

**Effect of Project-Based Instructional Method on Senior Secondary Students' Academic Performance in Narrative Essay Writing in Calabar Education Zone, Cross River State, Nigeria.****Nwachukwu Clara Chinenye (Ph.D)**[uniqueclara3@gmail.com](mailto:uniqueclara3@gmail.com)**Department of Arts and Social Science Education, University of Calabar, Calabar.****Abstract**

This study investigated the effects of project-based instructional method on senior secondary students' academic performance in English language narrative essay writing in Calabar Education Zone of Cross River State. Two research questions guided the study, while two null hypotheses were formulated and tested at 95% confidence level. The study adopted a quasi-experimental pretest-posttest design. Simple random sampling and purposive sampling techniques were used for the study. The sample size comprised 259 respondents from the population of 6,216. Narrative Essay Writing Performance Test (NEWPT) was used to elicit data from the respondents. The reliability of the instrument was estimated using Kendall's coefficient of concordance, which yielded a reliability coefficient of .80. The research questions were answered using mean and standard deviation, while Analysis of covariance (ANCOVA) was used to test the hypotheses. Results of the study revealed that project-based instructional method had effect on students' academic performance in English language narrative essay writing.

**Keywords:** Instructional Method, Academic Performance, Narrative Essay Writing, Project-based, Secondary School

**Introduction**

Instructional method involves designing what to teach, the content and skills the teacher wants the learners to learn and how the content should be delivered to them. Arvind and Kusuma (2017), sees instructional method as a style of presentation of content in the classroom. It entails the principle, strategies, techniques and activities used by teachers to enable learners learn. The instructional method a teacher chooses reflects the type and depth of learning that the teacher wants the learner to achieve. Instructional method according to Arvind and Kusuma (2017) can be classified into teacher-centered instructional method and learner-centered instructional method. According to the author, Example of a learner-centered instructional method is the lecture method. Nwalado (2014) asserts that lecture method is a traditional method of teaching, where the teacher acts as the authority, doing all the talking while the students are passive. Ernest (2021) reiterates that passive instructional method like the lecture method may hinder learning, while active instructional method may facilitate learning. Example of teacher-centered type of instructional method is the Project-based instructional method.

Project-based instructional method is a learner-centred instructional method which has activities like collaboration, research, communication and presentation. These activities help to make learners creative and active in teaching and learning. The Project-based instructional method is considered an alternative to rote memorization or teacher-centred method. It is a type of method where students work together to solve a challenging problem. This method confers on the learners the benefits of greater depth of understanding of concepts, broader knowledge, improved reading and writing skills. Okoye (2016) defines project-based learning as a systematic instructional method that engages students in learning knowledge and skills through an extended inquiry process structured around complex, authentic questions

and carefully designed products and tasks. Wrigley (2014) sees project-based instructional method as one that exposes learners to opportunity of constructing knowledge by generating projects based on learners' interest and individual differences. In implementing project-based instructional method in English language narrative essay writing classroom, the focal point of the learning process moves from the teacher to the learner. Thomas (2014) explains that project-based instructional method requires the teacher giving students tasks based on challenging questions or problems.

Project-based instructional method is expected to improve the performance of learners in narrative essay writing. This is because the project-based instructional method is an active instructional method, as such, learners tend to easily remember the active part of a lesson, which may in turn improve their performance. A teacher's choice of instructional method could ease, encourage, improve and promote teaching and learning activities in the classroom (Mascolo & Fisher). This could only be done by shifting instructional activities from traditional method of "chalk and talk" to innovative method like project-based instructional method. Thus, the project-based instructional method plays a vital role in teaching and learning of English language narrative essay writing. Supporting this view, Isiaka (2013) states that project-based instructional method can make teaching and learning much more effective, meaningful, permanent, concrete and learner-oriented, which may improve students' academic performance. This method gives students the opportunity to work autonomously over extended periods of time. Okonkwo (2015) and Hassan (2017), have shown that project-based instructional method improved students' performance. Project-based instructional method places emphasises on students-centred learning and turning classrooms into active learning environments as students investigate significant questions and take responsibility for their learning while collaborating. Thus, the participation of learners in project-based activities may help improve their performance in English language narrative essay writing. Many studies such as Lu and Yan (2023), Alheri (2022) and Hassan (2017) have shown that project-based instructional method has positive impact on learners' academic performance.

