

**EFFECT OF READING AND WRITING LEARNING TECHNIQUE IN
ENHANCING SECONDARY SCHOOL STUDENT'S ACADEMIC SELF-
CONCEPT IN OREDO LOCAL GOVERNMENT AREA OF EDO
STATE**

AGBOOLA, JAMES ODUNAYO PhD

Department Of Education, Benson Idahosa University,
Benin City, Edo State, Nigeria
Tel: 08148444569; 08056736230

<https://doi.org/10.37602/IJSSMR.2022.5611>

ABSTRACT

The study investigated the effect of reading and writing learning techniques in enhancing secondary school students' academic self-concept in the Oredo Local Government Area of Edo State. One research question was raised and three hypotheses were formulated to guide the study. A pre-test post-test non-equivalent control group quasi-experimental design was used for the study. The target population comprised of all the public mixed Senior Secondary II students in Oredo Local Government Area of Edo State. The sample of the study consisted of 206 Secondary School II students in the two schools randomly selected in Oredo Local Government from the nine (9) schools in the local government area using simple random techniques through balloting. The instrument for data collection for the study was a questionnaire titled "Reading and Writing Learning Technique and Academic Self-concept Questionnaire (RWLTASQ), which was adopted by Rady and Nady (2016) and modified by the researcher, is made up of two sections. Section A contains information about the students' bio-data such as sex while section B consists of twenty (20) items on self-concept on a five-point Likert scale of Completely true of me (CTM), Mostly true of me (MTM), Partly true of me (PTM), Mostly untrue of me (MUM) and Completely untrue of me (CUM). The instrument was validated by three experts and also subjected to a reliability procedure and it yielded an r-value of 0.81 which showed that it was reliable for use. The pre-test was administered to both groups. While the experimental group was taken through the reading and writing technique, the control group was exposed to no treatment but used a placebo. After the treatment procedures, both groups were post-tested using the same instrument and the results revealed that: Majority of the students in the secondary school's students in Oredo Local Government Area of Edo State exhibit low levels as regards academic self-concept; there is no significant difference between academic self-concept of students in experimental and control groups before treatment among secondary school students in Oredo Local Government Area of Edo State; there is a significant difference between academic self-concept of students in experimental and control groups after treatment among secondary school students in Oredo Local Government Area of Edo State and there is no significant difference between male and female students' academic self-concept in the experimental group after treatment among secondary school students in Oredo Local Government Area of Edo State.

Based on the finding, it was recommended that teachers should employ reading and writing learning techniques to teach their students as this technique has been proven to be effective among secondary school students in Oredo Local Government Area of Edo State.

Keywords: Reading, writing, technique, learning, experimental and control

1.0 INTRODUCTION

1.1 Background to the Study

Self-concept is an all-encompassing idea one has about whom he is whether physically, emotionally, socially, spiritually, and in terms of any other aspects that make up who he is (Neill, 2005). In other words, every individual forms and regulates his self-concept based on his knowledge of himself. Roy (1999) defines self-concept as the individual's belief about himself, including the person's attributes and who and what the self is. Another psychological definition of self-concept comes from Rosenberg(1979)who defined self-concept as the totality of an individual's thoughts and feelings having reference to himself as an object and one of the arms of self-concept is called academic self-concept. This specifically relates to the way a learner sees himself as regards academic activities

There are two main types of academic self-concept. The first one is a positive or high academic self-concept while the second one is the negative one. One is said to have a high or positive academic self-concept when the person believes in himself, is optimistic, has a high degree of confidence, possesses an adequate ability to solve academic problems and does not believe anything is too difficult to solve especially when it relates to academic works. The reverse is the case with a person who possesses a negative or low academic self-concept. He doesn't believe in himself, is pessimistic, fearful, lacks confidence, and believes some issues are too hard to solve, so no need to try any efforts.

