Portfolio as a Tool for Assessing Students Affective Learning Outcomes in Economics in Ebonyi State Secondary Schools

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Abstract This study assessed how portfolio could help to assess students' affective learning outcome in Economics in secondary schools in Ebonyi State. The study adopted descriptive survey design. The population of the study comprises population of this study comprised of 433 Economics teachers in all the public senior secondary schools in Ebonyi State. The entire teachers served as the sample of the study. The instrument for data collection was a structured questionnaire developed from the literature titled "Portfolio as Tool for Assessing Students' Affective Learning Outcome in Economics" (PTASALOE). Both descriptive and inferential statistics were used in analyzing data in this study. The data collected was analyzed in relation with the research questions and hypotheses. The study revealed among other things that teachers needs competencies for assessment of students' affective learning outcomes in Economics using portfolio, that that portfolio assessment if applied by teachers improves students' affective learning outcome in Economics. Based on these findings, the study recommended that government should organize workshops for training of teachers of economics on the application of portfolio in assessing students' learning outcomes in affective behaviour.

Keywords: assessment, portfolio, economics

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1. Introduction

The need to determine comprehensive and objective learning outcomes of students in economics in recent time has been a topical issue for researchers, educationist, discussant and the general public in Nigeria. Recent educational developments such as constructivism and multiple intelligence theories as well as society have called for new trends for a radical change in traditional approaches of instruction and assessment. For this reason, alternative assessment approaches are needed in assessing both learning process and learning product. In modern time, one of the globally recognized techniques for assessing students learning outcomes in cognitive, affective and psychomotor domain in virtually all discipline is portfolio assessment.

In Ebonyi State secondary schools, the assessments of students learning outcome are mainly based on the traditional assessment instrument. Traditional assessment is a conventional methods in which the teachers engaged the students in a continuous test, assignment, and examination which only measure students' learning outcomes in cognitive domain without emphasis on affective and psychomotor domain of learning. The issue

of insurgency, kidnapping, theft, bribery and corruption among other social vices virtually in some part of Nigerian societies could be attributed to the fact that affective behaviour of learning is neglected in teaching and learning process. Effective assessment of students' learning outcome in affective domain would have helped the students to develop good character formation or attributes necessary for socio-economic development of Nigeria.

It is obvious that the traditional assessment makes students to memorize something the night before and bubble in the answer in the exam day. In traditional assessment, there is no need for students to think, search, and find something new but memorize every piece of work [1]. There is a lot of stress and pressure on students when taking the exam. The atmosphere of the classroom is also rigid and the teacher and students cannot talk about students' problems that much. Conventional methods of assessment mostly cannot involve the students in the process of learning, teaching, and assessment because there is no direct or indirect connection between them [2]. The students are taught and then left in isolation. The above scenario could have resulted to many social issues in Nigeria ranging from economic crises, poverty, unemployment, steeling, bribery and corruption and insurgency among other things. This could be directly link

to students' inability to develop good behaviour necessary for stable socio-economic system. The teaching and effective assessment in Economics as a school subject would help student to develop good behaviour necessary for hard work, punctuality, truthfulness, etc. in handling some economic activities. However, the researcher has observed that teachers in Ebonyi State secondary schools assess students' learning outcomes only in cognitive domain without emphasis on affective learning. Based on identifying problems and limiting problems, the problem of this research can be formulated as follows; 1) What are the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio? 2) How could portfolio assessment improve students' affective learning outcome in Economics?

The objectives to be achieved in this study are to ensure comprehensive evaluation of students' learning outcome in economics in order for proper placement of students, certification of students, guiding and counselling of students in school as well as for proper policy making of the government on education. The study at completion would improve the teachers' competences in assessing students' affective learning outcomes in Economics using portfolio, and also improve students' affective learning outcome in Economics in Ebonyi State of Nigeria.

2. Hypotheses

Two null hypotheses were tested at 0.05 level of significance to guide the study.

H0$_1$: There is no significant difference in the mean scores of male and female teachers on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio.

H0$_2$: There is no significant difference in the mean scores of male and female teachers on how portfolio assessment improve students' affective learning outcome in Economics.

