

Project-Based Learning and Story Mapping Strategies on Senior Secondary Students' Performance in Narrative Essay Writing in Makurdi, Benue State

Marenga Dinah Orkaa and Gwadue Chieorga

Department of Arts and Social Sciences Education, Benue State University, Makurdi, Nigeria.

Received 3 December 2023; Acceptance 5 January 2024; Published 20 January 2024

Abstract

Writing is very crucial in education as it measures every aspect of learning. Its importance cuts across all levels of education, yet students perform poorly in writing, especially in narrative. Chief Examiners reports of both West African Examinations Council and National Examinations Council attribute this poor performance to poor teaching methods and strategies. This study investigated the use of Project-Based Learning and Story Mapping strategies in teaching narrative essay. The study adopted a quasi-experimental design. The population of the study was senior secondary II students in Makurdi Local Government Area of Benue State where 102 students were sampled using intact classes. The experimental group was taught using a combination of Project-Based Learning and Story mapping strategies in narrative essay writing, while the control group was exposed to conventional strategy. The findings revealed that the experimental group performed better. Therefore, it was recommended among others that the two strategies should be used in teaching narrative essay in secondary schools.

Keywords: Learning; Story mapping; Performance; Essay writing.

Introduction

Writing is a literacy skill that is crucial in education and overall development of a nation. It is considered as one of the predominant language skills in teaching and learning at all levels of education. It is a communication tool (Nassi & Nasser, 2018) that cannot be separated from the process of language learning since it allows learners to express their thoughts, feelings among others. A good writing is expected to be meaningful, syntactically correct and can effectively communicate to audience/readers. This requires a knowledge of vocabulary, grammar, good organizational skills and adequate knowledge of mechanics of the English language. It depicts that writing has to be taught and learned consciously in an activity-based process that could enable learners achieve the desired purpose. This means students who can write and are effectively taught how to communicate in writing can report events, narrate stories, argue logically, describe things critically and effectively, discuss purposively and do other variety of activities intelligently.

Correspondence to: Marenga Dinah Orkaa, e-mail: dinahorkaa@gmail.com

Copyright: © 2024 The authors. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License. e/ISSN: 3027-060X.

How to Cite: Orkaa and Chieorga (2024). Project-based Learning and Story Mapping Strategies on Senior Secondary School Students' Performance in Narrative Essay Writing in Makurdi, Benue State, *Scholar J*, 2(1). <https://scholarj.com/index.php/sj/article/view/12>

Writing is a productive and complex cognitive skill that requires generating ideas, organizing those ideas, revising/editing, modelling and publishing them. These activities develop students cognitive, affective and psycho-motor domains. It is a continuous and recursive activity that ranges from composing them into thoughts and body of knowledge and putting down ideas. Teachers and students have a lot to do considering the complexity in the skill of writing. A student who cannot write well cannot do well in school and life after schooling in this intellectual 21st society of Nigeria (Ukume&Agbinya, 2019). This is because writing is a tool for testing students' cognitive strength in education, and the wide knowledge of the world. A student who is not taught how to write effectively will surely perform poorly in writing tasks and it will eventually result in poor performance not only in the English language, but other subjects as well. This is what is experienced in secondary schools where students in senior secondary school classes write what is being described as illiterate scripts (West African Examination Council, 2018). This, Chief Examiners' Report attribute to poor teaching methods adopted by teachers.

Most second language writing lessons are characterized by teacher-centred method of teaching. Teacher adopts product approach and does all the talking and writing on the board while students are passive listeners who copy whatever the teacher explains and writes on the board. Students are not given opportunities to practice writing or think and develop ideas themselves. Muodumogu and Unwaha (2013) call the practice, conventional writing classroom. It does not give time to students for practice. The product approach in writing is emphasized rather than the process. A student who finds himself/herself in such classroom may equally be ignorant on what a good writing is all about and his/her performance in writing may not improve. This results in public outcry by educationists, parents, examination bodies among others concerning students' poor performance in writing.

Reports from West African Examination Council's (WAEC) Chief Examiners body (WAEC, 2018) affirm that students' writing clearly shows weaknesses in all aspects of English Language including weak expression, error of tenses, error of concord, poor organizational skill, spelling errors, poor or absence of punctuation and syllabication among others. These weaknesses are predominant characteristics in students' narrative, descriptive, argumentative, expository and letter writing tasks in most English Language internal and external examinations. This study focuses on looking for ways of improving students' skills in writing a narrative essay.