Consequently, through project-based instructional method, teachers help learners to develop skills in collaboration, creativity, critical thinking, time management, listening and respect for others' opinion (Ernest, 2021). Nigerian Educational Research and Development Council (2007) explains that narrative essay writing entail story telling from a specific point of view, with key features of plot, characters, setting, conflict and theme. Using Project-based instructional method to teach narrative essay writing is important because of the stages involved in narrative essay writing. These stages include; brainstorming/prewriting, drafting, revising, editing and publishing. Brainstorming/prewriting involves developing ideas and selecting the purpose, audience, format, and tone. Drafting, entails writing out the details of the narrative essay writing with concern for ideas that will be improved upon later. Revising, involves revising the first draft of the narrative essay writing, paying attention to vocabulary, content, organisation and the details that may need to change, move, add or be removed in the later stage of the narrative essay writing. Editing on the other hand has to do with proofreading the draft and making corrections on spelling, grammar, punctuation and mechanical errors. Publishing which is the last stage, involves sharing the completed narrative essay story (WAEC, 2020). From the foregoing, the researcher sees the need to ascertain the effect of project-based instructional method on senior secondary students' academic performance in narrative essay writing, as it is assumed that this method may improve learners' academic performance in English language narrative essay writing.

Academic performance has to do with the level of students; achievement in school subject, which is often determined by examination or test. Javaji (2021) sees academic performance as the learning outcome of students which include the knowledge, skills and ideas acquired and retained through their course of studies within and outside the classroom situation. This performance may be high or low outcome. A student who performs well is said to record a high academic performance. Brown (2011) sees academic performance as the measurement of students' learning level achieved by students. Samploon (2012) asserts that academic performance is the measurement of learning level achieved by students and is considered a key indicator of the effectiveness of educational institutions like the senior secondary school. Senior secondary school according to National Policy on Education (2014) is the education children receive after a successful completion of ten years of Basic education (BECE) and passing the Basic Education Certificate

Examination (BECE). The senior secondary school is formally the last stage of education before gaining admission into the tertiary institution.

### **Statement of the Problem**

Over the years, Arvid and Kusuma (2017) observed that most English language teachers employed the conventional instructional methods in teaching the students English language narrative essay writing. As observed by the author, the conventional teaching method like the lecture method may have been the reason for the low performance of secondary school students in English language narrative essay writing. Conventional teaching methods are passive in nature. They limit the learners from actively engaging in the teaching and learning process, which may have negative effect on their performance in narrative essay writing. This is because students learn better when they are actively engaged in the learning process (Alheri, 2022). The learning may positively affect their performance. The decline in the performance of students in English language narrative essay writing has been of much concern to educationist in Nigeria. Notably, poor instructional method is a factor that could contribute to the low performance of students in English language narrative essay writing.

As observed by West Africa Examination Council Chief Examiners report of (2020), conventional instructional methods of teaching narrative essay writing may be the reason for students' weaknesses in narrative essay writing in exams. If instructional method like project-based is employed to teach students, there is tendency that it will positively affect them in narrative essay writing exams. It is for this reason that the study focused on examining the effect of project-based instructional method on students' performance in English language narrative essay writing, as there is assumption that this instructional method may have positive effect on their performance in narrative essay writing. The problem of this study put in a question form therefore is "what is the effect of project-based instructional method on senior secondary school students' academic performance in English language narrative essay writing"?

### **Purpose of the study**

The main purpose of this study was to determine the effect of project-based instructional method on senior secondary school students' academic performance in English language narrative essay writing in Calabar Education Zone of Cross River, State. Specifically, the study sought to:

1. determine the mean performance score of students taught English language narrative essay writing using project-based instructional method and those taught using lecture methods.
2. find out the mean performance score of male and female students taught English language narrative essay writing using project-based instructional method and those taught using lecture methods.

### **Research questions**

The following research questions guided the study:

1. What is the mean performance score of students taught English language narrative essay writing using project-based instructional method and those taught using lecture method?
2. What is the mean performance score of male and female students taught English language narrative essay writing using project-based instructional method and those taught using lecture method?

