AN ASSESSMENT OF THE CREATIVITY LEVEL OF SECONDARY SCHOOL STUDENTS IN LOKOJA, KOGI STATE, NIGERIA

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Abstract
The main aim of this study was to examine the creative ability among secondary school students in Lokoja. A descriptive survey was adopted for the research. A total of 400 students participated in the study. A research question was answered and two hypotheses were tested at 0.05 level of significance. Percentage and t-test Analysis were the statistical tools employed for the study. From the data analyzed and results gathered, it was observed that the creativity level of secondary school students in Lokoja, Kogi State is low, because only 5% had high level of creativity which is not up to average of the students that participated in the study in Lokoja, Kogi State. The findings also revealed that there is significant difference in creativity level of male and female students. Finding also revealed that there is significant difference in the creativity level of private and public school students. Based on the findings of the study, more attention should be given to the students by educational psychologists, parents, teachers, and school administrators. They should not only to be concerned about academic success of the students, but also their creative abilities and creative achievements in school. With this, students will attach importance to creativity as they do to their primary purpose in school. Teachers should allow students to use their divergent thinking, which promotes creativity, instead of convergent thinking which only promotes rote learning. Government and school proprietors have enormous roles to play in creative development. They should further integrate games and play into education. Play has a central role in the creative process. In addition, the enjoyment factor involved in games has the potential to greatly enhance motivation and interest in students, thereby opening doors for flow of creativity.

The Nigerian government should ensure that educational psychologists and career counselors are provided at all levels of education.

Keywords: Creativity, Problem-solving ability, Creative ability, Creative thinking.

Introduction

Creativity is a process of thought that everyone uses, though they are not often aware of it. Creative thinking takes place when a person works on a problem, but it does not happen immediately. It takes a while of trying to think the problem through in a logical manner, using logical or critical thinking. Creativity is a vital tool for national development, if well understood. The study of creativity is important because it reveals the true identity of man. Creativity is an instrument of national development and is a tool for generating ideas, concepts and solutions. Innovations are direct off springs of creativity.

According to Edward (2001), there is no doubt that creativity is the most important human resource of all. Without creativity, there would be no progress, and all of us would forever be repeating the same patterns. Creativity is a concept which is surrounded by a number of beliefs and misconceptions. People believe it is limited to only a few; it declines seriously with age; and it is associated primarily with uniqueness or innovation or "artists" (Runco, 1996; McCormick & Plugge, 1997; and Price, 1998). The term creativity can be seen as the ability to transcend traditional ideas, rules, patterns, relationships, or the likes, and to create meaningful new ideas. It is obvious that the country will always need creative individuals as it grows.

According to a cognitive psychologist Sternberg (2000), creativity can be broadly defined as "the process of producing something that is both original and worthwhile". Creativity is all about finding new ways of solving problems and approaching situations. This is not a skill restricted to artists, musicians or writers; it is a useful skill for people from all walks of life. Linda (2010) defined creativity as the act of turning new and imaginative ideas, which involves two processes: thinking and producing into reality. She viewed innovation as the production or implementation of an idea and not creativity. If you have ideas, but never acted upon them, you are imaginative not creative. Creativity requires passion and commitment. Creativity, according to Rushtion, (1990) refers to the phenomenon whereby a person creates something new (a product, a solution, a work of art, a novel, a joke, etc.) that has some kind of value. What counts as "new" may be in reference to the individual creator, or to the society or domain within which the novelty occurs. What counts as "valuable" is similarly defined in a variety of ways.

Creativity involves the use of skills and imagination to produce something new. Creativity is more important than raw talent. One may be immensely talented without being creative. Creativity is the ability of an individual to use his or her insight to come up with solutions to problems, get things done in a different way or find a total different approach – but this is not mostly encouraged in Nigerian secondary schools, especially in Lokoja. Olu (2010) viewed creativity as a process of combining old ideas to create new breakthrough. The law of Mathematics, for instance states 1 + 1 = 2, but the law of

creativity states that 1 + 1 may be = 11. The combination of lesser effects creates a bigger exponential effect. Everything you see has made someone a fortune. This is what Nigerian secondary school students and teachers failed to realize and bear in mind when dealing with the issue of creativity.

