

Original Research Article

Effect of Self-Assessment on Oral English Achievement: Moderating Effect of Learning Style

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Abstract: This study investigated the effect of self-assessment in Oral English Achievement and the moderating effect of preferred learning style. The study used the quasi-experiment research design. The population for this study consisted 24,769 senior secondary school students in class 2 (SS2) in Bayelsa state. The sample for this study consisted of 360 senior secondary school students in class 2 (SS2) of public secondary schools in Bayelsa State, Nigeria. Two instruments were used for the study. They were the 'Oral English Achievement Test (OEAT)' and the VARK Questionnaire. Face and content validity of the instrument was determined by giving it to three experts in Measurement and Evaluation specialty in the Department of Educational Psychology, Guidance and Counselling in University of Port Harcourt. Reliability of the instrument was determined using KR₂₀. After analysis, a reliability coefficient of 0.79 was realized indicating that the instrument was highly reliable. On the other hand, the reliability of VARK was established using Cronbach Alpha method of reliability with an index of 0.80. Mean, standard deviation, and ANCOVA were used to analyze the data. Research question 1 and 2 were analyzed using mean and standard deviation while their corresponding hypotheses were analyzed using paired sample t-test and ANCOVA. Findings of the study revealed that there is a significant difference ($p=0.00>0.05$) in the mean (pretest and posttest) score of students in the self-assessment group based on their learning style in Bayelsa State, Nigeria. Based on these finding, it was recommended among others that students should be encouraged by the classroom teacher to carry out self-assessment intermittently since it has been seen that it improves the achievement of student especially in oral English.

Keywords: Oral English Achievement Test (OEAT), Self-Assessment, study.

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INTRODUCTION

The purpose of education is to produce a wholesome, pleasant and understanding individual who will interact wisely and purposely within and outside the environment. To achieve this goal, it is imperative that students receive the best quality of teaching. Also, teaching aims at promoting the understanding of the concept being taught with a view to applying such knowledge to real life situations. It could as well be seen as an act or profession of a person who teaches. The whole idea of teaching is embedded in the concept of education. The teaching professional is one of the social services rendered by government and private organizations. In other words, it is a profession that is performed in a social context involving several classes of people with different psychological dispositions, sense of judgment and rationality. At least, the teaching profession has taken a conspicuous position in the expansion of the frontier of knowledge, nurturing of the younger generation and development of sound character. Against this background, there is now a

growing interest and body of evidence regarding the processes through which teachers assess the outcome of education. Within the Nigerian context, one subject that has remained relevant in English Language.

English language is one of the core subjects students are taught at the secondary school level. It is one of the nine subjects that all students registering for Senior Secondary School Certificate Examination (SSCE) must include. English Language is a broad subject that serves as a language of instruction (Muhammad, et al, 2018). Although the subject is taken as a whole, it has multiple branches. One of the branches of English Language is Oral English. Oral English as its name implies is the branch of English Language that helps students to master the use of English Language in terms of transcription of words, pronunciation of words and morphemes in accordance with their sounds, stress and syllabus. Apart from helping students to use English Language orally (in terms of pronunciation), Oral English also helps students to correctly spell words by guiding their

spelling with the transcription of sounds, identification of stress pattern and syllabus as contained in a word.

The importance of Oral English to the educational development of the society has made it imperative to understand how best students' learning can be improved. The performance and achievement of students in oral English depends on some factors which include teacher factors such as teaching method/strategies, assessment methods and their personality. On the other hand, student's factors include among others their preferred learning styles.

Learning refers to a systematic process of acquiring skills, attitudes or knowledge from a teacher. Effiom (2018) views learning as the process of achieving quantitative increase in knowledge. The terms learning and achievement cannot be dissociated because the skills that are needed to tackle life's problems are achieved through learning. According to De Cecco and Crawford in Effiom (2018), achievement is the expectancy of finding satisfaction in mastering challenging and difficult performance. In addition, Yelon, et al in Effiom (2018) expresses achievement as the successfulness of an individual. The teacher is considered to be responsible for preparing, motivating and guiding students to learn. The onus is also on the teacher to create an enabling environment where students can learn effectively, while the students learn using different styles based on their preferences.

