

## **EFFECT OF COGNITIVE ELABORATION STRATEGY ON ENGLISH LANGUAGE ANXIETY AMONG PRIMARY SCHOOL PUPILS IN ZARIA METROPOLIS, KADUNA STATE, NIGERIA**

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### **Abstract**

*Quasi experimental, non equivalent control group, pre test – post test design was used to evaluate the effect of cognitive elaboration strategy on English language anxiety among primary school pupils in Zaria metropolis, Kaduna State, Nigeria. Three research questions and hypotheses were formulated for this study. Simple random sampling technique was used to sample 40 pupils from two schools randomly sampled the population of primary six school pupils with high incidence of English language anxiety in Zaria Educational zone. T-test and Analysis of Covariance was used to test the formulated hypotheses. The results shows that significant differences does not exist between male and female students exposed to CES treatment implying that the treatment is effective for both male and female students in ELA; significant difference exist in the effect of CES on ELA among primary school pupils, and CES was effective in reducing English language anxiety among primary school pupils. It was concluded that Primary school pupils exposed to cognitive elaborative strategy had a reduce English language anxiety, as compared to those who were not exposed to in the control group and that gender was not a significant factor in the effect of cognitive elaborative strategy on reducing English language anxiety among primary school pupils. Recommendation(s) were made that school psychologist, counsellors, teachers should be encouraged to use cognitive elaborative strategy to reduce English language anxiety among primary school pupils and male and female pupils should be given equal opportunity to acquire the new strategy to re-address English language anxiety.*

### **Introduction**

Nigeria needs a basic education programme that will ensure that every Nigerian youth on graduation is sufficiently equipped with knowledge, skills and experience required for initial entry into one occupation in the world of work, whether college bound or not and this usually starts with primary school education (Akinbote as cited in Uju, 2008).

In Nigeria, English language is one of the core subjects offered at both Pre-primary, primary, Secondary and Tertiary Institution in Nigeria (NEPE, 2013). It is an indispensable medium that helps man to achieve effective communication as it mirrors the mind in deep and significant ways seen in teaching and learning in schools (Obiegbu, 2015). English language as a distinct complex of self-perceptions, beliefs, feelings and behaviour-related of classroom language learning could only be achieved when there is effective use of learning strategies to regulate language

anxiety in school (Lu & chnn, 2012 and Ying, 2008). Language anxiety is caused by personal and interpersonal, learner beliefs about language learning, teacher belief about language anxiety, teacher-learner interactions, classroom procedures and language testing (Ying 2008; Vitasari, Abdulwahab, Othman & Awang, 2010). Previous study showed that low anxiety students perform better than high anxiety students on English language class and students who have high level anxiety made different types of grammatical errors, difficult speeches, or personal interactions in English language than low-level anxiety (Vitasari, et al, 2010).

Anxiety is a worry conditions that is commonly experienced during English language performances in classroom. Anxiety can interrupt exam performances (Sansgiry and Kavita, 2006). High degree of anxiety can block thoughts, create negative frame in mind, and potential sources of poor exam performance. Literature shows that pupils who are not well prepared for exam may have high levels of task interfering worry during examination than those who are better prepared (Pecarora, 2006). Horwitz as cited in Murugesan (2005) state that anxiety among students can lead then to avoid studying and some cases skip classes entirely. According to Krannich as cited in Brenda and Tilson (2005), further maintained that the fear to deliver a speech or presentation ranks as the number one fear among most students. To Elliot and Joyce (2005) reported that 35% of the students surveyed attributed public speaking anxiety to lack of adequate preparation and practice.

Currently, there is a theoretical shift in the perception of the role of the learners in the learning process. Instead of being viewed as passive recipients of information supplied by the instructors, they are perceived as participants in the knowledge acquisition process (Li and Chun, 2012). Children need learning strategies to regulate their own learning (Lai, 2009; Marsh, Hau, Artelt, Baumart & Peschar, 2009; and Zimmerman, 2000). Zimmerman (2000) maintained that self-regulated learning such as cognitive elaboration which involves integrating the new information to learners existing knowledge, so as to self regulate their thoughts, feelings and action that are planned and cyclically adapted to the attainment of personal goal among learners should be explored.

According to cognitive psychologists, efficient learners actively self-regulate their behaviours and pursue learning in an independent, active and deliberate manner (Zimmerman, 2000; Eze, 2003, Li and Chun, 2012). They are effective in the management of their learning experience (Schunk & Zimmerman, 1994) motivated, independent and meta-cognitively active in the learning process (Zimmerman, 2000). Politzer and McGroaty (1985) found no relationship between the use of learning strategies and learning outcomes. Lai (2009) revealed that more proficient learners used more learning strategies. Wenden as cited in Li and Chun (2008) reported that less successful learners used fewer strategies frequently, while Chen (1990) found that low-achievers used more learning strategies compared with high achievers. Also, the uncertainty over the extent instruction in learning strategies is dependent on gender appears not to have been resolved. Some studies observed that the relative effect of strategy instruction on achievement is not based on gender-factor (Eze, 2003; Wen and Johnson 1997; Zimmerman & Martinez-Pons, 1990). Higher

achievers may also use strategies automatically without being aware of it. Still, overuse of certain strategies may have a negative effect on student-learning outcome. For example, primary school pupils adopt note memorization and repetition strategies. These strategies have been observed not to be effective in learning, especially, when complex tasks are involved (Eze, 2003). This creates the need to expose pupils to a more effective strategy, such as elaboration cognitive strategies to enhance efficient learners to become independent, active learners, stay on task, understand content, reading ability, grasp relationship and enhance creativity as well as mastery skills among learners.

