CONTENT EVALUATION OF RECOMMENDED SENIOR SECONDARY SCHOOLS ECONOMICS TEXTBOOKS IN ENUGU STATE

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Abstract

This study evaluated the Economics Textbooks in use in Enugu State Secondary Schools. The population of the study consisted of eleven recommended Economics textbooks out of which five were purposively selected for the study. Descriptive survey design was adopted. The 5-point Quantitative Approach for Content Evaluation of Science Textbooks (QACEST), was adopted as instrument for data collection. The instrument was pre-validated by Nworgu (2001). The reliability coefficient was estimated using Kendall's coefficient of concordance (W) and indices of 0.79, 0.81, 0.91, 0.88 and 0.85 respectively were obtained for five textbooks selected for the study. Five research questions posed were answered using the indices specified in the 5- point model. From the findings, the average indices within the acceptable range for the five Economics textbooks evaluated were as follows: topical coverage index (0.99); learning activities index (0.63); illustration index 0.94); chapter summary (0.00); and study question index (0.77). Findings showed that the four out of the five Economics textbooks evaluated were adequate in topical coverage index, all the five Economics textbooks were very adequate in learning activities, illustration, and study questions indices. Finally none of the textbooks evaluated had chapter summary. Based on the findings, conclusions were drawn and it was recommended that those in the ministries of education in charge of recommending textbooks for use in secondary schools should ensure adequacy of the five indices identified by the QACEST model.

Keywords: Content, Evaluation, Economics, Textbooks, Quality teaching

Introduction

Economics is a social science discipline, which studies human behaviour as a relationship between ends and scarce means, which have alternative uses. Economics as social science discipline (subject), concentrates on the study of how man makes use of his limited resources to get maximum satisfaction. Economics is a subject taught in secondary schools, which comprise verbal and quantitative aspects. The verbal aspect involves theoretical expression of Economics facts and relationship between variables, the quantitative aspect focuses on the use of statistical and mathematical tools or models employed in explaining Economics concepts. Economics in the opinion of Dwivedi (2004), is an important discipline in the socio economic development of any nation. Davies in

Oleabhiele (2012), maintains that Economics is helpful to all and sundry; individuals, students, group, association, political class and even government to make choice, allocate and economize resources for the well-being of all. In line with this, Federal Republic of Nigeria (2004), advocates that Economics when taught in secondary schools will equip the recipients with the knowledge on how to allocate scarce resources make choice, and to take rational decision on pressing economic issues. According to Obemeata (2008) the importance of Economics education to any nation, is very clear. It enables both leaders and citizens to understand basic Economics concepts, principles as well as to understand, appreciate and seek to improve the economic situation for their own social good. The understanding of Economics is a pre-requisite for good citizenship. To him the principal objective for teaching Economics should be to provide Economics understanding necessary for responsible citizenship. Being a responsible citizen involves the ability to take rational decision on important economic issues.

According to Adu (2012), the study of Economics serves a useful purpose in modern life. It gives us facts and shows us what may be expected to be the outcome of certain lines of conduct; it helps us to decide which of several alternatives to choose. It charged its recipient to make wise choice that will satisfy their needs in the presence of unlimited wants and resources. Obemeata (2011) says Economics as a subject has various values to the learners and these values according to him include; the cultural values, intellectual training, and vocational training. However, such an important subject like Economicsneeded a well validated textbook.

The term "Textbook" has been defined in different ways. According to Encyclopedia America (2003), a textbook is a book that represents a body of knowledge in an organized and usually simplified manner for purpose of learning. Okwilagwe and Yoloye (2000) see textbook as an important tool in the pursuit of education and key factor in students' progress. They further opined that the availability of books appears to be the single most consistently positive school factor in predicting academic achievement and that nothing has ever replaced the printed word as key element in the educational process and as a result, textbooks are central to schooling at all levels. A textbook according to Jones (2007), is a book that contains information about a subject that students study. This is one of the instructional materials that aid and facilitate learning. Lack of quality textbooks could lead to poor organisation and comprehension of academic tasks. Textbooks are structured and written to cover a syllabus (Fakomogbon, 2000).