There are some factors that could influence students' self-concept in general and academic self-conception in particular, either positively or negatively. This includes age, gender, socio-economic status and peer group (Egbochuku&Agboola, 2017). For example, Martins and Silvia (2001) conducted a meta-analysis on gender differences in self-concept and psychological well-being in old age. They found that older women reported significantly lower SWB and less positive self-concept than men on all measures. Smaller gender differences in SWB were found in younger than in older groups. In the same vein, Helwig (2017) investigated age, gender, and self-concept: A sociocultural look through a nonparametric lens, and found that males and females display different self-concept patterns across the life span in all sociocultural regions. However, Arens and Hasselhorn(2013) tested whether the gender intensification hypothesis applies to relations between multiple domain-specific self-concept facets and self-esteem. Results indicated no difference in the self-concept–self-esteem relations between boys and girls.

Studies have shown that there is a relationship between self-concept and academic achievement. In a longitudinal study, Marsh (1990) found that students with more positive academic self-concepts achieved greater academic success the following year. Later studies confirmed the relationship between the two but indicated that achievement affects self-concept more than self-concept inherently influences achievement success (Muijs, 2011).

Agboola (2015) confirmed that students are exhibiting low self-concept, especially among senior secondary school students and this has negatively affected their academic achievement. It is believable that when negative self-concept is unchecked, it could lead to permanent loss of potential, damage of personalities and even suicide attempt, hence there is a need to improve students' self-concept.

In an attempt to improve adolescents' self-concept as regards their career choice, Agboola (2013) conducted related research and found a positive effect of career day on adolescents' self-concept. This implied that students' self-concept could be enhanced using counseling therapy or techniques.

This study anchor on the self-concept maintenance theory propounded by Munoz (2012). This theory refers to how people maintain or enhance their sense of self. It is relatively fixed after a person reaches adulthood, but it can—and does—change based on the person's experiences. How do people go about striving for self-actualization and congruence? This relates to the idea of how anyone “maintains” their idea of themselves. The theory maintains that an individual does not simply sit and wait for his or her self-concept to develop rather, he takes an active role in shaping his self-concept at all ages, whether he is aware of this or not.

Therefore, if study has shown that students are exhibiting low academic self-concept which is constantly reflected in their academic achievement and research has proven the possibility of enhancing students' academic self-concept using counseling technique, then, this study intends to employ the read/write learning technique to enhance students' self-concept in the secondary schools.

Reading and writing is one of the four learning techniques of the VARK theory of learning propounded by Neil Fleming (1987) which consists of visual, auditory, reading and writing, and kinesthetic learning. Sometimes referred to as the second visual technique, reading and writing is a type of learning during which people prefer to read and write in order to learn more effectively. These learners are known as read-and-write learners and usually learn best by reading and writing the information down. They are the people who always add notes to pictures, choose a hardcover book over an audiobook, and prefer using closed captions while watching videos. Their learning process consists of a combination between reading and writing, by reading to understand and note-taking to learn.

The read-and-write learners rely on reading to understand and learn. They may have problems grasping the information presented to them by other means such as lectures or pictures, as they are more comfortable with written words. Read and write learners typically choose textbooks, articles, handouts, and notes as their primary source of learning information. They also enjoy learning from reference materials like dictionaries and encyclopedias.

After reading a text, read and write learners prefer to reduce and rephrase it to retain information further. They use note-taking as a powerful tool for learning. These learners are usually successful in a traditional classroom environment, where they tend to take notes in most classes and benefit from reading and re-reading them. Writing the information down, rewriting, and reading it are what help them better understand it. The read-and-write learning

technique is a technique that involves students actively participating in their reading either in the classroom with the teacher or in private reading time.

Considering the fact that realization of students' maximum potential is the main focus of every school and this could only be achieved through high or positive academic self-concept and if studies have shown that students are exhibiting low or negative academic self-concept, then there is dare need for to utilize an appropriate technique that could facilitate positive or high academic self-concept. Therefore, this study seeks to examine the effect of reading and writing learning techniques in enhancing secondary school students' academic self-concept in the Oredo Local Government Area of Edo State.