According to information processing theory (Weiner, 2003) maintained that performing activities such as encode, schema activation, rehearsal, metacognition and retrieved in the presence of peers will result in deeper processing and more active engagement with the task at hand (Weiner, 2003; O'Donnell, 2006). The use of cognitive elaboration strategy has been suggested to lead to achieve involvement of learners to a goal directed learning. It facilitates the attainment of learning goals by enhancing learner's ability to activate prior knowledge and the function of association between existing knowledge in the memory and the new materials to be learned. This strategy requires the active involvement of the learners who have to purposefully and appropriately apply the learning skills in order to promote relations or connectors between incoming and already existing information in memory in a manner that will ensure retrieval when required. Literature reveals that purposeful and active involvement of students in the process of learning enhances achievement in schools (Eze, 2003). It was against this background that this study sought to explore the impact of elaboration cognitive strategies on English language anxiety among primary school pupils in Zaria metropolis, Kaduna state, Nigeria.

### **Research Questions**

1. What is the effect of CES on English language anxiety among primary school pupils exposed to treatment?
2. What is the differential effect of CES on those exposed to treatment and those in control groups in the pre test and post test scores?
3. What is the interaction effect of CES and gender on English language anxiety among primary school pupils exposed to treatment?

### **Hypotheses**

1. There is no significant effect of CES on English language anxiety among primary school pupils exposed to treatment.
2. There is no significant effect of CES on English language anxiety among primary school pupils in the treatment group and the control group.
3. There is no significant interaction effect of CES and gender on English language anxiety among primary school pupils exposed to treatment

### **Methodology**

The study was executed using a quasi experimental, non equivalent control group, pre test – post test design. The population of the study comprises primary six school pupils with high incidence of English language anxiety in Zaria Educational zone, Kaduna state, Nigeria. The sample was made up 40 pupils drawn from two schools randomly sampled from 48 schools in the educational zone. The two school selected were purposively assigned to treatment and control group.

A draft copy of English Language Anxiety Scale (ELAS) was given to three expert in English Language in the Department of Art and Social Science, Faculty of Education, Ahmadu Bello University, Zaria to ascertain the suitability or construct validity of the items. The questionnaire item was modified by integrating their objective suggestions. The instrument therefore was deemed fit for the study.

A trial testing was carried out on the instrument. The questionnaires were administered to 20 pupils in Funtua Local Government Area of Katsina State, Nigeria. Data collected were analyzed using Cronbach alpha and a coefficient of consistency of 0.82 was established. A test-retest reliability to determine the stability of the instrument over time was conducted. In order this achieved this, second administration of ELAS was done after two weeks and the scores obtained from both administration were correlated using Pearson moment correlation formula ( $r$ ) this yielded a test-retest reliability estimate of 0.01.

Mean and standard deviation were used to answer the research questions while Analysis of Covariance was used to test the hypothesis at 0.05 level of significance.

### **Instructional Package**

The programmes were provided for guided practice as the subjects were expected to attempt applying the required skills in learning. Those in treatment group were provided with the guided practice of elaboration cognitive strategy processing such as encoding, schema activation, rehearsal, metacognition, retrieval, self-regulation, feedback, and reinforcement. During practice also the subjects were asked to provide answer to why questions written below every major statement in the passage. This is why questions were designed to enable the subjects go beyond explicitly stated information in the passage. The subjects continued practice until they were believed to have achieved independent application of the strategy.

Furthermore, the subjects in the treatment group were advised to apply the cognitive elaborative strategy in the process of studying the passages, while those in the control group were simply instructed to study them.

### **Results**

The research questions were answered with their corresponding hypotheses that guided this study;

**Hypothesis One:** There is no significant effect of Cognitive Elaboration on English language anxiety among primary school pupils exposed to treatment

**Table 1:** Independent T test statistics on the difference of the effect of CES on English language anxiety.

Variable	Gender	N	Mean	Std. Dev	Std. Err	Df	t-cal	t-crit	Sig (p)
Post test Scores	Male	6	43.0833	10.18537	4.15816	10	0.819	1.96	0.432
	Female	6	38.8333	7.60701	3.10555				

Results of the independent t-test statistics above showed that is no significant difference was found in the effect of CES on ELA among primary school pupils. This is because the calculated p value of 0.43 is higher than the 0.05 alpha level of significance, while the t-calculated value of 0.82 were found to be lower than the t-critical value of 1.96, at df 10. Their calculated mean ELA scores were 43.08 and 38.83 by male and female students exposed to the CES treatment respectively. That is significant differences does not exist between male and female students exposed to CES treatment implying that the treatment is effective for both male and female students in ELA. Hence the null hypothesis is hereby not rejected

**Hypothesis Two:** There is no significant effect of CES on English language anxiety among primary school pupils in the treatment group and the control group.

