European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available on-line at: www.oapub.org/edu

doi: 10.5281/zenodo.3334530 Volume 6 | Issue 4 | 2019

RELATIONSHIP AMONG COGNITIVE STYLES, PARENTAL INVOVLEMENT AND LEARNING OUTCOMES OF PUPILS IN SOCIAL STUDIES IN ONDO STATE, NIGERIA

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Abstract:
The study investigated the relationship among Cognitive Styles, Parental Involvement and Learning Outcomes of pupils in Social Studies in Ondo State. The study adopted descriptive survey research design. The population for the study comprised primary III pupils and their parents in Ondo State. The sample size consisted of 240 primary III school pupils and 240 parents selected using multistage sampling procedure. One senatorial district was selected from the state using simple random sampling technique. Two Local Government Areas (LGAs) were selected from the sampled senatorial district in Ondo State using simple random sampling technique. From each of the two selected primary schools, 30 pupils and 30 parents each from two intact classes were randomly selected for the study. Three instruments were used for data collection, they are: Cognitive Styles Questionnaire (CSQ), Pupils' End of Term Examination Score in Social Studies (PETES) and Parental Interview Schedule (PIS). The data collected were analyzed using frequency counts, percentages and multiple regression analysis statistics. The results showed that there was no significant relationship between cognitive styles and learning outcomes (cognitive styles yielded a coefficient regression (R) of .152 and a correlation square (R^2) of .023). There was also no significant relationship between parental involvement and learning outcomes (parental involvement yielded a coefficient regression (R) of .118 and a correlation square (R^2) of .014). These values were statistically significant at 0.05 probability level. In addition, there was no significant relative contribution of cognitive styles and parental involvement to learning outcomes of pupils in lower primary schools. The results indicated that field independent and field dependent cognitive styles t-values = -1.696 and -1.581 respectively while their respective beta weight values = -.108 and -.101. Also, parental involvement t-value = 1.791 and beta weight = .114. The study concluded that

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parental involvement was a very good predictor of pupils' learning outcomes in Social Studies in lower primary school in Ondo State.

Keywords: learning outcomes, cognitive styles, parental involvement, pupils, social studies

1. Introduction

Education is the teaching-learning process of preparing an individual from birth all through his/her life to become useful to him/herself and the society at large (Oyekan, 2006). It brings about holistic changes in an individual- physically, mentally, socially, spiritually and economically.

Learning outcomes are clear statements that describe knowledge, skills, and attitudes which an individual is expected to achieve at the end of a study (Armstrong, 2001). The units of learning outcomes fell into three categories or domains, which include cognitive domains, psychomotor domains and affective domains. Biggs (2009) described learning Outcomes as a content that is not only learned but also what is to be done with that content and to what standards. They should be statements of what pupils are expected to be able to do after studying, expressed from the pupils' perspective, express in the form of action verbs leading to observable and assessable behaviour, and related to criteria for assessing pupils' performances.

The concept of cognitive styles originated from two dimensions in Educational and vocational psychological research. Different individual have different ways of behaving, thinking, learning, reasoning, remembering, approaching and these are brought together to suggest that individuals have different cognitive styles (Riding & Rayner, 2000). Cognitive styles are the psychological differences between how pupils perceive, interact with and respond to different learning environments (Sanker & Raju, 2011). It is important for individuals to understand the different ways they learn or approach different situation.

Cognitive styles are biologically imposed (Dunn, 1990). The use of cognitive styles in schools had contributed to increase in learning outcomes and positive school environment. Pupils' learning outcomes and cognitive styles are often found to have a strong positive relationship with each other, therefore, schools should keep pupils cognitive styles in mind when preparing curriculum in order to achieve the best learning environment and pupils' learning outcomes. Etoum (2004) also indicated that one of the most important guidelines that prescribed the form of learning and the ways to deal with the elements of learning is cognitive style and there is relationship between cognitive styles and learning outcomes. Each student has their own way or style of learning/thinking. There are some students who are more interested in analytical subjects such as Mathematics and Science; likewise some are interested in Social Sciences and Languages. There are different types of cognitive styles that distinguish individuals in their dealings with the various situations. The most important of these cognitive styles are field-dependent and field-independent cognitive styles. Learner

with Field Independent cognitive styles is considered as one who does not limit learning to his immediate environment but provide materials and his experiences to the wider environment while Field dependent learner is a learner who is mostly dependent on the materials given in his environment (Muhammed, 2010). The role of teachers and parents is very important in teaching-learning process.