There are several learning styles which can be harnessed during the process of teaching and learning. Learning styles simply refers to the different methods through which learners can learn (acquire skills, attitudes or knowledge). Learning styles can also be seen as a technical explanation of the different ways which learners or individuals learn. It is an individual's best way of learning effectively. Gokalp, (2013) opines that learning style is basically associated with how students learn and not what they learn. The learning experiences that learners are willing to participate in and enjoy during learning cannot be dissociated from their learning style.

Furthermore, Dunn and Dunn in Desire (2019) present a wide list of learning styles. Their list include; visual, auditory, kindergarten, global analytical impulsive, reflective, individual and group learning styles. However, Desire (2019) reduces the list of learning styles to four. They are visual, auditory, reading and writing and kinesthetic learning styles. The visual, auditory, reading and writing preference and kinesthetic learning styles are categorised into three groups, namely; physiology, psychological and sociology. Physiology category includes visual and auditory, the psychological include reading and writing learning style while the sociological include kinesthetic (Dunn and Dunn, 1989). Senior Secondary (SS) 2 students offering Oral English have their preferred

learning style that helps them to comprehend, memorise and reproduce the content of the lesson. Any of the four learning styles can fit into the learning of Oral English amongst Senior Secondary (SS) 2 students.

Students preferred learning styles gives teachers insight into the kind of teaching method they should select for teaching Oral English to Senior Secondary (SS2) students. The teaching and learning of Oral English require the production of oral sounds which has to be visualized in the form of phonetic keys, transcription of words and most importantly production of words in the right articulated manner. The production of these phonetic sound is a very active process which requires identification of areas in which some phonetic sounds occur in the oral cavity. This entire process of sound production requires a great deal of physical exercise.

In all, it is presumed that achievement of students may be affected by their preferred learning styles. Irrespective of the learning styles used, the level of accomplishment in a given task needs to be determined. That means, teaching and learning are important phenomenon in education. The teacher teaches while the learners learn. Teaching and learning is a means to an end and not an end in itself. This explains why the process of teaching and learning is incomplete without assessment of the students to determine their level of academic achievement. Assessment is an important feature of teaching and learning (Fyfe & Rittle-Johnson, 2016). A substantial amount of class time is devoted to assessments of learning, among student which involves exposing students to a variety of assessment tasks. These tasks develop the student's beliefs about their performance (Dignath & Büttner, 2008) Students' perceptions of these assessment tasks in terms of difficulty, importance, interest, complexity, and value communicate certain characteristics of the classroom assessment environment, which in turn influences students' motivational beliefs and achievement. Assessments are necessary components of teaching that has to be used in a meaningful way by both students and teachers. Teachers could use the information from assessment to derive their daily lessons and students could use these assessments to determine if they were successful in learning the necessary content for a given class. Assessment is simply a process of getting feedback on the outcome of teaching and learning. The concept of assessment refers to different ways of measuring and documenting students' academic readiness, skill acquisition as well as learning progress and outcome. The need for assessment in education cannot be overemphasized. It is through assessment of the process of teaching and learning that the progress and needs of students and teachers can be identified. The purpose of assessment is not just to identify students' learning readiness, progress and academic achievement but to also provide useful information for

improving students' performance especially in areas of challenges which on the part of the teachers it will help to identify the strength and weaknesses of instructional approaches. There are different types of assessment, however the focus of the present study is on self-assessment.

Self- assessment is a method that allows students to assess their own level of learning outcome. A student can assess himself/herself at home or in class. Self- assessment helps to develop the analytical, critical and self-judgemental prowess of students (Kayler & Weller, 2007). The assumption behind self- assessment is that students have critical roles to play in fostering learning and development. This is contrary to the conventional view which maintains that the teacher is completely responsible for determining learning outcomes. Through self- assessment, students can monitor their learning readiness, progress and outcome. They can also determine how to improve their future learning outcome. Self -assessment motivates students and can raise their self- esteem (William & Black, 2010).