One research question was raised and three hypotheses were formulated and tested at 0.05 apha level of significance.

Research Question

1. What is the level of academic self-concept among secondary school students in Oredo Local Government Area of Edo State?

Hypotheses

1. There is no significant difference between the academic self-concept of students in experimental and control groups before the treatment
2. There is no significant difference between the academic self-concept of students in experimental and control groups after treatment
3. There is no significant difference between male and female students' academic self-concept in the experimental group after treatment.

2.0 METHODOLOGY

A pre-test post-test non-equivalent control group quasi-experimental design was used for the study. There is only one independent variable (Read/Write Learning Technique) was involved in this study, one (01) intervening variable (sex), and one dependent variable (Academic self-concept). This intervening variable (sex) has two levels. The experimental group was taken through the techniques and beliefs of academic self-concept therapy while the control group was exposed to the traditional lecture method.

Table 1: Showing the Design Over Variables

Groups	Design
Experimental Group	O ₁X ₁ O ₂
Control Group	O ₁ O ₂

Key: O₁&O₂ is pre-test and post-test

----- No randomization of subjects to groups.

X1: Read/write learning technique treatment

2.1 Population for the Study

The population of the study comprised all the public mixed Senior Secondary II students in Oredo Local Government Area of Edo State. There are 9 public mixed schools with a population of 2,794 numbers of students (Post Primary Education Board, New Lagos Road, Benin City).

2.2 Sample and Sampling Technique

The sample of the study consisted of 206 Secondary School II students in the two schools randomly selected in Oredo Local Government from the nine (9) schools in the local government area using simple random techniques through balloting. To arrive at this number, the researcher wrote the names of the schools on a sheet of paper, folded and put it into a blind bag from which he picked. The first two schools picked were used as the sample for the study. These two schools selected were tagged school A, the experimental group, and B, the control group. School A was exposed to Reading and writing learning techniques, school B was exposed to no treatment. Out of the 206 students, 111 students comprising of 44 males and 67 females were exposed to reading and writing learning techniques in school A, and 95 students comprising of 41 males and 54 females were exposed to no treatment in school B but used a placebo.

2.3 Research Instrument

The instrument for data collection for the study was a questionnaire titled “Reading and Writing Learning Technique and Academic Self-concept Questionnaire (RWLTASQ), which was adopted by Rady and Nady (2016) and modified by the researcher, is made up of two sections. Section A contains information about the students' bio-data such as sex while section B consists of twenty (20) items on self-concept on a five-point Likert scale of Completely true of me (CTM), Mostly true of me (MTM), Partly true of me (PTM), Mostly untrue of me (MUM) and Completely untrue of me (CUM).

Validity of the Instrument

In establishing the validity of the instrument, the researcher gave the adopted copy of the instrument to the three experts, one in Counselling Psychology and the other two in the field of Measurement and Evaluation at Benson Idahosa University to ascertain its validity. Suggestions by the experts were inculcated into the final draft of the instrument and this made the instrument valid.

2.4 Reliability of the instrument

Due of the modification of the instrument, there was a need to test for its reliability. So, in establishing the reliability of the instrument used for this study, the test-re-test method was used. In doing this, the researcher administered thirty (30) copies of the instrument to senior

secondary school II students outside the sampled students used for the study. After three weeks, the same instrument was re-administered to the same students. The data collected were analyzed, using Pearson Product Moment correlation statistical procedure to determine its reliability and the instrument obtained a coefficient value of 0.81. This showed that the instrument was reliable.

2.5 Treatment Procedure

Step I: Pretest Administration

The students in the two groups were pre-tested using the instrument

Step II: Treatment Packages

(a) Sensitization of the students in Group A using the Reading and Writing Learning Technique.

In order to sensitize the experimental group using the Reading and writing learning technique, the researcher took the experimental group students through the following sessions.

Session 1: In this session, the following sub-heading was discussed: the concept of Reading and writing learning technique (RWT)

Session 2: This sub-heading was discussed: Key Rules of RWT, and The Basic Tenets That Inform RWT.