Nwazuoke (1989) could not have put it better when he opined that the regular school system in Nigeria has been implicated as a system that inhibits creative behaviours in children because of its conformist value. School administrators seem to be quite predisposed towards pupils found to be worthy in character and learning. Many of them interpret character in this instance to mean conformity to norms which sometimes are unprogressive. Creativity and conformity to set standards do not go together. That means Nigerian school system is run in such a way that it does not accommodate many creative minds. This, in turn affects the creativity level of secondary school students in Lokoja.

Similarly, Adebowale (2001) affirmed that problem solving is now a key to creative skills in education. Creative education can contribute directly to problem-solving abilities in all disciplines and fields of work, especially among secondary school students in Lokoja. The value of creativity is not only in solving problems but finding problems all of us have not imagined which in turn lead us to new horizons. In Nigeria, teachers lay so much emphasis on academic success, but little or no emphasis on the concept of creativity among secondary school students. Similarly, many of the schools in Nigeria do not even know the importance of creativity not to talk of knowing how to impact the knowledge of creativity into their students (Tunde, 2007). All these factors mentioned above, as well as many others unmentioned affect the development of creativity in Nigeria and secondary school students in Lokoja, especially.

Furthermore, Abra and Valentine-French (1991) investigated gender differences in creative achievement and reported that, little about the causes of the great difference between women and men in creative achievement at the highest levels; this is due, in large part, to the fact that such studies "typically assess creativity with one of the available tests. Abra and Valentine-French (1991) considered both nature and nurture arguments for the observed gender differences in creative accomplishments and noted the special problem of disentangling the two when considering gender differences. ALSO, Freeland and Moran (1987), Orieux and Yewchuk (1990) and Kim and Micheal (1995) reported that females are more than males in creative performance. Adebimpe (1986) found that female students have a significant higher creativity than male students. Meanwhile, Spiel and Van (1998) stated that there are evidences that females mostly associate idea of creativity, while males mainly focus on the aspect of novelty. These findings contradicted the findings of Tuker and Disser (1989), which showed that male performance, are superior to their female counterpart in creative tests.

So also, Shan (2000) studied creative thinking among high school students of Jammu region in relation to problem solving and found that high school students with high problem solving ability have significantly higher levels of creative thinking as compared to their counterparts with low problem solving ability. Also, Tasaduq and Azim, (2012) reported that children from private schools scored more than government

school children in picture construction activity which may be attributed to the fact that school environment influences the creative abilities among children. The lack of sufficient opportunities and encouragement in government schools affected the creative abilities among children. A similar finding by Garg and Agarwaal (2008) in their study of adolescent creative thinking and its relation to the psychosocial environment and concluded that home environment has a strong role in development of creative thinking. Some home dimensions like social isolation, deprivation of privileges had negative relationship with creative thinking while as reward and protectiveness had positive relationship with creative thinking.

The focus of most previous researchers have been on the relationship between intelligence and creativity (Adeshina, 1980), the methods of fostering creativity among students (Akinboye, 2004), academic performance and creativity (Nwokwule, 1982), correlations of creativity with variables such as vocational aspirations (Olagunju, 1990), self-concept and intelligence (Sunday, 2000), study habits (Mojisola, 2008), and assessment of creativity level (Olorunnipa, 2011). They found out that there are significant differences between creativity and students' achievement and between creativity and intelligence, among the various samples and populations they used for their studies. The lack of sufficient studies on in examine the creative ability among secondary school students in Lokoja this create one of the gap that study intended filling. Specifically, this study investigated: (i) the difference in the creative level of male and female secondary school students in Lokoja; and (ii) the difference of creative level of public and private secondary school students in Lokoja.

Research Question

The study generated the following research questions:

What is the level of creativity among secondary school students in Lokoja?

Research Hypotheses

The following null hypotheses were generated and test in the study:

H_{o1}: There is no significant difference in the creativity level of male and female secondary school students in Lokoja.

H_{o2}: There is no significant difference in the creativity level of public and private secondary school students in Lokoja.