### **Hypotheses**

The following hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significant difference in the mean performance score of students taught English language narrative essay writing using project-based instructional method and that taught using lecture method.
2. There is no significant difference in the mean performance score of male and female students

taught English language narrative essay writing using project-based instructional method and that taught using lecture method.

### **Methodology**

The study adopted a quasi-experimental of pre-test and post-test research design. The area of the study was Calabar Education Zone of Cross River, State, Nigeria. The population of the study was 6,216. This population was the total number of senior secondary two students in Calabar education zone of cross river state. The population size was obtained from Cross River State Secondary Education board. (Cross River State, Secondary Education Board School Statistics, 2024). The sample size for the study comprised 259 respondents, obtained from the total number of students in the intact classes. Multi stage sampling technique was used. Firstly, simple random sampling technique was used to select four LGA out of the seven LGA in the zone. The selection comprised 57% of the LGA. Secondly, purposive sampling technique was used to sample two co-educational schools from each of the four LGAs. A total of eight co-educational schools were sampled for the study. One school from each of the LGA was used as experimental group, while another school from the same LGA was used as the control group. The experimental group and the control group used one intact class each in all the LGA. The class level used for the experiment were the Senior Secondary two. The instrument used for data collection was the Narrative Essay Writing Performance Test (NEWPT) adopted by the researcher from the west African Examination Council (WAEC, 2018) past question paper. This past question was chosen because the questions were standardized (they had already been validated by test developers in English language). The NEWPT had two sections-A and B. Section A contains students' data like gender and serial number, while section B contains the narrative essay writing question for the pre-test and post-test. The pretest and post-test narrative essay writing question was " Write 450 words essay that ends with the expression, it was a bitter experience, but I learnt my lesson". The essay test assessed students' performance in narrative essay writing on their ability on Content, Organization, Expression and Mechanical accuracy. The scoring for each students' essay was 50marks, with 10points for content, 10points for organization, 20points for expression, and 10points for mechanical accuracy. The narrative essay writing was scored using a marking guide adapted from the West African Examination Council (WAEC, 2020).

### **Experimental Procedures**

The researcher sought the permission of the sampled schools to carry out the study in their schools. The Senior Secondary two English language teachers were used as research assistants. They were briefed on what to do, based on the group assigned to them. The experimental groups were briefed on how to use the project-based instructional method for teaching the students narrative essay writing and the manner to administer the pre-test and post-test to the students, while the control groups were asked to teach the students with lecture method. The two groups were given pre-test before the treatment and post-test after the treatment by the researcher and the research assistants. The pre-test and post-test of both groups were administered within five weeks' interval. The experimental groups were exposed to the project-based instructional method, while those in the control groups were taught with lecture method. The researcher closely monitored both groups at different periods to ensure that the research assistants adhered strictly to the instruction of the experiment. At the end of the experiment period, post-test was given to the students. The data from the pre-test and post-test of both the experimental and control groups were collected and analyzed. The scores that were obtained from the test were analyzed and used in answering the research questions and testing the hypotheses which guided the study.

### **Method for data analysis**

The research questions were answered using mean and standard deviation, while Analysis of covariance (ANCOVA) was used to test the hypotheses at .05 level of significance.

## Results Presentation

Table 1: Mean performance score of students taught narrative essay writing using project-based instructional method and that taught using lecture method.

|                          | GROUP              | N   | Mean  | Std. Deviation | Std. Error<br>Mean |
|--------------------------|--------------------|-----|-------|----------------|--------------------|
| Pre-test<br>Performance  | experimental Group | 119 | 22.07 | 6.612          | .606               |
|                          | control Group      | 140 | 18.69 | 3.602          | .304               |
| Post-test<br>Performance | experimental Group | 119 | 30.34 | 8.843          | .811               |
|                          | control Group      | 140 | 19.81 | 3.376          | .285               |

The estimated marginal means in the Table 1 above showed that students in the experimental group (Mean=30.34) performed academically better than their counterparts in the control group (Mean=19.81) after the treatment, hence the significant effect. The findings further show that there is a significant main effect of project-based instructional method on students' academic performance in English language narrative essay writing. This implies that there was a difference in the academic performance of students taught with the project-based instructional method and those taught with the lecture method, with those exposed to the project-based instructional method performing academically better than their counterparts in the control group.