The skills of narration are the most used in education. Students tell stories about others, narrate events in school to their friends and parents at home and discuss other people's character extensively. Guiding students to narrate stories using Project-Based Learning (PBL) and story mapping strategy (SMS) could develop students cognitive, affective and psycho-motor domains. According to Woodney (2013), narrative writing develops students' memory to describe persons and events photographically and present things, activities, images and events logically in a real life situation. Narrative writing is a process of telling or retelling a story, event or an activity imaginary or real in a logical manner to educate, entertain or socialize an audience (Woodney,2013). Narrative essay has all the elements of writing (content, organization, expression and mechanical accuracy) and it ought to be taught and learnt in the same way.

In a lesson on narrative essay writing, students need to be taught to develop narrative tasks into compositions that are worthwhile. Teaching narrative essay writing using story mapping could be the right intervention activity-based that students need to improve on their poor performance in writing (Sidekli, 2013). Story mapping is a graphic organizer that provides a visual representation of a story, event or activity showing interrelationship between and among superordinate and subordinate ideas using spatial arrangements, geometric shapes, lines and arrows to portray the content structure of activities and events within a story. This shows that story mapping is capable of developing students' organizational structure of a narrative writing and graphic memory of events, characters and activities they write about. Story mapping does not only teach organizational skills, but helps in retention. Nada (2017) posits that story mapping strategy enhances learners' story elements and recognition, retention skills of events, character and activities. It displays a schema that relates parts of a story and clarifies the essential elements of the story

in line with the learner ability to read and represent what has been read graphically. This shows the relationship between literacy skills of reading and writing in English language teaching and learning.

Story maps can be utilized effectively in writing after reading a model essay or composition. Students learn to understand every bit of the composition to be able to represent it graphically. In teaching, a teacher is expected to provide a story that has an apparent chronological order to assist learners understand the essential elements such as characters, problem and solution from the story without feeling confused. This shows the basic elements of a narrative writing students need to acquire in order to develop a good essay worth publication. This include students being aware of creating a topic sentence and bringing in other supporting and related sentences. Students could be directed on how to arrange ideas in such a way that other ideas precede, while others follow chronologically.

Project-Based Learning Strategy (PBLs) allows tasks to be assigned to learners to allow them take practical steps in solving problems. It helps in developing cooperation and interaction among learners. Oktay and Oktay (2017) assert that PBLs is a constructivist teaching strategy that allows students solve problems by active participation. Bell (2010) enumerates some of the benefits of PBLs as improvement in metacognitive skills, promotion of achievement through collaborative learning among others. Collaboration process enables learners create new knowledge anytime they encounter a complex problem. Cervantes, Hemmer, and Kouzekanani (2015) state that PBLs transcend mastery of content knowledge to transferring of learning to new situations which solves problems. Students' mastery of writing task could enable them perform well in all subjects across the curricula.

Performance is a dependent variable of this study that seeks to be improved using story mapping and Project-based Learning Strategies in writing. Okpolovie, Joe and Okoto (2014) note that performance is a measurable index that depicts students' cognitive, affective and psychomotor strength and weaknesses in education. Performance can be poor, average or high. This study therefore seeks to investigate the effectiveness of Story Mapping Strategy and Project-Based Strategy in attempt to improve writing skill of Senior Secondary School II (SSSII) students in Makurdi in order to improve education standard in the state.

Statement of the Problem

Writing skill is crucial to a sustainable educational development in Nigeria because it is a strength of all reading and academic resources and a window for developing students' vocabulary, grammar and use of mechanics in communication. In spite of the vital and integrative function of writing, students' inability to produce good essays including narrative composition is demeaning and has raised an outcry among researchers and language educators as to what may be responsible for students' consistent inability to write good essays worth publishing and in external examinations like West African Senior School Certificate Examination (WASSCE).

Students' poor performance in writing especially narrative composition has been attributed to poor teaching strategy. This necessitated this study to investigate whether story mapping and Project- Based Learning strategies that have been used in teaching aspects of English Language could equally be effective in teaching writing especially narrative.

Research Questions

A research question guided the study;

1. What is the difference in the mean scores of students taught narrative writing using the two strategies (Project-Based Learning and Story Mapping) from those taught using the conventional strategy?

Hypothesis

A null hypothesis was formulated and tested at 0.05 level of significance:

1. There is no significant difference in the performance of students taught narrative writing using Project-Based Learning and Story Mapping strategies from those taught with the conventional strategy.