The parent is the first and most important teacher in the life of every child and he/she is expected to play the role actively in the early education of the child because it was believed that the parent and the child should grow together and have a befitting pre-school experience. “Parents” could be the single parents, grand-parents, relative parents, non-relative parents and community parents, he/she is expected to be supportive to the child socially, physically, mentally, emotionally, educationally (Epstein, 2001). The parents could be the mother or the father or both. The main idea about "motherhood" is that mothers are seen as the ultimate caregivers, they invest most if not all of their time on their children which sometimes affects their job. In this present era, “stays at home mothers” or “full house wives” are not common compared to the past; women now spend more time with children than men, they nurture, support emotional growth and stability of their children. There are fathers that spend more time with their children now compared to the past where fathers were basically the breadwinners. There are changes in the roles of the fathers, they participated more in parenting roles and taking on responsibilities such as bathing, dressing, feeding, changing diapers and communicating with the children (Rain and William, 2011). Parents are in the best position to provide some demonstrative and instructional materials for the children because they learn through play away method. These playing materials may include balls, toys, Picture books, beads, blocks, figures, dolls, cars, puzzles, and slides (Reynolds & Clements, 2005; Frost, Wortham & Reifel, 2008).

Parental involvement has some positive effects on pupils other than academics, and this may include motivation, self-esteem and self-reliance, which may lead to academic success regardless of economic background. Research also affirmed that inadequate or no parental involvement contributes to low/poor pupils’ learning outcomes (Bower & Griffin, 2011). Parental involvement include educating, communicating, volunteering, supporting children learning activities at home, involving parents in school decision making and collaborating with the community. When parents are involved in their children’s schooling and/or education, such children achieve better, have improved academic skills and adapt well to school. In the contemporary society, schools and parents are responding to increased expectations concerning the child. In the studies conducted by Epstein (2001), communication is one of the six pillars of parental involvement which facilitates a very strong and significant relationship between the teachers and the parents. Parent-school communication enables the parents or the teachers to pass information regarding the child’s cognitive styles and learning outcomes.

2. Statement of the Problem

Parental involvement on children's learning outcomes had been shown to contribute to better academic achievement but many pupils who are less successful or failed to achieve excellent results could be as a result of their cognitive styles and parental involvement (Baharin, 2000). Lower primary class is important because it is the starting point in educational matters which affect the pupils in their later years of schooling. It can be said that the performance of pupils in Social Studies could be as a result of their cognitive styles – Field Dependent/Independent (Danili & Reid, 2006). However, the relationship among cognitive styles, parental involvement and pupils' learning outcomes in lower primary schools deserves empirical investigation; hence this study.

2.1 Purpose of the Study

The purpose of this study was to investigate the relationship among cognitive styles, parental involvement and learning outcomes of pupils in Social Studies in Ondo State. The specific objectives are to:

1) determine the relationship between cognitive styles, parental involvement and learning outcomes of pupils in Social Studies in the state; and
2) determine the relative contribution of cognitive styles and parental involvement to learning outcomes of pupils in lower primary schools.

2.2 Hypotheses

The following research hypotheses were raised to guide the study:

1) There is no significant relationship between each cognitive styles and learning outcomes of lower primary school pupils in Social Studies.
2) There is no significant relationship between parental involvement and learning outcomes of lower primary school pupils in Social Studies.
3) There is no significant relative contribution of cognitive styles and parental involvement to learning outcomes of lower primary school pupils in Social Studies.