3. Conceptualisation

3.1. Concept of Economics

Economics focuses on the behaviour and interactions of economic agents and how economies work. Microeconomic analyzes basic elements in the economy, including individual agents and markets their interactions, and the outcomes of interactions [3]. Individual agents may include, for example, households, firms, buyers, and sellers. Macroeconomic analyzes the entire economy (meaning aggregated production, consumption, savings, and investment) and issues affecting it, including unemployment of resources (labour, capital, and land), inflation, economic growth, and the public policies that address these issues (monetary, fiscal, and other policies). [4] defined Economics as a science of human welfare. This means that Economics deals with how man manages the meager resources for the service of humanity. In similar vein, [5] added that Economics as a study of the method of allocating scarce resources (physical and human) among unlimited wants or competing needs. The

most widely accepted definition, however, is that given by Lord Lionel Robbins cited by [6] that Economics is the science which studies human behaviours as a relationship between ends and scarce means which have alternative uses. This definition is widely accepted because it better reflects the fundamental Economic problems of scarcity and choice than any other available known definition. The affective behaviour if developed could help students in economics to manage the scares resources, develop good financial behaviour, among others.

3.2. Concept of Assessment

There is plethora of definitions on the concept of assessment. Some are broad, some narrow. [7] noted that assessment as a concept is the process of collecting information for decision making in education about students, curricular and programmes and educational policies. According to [8], assessment is a mechanism whereby the final grading of a student in the cognitive, affective and psychomotor domains account in the systematic way of his performance during a given period of schooling. This shows that the concept of assessment should be comprehensive to cover learning of students in Economics. According to [9], these mean that assessment can be continuous and as such it provides a more comprehensive evaluation of the extent which the students have achieved the objectives of education compares to one–short examination that is administered in schools. In this paper, the term 'assessment' refers to all those activities undertaken by teachers and students themselves, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged [10]. Assessment in Education could be formative or summative.

Formative assessment is the assessment that takes place at the beginning or within the learning process. Formative assessment according to [11] is all those activities which teachers and learners use information about students' achievement to improve their achievements. Formative assessment enables students to restructure their understanding/ skills and build more powerful ideas and capabilities. The rational for formative assessment is to provide feedback for teachers to modify subsequent learning activities. This is in line with the notion of, [12] who assert that the rational for formative assessment is to identify and remediate group or individual deficiencies and to move focus away from achieving grades and onto learning processes, in order to increase self efficacy and reduce negative importance of extrinsic motivation. An example of formative assessment suffices to be: A science supervisor looks at the previous year's students test results to help plan teacher workshops during the summer vacation, to address areas of weakness in student's performance.

Summative assessment refers to the assessment of the learning and summarizes the development of learners at a particular time. [13] maintained that summative assessment covers unit for two weeks, the learners sits for a test and then the teacher marks the test and assigns a score. The test aims to summarize learning up to that point. The test may also be used for diagnostic assessment to identify weakness and then build on that using formative

assessment. According to [14], the rational of summative assessment is to meet the school or district's needs for teacher accountability and looks to provide remediation for sub-standard performance and also provides ground for dismissal if necessary. In this study, assessment involve the periodic determination of students' learning outcomes in Economics in order to make decision on the teaching and learning in secondary schools

3.3. Concept of Portfolio

Basically portfolio is defined as a purposeful collection of any aspect of the student's work which is kept in a file, folder, box, or any durable and expandable container that tells the student's improvement, progress, and achievement [15]. Portfolio can also show the student's abilities, contributions, and activities to him/herself or parents. In recent years, [16] the use of portfolio could be advantageous in many disciplines including economics. Economics is a social science which studies human behaviour and relationship between ends and scares means which have alternative uses (Robinson cited in 4). Using portfolios in assessment helps learning by providing portraits of students, offering multidimensional perspectives, encouraging students to participate, and linking to teaching [6]. Portfolios assessment designed to measure what the students know and what he or she can do, and to assess student's behavioural change in students. It is an alternative assessment strategy in evaluation systems that take learning and knowledge objects created, ways of thinking, and learning styles of students into consideration. In other words, portfolio is non-conventional tools or technique to measure what the student knows and what he or she can do, and to assess students' emotional development [17].