Methodology

This study employed a descriptive survey research design. This study was carried out among secondary school students in two Local Government Areas in Kogi State (that is, Lokoja LGA and Kogi LGA). 10 secondary schools were selected out of 33 Government approved secondary schools in the two Local Government Areas. The sample was selected through the use of the stratified random and simple random sampling techniques. These helped the researcher to select 40 students from each of the private schools and 40 students from each of the public schools. This gives a total of 400 students as students. A Creativity Innovation Scale developed by Animasahun (2007) was

adapted to collect data from the selected samples to identify students' level of creativity. The questionnaire has two sub-sections. Section A contains demographic characteristics of the respondents, while Section B contains 33 items to measure the creativity level of the respondents. The 33 items were rated as follows: very true of me – 4points, true of me – 3points, almost true of me – 2points, while very untrue of me – 1point. Test-re-test method was used to obtain the reliability of questionnaire, while reliability coefficient was found at 0.67. Frequency counts was used to analyze the demographic data, while t-test was used to test the formulated hypotheses at 0.05 level of significance.

Demographic Characteristics of the Respondents

Table 1: Distribution of Students' Creativity Level based on Gender

Gender	Frequency	Percentage
Male	200	50%
Female	200	50%
Total	**400**	**100%**

Table 1 shows that 200 male (50%) and 200 (50%) students participated in this study.

Table 2: Distribution of Students' Creativity Level based on School Type

Gender	Frequency	Percentage
Private	200	50%
Public	200	50%
Total	**400**	**100%**

Table 2 shows that 50% private secondary school students participated in the study. Also, 50% public secondary school students participated in the study.

Research Question 1: What is the level of creativity of secondary school students in Lokoja?

Table 3: Distribution of Students by their Level of Creativity

Creativity Level	Frequency	Percent
Low level of creativity	380	95.0%
High level of creativity	20	5.0%
Total	**400**	**100.0%**

Table 3 presents data on the level of creativity among the secondary school students in Lokoja, Kogi State. The table shows that 400 respondents participated in this study, out of which 20 students, representing 5% of the students had high level of creativity. Also, 380 representing, 95% of the respondents had low level of creativity. This implies that 5% of students had high level of creativity, while 95% had low level of creativity. As it was revealed from the table, it is obvious from the table that the creativity level of

secondary school students in Lokoja, Kogi State is low, because only 5% of the students had high level of creativity which is not up to the average of the students used as sample in Lokoja, Kogi State.

Hypotheses Testing

H_{01}: *There is no significant difference in the creativity level of male and female secondary school students in Lokoja.*

Table 4: t-test Analysis of Difference in the Creativity Level of Male and Female Students

Gender	No	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Male	200	114.15	16.80			
				2.33	199	.02
Female	200	117.62	15.68			

P<0.05

Table 4 shows that the calculated t-value is 2.33 with calculated alpha level of 0.02 computed at critical alpha level of 0.05. Since the calculated alpha level is less than the critical alpha level, this implies that there is a significant difference in the creativity level of male and female students. This is in favour of female students with mean score of 117.62 greater than mean score of 114.15 obtained by male students.

H_{02}: *There is no significant difference in the creativity level of public and private secondary school students in Lokoja.*

Table 5: t-test Analysis of Creativity Level of Public and Private School Students

School Type	No	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Private	200	119.74	14.69			
				5.03	199	.00
Public	200	111.77	17.05			

P<0.05

Result in table 5 indicates that the calculated t-value is 5.03 with calculated alpha level of 0.00 computed at critical alpha level of 0.05. Since the calculated alpha level is less than the critical alpha level, this implies that there is a significant difference in the creativity level of students in private and public schools. This is in favour of students in private schools who had a mean score of 119.74 greater than the mean score of 111.77 obtained by students in public schools.

Discussion of Findings

The result revealed that the creativity level of secondary school students in Lokoja, Kogi State is low, because only 5% had high level of creativity which is not up to

average of the students that participated in the study in Lokoja, Kogi State. This finding is slightly different from Avdhesh (2013) that carried out a research on Gujarati medium high school students of Ahmedabad district and discovered that approximately 17.25% of the high school students of Ahmedabad had high level of creativity achievement where as 72.75% of the same students had low level of creativity achievement. Based on these findings, it is evident that the larger proportion of the population has low level of creativity.