Textbooks are very important in the teaching and learning process. Textbooks are usually the most often used resource of learning by students and teaching by teachers (Adimora, 2002). Textbooks are also very important for students to use in searching for and identifying facts, problem-solving skills, process skills as well as cognitive and affective development vis-à-vis the aims and objectives of the course covered by the particular subject matter of the textbook. A number of researchers have investigated the issue of quality of good textbooks; such studies identified the characteristics, which make up or constitute a good quality textbook. Savery (2000) identified a good quality textbook, among other things, to be one that has a broad, accurate, sound and well sequenced cognitive content coverage, vis-à-vis the curriculum contents. The contents are relevant to the aims and objectives of the course. The language in which the content is presented must reflect the technical language needs of the discipline. This will enable the learner acquire new vocabulary as he progresses through using the work. A glossary of technical terms is also necessary in a good textbook (Ali, 2006). A good

quality textbook is one, in which the content materials are interspersed with sharp, clear and well-documented illustrative visuals such as drawings, silhouettes, photographs, pictograms, graphs, etc. Ali (2008) opined that such illustrations should be presented in full cognizance of what colour, size and shapes to use for representing illustrations. The letters prints must be clear and readily legible (Ajayi, 2001). Other characteristics, which have been identified as constituents of good quality textbook, include its cost and the durability, the use of reviews at the end of each chapter, inclusion of chapter summaries, drills, and assignments (Ali, 2008).It is therefore, expected that every Economics textbook should be adequate in topical coverage, learning activities, illustration, chapter summary, and study questions.

Evaluation is a systematic process of judging the worth, desirability, effectiveness, or adequacy of something according to definite criteria and purposes (Joshua, 2012). Evaluation can also be described as the systematic approach to collecting, providing and utilising information about an educational course or program to determine the nature, quality and efficiency of the teaching and learning in that course or program (Osegbo, Ifeakor&Enemuo,2009). Evaluation is necessary to ensure on going relevance, coherence, balance, and progression within a curriculum. Furthermore, the evaluation process provides an evidence base for subsequent judgement and decision making on curriculum development and revision. Therefore, there is need to evaluate those Economics textbooks which government by law through the ministry of education has recommended for the study of Economics in Enugu state.

Content of a textbook represent a crucial factor in determining its appropriateness; adequacy or otherwise (Nworgu, 2008). Harrison (2000), opined that textbookspresent subject matter in a logical arrangement to achieve specified aims. In addition, a text, which is satisfactory in terms of content, is ideal for use, even if it was deficient in other factors. On the other hand, a text that is not satisfactory in terms of content is capable of not only misleading the reader but also generating negative feelings such as disinterest, confusion, apathy, misconceptions and inhibitions (Nworgu, 2006). Therefore, the content of Economics textbooks should incorporate the interest of the students as well as national goal.

Mama (2005) is of the opinion that good textbooks with adequate topical coverage have become inevitable for self-assessment of learning in the absence of the teacher. Ali (2008), in agreement with the above also indicated that at the end of every chapter or within the chapter, there should be leading questions intended to give a sense of topical coverage and direction on what the reader ought to have learnt from reading the chapter.

A number of factors have been identified by different researchers for content evaluation of textbooks. Such factors according to Macnidip (2005) are students' involvement in diagrams and figure, chapter summaries and activities. Okafor (2009), recommended validity of information in a book, importance of contents covered, students' needs and interests as major factors important in the content evaluation of textbooks. In agreement with the above, Nworgu (2008) further recommended topical coverage, provision of relevant study questions, learning activities, and use of illustrations as major factors of textbook evaluation. He further observed that textbooks with appropriate topical coverage and study questions are very crucial for students both in self-study and in self-assessment. Romey (2003) considered students level of understanding of diagrams, figures, chapter summaries and students' activities as important factors in content evaluation of textbooks. According to Nworgu (2008), all attempts at content evaluation have relied mostly on qualitative and subjective procedures. He further stated that the paucity of objective and quantitative assessment seems

to have considerably retarded progress in content evaluation of textbooks. From the foregoing, it was observed that Romey's approach omitted topical coverage, which is an important parameter in content evaluation. In addition, the quantitative indices have been defined in such a way as to make their interpretation difficult. These identified weaknesses and the fact that there is no validity and reliability of the procedure seriously limited its usefulness. This sensitized the development of a "Quantitative Approach to the Content Evaluation of Science Textbooks" (QACEST) as proposed by Nworgu (2001). This evaluation of textbook using QACEST includes the following; topical coverage index, learning activity index, illustration index, chapter summary index, and study question index.