4. Method

This study adopted descriptive survey design. This design is one that produces a snap shot of a population at a particular point in time. [18] defined the design as the representative sample of the population consisting of individuals of different ages. This design is considered appropriate for eliciting information from the teachers on how portfolio could be used in assessing students' affective learning outcomes in economics in secondary schools. The area of this study was Ebonyi State. Ebonyi State is geographically bounded in the south by Abia State, in the North by Benue State, in the West by Enugu State and in the East by Cross-River State. Ebonyi State is made up of three education zones: Abakaliki, Onueke and Afikpo Education Zones. Abakaliki Education Zone is made up of four Local Government Areas via: Abakaliki, Ebonyi, Izzi, and Ohaukwu. Onueke education zone is made up of four local government areas via: Ezza North, Ezza South, Ishielu and Ikwo while Afikpo Education Zone is made up of five local government areas via: Afikpo North, Afikpo South, Ohauzara, Onicha and Ivo Local Government Area totaling thirteen (13) local government areas in Ebonyi State.

The population of this study comprised of all the Economics teachers in all the public senior secondary schools in Ebonyi State. Data from Ebonyi State Secondary Board (SEB) as at September, 2017 shows that there are four hundred and twenty three (423) Economics teachers in two hundred and twenty one (221) public secondary schools in Ebonyi State. Abakaliki Education Zone is made up of seventy eight (78) secondary schools; Onueke Education Zone is made up of sixty four (64) secondary schools while Afikpo Education Zone is made up of seventy nine (79) secondary schools totally 221 secondary schools in the Ebonyi State. The choice of using all the teachers in secondary school is because they are the chief curriculum implementers. Thus they can give valid information on portfolio assessment could help in assessing students affective learning outcomes in Economics in Ebonyi State secondary schools.

The sample size was all the four hundred and twenty three (423) Economics teachers in all the 221 senior public secondary schools in Ebonyi State. There was no sampling technique because the population is manageable and because of the purpose of the study.

The instrument for data collection will be a structured questionnaire developed from the literature titled "Portfolio as a Tool for Assessing Students' Affective Learning Outcome in Economics Questionnaire" (PTASALOEQ). The instrument is made up of two Sections A and B. section A contain information on the demographic data of the respondents. Section B contains information on the teachers' response on how portfolio could be used for assessing students' affective learning outcome in economics in senior secondary schools made up of 2 clusters A-B respectively. The instrument is made up of 22 items which are the statements that will address each of the research questions. Six (6) statements will address each research questions. The response options of Strongly Agree (SA); Agree (A); Disagree (D); and Strongly Disagree (SD) respectively. The instrument was validated by three experts in the field of education- one lecturer from the Department of Economics, Ebonyi State University Abakaliki; one lecturer form the Department of Science Education (Measurement and Evaluation) and one lecturer from the Department of Arts Education (Curriculum and Instruction), University of Nigeria Nsukka. The reliability index of 0.70 was established using Cronbach Alpha Reliability Estimate with the use of statistical package for social sciences (SPSS) version 20.

Direct method of data collection was adopted in this study. The researcher visited the schools with the help of 6 (five) research assistants, two for each Education Zone out of the three education zone that makes up the state. The researcher trained the assistants for three (3). The first day was introduction, the second day was on training and instruction on the purpose of the study and skills involves in questionnaire administration. The training cost, feeding and transportation allowance were also given to the assistant for the assistants. The detailed analysis of the cost of training was on the timeline and sequence of activities. The researcher and the assistants administered the instruments to the respondents. A total of 14 days was spent for this exercise. The data collected was used for the analysis.

Both descriptive and inferential statistics were used in analyzing the data elicited through questionnaire. The data collected was analysed in relation with the research

questions and hypotheses. Data relating to research questions were answered using mean and standard deviation. The benchmark for acceptance value for each item was 2.50 and above. This indicates that any items with a mean score of 2.49 and below were not accepted and an item with mean value of 2.50 and above was accepted. The hypotheses were tested using t-test of independent sample at 0.05 level of significance with the aid of SPSS Version 20. If the calculated is lesser than the significant (2-tailed) in the chosen level of 0.05, hypothesis were rejected but if the t-calculated is greater than the significant (2-tailed), at the chosen level of 0.05, the hypothesis were upheld. The analysis involved the expert in measurement and evaluation. The analysis also cost some amount of money (detailed in the implementation budgets).

5. Results

The results of the study were presented in this chapter based on the two research question and Hypotheses developed for the study.