3. Methodology

The study adopted the descriptive survey research design. The population for the study comprised all lower primary school pupils and parents in Ondo State. The sample size comprised 480 subjects made up of 240 parents and 240 pupils. The sample was selected using multistage sampling procedure. Two Local Government Areas (LGAs) were selected from one sampled senatorial district using simple random sampling technique. Furthermore, two primary schools were selected from each of the two sampled LGAs using simple random sampling technique. From each of the two selected primary schools in the selected Local Government Areas (LGAs), 30 pupils each from two intact classes and 30 parents each were also selected. The instruments used to collect data for this study are: Cognitive Styles Questionnaire (CSQ), Pupils' End of Term Exam Score

in Social Studies (PETES) and Parental Interview Schedule (PIS). Cognitive Styles Questionnaire (CSQ) was used in this study to collect data that measured pupils' cognitive styles. CSQ contained two sections. Section A contained personal information of the pupils while section B contained 20 items (10 items each) measuring field independent/field dependent cognitive styles. Items on CSQ took on a Yes or No response pattern. Individual pupils' responses were rated based on their response to items in the questionnaire. Pupils' End of Term Exam Score in Social Studies (PETES) was used to assess the pupils' achievement in Social Studies Examination. Pupils' performance in Social Studies per term was then summed up. Parental Interview Schedule (PIS) was used to collect data that measured parents' involvement in the learning outcomes of their wards. PIS took on a Likert scale format ranging from Strongly Agree (4) to Strongly Disagree (1). Responses of the parents on these items were then summed together. The minimum and maximum scores obtainable in PIS were 22 and 88 respectively. Higher scores represent high level of involvement and vice versa. However, items 8, 9, 10, 11, 12, 13 and14 were reversed in scoring because they depict behaviour of less parental involvement. Parents whose scores ranged between 22- 44 were described as low level of involvement, 45-66 as moderate level of involvement and 67-88 as high level of involvement. The data obtained were subjected to a reliability test via internal consistence approach based on Cronbach's Alpha. Items on CSQ yielded a Cronbach's Alpha 0.62 while PIS yielded a Cronbach's Alpha value of 0.78. These values were found moderate enough for the instruments to be used in this study. Multiple regression was used to test the stated null hypotheses. Tables and figures were presented based on the hypotheses generated to guide this study.

4. Results

Hypothesis 1: There is no significant relationship between cognitive styles and learning outcomes of pupils in Social Studies in the state.

Table 1: Summary of Regression Analysis of Relationship between Cognitive Styles and Learning Outcomes of pupils in Social Studies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p
Cognitive Styles (FI & FD)	.152	.023	.015	14.23825	2.820	.062

$p < 0.05$
Source: Field Survey, 2019

Table 1 shows the result of the relationship between cognitive styles and learning outcomes of pupils in Social Studies. It shown that cognitive styles yielded a coefficient regression (R) of .152 and a correlation square (R^2) of .023. These values are not statistically significant at 0.05 probability level. Cognitive styles can only explain for 2.3% of the observed variance in pupils' learning outcomes. This implies that is no

significant relationship between cognitive styles and learning outcomes of pupils in Social Studies.

Hypothesis 2: There is no significant relationship between parental involvement and learning outcomes of pupils in Social Studies in the state.

Table 2: Summary of Regression Analysis of Relationship between Parental Involvement and Learning Outcomes of pupils in Social Studies

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	p
Parental Involvement	.118	.014	.010	14.27647	3.342	.069

$p < 0.05$
Source: Field Survey, 2019

Table 2 shows the results of the relationship between parental involvement and learning outcomes of pupils in Social Studies. It shown that parental involvement yielded a coefficient regression (R) of .118 and a correlation square (R^2) of .014. These values are not statistically significant at 0.05 probability level. Parental involvement can only explain for 1.4% of the observed variance in pupils' learning outcome. This implies that there is no significant relationship between parental involvement and learning outcomes of pupils in Social Studies.