Theoretically, this study is anchored by the Quantitative Approach to Content Evaluation of Science Textbooks Model" (QACEST) proposed by Nworgu (2001), is based on the conception that any science textbook that adequately covers the curriculum or syllabus should be child-centred and activity oriented. He further pointed out that, such model should provide sufficient challenges to the learner and allows him to find out things for himself rather than providing him with the entire facts. The QACEST procedure of content evaluation consists of the five quantitative indices. They are Index of Topical Coverage (ITC), Learning Activity Index (LAI), Illustration Index (ILI), Chapter Summaries Index (CSI), and Study Question Index (SQI). Thus, Nworgu (2001),analyzed each model as shown below:

Index of Topical Coverage (ITC)
ITC has to do with the extent to which the content of a text covers the prescribed curriculum or syllabus. It is an average of what might be called "surface coverage" and "depth coverage". While surface coverage is defined in terms of the proportion of topics in the curriculum or syllabus covered by a textbook, depth coverage focuses on the depth of treatment given to those topics. This is defined quantitatively as:

$$ITC = \frac{1}{2} \left\{ \frac{Tt+St}{Ts+Ss} \right\}$$

Where: Tt = Number of topics in the curriculum or syllabus covered by the text
TS = Number of topics in the curriculum / syllabus.
St = Number of sub – topics in the curriculum/syllabus covered by the text
Ss = Number of subtopics in the syllabus

Procedure: Analyze the curriculum / syllabus into topics and sub – topics. Determine (by counting) the total number of topics and sub – topics in the curriculum or syllabus as Ts and Ss respectively. Similarly, the number of topics and subtopics covered by each text were determined by counting and were represented by Tt and St respectively. The variables were substituted and evaluated using the formula for finding ITC. The ITC has a maximum value of 1.00 and this will occur when the text perfectly covers all the topics curriculum or syllabus. The minimum value of zero will occur when the text does not cover any of the materials in the curriculum/syllabus.

Learning Activity Index (LAI)
This yields an estimate of the degree to which a text provides for those activities (intellectual or otherwise), which will ensure optimal participation or involvement of the learner. It shows the proportion of the sentences, which require activities on part of the learner and that, which

require mere reception. In computing this, ten sentence passages will be randomly sampled at five page intervals and grouped into two. Group one including factual statements, definitions and immediate answer questions designated by P while group two included statements requiring analysis, solutions to problems, formulation of conclusions by the students, as well as, provision of answers to questions without immediate answers. Therefore, LAI is computed using the formula

$$LAI = \frac{A-P}{A+P}$$

Where: LAI = Learning activity index

P = Faction statements, definitions and immediate answer questions

A = Statements requiring analysis, solution to problems, formulation of conclusions by the students as well as provision of answers to questions without immediate answer.

The LAI values ranges from +1 to -1, the +1 value indicating that the text contains nothing but activities for the learners (being activity oriented), while -1 value indicates no provision of activities in the text.

Illustration Index (ILI)

This is an estimate of the extent to which the illustrations (figure, charts, diagrams, tables, equations etc. contained in the text make for a better and more meaningful understanding of the ideas being referred to. It is expressed as the difference in the proportion of illustrations which require the learner to perform an operation aimed at better understanding and those which do not require any such operations or activities. This is expressed mathematically as;

$$ILI = \frac{La-Lb}{La+Lb}$$

Where: La = Number of illustrations requiring the learner to perform some activities and not just viewing

Lb = Number of illustrations which call for only viewing.

The ILI has a minimum value of -1.00 and maximum value of +1.00. When the value is -1.00, this means that all the illustrations provided by the text are of the type that requires only viewing, seeing or watching. If, Study question index (S.Q.I.) the value is +1.00. It means that all the illustrations in the text are of the type that requires the learner to engage in one form of activity or the other. When there is a balance between these two types of illustrations, the value of the ILI will be zero.

Chapter Summaries Index (CSI)

This provides an estimate of the extent to which the chapter summaries promote a more permanent understanding of the content of the text. It is defined as the difference in the proportion of sentences in the chapter summaries which promote more permanent learning and transfer and those which are mere repetitions of the materials of the chapter. Consequently, this is expressed symbolically as;

$$CSI = \left(\frac{Js}{JC} + \frac{Ns}{Nc}\right) /2$$

Where: Ns = the number of statements in the summary which represents minor points covered

in the chapter.
Js = the number of statements in the summary which represents major points covered in the chapter.
Jc = number of major points covered in the chapter.
Nc = number of minor points covered in the chapter.