### Hypothesis 1

There is no significant difference in the mean performance score of students taught narrative essay writing using project-based instructional method and that taught using lecture method.

Table 2: Summary of ANCOVA for the mean performance score of students taught narrative essay writing using project-based instructional method and that taught using lecture method.

| Source of Variation | Type<br>Sum of Squares | Df  | Mean<br>Square | F        | Sig  | Eta<br>Squared |
|---------------------|------------------------|-----|----------------|----------|------|----------------|
| Corrected Model     | 11467.339              | 2   | 5733.670       | 226.726* | .000 | .636           |
| Intercept           | 1271.729               | 1   | 1271.729       | 50.288*  | .000 | .164           |
| Pre-test            | 4336.366               | 1   | 4336.366       | 171.472* | .000 | .401           |
| Group               | 3601.326               | 1   | 3601.326       | 142.407* | .000 | .357           |
| Error               | 6473.981               | 256 | 25.289         |          |      |                |
| Total               | 175249.000             | 259 |                |          |      |                |
| Corrected Total     | 17941.320              | 258 |                |          |      |                |

\*P<.05 Critical F = 3.03, df 2, 256

a. R Squared = .639; Adjusted R Squared = .636

Results of analysis in Table 1 show that the calculated F-ratio of 142.407 is significant at .000. since .000 is less than .05, it means that there is a significant main effect of project-based instructional method on students' academic performance in English language narrative essay writing. That is, there was difference in academic performance between students taught with project-based instructional method and those taught with lecture method, with those exposed to project-based obtaining higher scores in English language narrative essay writing than their counterparts in the control group.

The adjusted R square of .636 indicates that 63.6% of the variation in students' academic performance about its mean is explained by the power of predictor (pre-test used as covariate & the treatment as group). The estimated marginal mean in the table show that students in the experiment group (Mean= 30.34) performed academically better than their counterparts in the control group (Mean=19.81) after the treatment, hence the significant influence. Based on these results, the null hypothesis was reject

### Research Question 2

What is the mean performance score of male and female students taught English language narrative essay writing using project-based instructional method and those taught using lecture method?

*Table 3: Summary of descriptive statistics for the mean performance score of male and female students in narrative essay writing.*

| Group              | Gender | N   | Mean  | SD   |
|--------------------|--------|-----|-------|------|
| Experimental Group | Male   | 54  | 27.30 | 7.50 |
|                    | Female | 65  | 32.86 | 9.13 |
|                    | Total  | 119 | 30.34 | 8.84 |
| Control Group      | Male   | 63  | 20.40 | 3.89 |
|                    | Female | 77  | 19.32 | 2.83 |
|                    | Total  | 140 | 19.81 | 3.38 |
| Total              | Male   | 117 | 23.58 | 6.76 |
|                    | Female | 142 | 25.52 | 9.38 |
|                    | Total  | 259 | 24.64 | 8.34 |

The estimated marginal means in the above table show that female students in the treatment group (32.86) academically outperformed their male counterparts (Mean= 27.30) in English language narrative essay writing. The findings of the study show that there is a significant combined effect of project-based instructional method and gender on students' performance in English language narrative essay writing. This implies that gender interacted with the treatment to cause significant variation on students' performance in narrative essay writing. The findings revealed that the female students academically outperformed their male counterparts in English language narrative essay writing.

*Table 4: Summary of ANCOVA for mean performance score of male and female students taught English language narrative essay writing with the project-based instructional method and those taught with the lecture method.*

| Source of Variation | Type Sumof Squares | Df  | Mean Square | F        | Sig  | Eta Squared |
|---------------------|--------------------|-----|-------------|----------|------|-------------|
| Corrected Model     | 11775.477          | 4   | 2943.869    | 121.272* | .000 | .656        |
| Intercept           | 1431.610           | 1   | 1431.610    | 58.975   | .000 | .188        |
| Pre-test            | 3691.132           | 1   | 3691.132    | 152.055  | .000 | .374        |
| Group               | 3591.030           | 1   | 3591.030    | 147.931  | .000 | .374        |
| Gender              | 180.270            | 1   | 180.270     | 7.426    | .007 | .368        |
| Group*gender        | 156.835            | 1   | 156.835     | 6.461    | .012 | .025        |
| Error               | 6165.843           | 254 | 24.275      |          |      |             |
| Total               | 175249.000         | 259 |             |          |      |             |
| Corrected Total     | 17941.320          | 258 |             |          |      |             |