Session 3: These sub-headings were discussed: the Process of Reading and Writing Learning Techniques, Characteristics of RWT

Session 4: How to prepare for examinations through RWT

Session 5: Practical involvement of students using RWT

Session 6: Questions and Answers time.

Step III: Post-test

2.6 Control of Extraneous Variables

Extraneous variables are the variables that could influence the findings of a study, thereby posing serious threats to the internal validity of an experimental design if not controlled. Thus the researcher controlled these variables as discussed below:

2.7 Attrition/Experimental Mortality

This was controlled by arranging an agreed time to meet with the students before the treatment session commenced. The researcher encouraged the participants and sensitized

them to be regular and punctual as agreed in all the sessions with a promise of light refreshment in each of the sessions.

2.8 Subject Bias

This was controlled by not showing the nature of the experiment to the participants. They did not know whether they were in the treatment or control group.

2.9 Experimenter Bias

In controlling for this, the researcher strictly followed the treatment package designed for the experimental group as this did not allow self-bias in the process of treatment delivery

2.10 Administration of Instruments

The instrument titled “Reading and Writing Learning Technique and Academic Self-concept Questionnaire” (LTASQ) was administered as pre-test, followed by the treatment. The experimental group was treated by the researcher in school A which is far away from school B. This was done to avoid subject interaction. And at the end of the treatment, both the experimental and the control groups were post-tested using the same questionnaire by the researcher and the completed questionnaire were collected instantly.

3.0 METHOD OF DATA ANALYSIS

In analyzing the data collected, the scoring of the items follows thus: Positively worded items in the instrument were scored 5.4.3.2.1 on the scale while negatively worded items were scored 1.2.3.4.5 on Completely true of me (CTM), Mostly true of me (MTM), Partly true of me (PTM), Mostly untrue of me (MUM) and Completely untrue of me (CUM) respectively. There are twenty (20) items on the scale. If a student rates himself 5 on every item, a maximum of one hundred (100) scores would be recorded and this would represent the highest level of academic self-concept. Scores of 45 and above represented a high level of academic self-concept while scores below 45 represented a low level of academic self-concept.

In analyzing the data collected, all research questions were answered using descriptive statistics of mean, standard deviation, and percentage count. All the hypotheses were tested using the students’ independent t-test Statistics at 0.05 alpha level of significance.

3.1 Data Analysis and Results

Research Question one: What is the level of academic self-concept among secondary school students in Oredo Local Government Area of Edo State?

Table 1: Descriptive statistics showing the level of academic self-concept among secondary school students in Oredo Local Government Area of Edo State

Level	Frequency	%	Valid %
-------	-----------	---	---------

High	85	41.26	41.26
Low	121	58.74	58.74
Total	206	100	100

The data shown in Table one indicated that out of 206 students used for the study, 85 constituting 41.26% exhibited a high level of academic self-concept while 121 comprising 58% exhibited low academic self-concept. From the Table, therefore, it can be concluded that the majority of the students in secondary schools students in Oredo Local Government Area of Edo State exhibit low levels as regards academic self-concept.

Hypotheses 1

There is no significant difference between the academic self-concept of students in experimental and control groups before the treatment

The summary of the test of this hypothesis is presented in Table 2

Table 2: t-test statistics on the difference between the academic self-concept of students in experimental and control groups before treatment

GROUPS	N	t	Mean	SD	Mean diff.	df	Sig.(2-tailed)	Decision
EXPERIMENTAL	111	22.30	1.99					
		-0.29		0.8	204		0.76	Accept Ho
CONTROL	95	22.38	2.01					

Table 2 showed that the observed difference between the academic self-concept of students in experimental and control groups before treatment is not significant at 0.76 ($t = -0.29$; $df=204$). Since 0.76 is higher than 0.05, the observed difference between the academic self-concept of students in experimental and control groups before treatment is not significant. With this, the null hypothesis which says there is no significant difference between the academic self-concept of students in experimental and control groups before treatment is accepted. This showed that there is no significant difference between the academic self-concept of students in experimental and control groups before treatment among secondary school students in Oredo Local Government Area of Edo State.