**Table 2:** Independent t test statistics on the difference on the effect of CES on English language anxiety.

Variable	Gender	N	Mean	Std. Dev	Std. Err	Df	t-cal	Sig (p)
Post test Scores	CES	12	8.4167	4.85159	1.40053	22	20.108	0.000
	Control	12	86.7500	12.59239	3.10555			

Results of the independent t-test statistics above showed that significant difference existed in the effect of CES on ELA among primary school pupils. This is because the calculated p value of 0.000 was found to be lower than the 0.05 alpha level of significance, while the t-calculated value of 20.11 was found to be higher than the t-critical value of 1.96, at df22. Their calculated mean ELA scores were 8.42 and 86.75 by CES and control group students respectively. This implies that students exposed to the CES have reduced ELA than those in control group. Consequently, the null hypothesis which states that there is no significant difference in the effect of CES on ELA among primary school pupils is hereby rejected.

**Hypothesis Three:** There is no significant effect of CES on English language anxiety among primary school pupils by gender.

**Table 3:** Analysis of Covariance on the effect of CES gender on ELA

Source	Type III Sum of Squares	Df	Mean Square	F	Sig. (p)
Corrected Model	300.465 <sup>a</sup>	3	100.145	.768	.513
Intercept					
Sex	69152.429	1	6222.419	530.003	.000
Group	9.912	1	7.912	.076	.783
Sex * group	131.162	1	111.102	1.005	.007
Error	25.958	1	25.118	.199	.656
Total	30270.327	1232	130.416		
Corrected Total	327493.000	236			
a. R Squared = .0568	30570.792	235			
	(Adjusted R Squared	= .541			

Results of the ANCOVA analysis revealed there is no significant interaction effect of CES and gender on ELA among primary school pupils to CES. Gender was not a significant factor among those exposed CES on ELA among primary school pupils with ( $f = 0.76$ ,  $p = 0.783$ ). The null hypothesis is hereby rejected. The adjusted R squared of .55, suggested that 54% of the variance on the dependent measure was contributed by treatment using CES. This evidence shows that CES was effective in reducing English language anxiety among primary school pupils.

### Discussion

The purpose of this study was to examine the impact of cognitive elaborative strategy on English Language anxiety among primary school pupils in Kaduna state, Nigeria.

As evidential from the finding of this study, significant difference did not existed in the effect of cognitive elaborative strategy on English language anxiety among primary school pupils. That is pupils exposed to cognitive elaborative strategy had a reduced English language anxiety.

This is because pupils exposed to cognitive elaborative strategy of encoding, schema activation, rehearsal, metacognition, retrieval, self – regulation, feedback and reinforcement had a significant reduction in English language anxiety and they learn actively and independently. The findings collaborate with the earlier finding of Eze (2003), Lai (2009), O'Donnel (2006), Politzer and Mchroaty(1983), Weiner (2003); Schunk and Zimmerman (1994) who found no gender difference on cognitive learning strategy, self regulation, metacognition and communication strategy.

Similarly, the findings of this study also reveal that pupils exposed to cognitive elaborative strategy had a reduced English language anxiety when

compared to their counterpart in the control groups. This was attributed to the treatment effect. This finding agreed with the early findings of Eze (2003), Ying (2008) Vitsari et al (2010), Li and Chum (2012) and When and Johnson (1997) respectively. They found that Elaboration Interrogative Strategies Learning, Learning Strategies and Cognitive behavioural Strategies were effective in enhancing achievement in language learning in school.

### **Conclusion**

Primary school pupils exposed to cognitive elaborative strategy had a reduce English language anxiety, as compared to those who were not exposed to in the control group and that gender was not a significant factor in the effect of cognitive elaborative strategy on reducing English language anxiety among primary school pupils. Therefore CES is effective by helping to focus their attention, to desire meaning and to make adjustment when something goes amiss. Also able to check their confusion, or inconsistency, employ a corrective strategy such as encoding, schema activation, rehearsal and metacognitive, feedback and reinforce into and reliability the current information to their past knowledge. It also helps the pupils to handle their own cognitive process independently.

### **Recommendations**

Based on the finding of this study, the following recommendation(s) are made;

1. School psychologist, counsellors, teachers should be encouraged to use cognitive elaborative strategy to reduce English language anxiety among primary school pupils.
2. Seminar, conferences and workshops should be organized for all stakeholders in education on the new skills to re-address English language anxiety among primary school pupils.
3. Male and female pupils should be given equal opportunity to acquire the new strategy to re-address English language anxiety.

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