Research Question 1: What are the competences of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio?

The data in Table 1 revealed that all the respondents in item 1-4 agreed with the mean scores ranging from 2.68-2.95 with the standard deviation ranging from 0.93-0.99 that the competences needed by teachers for the assessment of students' affective learning outcomes in Economics using portfolio are ICT competency, use of innovative teaching strategy competency and guidance and counseling competences, while respondents in item 5 strongly agreed with mean score of 3.14 with the standard deviation of 1.06 that the competences needed by teachers is the competences in understanding of learning styles and competences in the development and use of instructional materials in teaching and assessment. The average mean score of all the respondents was 2.85 which is greater than 2.50 benchmark of acceptance. Therefore, teachers need competences in the assessment of students' learning outcomes in Economics using portfolio.

Research Question 2: How could portfolio assessment improve students' affective learning outcome in Economics?

The data in Table 2 revealed that all the respondents in item 6-10 agreed with the mean scores ranging from 2.61-2.82 with the standard deviation ranging from 0.86-1.02 that the portfolio assessment enhances students' reflective skills, become aware of their strengths and weaknesses in Economics, help teachers to identify learner's own performances and for the possibility of manipulating materials, help students to develop independent learning and increase their feelings of self-esteem and confidence in Economics as well as help teachers to assess students comprehensively in cognitive, affective and psychomotor domain. The average mean score of all the respondents was 2.71 which is greater than 2.50 benchmark of acceptance. Therefore, the use of portfolio assessment improves students' affective learning outcome in Economics.

6. Test of Hypotheses

HO$_1$: There is no significant difference in the mean scores of male and female teachers on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio.

The data in Table 3 showed that the mean scores of male and female teachers on the significant difference in the mean scores of male and female teachers on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio were 2.68 and 2.71 with the standard deviation of 0.59 and 0.57 respectively. Male and female teachers have almost the same response on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio. It also showed that the calculated t-value of 0.448 was not significant at 0.000 significant (2-tailed) which is greater than the chosen level of 0.05. Therefore, null hypothesis which stated that there is no significant difference in the mean scores of male and female teachers on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio is upheld.

Table 1. Mean rating of teacher on the competences needed for the assessment of students' affective learning outcomes in Economics using portfolio

S/N		Mean	SD	Decision
1	Competences in ICT framework for teaching and learning of Economics and evaluation.	2.6833	.98	A
2	Competency in the use of innovative teaching strategies that appeals to comprehensive evaluation.	2.7278	97	A
3	Competences in guidance and counselling as well as feedback in learning through portfolio.	2.7778	.99	A
4	Competences in the understanding of learning styles of students that affect assessment.	2.9500	.93	A
5	Competences in development and use of instructional materials in teaching and assessment.	3.1389	1.06	SA

Average Mean Scores = 2.85, A = Agreed; SA = Strongly Agreed

Table 2. Mean rating of teacher on how portfolio assessment could improve students' affective learning outcome in Economics.

S/N		Mean	SD	Decision
6	Portfolio encourages students to enhance their reflective skills in teaching and learning episode.	2.67	1.02	A
7	Portfolio helps students to become aware of their strengths and weaknesses in Economics.	2.73	0.98	A
8	Portfolio assessment Help teachers to identify learner's own performances and for the possibility of manipulating materials for learning progress in Economics.	2.61	0.97	A
9	Portfolio helps students to develop independent learning and increase their feelings of self-esteem and confidence in Economics.	2.76	0.86	A
10	Portfolio assessment helps teachers to access students learning outcomes comprehensively in cognitive, affective and psychomotor domain.	2.82	0.96	A

Average Mean Scores = 2.71, A = Agreed; SA = Strongly Agreed.