Hypothesis 2

There is no significant difference between the academic self-concept of students in experimental and control groups after treatment

The summary of the test of this hypothesis is presented in Table 3

Table 3: t-test statistics on the difference between the academic self-concept of students in experimental and control groups after treatment

GROUPS	N	t	Mean	SD	Mean diff.	df	Sig.(2-tailed)	Decision
EXPERIMENTAL	111	56.305.67						
		16.63	25.75		204	0.00	Reject Ho	
CONTROL	95	30.55	15.11					

Table 3 showed that the observed difference between the academic self-concept of students in experimental and control groups after treatment is significant at 0.00 ($t = 16.63$; $df=204$). Since 0.00 is less than 0.05, the observed difference between the academic self-concept of students in experimental and control groups after treatment is significant. With this, the null hypothesis which says there is no significant difference between the academic self-concept of students in experimental and control groups after treatment is not accepted. This showed that there is a significant difference between the academic self-concepts of students in experimental and control groups after treatment among secondary school students in Oredo Local Government Area of Edo State.

Hypothesis 3

There is no significant difference between male and female students' academic self-concept in the experimental group after the treatment

The summary of the test of this hypothesis is presented in table 4.

Table 4: t-test statistics on the difference between male and female students' academic self-concept in the experimental group after treatment

GENDER	N	t	Mean	Mean diff.	df	Sig.(2-tailed)	Decision
MALE	44	55.97					
		-0.49		0.54	109	0.62	Accept Ho
FEMALE	67	56.52					

Table 4 showed that the observed difference between male and female students' academic self-concept in the experimental group after treatment is not significant at 0.62 ($t = -0.49$; $df=109$). Since 0.62 is higher than 0.05, the observed difference between male and female students' academic self-concept in the experimental group after treatment is not significant. With this, the null hypothesis which says there is no significant difference between male and female students' academic self-concept in the experimental group after treatment is accepted. This showed that there is no significant difference between male and female students' academic self-concept in the experimental group after treatment among secondary school students in Oredo Local Government Area of Edo State.

4.0 SUMMARY OF FINDINGS

1. Majority of the students in secondary school students in Oredo Local Government Area of Edo State exhibit low levels as regards academic self-concept.
2. There is no significant difference between the academic self-concept of students in experimental and control groups before treatment among secondary school students in Oredo Local Government Area of Edo State.
3. There is a significant difference between the academic self-concept of students in experimental and control groups after treatment among secondary school students in Oredo Local Government Area of Edo State.
4. There is no significant difference between male and female students' academic self-concept in the experimental group after treatment among secondary school students in Oredo Local Government Area of Edo State.

5.0 DISCUSSION OF FINDINGS

The first finding in this study showed that the students in the secondary school students in Oredo Local Government Area of Edo State exhibit low level as regards to academic self-concept. This finding is in agreement with that of Agboola (2015) who confirmed that students are exhibiting low self-concept, especially among senior secondary school students and this has negatively affected their academic achievement. The second finding revealed that there is no significant difference between academic self-concept of students in experimental and control groups before treatment among secondary school students in Oredo Local Government Area of Edo State. this is appropriate because if there was a significant difference between the groups before treatment, then, the factor(s) responsible could equally influence their post-treatment result and the finding is also in line with Agboola (2015) who confirmed that students are generally exhibiting low self-concept in the secondary schools.

The third find finding indicated a significant difference between the academic self-concept of students in experimental and control groups after treatment among secondary school students in Oredo Local Government Area of Edo State. This confirmed that reading and writing reading technique is effective on the academic self-concept of secondary school students. This finding supported that of Munoz (2012) who, through his propounded theory on self-concept maintenance, revealed that an individual does not simply sit and wait for his or her self-concept to develop rather, he takes an active role in shaping his or her self-concept at all ages, whether he is aware of this or not. As a matter of fact, this is exactly the main objective of reading and writing techniques whereby learners are actively writing or jotting during lectures.