Another finding also revealed that there was significant difference in creativity level of male and female students. This finding supported that of Baer (2005) who confirmed that gender difference in creative achievement occurs among male and female, especially when one focuses on the highest level of creative achievement. This finding also corroborated the study of Freeland and Moran (1987), Orieux and Yewchuk (1990) and Kim and Micheal (1995), that their results favoured females more than males in creative performance. Their results are rather surprising but not impossible. In fact, Freeland and Moran (1987) described their results as puzzling probably because it was least expected. Adebimpe (1986) found that female students have a significant higher creativity than male students.

The finding of this study is in consonance with that of Spiel and Van (1998) who reported that there are evidences that females mostly associate idea of creativity, while males mainly focus on the aspect of novelty. Also, Tuker and Disser (1989) stated that male performance, are superior to their female counterpart in creative tests. This could be due to the notion or stereotype that certain subjects are meant for the boys (Science and Arts subjects). Some parents allow male children to involve in risky things, while they believe that female children should handle soft things because of their soft nature. This perhaps, might result into this finding.

Feist and Runco (1998) in their study showed gender differences in creativity as different from field to field. They viewed creative achievement of women in areas such as writing, musical composition or painting. They however, noticed the increase in women authors as against the male authors whose number has decreased, while that of females has increased sharply in the last few years. According to Kaufman, Baer and Gentile (2005) male and female students must not perform differently at any level of education because by nature and policy students are expected to achieve the same level of academic success.

It was also revealed in this study that there is significant difference in the creativity level of private and public school students. This shows that private school students are more creative than public school students. The researcher discovered that most private schools involved in this study have good structures and educational facilities which aided the students' creative abilities. Private schools have thorough supervision and they monitor their students better than those in public schools. This finding is in support of that of Tasaduq and Azim, (2012) who reported that children from private schools scored more than government school children in picture construction activity

which may be attributed to the fact that school environment influences the creative abilities among children.

Harrigto-Lukas (1997) and Edward de Bono's (2001) findings that creativity level is a power which thrives on intrinsic motivation and exercise. Chen (2007) confirmed that school and class size make the school to execute its academic goals, and this is exactly what the public schools participated in this study are experiencing. The small classroom and school size of the private schools make the private school teachers give more attention to individual students. She added that private schools have perfectly safe environments than those in public schools. They also choose whom they enroll, unlike the public schools that enroll all sorts of students.

Conclusions and Recommendations

This study analyzed the level of creativity among secondary school students in Lokoja, Nigeria. The outcome of the analysis shows that there was significant difference in the level of creative ability of male and female students. The findings show that female students performed better than male students mostly associated with the idea of creativity, while male only focus on the aspect of novelty. It was also discovered in this study that there was significant difference in the level of creative ability of private and public school. But it as well revealed that students in private schools perform better than the public schools on achievement test. This is perhaps influenced by the good academic environment, good facilities and proper monitoring of students and teachers.

The findings of this study revealed that psychologists and counselors are needed in all educational levels, to assist students in maximizing their creative potentials. The findings of this study also demonstrate the crucial roles educational psychologists perform in attaining educational goal, in order to contribute their quotes to the development of Nigerian students.

The findings of this study show that school environment plays a significant role in creative development of the students, therefore school administrators should provide enabling environment to explore and consolidate their creativity.

In view of the findings of this study, more attention should be given to the students by educational psychologists, parents, teachers, and school administrators. They should not only to be concerned about academic success of the students, but also their creative ability. With this, students will attach importance to creativity as part of their primary purpose in school. Teachers should allow students to use their divergent thinking, to promote creativity, instead of convergent thinking which only promotes rote learning.

Government and school proprietors have enormous roles to play in creative development. They should further integrate games and play into education. Play has a central role in the creative process. In addition, the enjoyment factor involved in games has the potential to greatly enhance motivation and interest in students, thereby opening doors for flow of creativity.

The Nigerian government should ensure that educational psychologists and career counselors are provided at all levels of education. All undergraduate students should also be taken through the training of educational psychology as some may find themselves in teaching profession later in future.

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