Self- assessment requires that students who wish to assess themselves should be able to set goals for themselves, judge their own performance and monitor their progress. Price (2016) opines that students who adopt self- assessment are likely to reach higher academic achievement compared to those who don't. Self-assessment is important to daily learning in the class room. Self-assessed learning includes self-reflection of students' own performances, which requires that students possess a specific set of skills in order to direct their own learning. These set skills are not inherent, and therefore must be taught to students in the classroom. In self-assessed learning of their own thinking, they develop more strategies to monitor their learning. In order for students to fully develop their self-regulated learning, feedback is necessary. Self-assessment has been found to be a powerful educational tool for learning. Students are encouraged to participate in a legitimized, elaborated, and systematic process that supports learning. Self-regulated learning implies a set of three characteristics, which are systematic patterns of thoughts, action, and feelings directed at attainment of personal learning goals. A self-regulated learner is one who achieves academic success through delayed gratification, who has developed academic identity, who monitors feedback on their own classroom, students are informed of the requirements and are led to complete the tasks through feedback from the teacher. Reflection reports and feedback are indispensable in this type of learning (Kicken et al., 2009). Development portfolios, with a focus on the learning process, are full of progress reports, and reflections and are used for formative assessment purposes. In self-assessment learning, students become more efficient in determining their own learning needs.

The effect of self-assessment on students' achievement appear to be of interest amongst educationist. It is important to examine the effects of self-assessment method on students' achievement in Oral English at SS2 level in Bayelsa State, Nigeria: Moderating learning styles. Learning styles can have effects on students' achievement in Oral English at SS2 level. In order to carefully examine the effects of self-assessment methods on students' achievement in Oral English at SS2 level, it might be helpful to moderate the four learning styles. It is against this background that the current study is being conducted.

Purpose of the Study

The purpose of this study was to investigate the effect of self-assessment on students' achievement in Oral English at SS2 level in Bayelsa State, Nigeria while also determining the moderating effects. In specific terms, the objectives of this study includes the following:

1. To investigate the effect of self-assessment on secondary school students' achievement in Oral English in Bayelsa State.
2. To examine the effectiveness of self-assessment on students' achievement in oral English based on their preferred learning style

Research Questions

The following research questions were further developed to guide the study:

1. What is the effect of self-assessment on secondary school students' achievement in Oral English in Bayelsa State?
2. What is the effectiveness of self-assessment on secondary school students' achievement in Oral English in Bayelsa State?

Hypotheses

The following research questions were further tested to aid in the conduct of this study:

1. There is no significant effect of self-assessment on the students' achievement in oral English.
2. The effect of self-assessment on the oral English achievement of students based on their preferred learning styles do not differ significantly.

METHODOLOGY

The study adopted the quasi-experiment research design. This study is considered appropriate because it examined the moderating effects of learning styles on students' academic achievement in Oral English when taught using peer and self-assessment. The population of the study comprised of all 24,769 SS II students in the 192 public secondary schools in Bayelsa State. The sample for this study consisted of 360 senior secondary school students in class 2 (SS2) of public secondary schools in Bayelsa State, Nigeria. The sample was divided into three groups with two experimental group (which are the self-assessment and

peer assessment group) and one control group (teacher assessment).

Two instruments were used for the study. They were the ‘Oral English Achievement Test (OEAT)’ and the VARK Questionnaire. “The Oral English Achievement Test (OEAT) contained 25 standardized multiple choice items and was marked over 100. On the other hand, the VARK scale was a multivariate instrument with four subsections that measured the student’s method of learning. It was composed of 32 items with 8 items in each sub-sections. Face and content validities of the VARK Questionnaires were established by three experts in Measurement and Evaluation. On the other hands, the researcher did not

bother to establish the validity of the Oral English Achievement Test (OEAT) because it was a standardized instrument gotten from WAEC. The reliability of the VARKQ and the OEAT yielded coefficients of 0.80 and 0.79 were obtained using KR₂₀ and Cronbach Alpha respectively. Data was collected over a one month period. Mean and standard deviation were used to answer the research questions, while paired sample t-test and ANCOVA were used to test the corresponding null hypotheses at 0.05 level of significance.