Table 3. t-test analysis on the significant difference in the mean scores of male and female teachers on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio

Gender	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Decision
Male	221	2.68	0.59	-0.448	421	0.655	NS
Female	202	2.71	0.57				

Table 4. t-test analysis on the significant difference in the mean scores of male and female teachers on how portfolio assessment improve students' affective learning outcome in Economics

Variables	N	Mean	SD	T	df	Sig.(2-tailed)	Level of Sig.	Decision
Male	291	3.3368	0.45342	4.115	421	0.000		
Female	182	3.1236	0.67244				0.05	NS

H0₂: There is no significant difference in the mean scores of male and female teachers on how portfolio assessment improve students' affective learning outcome in Economics

Data in Table 4 above showed that the mean scores of male and female teachers on the significant difference in the mean scores of male and female teachers on how portfolio assessment improve students' affective learning outcome in Economics were 3.34 and 3.12 with the standard deviation of 0.45 and 0.67 approximately. Male and female teachers have the same response on how portfolio assessment improve students' affective learning outcome in Economics. It also showed that the calculated t-value of 4.12 was not significant at 0.000 significant (2-tailed) which is low than the chosen level of 0.05. Therefore, the null hypothesis which stated that there is no significant difference in the mean scores of male and female teachers on how portfolio assessment improve students' affective learning outcome in Economics is upheld.

7. Discussion

The study explored information on how portfolio could help in assessing students' learning outcomes in affective behaviour in Economics in Ebonyi State secondary schools. The result of the data analysed in research question 1 revealed that teachers need competences in the assessment of students' learning outcomes in Economics using portfolio. This finding shows that portfolio assessment is an innovative assessment technique and as such requires competencies on the part of teachers to be able to use it in assessing students' learning outcomes comprehensively within the domains of learning. This finding was in tandem with the findings of [19] which hold that portfolio is an innovative assessment and alternative to traditional assessment technique which measures students' learning outcome in one piece meal. [20] noted that teacher need skills or competences on how to use ICT in portfolio assessment, apply teaching strategies while using portfolio as well as use of instructional materials in portfolio assessment technique. The finding was also confirmed by the null hypotheses which stated there is no significant difference in the mean scores of male and female teachers on the competencies of teachers needed for assessment of students' affective learning outcomes in Economics using portfolio. This response of teachers shows that for teachers to use portfolio as alternative assessment, they need to possess relative competences.

The analysis of research question 2 in Table 2 revealed that the use of portfolio assessment improves students' affective learning outcome in Economics. This finding was in agreement with the early findings of [21] who holds that the preparation of an assessment portfolio is an active process involving collecting, synthesizing and organizing possible relevant items to provide the best evidence of achievement of the learning objectives; a process that demands ongoing assessment, reflection and justification. The portfolio also served to reinforce learning for students. A number of examples of these are manifested in the interrelatedness of planning, implementation and evaluation as demonstrated through a number of modules, assignments and through the work placement; how needs assessment and planning are related; the way in which communication affects implementation and how values and ethics relate to the concept of professionalism. Students reflected on both the theoretical/philosophical aspects of ethics and values as well as the importance of ethics applied to health promotion research. During the process of preparing an assessment portfolio, learning is enhanced as students are encouraged to reflect on their experience, identify learning needs and initiate further learning [22]. [1] further maintain that the value of portfolios is in the assessment of student achievement particularly in affective domain. This is because; it is an ongoing recording of students' change in behaviour. Therefore, portfolio assessment provides a continuous record of students' skills development that can be shared with others. The finding was further confirmed by the null hypothesis which revealed that there is no significant difference in the mean scores of male and female teachers on how portfolio assessment improve students' affective learning outcome in Economics. These finding shows that portfolio assessment is crucial to the attainment of educational objectives. However, it is obvious that teachers of do not use the assessment techniques in teaching and learning in Nigerian school [23]. This could be attributed to their incompetence as submitted in Table 1 of the analysis.

8. Conclusion

The study explored information of on how portfolio could help in assessing students' learning outcomes in affective behaviour in Economics in Ebonyi State secondary schools. The result of the study revealed that teachers need competences in the assessment of students' learning outcomes in Economics using portfolio and that portfolio assessment improves students' affective learning

outcome in Economics. The study therefore concluded that teachers that possess competences portfolio could help students draws together theoretical and experiential learning. It provides students with an opportunity to bring together the course as a whole and to integrate material across modules and tasks.

9. Recommendations

Based on the findings of the study, the following recommendations were made:

1. Teachers of secondary schools should be trained through workshop, seminar and conferences on how to use alternative assessment technique like portfolio which could assess students' learning outcomes comprehensively in cognitive affective and psychomotor domain.
2. Portfolio assessment should be introduced by Ministry of Education and school Board as the basic assessment techniques in secondary schools in Nigeria.

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