The C.S.I. also assumes values from -1.00 to +1.00. It can therefore be interpreted in the same way that the previous indices with the same limits, were interpreted.

Study Question Index (SQI)
This provides an estimate of the degree to which the study questions provided in the textbook pose challenge to the learners. It is the difference in the proportion of lower order questions and higher order questions. Computing the SQI at least ten question items at the end of every chapter in each text will be randomly selected and analysed into lower order questions and higher order questions. Higher order questions are those requiring some thinking and application of facts (indirect questions) and is designated as T while lower order questions are those requiring direct answers from the text and is designated as R. The values of R and T are substituted in the formula;

$$SQI = \frac{T - R}{T + R}$$

Where   T = higher order questions
        R = Lower order questions
The SQI values range from +1 to -1. The maximum value for +1 means that all the study questions are of the higher order while the maximum value of -1 show that all the study questions are of the lower order.

Empirically, a number of studies have been reported on readability and content evaluation of textbooks in general. Abonyi, (2011), conducted a study on the evaluation of chemistry textbooks in use in Nigerian secondary schools. This study employed the naturalistic evaluation design. The instrument that was used for data collection is the 8 – point quantitative evaluation model for science textbooks. Five chemistry textbooks were purposively selected. The study reveals that only three out of five chemistry textbooks are within the topical coverage and only two attained up to 50% readability score. In addition, none of the five chemistry textbooks evaluated is within the acceptance range of learning activity coverage and none met the specified ideal value. Furthermore, the evaluation shows that all the five chemistry textbooks evaluated are within the acceptance range of chapter

summary index, study questions index, under-population representation and also that their illustrations are very adequate.
Umoke and Nwafor (2015), conducted a study to evaluate the content adequacy and readability of computer studies textbooks in use in junior secondary schools in Ebonyi state of Nigeria. The study employed descriptive research design. The sample of the study consisted of three (3) approved computer studies textbooks, 21 junior secondary schools randomly selected from the 3 education zones and 56 computer studies teachers in EbonyiState. Computer Studies Textbooks Readability Test (CSTRT) and 8-point evaluation

model by Emerole (2008) were used as instruments for data collection. While research question 6 was answered by using cloze model of readability measurement, others were answered using the 8-point evaluation model. The two hypotheses were tested at 0.05 level of significance using chi-Square test of goodness of fit. The results of the findings showed that some approved computer studies textbooks, have adequate contents and learning activities. It also revealed that some of the textbooks have no illustrations, chapter summaries, study questions, thereby making some of the textbooks inadequate. The findings also indicated that the textbooks were culturally, ethnically and gender biased.

Umoke and Nwafor (2016), conducted a study to evaluate the content adequacy and readability of approved basic science and technology textbooks in use in junior secondary schools in Nigeria. The sample of the study consisted of six (6) approved basic science and technology textbooks, 30 Junior Secondary Schools randomly selected from the 6 geo-political zones of Nigeria, and 30 Basic science and technology teachers. Three (3) instruments were used for data collection namely, Basic Science and Technology Textbooks Readability Test II (BSTTRT), 8-point evaluation model by Emerole (2008), and Teachers' Perception Rating Scale (TPRS). The 8-point model of QACEST was used to answer research questions 1, 2, 3, 4, 5, 7, and research question 6 was answered by using cloze model of readability measurement. The results of the findings showed that the some approved basic science and technology textbooks, have adequate contents, learning activities, illustrations, chapter summaries and study questions. The findings also indicated that the textbooks were culturally, ethnically and gender biased. Based on the findings, conclusions were drawn and recommended made.

Oba (2015),investigated on the readability of Biology textbooks and student academic performance in Senior Secondary Schools in Ekiti State Nigeria. Survey type of descriptive research design was used for the study. The sample consisted of 215 Senior Secondary School students who were selected from five Senior Secondary Schools in the state. Multistage random sampling procedure was used in selecting the schools from both urban and rural centres in the state. The research instruments used were cloze test and Biology Achievement Test. The instruments were administered and data collected were analyzed using Pearson Product Moment Correlation and t-test statistics. The results revealed that readability of Biology textbooks had significant influence on students' academic performance. Location (urban or rural) has no significant influence on readability of Biology textbooks. No significant difference was found between the academic performance of male and female students who used the selected Biology textbooks. The result however, revealed a significant difference in the performance of students who used the two different selected Biology textbooks. Based on the findings of the study, it was recommended that the Biology teachers should be guided with readability level and content coverage in the selection and recommendation of textbooks.