RESULT PRESENTATION

Table 1: Mean, standard deviation and paired samples t-test on the effect of self-assessment on oral English achievement of students

Variable	N	Mean	SD	Mean dff	Df	t-cal	p-value	Alpha	Decision
Post test	117	43.99	18.41	16.50	116	9.34	0.0005	0.05	Ho1 rejected
Pretest		27.50	9.90						

Results in Table 1 revealed that the students’ assessed using self-assessment method had the mean scores of 27.50 (SD = 9.90) and 43.99 (SD = 18.41) at their pretest and post test respectively. These gave rise to a mean difference value of 16.50 from the pretest to the post test stage, which indicated that from the pretest to the post test they gained a mean value of 16.50. Thus self-assessment had a rewarding effect on oral English

achievement among students. Furthermore when the mean difference was subjected to paired samples t-test analysis a calculated t-value of 9.34 was obtained at df of 116 at 0.0005 level of significance (P<0.05), which is less than 0.05, the chosen level of probability. Thus the null hypothesis one is rejected, which indicated that self-assessment had a significant effect on the oral English achievement of students.

Table 2: Mean and standard deviation of the self-assessment oral English students’ scores at pretest and posttest based on the preferred learning styles

Learning styles	N	Post test		Pretest		Mean difference
		Mean	SD	Mean	SD	
Visual	56	52.29	21.04	27.71	9.85	24.58
Auditory	12	35.33	10.07	27.42	6.59	7.91
Read/write	25	39.52	7.94	27.04	11.51	12.48
Kinesthetic	24	33.63	13.98	27.50	10.17	6.13
Total	117	43.99	18.41	27.50	9.90	16.49

In table 2, it is shown that within students in self-assessment method group, those that preferred learning by visual styles had the mean scores of 27.71 (SD = 9.85) and 52.29 (SD = 21.04) respectively at their pre-and post-test stages. Thus they gained a mean value of 24.58 from the pre-to the post test stages. For those that preferred to learn by auditory styles, they had the mean values of 27.42 (SD = 6.59) and 35.33 (SD = 10.07) at pre- and post test stages respectively. Thus, they gained a mean value of 7.91 from the pretest to the post test stages.

Again table 2 shows that within the self-assessment group, the students that preferred to learn

using read/write styles had the mean scores of 27.04 (SD = 11.51) and 39.52 (SD = 27.04) respectively at the pre-and post tests stages. These mean scores indicated that from pretest to the post test stages the students had gained a mean value of 12.48. Then for the students that preferred kinesthetic learning styles, their mean scores are 27.50 (SD = 10.17) and 33.63 (SD = 13.98) respectively for pre-and post-test, so from the pretest to the post test stages, they had gained a mean value of 6.18. In all, from their mean difference values, it could be deduced that self-assessment method was most effective with the students who preferred to learn using visual, this is followed by those of read/write, auditory and then kinesthetic learning styles group.

Table 3: Summary of one-way analysis of covariate on the effect of self-assessment on students' oral English achievement based on their preferred learning styles

Sources of variation	Sum of squares	Df	Mean square	F	p-value	Partial eta squared
Pretest 1	1404.16	1	1404.16	5.20	0.024	0.045
Learning styles self-assessment between group	7717.68	3	2572.56	9.58	0.0005	0.204
Error	30069.80	112	268.48			
Total	39304.99	116				

In table 3, it is displayed that the F-value for between groups (learning styles) 9.58 was obtained at df of 1 and 3 at 0.0005 level of significance ($P < 0.05$), which is lower than 0.05, the chosen level of probability. Therefore the effect of self-assessment method on the oral English achievement of students based on their preferred learning styles differ significantly. This is a low effect size because partial eta squared value obtained is 0.204. Furthermore, since

the students preferred learning styles of are in four different types, and a significant difference was observed, it is necessary that the direction of the significant difference in the effect of self-assessment on the students oral English achievement based on their learning styles be determined. This was done using the post Hoc multiple comparison test via Least Significant Difference (LSD) method. The results obtained are as displayed in Table 4.