Theoretical Framework

The study is premised on two theories: Vygotsky's social development theory (1978) and Thorndike and Woodworth's transfer of learning theory (1901).

Vygotsky's Social Development Theory (1978)

Social development theory was propounded by Vygotsky in 1978. The theory is based on a child's ability to learn through social interaction. Vygotsky's social development theory is relevant to story mapping learning strategy in essay writing interaction. This is because the strategy encourages collaboration in the learning processes and guidance of individual learners by a more knowledgeable other (MKO), usually the teacher. Story mapping just like social development theory promotes scaffolding principle in the teaching and learning process.

Thorndike and Woodworth's (1901) Transfer of Learning

This theory entails application of skills, knowledge and attitude that were learned previously. Since educational objectives are achieved only through transfer of knowledge, learning is said to have been achieved when it is used to solve societal problem or skills acquired are transferred to new situations. The theory assumes that transfer of learning enhances quick learning and develop deeper understanding of tasks. Since knowledge cannot be directly imparted to learners, the objective of teaching is to provide experiences that facilitate the construction of knowledge and to transfer it to a new situation. Hence experience can facilitate learners' construction of their knowledge. So teachers are to design these experiences through Project-Based Strategy in order to teach narrative essay. This can be done putting students into groups of four or five and to assign them to deliberate on how to come up with an idea and how to develop such an idea by bringing up the major and supporting ideas. This is because PBL promotes personal involvement of learners in the learning process.

Research Methodology

This study adopts pre-test, post-test non-randomised control group quasi-experimental research design. The reason for the adoption of intact class is informed by Emaikwu (2015) who affirms that quasi-experimental design of non-randomised control group of pre-test and post-test is a design that allows the use of intact classes in order not to disrupt the regular school programme. Pretest was used for experimental and control groups to determine their equivalence as well as their entry behaviour. The study had an experimental group that was exposed to treatment using Project- Based Learning and Story Mapping strategies, while the control group was exposed to conventional strategy in intact SS 2 classes. The study was carried out in Makurdi Local Government Area, which is the headquarters of Benue State. The population comprised all Senior Secondary School (SSS) II Students in Makurdi Metropolis and the sample size of 102 students was drawn from two intact classes of SSS II. One class was used for PBL and Story Mapping Strategies and the other class for control group. The sampled schools for the study were selected through purposive sampling technique.

Students were first given topics to brainstorm using PBL and this was subsequently followed by Story Mapping strategy to guide them on sequential arrangement of thoughts through sentence construction and

paragraphing. The instrument used in collection of data was Narrative Essay Writing Performance Test (NEWPT) which consisted of four essay questions in line with Senior Secondary School (SSS) syllabus. Pretest and posttest had the same content. However, the questions were reshuffled during posttest. Students were required to answer only one question. Marking scheme was in line with West African Examination Council (WAEC) standard and format. Standard deviation was used in answering research questions, while Analysis of Covariance (ANCOVA) was adopted to test the hypotheses at 0.05 level of significance.

Research Question: What is the difference in the mean scores of students taught narrative writing using the two strategies (Project-Based Learning and Story Mapping) from those taught using the conventional strategy?

Table 1 presents the scores of students in the experimental and control groups.

Table 1: Mean and Standard Deviation of Experimental and Control Groups

Strategy	N	Pretest mean	Std. Deviation	Posttest mean	Std. Deviation	Mean Gain
PBL & SM	52	8.64	1.69	17.28	2.64	8.64
Conventional	50	8.81	1.11	10.92	1.81	2.11
Mean Difference		0.17		6.36		6.53

Table 1 shows that the mean performance scores of students in the experimental group was 17.28 with the corresponding standard deviation of 2.64, while the control group had the mean score of 10.92 and standard deviation of 1.81. The experimental group had an advantage of 6.36 as mean difference.

1. **Hypothesis:** There is no significant difference in the performance of students taught narrative writing using Project-Based Learning and Story Mapping strategies from those taught with the conventional strategy.

Table 2 presents ANCOVA analysis of experimental and control groups.

Source	Type III Sum of Squares	Df	Mean Square	F	P
Corrected Model	2514.45	2	157.15	3.47	0.00
Intercept	5347.02	1	5347.02	118.16	0.00
Pre-test	935.27	1	935.27	20.67	0.00
Strategy	340.78	1	340.78	7.53	0.01
Error	5837.79	99	47.25		
Total	279684.00	102			

Corrected	8352.25	47.25
Total		

Table 2 shows that $F=7.53$, $df=2$ and $p=0.01$. Since p -value is less than the alpha level ($p-0.01<0.05$), the null hypothesis is rejected. This implies that there is a significant difference in the performance of experimental and control groups.

