assumptions of linearity, normality and homogeneity of variance and homogeneity of regression has not been violated.

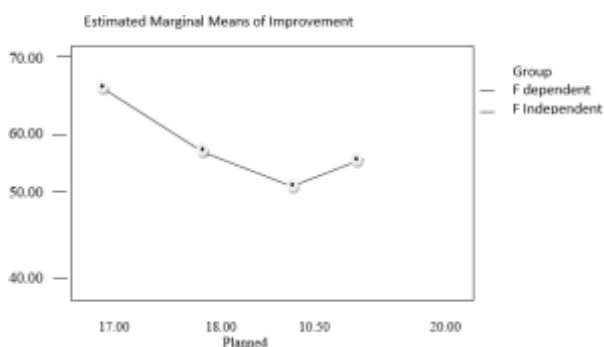
Table 3b: Test of Between-Subjects Effects

Dependent Variable: Improvement

Source	Type III Sum of squares	df	Mean square	F	Sig.	Partial ETA squared
Corrected Model	651.083 ^a	6	108.514	1.801	.143	.320
Intercept	571.702	1	571.702	9.490	.005	.292
Lecture	2.512	1	2.512	.042	.840	.002
Planned	367.792	3	122.597	2.035	.237	.210
Group	.255	1	54.617	.907	.351	.038
Planned* Group	54.617	1	.255	.004	.949	.000
Error	1385.584	23	60.243			
Total	70200.000	30				
Corrected Total	2036.667	29				

R Squared = .320 (Adjusted R Squared = .142)

The table 3b, test of between-subject effects, presents the analysis of covariance conducted to assess the effectiveness of two teaching strategies in improving reading skills for the two groups, field dependent (FD) and field independent (FI) participants. The independent variables are planned repetition and questioning strategies and the groups. The lecture method was used as the covariate from the table $F = 0.004$, $P = 0.95$ which is larger than 0.05 and the partial (23.1) $\eta^2 = 0.000$. This shows no significant interaction effect, with no effect size. Hence, the two interventions have the same significant effect on the groups. Planned repetition and questioning method are both effective in improving the reading skills of both field dependent and field independent groups. Thus, the null hypothesis is accepted and we state that there is no significant difference in the mean scores of field-dependent (FD) and field-independent (FI) subjects taught using the three instructional strategies as measured by ESRAT at post-test.



Variants appearing on the model are evaluated at the following values lecture = 16.667 Non estimated means are not plotted

Figure 2.1 plot of the adjusted means of improvement as a result of treatment, split for field dependent and field independent for the two treatment strategies. The graph shows clearly that there is no significant interaction effect existing between the two independent variables. This suggests that field dependent and field independent appear to respond to the programmes and treatment in the same way with greater

improvement.

DISCUSSIONS

Field dependent (FD) group in this study is the subjects or pupils used in this group, who could not construct correct sentences, read and answer questions on their own except with the help of the researcher, teacher or fellow pupils. On their own, constructing correct sentences, reading and answering questions become difficult. The **field independent** (FI) group in this study is the pupils used in this group who could read on their own, construct correct sentences and answer questions without the help of the researcher, teacher or fellow pupils.

Reading is one of the receptive skills which are of great importance in English studies achievement and the employment of special strategies like questioning, planned repetition and lecture method helps to fine-tune the best method imparting these teaching techniques to the primary school pupils.

The subjects in this group were made up of two experimental or treatment groups. The **questioning field dependent** (QFD) and the **questioning field independent** (QFI) as was randomly assigned after categorizing them through the use of Group Embedded Figures Test (GEFT). The result of the studies showed the subjects in the questioning field dependent (QFD) strategy improved in English reading skills achievement more than the questioning field independent (QFI) strategy. The difference between the two groups however, was not statistically significant. The implication of this study was that **questioning method** is the best method in teaching English reading skills to field dependent pupils than the field independent pupils in the primary schools. This study revealed that this teaching method can be of great advantage to backward pupils in reading ability and understanding.