Table 4: Direction of significant difference in the effect of self-assessment on oral English achievement based on their learning styles

Learning styles	Estimated marginal	Compared groups	Mean difference	P-value
Visual	70.77	Visual vs auditory	16.85	0.002
Auditory	44.29	Visual vs read/write	12.53	0.002
Read/write	37.60	Visual vs kinesthetic	18.59	0.0005
Kinesthetic	31.75	Auditory vs read/write	4.32	0.455
		Auditory vs kinesthetic	1.74	0.765
		Read/write vs kinesthetic	6.06	0.199

Evaluated covariates in the model = 31.63

Table 4 shows that when some groups of students based on their learning styles that were assessed using self-assessment method were compared their mean difference values were significant at 0.05. These groups are visual and auditory and that of visual and read/write preferred learning styles. Table 4 also revealed that when the group mean scores of the students who preferred learning by auditory was compared with that of read/write and kinesthetic the respective mean difference values obtained were not significant. This is because their p-values 0.465 and 0.765 were greater than 0.05, the chosen level of probability. Again in the same table 4.4 it is also shown that when the mean scores of students who preferred read/write learning styles was compared with that of kinesthetic learning styles the mean difference value obtained was not significant. This is because the p-value of 0.199 is greater than 0.05, the chosen alpha level.

DISCUSSION

From the findings in table one, it is found that there is a significant difference in the mean (pretest and posttest) score of students in the self-assessment group. Through the posttest scores, it is reported that the students performed more compared to their pretest. This finding means that when students assess themselves they tend to perform more academically compared to other form of assessment. This findings also means that

majority of the students are aware of the importance of self-assessment in improving their academic achievements. The findings of the study may have come because through self-assessment, students may be exposed to their strengths, weakness, opportunities as well as threats in the school system. Just as it is always said, the best form of evaluation is self-evaluation. Hence, it is certain that when the students evaluate themselves, they are able to better understand why they either underperform or over perform. The finding of the study is expected by the researcher because to the best of her knowledge when students evaluate themselves, they tend to make necessary adjustments that will help them academically. On the other hand, it is so because students who evaluate themselves tend to improve in their performance. The present study is in line with that of Adinna (2019) who found that a positive relationship exists between self-assessment and academic performance.

Another finding of this study indicated that the effect of self-assessment on the oral English achievement of the students differ significantly based on their preferred learning styles. This mean that the mean difference of the students with different learning styles within the group of self-assessment differ where some of them had low mean difference and others had higher mean difference (post-test mean- pretest mean). For instance it was observed that among the students

that were assessed using self-assessment, those with visual learning styles had the highest mean difference which is followed by read/write group, auditory and then kinesthetic. These observed mean difference were significant when tested with one-way analysis of covariance. This finding suggests that learning styles are good indicators of achievement among students. The highest achiever coming from the visual learners indicates that some of the students acquire and retain more when they sight and observed things or words with their eyes. These learners believed that before learning can take place information must first be received through sighting for decoding to be made. That means learning take place more using their sense of sight with the aid of pictures and charts.

It was also observed that within the group assessed via self-assessment that the students whose preferred learning styles is read/write was next to the visual learners. This means that reading and writing words and sentences in the right articulated form help students to learn better in oral English. This is because oral English involves accuracy in pronunciation and good grasp of the symbolic representation of the sounds so when they pronounce these words or sentences through reading, the symbolic representation is shown through writing. Hence they feel that oral English is better achieved when one learns through reading and writing. The higher achievement of the read/write learners than the auditory learners may result from the fact that auditory learners make use of only the sense of hearing which will only promote pronunciation without good grasp of the symbolic representation thereby making the achievement in oral English to be partial. For the kinesthetic learners achieving the least mean difference among their equals in self-assessment group may be attributed to the fact that production of sounds cannot be acquired adequately by demonstration using body movement rather through visual of concepts to enable the learners identify areas or areas in which the phonetic sounds occur. However, this finding that oral English achievement among students that were assessed using self-assessment method differ based on their learning styles where visual learners are most favoured is not in line with that of Vaishnav (2013) who found that kinesthetic learners were more prevalent than other learners. The discrepancy in the two findings might result from their approach of study while the previous study was anchored on the relationship between learning styles and academic performance the present one focused on how learning styles effect oral English achievement.

RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. It is recommended that students should be encouraged by the classroom teachers to carry out self-assessment from time to time since it has been seen that it improves the achievement of student especially in oral English.
2. Since learning styles significantly affected the students' oral English achievement across the three different assessment groups, it is therefore recommended that students should be counselled on how to vary their learning styles based on assessment method and subject matter.
3. There should be training programmes for teachers to improve on the assessment skills on the integration of self-assessment in the secondary school system.

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