Okafor, (2009), conducted a study on the readability and content evaluation of recommended physics textbooks in Anambra state secondary schools. The study was carried out using evaluation design. The first group of population of this study included a total of 5 physics textbooks, 22,271 senior secondary school Physics students (SSI, SSII, and SSIII) and 119 senior secondary schools Physics teachers in the state.Physics Text Book Readability Test (PTRT), Quantitative Approach to Content Evaluation of Science Textbooks (QACEST) was used as the instruments for collection of data. Descriptive statistics and QACEST were used for data analysis. The researcher found out that the mean readability scores vary across

the five recommended Physics textbooks and the scores were generally low for four of the recommended Physics textbooks evaluated in the study. Readability of SSII contents was highest on four out of the five recommended Physics textbooks compared to the readability of SSI and SSIII.

Okoronka and Adeoye, (2011), conducted a study on evaluation of the Nigerian physics curriculum contents and physics textbooks towards the attainment of the goals of the History and Philosophy of Science (HPS). The study adopted the qualitative and content analysis research designs. The major documents reviewed include the national curriculum for Senior Secondary School for physics (FME, 1985) and purposively selected physics textbooks. Five physics textbooks, which were recommended by the examination bodies like WAEC, NECO and NABTEB;written to address topics outlined in the curriculum; and written for the purpose of classroom instruction and not examination preparatory question and answer textbook were used for the study. Two types of data-quantitative and qualitative were obtained in two parts. In the first part, the number of topics outlined in the curriculum was determined using simple frequency counts. The qualitative data here involved listing of the topics which were HPS related. The researchers found out that out of 46 topics which were outlined in the curriculum. Only 8 topics (17.4%) were identified as having a leaning towards HPS. Of this number, about 6 topics (75%) of HPS related topics specified in the curriculum have clear statements about activities and strategies to be adopted to achieve the HPS content. The other 2 topics (25%) were unclear in statement of what a curriculum implementer must do to achieve the HPS goals. Further results from textbooks analyzed indicate that one out of the five books (20%) reviewed, could be said to have systematically made use of HPS on some of the major topics specified in the curriculum which have contents geared towards the nature of science through HPS. The other four (80%) of the physics textbooks discussed very few HPS issues and quite implicitly in a way that the goals cannot be attained.

From the review, attention has been given to related studies on the evaluation of recommended textbooks in use in secondary schools in different subject areas and states, but none has been conducted on Economics textbooks and as well Enugu state. A gap of knowledge therefore exists, which the present study will attempt to cover by evaluating the topical coverage, learning activities, study questions, chapter summaries and illustrations of the recommended Economics textbooks in use in Enugu state. In view of this, these five research questions were posed to guide the study.

1. How do the contents of Economics textbooks in use in Enugu state secondary schools reflect the content specified in the core-curriculum?
2. How adequate are the learning activities of the Economics textbooks in use in Nigerian secondary schools?
3. What is the illustration index of the Economics textbooks in use in Enugu State Secondary schools?
4. How appropriate are the chapter summaries of the Economics textbooks in use in Nigerian secondary schools?
5. How adequate are the study questions of the Economics textbooks in use in Nigerian secondary schools?

Methodology

The study adopted descriptive survey research design. Evaluation design seeks to ascertain, or judge the value of a program or resource by careful appraisal determined by a pre-stipulated standard (Carter, 2009). This design was considered appropriate since it identified the levels of understanding of content of Economics textbooks among senior secondary students in Enugu State, which value judgment can be made on the outcomes of content evaluation of each of the recommended Economics textbooks.