The fourth finding indicated that there is no significant difference between male and female students' academic self-concept in the experimental group after treatment among secondary school students in Oredo Local Government Area of Edo State. This finding is in line with the assertions of Arens and Hasselhorn (2013) who tested whether the gender intensification hypothesis applies to relations between multiple domain-specific self-concept facets and self-esteem and results indicated no difference in the self-concept–self-esteem relations between boys and girls. However, the finding is in contrast with the outcomes of Martins and Silvia (2001) who conducted a meta-analysis on gender differences in self-concept and

psychological well-being in old age and found that older women reported significantly lower SWB and less positive self-concept than men on all measures and smaller gender differences in SWB were found in younger than in older groups. Similarly, the finding contrasted the revelation of Helwig (2017) who investigated age, gender, and self-concept: A sociocultural look through a nonparametric lens, and found that males and females display different self-concept patterns across the life span in all sociocultural regions.

6.0 CONCLUSION

It can be concluded from the study that the Reading and Writing Technique is effective in enhancing the academic self-concept of secondary school students in Oredo Local Government Area of Edo State.

7.0 RECOMMENDATION

Based on the findings, therefore, it is recommended that counselors and teachers should employ Reading and Writing Techniques in enhancing students' academic self-concept so to enable them to achieve their maximum potential in life.

REFERENCES

- Agboola, J. O. (2013). Effect of career day as a guidance strategy on adolescents' self-concept. *Edo Journal of Counselling* (6), 45-56.
- Agboola, J.O. (2015). Relationship between students' self-concept and academic performance in Ikpoba-Okha Local Government Area of Edo State. *Journal of Qualitative Education*, (11), 145-151
- Arens and Hasselhorn (2013). Age and Gender Differences in the Relation Between Self-Concept Facets and Self-Esteem. *Journal of Early adolescence*. 34(6), 112-136
- Egbochuku, E.O & Agboola, J.O. (2017). Influence of age on adolescents' self-concept among secondary school students in Ikpoba-Okha Local Government Area of Edo State, Nigeria. *The International Journal of Humanities & Social Studies*, 5(10), 73-77
- Helwig, N. E., & Ruprecht, M. R. (2017). Age, gender, and self-esteem: A sociocultural look through a nonparametric lens. *Archives of Scientific Psychology*, 5(1), 19–31.
- Marsh, H. W. (1990). Causal ordering of academic self-concept and academic achievement: A multi-wave, longitudinal panel analysis. *Journal of Educational Psychology*, 82, 646-656.
- Martins P. Silvia, S. (2001). Gender Differences in Self-Concept and Psychological Well-Being in Old Age: A Meta-Analysis. *The Journals of Gerontology: Series B*, (56), 4, 195–213,
- Muijs, R. D. (2011). Predictors of academic achievement and academic self-concept: A longitudinal perspective. *British Journal of Educational Psychology*, 67, 263-277.

- Munoz, L. (2012). Theories of self-concept maintenance. Life Long Learning: Social Psychology. Retrieved from <https://lynnmunoz.wordpress.com/2012/11/22/theories-of-self-concept-maintenance/>
- Neil Fleming (1987) The VARK theory of learning. Retrieved from [www/google.com](http://www.google.com) on 21/10/22
- Neill, J. (2005). Definitions of various self constructs: Self-esteem, self-efficacy, self-confidence & self-concept. Wilderdom. Retrieved from <http://www.wilderdom.com/self/>
- Rady, E.& El-Nady, 2016) Relationship between Academic Self-Concept and Students' Performance among School Age Children.American Journal of Nursing Science 5(6):295
- Rosenberg M., (1979) Conceiving the self Basic Books, New York.
- Roy B. F. (1999). The nature and structure of the self: An overview. In R. Baumeister (Ed.), The self in social psychology (pp. 1-20). Philadelphia, PA: Psychology Press (Taylor & Francis).