Discussion

The findings from the research question revealed that students who were exposed to Project-Based Learning and Story Mapping strategies performed significantly better than those in control group. This confirms the assertion of Oktay and Oktay (2017); Nada (2017) and others that PBL and Story Mapping strategies are capable of improving students' performance in writing. The findings of this study may be due to the fact that the treatment enabled students interacted with their peers and shared knowledge by brainstorming to get ideas. In addition, story mapping helped students in sequential arrangement of those ideas generated to come up with a better narration. However, it was discovered that there was no significant improvement in students' grammar and mechanics of the English language. This again may be due to less concentration on these aspects. The focus was more on generation of ideas and organization and did not give much attention to other areas that required adequate and sufficient time for remediation. This is because some of the students could hardly write a sentence in the English language. This means that teachers have a lot of tasks in facilitating and monitoring learning in schools.

Conclusion

The study was carried out to investigate the strategies that could enhance students' performance in narrative writing. Narrative writing was chosen because all other writings involve one aspect of narration or the other and it is easy to compose. Two strategies were combined (PBL and SMSs) to determine their effectiveness. Based on the findings, the following recommendations were made:

1. Project –Based Learning should be adopted in teaching narrative writing. Bringing students together to learn in a group could enable them share ideas, arrange those ideas as well as edit their work. Those with high achieving capabilities would help the low achievers.
2. Story Mapping strategy is equally effective in coordination of ideas and presenting them sequentially in paragraphs and the entire narrative essay.
3. Teachers need constant self-development to keep abreast of the recent trends in teaching instead of continuously adopting conventional strategy that is not students centred.

References

- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House*, 53 (2), 39- 43.
- Cervantes, B., Hemmer, I. and Kouzekanani, K. (2015). The impact of project based learning on minority students' achievement. *NCPEA Educational Leadership Review of Doctoral Research*, 2 (2), 50-61.
- Emaikwu, S. O., Iji, C.I. and Abari, M. T. (2015). Effect of Geogebra on Senior Secondary School Students' Interest and Achievement in Statistics in Makurdi Local Government Area of Benue State, Nigeria. *IORSR Journal of Mathematics (IOSRJM)* 11(3), 14-21.
- Muodumogu, C. A. and Unwaha, C. O. (2013). Improving students' achievement in essay writing: what will be the impact of mini-lesson strategy? *Global Advance Research Journal of Arts and Humanities*, 2 (6), 11-20.

- Nada, A. (2017). The effectiveness of using group story mapping strategy to improve reading comprehension of students with learning disabilities. *Education Research Review*, 12 (18), 915 - 926.
- Nassi, A. Nasser, A. (2018). Teaching the writing skill to Yemeni EFL learners: *South Asian Journal of Multidisciplinary Studies*, 3 (6), 191-203.
- Nasrah, N. (2015). Implementation of story map strategy to improve students' skills in narrative text at the second grade students of 5man 3pingrang unpublished Thesis, Islamic institute, Indonesia.
- National Examination Council (2018). Chief Examiners Report on performance in English language. Lagos: NECO Press.
- OKpolovie, P. J., Joe, A. I. and Okoto, T. (2014). Academic achievement prediction: Role of interest in learning and attitude towards school. *International Journal of Humanities*, 1 (11), 73-100.
- Oktay, K. and Oktay, B. (2017). The effect of project-based learning on seventh grade students' academic achievement. *International Journal of Instruction*, 10 (1), 37- 54.
- Sidekli, S. (2013). Story map: How to improve writing skills. *Educational Research and Reviews*, 8 (7), 289-299.
- Thorndike, E. L. and Woodworth, R. S. (1901). The influence of improvement in one mental function upon the efficiencies of other functions. *Psychological Review*, 8 (10), 384-395.
- Ukume, D. G. and Agbinya, G. A. (2019). Comparative effectiveness of two collaborative learning strategies in improving students' achievement in expository essay writing. *Nigerian Journal of Literacy and English education*, 1 (2), 1-9.
- Vygotsky, L. (1978). *Mind in the society: The development of higher mental process*, Cambridge MA: Harvard University Press.
- West African Examination Council (2018). Chief Examiner's Report on students' performance in English language. Accra, Ghana: WAEC Press.
- Woodney, A. C. (2013). Freshmen intervention English for tertiary institutions. Makurdi: Aboki Publishers.