Hypothesis 3: There is no significant relative contribution of cognitive styles and parental involvement to learning outcomes of pupils in lower primary schools.

Table 3: Results of Relative Contribution of Cognitive Styles and Parental Involvement to Learning Outcomes of Pupils in Social Studies

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
(Constant)	66.486	9.981		6.661	.000
Field Independent	-.975	.575	-.108	-1.696	.091
Field Dependent	-.967	.612	-.101	-1.581	.115
Parental Involvement	.222	.124	.114	1.791	.075

Source: Field Survey, 2019

Table 3 showed the result of the relative contribution of cognitive styles and parental involvement to learning outcomes of pupils in lower primary schools. Field independent and field dependent cognitive styles had t-values of -1.696 and -1.581 respectively while their respective beta weight values are -.108 and -.101. This revealed that cognitive styles and parental involvement had no significant contribution to learning outcome of pupils in lower primary schools. Also, parental involvement had t-value of 1.791 and beta weight of .114. From the values of beta weights and t-ratio for

each independent variables (cognitive styles and parental involvement), parental involvement had the highest value of beta value, followed by field independent while the field dependent had the least contribution.

4. Discussion of Findings

The first objective was to determine the relationship among cognitive styles, parental involvement and learning outcomes in social studies in the state. The first hypothesis stated that there is no significant relationship between cognitive styles and learning outcomes in social studies. The second hypothesis stated that there is no significant relationship between parental involvement and learning outcomes in social studies. It revealed that both cognitive styles and parental involvement had no significant relationship with the learning outcomes of pupils in lower primary schools. Rowley and Schulenburg (2007) stated that there are obstacles in the process of involving parents in their children's education. Okobia (2000) also established that there is no significant relationship between cognitive style and instructional materials in social studies.

The second objective was to determine the relative contribution of cognitive styles and parental involvement to learning outcomes of pupils in lower primary schools. The hypothesis stated that there is no significant relative contribution of cognitive styles and parental involvement to learning outcomes of pupils. The study revealed that both Field independent and Field dependent cognitive styles are evident among the primary school pupils. The result also indicated parental involvement had greatest impact on learning outcomes of pupils, followed by field independent while field dependent had the least contribution. Aljaberi (2015), in his research found out that there are individual differences in learning styles in the ability to solve mathematical problems. This finding is similar to Okwo and Otubah (2007), Adeyemi (1992) who found that field independent students are better than the field dependent students in physics and biology. Bruno (2009) also concluded that field independent students have average achievement higher in science and social science than field dependent students while field dependent students have higher achievement in arts than field independent students. Baker and Scher (2002) argued that it is the duty of parents to play critical role towards their children's learning outcomes. Mwoma (2008) proposed that it is the role of the parent to ensure there is parent – child interaction.

5. Conclusion

The findings of the study showed that pupils can do well academically when their cognitive styles and parental involvement work together. However, the study showed that there is no significant relationship among cognitive styles, parental involvement and pupils learning outcomes in Social Studies and also there is no significant relative contribution of cognitive styles and parental involvement to learning outcomes of pupils in Social Studies. Teachers and parents should have a cordial relationship to ensure that the learning outcomes of the pupils are improved upon. To this end, the

earlier the parents are involved in the cognitive styles and learning outcomes of their children, the better the children become.

5.1 Recommendations

Based on the findings of this research, the following recommendations were made:

1) Parents and teachers should help pupils enhance their learning by being aware of their cognitive styles; this will help the pupils to foster their cognitive/intellectual growth.
2) Classroom teachers should understand cognitive style preferences in order to impart meaningful learning to the pupils.
3) Parents should be communicated to on weekly basis about their children's learning outcomes.
4) Every school should be able to organize parent-teacher meetings/conferences to enable the parents discuss issues and problems pertaining to their children learning outcomes.
5) Schools should communicate guidelines to parents on how to help their children prepare for tests, quizzes and assignment and this can help in improving pupils' cognitive styles.
6) Parents should be enlightened on their roles as the first and most important teacher to their children.

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