The finding of this study revealed a link between cognitive style and the learning strategies used. This supports the work done by Grossman (2011) who investigated the link between cognitive style and learning strategies and considered how the relationship differed between successful and unsuccessful learners in Switzerland. The findings of this study among others show that cognitive learning style and learning strategies are linked and this influences types of cognitive learning groups. It also reveals that by supplementing traditional syllabi with this improved cognitive learning style and instructional strategy, teachers can offer concrete advice to those pupils most in need of assistance in reading. Many young children have reading difficulty which questioning method of instructional strategy tends to curb. This method may not benefit pupils who do not have much reading difficulty. The study done by Duke and Block (2012) on improving reading in the primary grades found that some basic reading skills are not being attended to, the broader domains of accomplishment that constitute preparation for comprehension and learning in the later grade (vocabulary knowledge and conceptual and content knowledge) will be promoted.

Planned repetition instructional strategy in teaching English studies reading skills was also found to be effective in improving the field-dependent than the field-independent subjects after treatment. Teachers are to drill pupils on some important concepts, process or skills by repeating each step after some time with the aim of upsetting obstacles and adopting best practices in teaching reading. On this, pupils were actively involved in the reading exercise. According to Eny (2012) the cognitive reading strategy was effective in developing students reading skill or sentence comprehension. Another study done by Duke and Block (2012) also supports this study. The study by Duke and Block found that allowing students the opportunity to discuss, read aloud, acquisition of new vocabulary and reading passages repeatedly make students better readers.

This study found that **planned repetition field dependent** (PRFD) group performed better than **planned repetition field independent** (PRFI) group at post-test but the difference in the two groups'

performance was not significant. A similar study was done by Gbenedio (1999) with the view of finding out the relative effectiveness of the individualized reading strategy (IRS) and the conventional reading strategy (CRS) in terms of achievement in reading. A factorial analysis of covariance performed on the raw scores revealed that the IRS was superior to the CRS irrespective of initial achievement level as it related to reading effectiveness. However, the difference between the two strategies was statistically found to be significant as against findings of this study.

The three instructional strategies used in this study were statistically tested and Analysis of Covariance (ANCOVA) showed that planned repetition and questioning methods were superior in teaching of English studies reading skills to primary school pupils. In other words, a significant difference was found between lecture method and planned repetition, lecture method and questioning method, but no significant difference was found between planned repetition and questioning methods. This study also tried to find if there exist any significant differences between field dependent male and field independent female in the three instructional strategies. The result revealed no significant difference between field dependent (FD) males and FD females in the three instructional strategies as measured by ESRAT at post-test. Finding corroborates that of Nnaka (2006) who examined whether there was any significant difference between male and female achievements in introductory technology based on charts and pictures in secondary schools. Another similar study was done by Eleni, Alewiadou and Semoglou (2012) which tried to identify gender differences in reading abilities and strategies employed by Greek students. They found that the female students' flexibility in strategy use and their higher male cognitive awareness when compared was significantly different. This finding is in contrast with the finding of the researchers. Another study done by James (2010) found that girls excel in perceptual speed than boys and also found boys to have greater activity in the portion of the brain associated with spatial skills. Many studies done in these areas have found differences rather than similarities in how they think and solve problems. This study is one of such study which agreed with the work of Mc-Clure (2008) that some verbal skills such as analogies appear to have a male advantage. Males who were more likely to have problems are diagnosed with suffering from spatial ability. However, other studies like that done by Howell (2008), Halpem (2004) and Kimura (2000) found that there was no significant difference in male and female verbal intelligence in spite of the fact that males are less likely to read for pleasure than females.

CONCLUSION

Based on the findings in this work, the following conclusions were made.

- The subjects, **questioning field dependent (QFD)**, had improved high mean performance than the **questioning field independent (QFI)**. However, there was no significant difference between QFD and QFI overall performance at post-test. This means the two groups are equal in performance at post-test.
- The subjects, planned repetition field dependent (PRFD) recorded improved mean performance than the planned repetition field independent (PRFI) after treatment. The hypothesis showed no significant difference between PRFD and PRFI taught as measured by ESRAT at post-test. This means the two groups performed equally well after
- The subjects, lecture field dependent (LFD) performance was lower compared to that of the subjects, lecture field independent (LFI). A significant difference was found between the performance of LFD and LFI as measured by ESRAT at post-test. The lecture method did not improve field dependent subject

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