\*P>.05 Critical F = 2.39, df4, 254

a. R Squared = .656; Adjusted R Squared = .651

Results of analysis in table 4, show that the calculated F-ratio of 6.461 is significant at .012 for the interaction of project-based instructional method (group) and gender. Since .012 is less than .05. it means

that there is significant combined effect of project-based instructional method and gender on students' academic performance in English language narrative essay writing. That is, gender interacted with treatment to cause significant variation on students' academic performance in English language narrative essay writing. The adjusted R square of .651 indicates that .65.1% of the variation in students' academic performance about its mean is explained by the power of the predictors (pre-test used as covariate, the treatment used as group and gender).

The estimated marginal means in table 3 show that female students in the treatment group (Mean=32.86) academically outperformed their male counterpart (27.30) in narrative essay writing. Based on the result, the null hypothesis was rejected.

### **Discussion of findings**

Effect of project-based instructional method on the academic performance of students taught narrative essay writing and that taught using lecture method. The finding show that there is a significant effect of project-based instructional method on students' performance in English language narrative essay writing. This implies that there was a difference in the academic performance of students taught with the project-based instructional method and those taught with the lecture method, with those exposed to the project-based instructional method performing academically better than their counterparts in the control group. This finding agree with Alheri (2022) that project-based instructional method has significant effect on students' academic performance. Hassan (2017) that the use of project-based instructional method increased students' academic performance. Omeje (2014) that students taught with project-based instructional method recorded higher academic performance than those taught without it. Agboola (2024) that project-based instructional method is effective in teaching and learning, Lu and Yan (2023) that project-based instructional method has positive effect on students' academic performance in learning. There is no reviewed study that the findings of this study disagrees with. Thus, the findings of all the studies discussed, implied that project-based instructional method has great effect in the academic performance of students in teaching and learning.

Effect of project-based instructional method on the performance of male and female students taught English language narrative essay writing with the project-based instructional method and those taught with the lecture method. The finding of this study shows that there is a significant combined effect of project-based instructional method and gender on students' academic performance in English language narrative essay writing. This implies that gender interacted with the treatment to cause significant variation on students' performance in narrative essay writing. The findings further revealed that the female students academically outperformed their male counterparts in narrative essay writing. The findings of the study didn't agree with any reviewed literature that the female students academically performed better than their male counterparts. The findings of this study contradict with the earlier study by Okeke (2015) that male students performed better than their female counterparts. Uzoegwu (2004) that the male students performed better in essay writing than their female counterparts. Okonkwo (2015) that gender had no significant effect on students' performance.

### **Implication of the study**

Following the findings, the implications primarily relate to students and teachers. The implication of the findings to the students is that there may be increase in the performance of students in English language narrative essay writing, if they are taught with the project-based instructional method. To the teachers, they may adopt project-based instructional method when teaching English language narrative essay writing, hence project-based instructional method increased learners' performance in narrative essay writing. To this effect, teachers therefore need to improve and update their skills in project-based instructional method. This could be done through participation in conferences, workshops and seminars.

### **Conclusion**

Based on the findings of the study, it was revealed that project-based instructional method help in improving students' performance in English language narrative essay writing, more than the lecture method. The

performance from the project-based instructional method could be attributed to the engaging activities like collaboration, presentation, communication and research, which are inherent in the project-based instructional method. With these activities, learners become active in teaching and learning, which in turn help in improving their performance. Gender and project-based instructional method interacted to cause effect on students' performance in English language narrative essay writing. This implies that the hypotheses raised for gender and project-based instructional method were rejected.

### Recommendations

In the light of the findings of this study, the following recommendations were made;

1. Project-based instructional method should be adopted by English language teachers in the delivery of English language narrative essay writing.
2. Curriculum developers should include the project-based instructional method in the curriculum for teachers to use in teaching English language narrative essay writing.
3. Textbook writers should include project-based activities in the textbooks.
4. Education and school authorities should organise workshops to sensitize the teachers on the importance of the project-based instructional method.

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