The population of the study comprised the entire eleven (11) recommended Economics textbooks by the ministry of education in Enugu State. To select sample for the study, the researchers took a checklist of the recommended Economics Textbooks which was given to Economics teachers inten (10) randomly selected secondary schools in the Enugu State to tick the ones they were using. Based on the responses of the teachers, five Economics textbooks were purposively sampled for the study because they are mostly in use. The selected books include:

I.   Comprehensive certificate Economics for senior secondary schools by Adeyemo Aderinto. Publisher: UPPLC.
ii.   New system Economics for secondary school course by EwaUdu, G. A. Agu. Publisher: Africana.
iii. Fundamental Economics for SSCE, UTME, NBTE, by Anyanwuocha R.A.I. Publisher: Africana.
iv. Comprehensive Economics for senior secondary schools by J.U. Anyaele. Publisher: Johnson publishers.
v.   Essential Economics by Cole EsanAnde. Publisher: Tonad.

The study adopted the 5 – point Quantitative Approach for Content Evaluation of Science Textbooks (QACEST) model developed by Nworgu (2001) as instrument for data collection. This model evaluates textbooks using the following indices: -topical coverage Index (TCI), learning activities index (LAI), illustration index (ILI), chapter summary index (CSI) and study questions index (SQI). The instrument is already validated. The model was assessed for reliability using Kendall's coefficient of concordance (W). Coefficient of concordance of 0.79for TCI, 0.81for LAI, 0.91 for ILI, 0.88CSI and 0.85SQI were obtained respectively for five textbooks outside those selected from the study. Data was collected by evaluating the five selected Economics textbooks against the national curriculum on Economics based on the indices stipulated by the adopted model. The quantitative formulae of the 5-point evaluation model were used to answer the research questions.

Results

Research Question One: *How do the contents of Economics textbooks in use in Enugu State Secondary Schools reflect the content specified of the core curriculum?*

To answer research question 1 on content of Economics textbooks, the index of topical coverage for the textbooks were estimated using the formula earlier state. The indices obtained for the textbooks are as presented in Table 1.

Table 1: Topical Coverage Index of Economics textbooks in use in Enugu State Secondary Schools.

S/N	Textbooks	Tt	Ts	St	Ss	Index
1	Comprehensive Certificate Economics for Senior Secondary Schools by Aderinto(1992)	23	25	246	129	0.86
2	New System Economics: A Senior Secondary Course by Aguand Udu (2001)	24	25	150	129	0.56
3	Fundamentals of Economics for SSCE, NBCE, UTME and Similar Examination by Anyanwuocha (2011)	37	25	316	129	1.14
4	Comprehensive Economics for Senior Secondary Schools by Anyaele (2003)	34	25	239	129	0.88
5	Essential Economics for senior secondary schools by Ande (2005)	30	25	302	129	1.07

Acceptance = 0.80 to 1.00

The results presented in Table 1, revealed that only four out of the five Economics textbooks evaluated are within the acceptance range of topical coverage. It is however necessary to note that textbook 2 fall below the baseline, which implies that it did not contain topical coverage as specified in the core –Economics curriculum.

Research Question Two: *How adequate are the learning activities of the Economics textbooks in use in Enugu state secondary schools?*

Research question 2 was answered by estimating the learning activities index for the selected textbooks using the formula earlier state. The indices obtained for the textbooks are as presented in Table 2.

Table 2: Indices of Learning Activities Index of Economics Textbooks in Use in Enugu State Secondary Schools'.

S/N	Textbooks	A	P	Index
1	Comprehensive Certificate Economics for Senior Secondary Schools by Aderinto(1992)	194	35	0.69
2	New System Economics: A Senior Secondary Course by Aguand Udu (2001)	215	49	0.63
3	Fundamentals of Economics for SSCE, NBCE, UTME and Similar Examination by Anyanwuocha (2011)	212	43	0.66
4	Comprehensive Economics for Senior Secondary Schools by Anyaele (2003)	328	90	0.58
5	Essential Economics for senior secondary schools by Ande (2005)	329	80	0.61

Acceptance = 0.50 to 1.00

The results presented in Table 2 revealed the Learning Activity Indices (LAI) for the five Economics textbooks evaluated. This implies that all the five Economics textbooks contained learning activities as specified in the core-curriculum.

Research Question Three: *What is the illustration index of the Economics textbooks in use in Enugu State secondary schools?*

Research question 3 was answered by estimating illustration index for the selected textbooks using the formula earlier state. The indices obtained for the textbooks are as presented in Table 3.

Table 3: Indices of Illustration Index of Economics Textbooks in use in Enugu State Secondary Schools.

S/N	Textbooks	La	Lb	Index
1	Comprehensive Certificate Economics for Senior Secondary Schools by Aderinto(1992)	116	15	0.77
2	New System Economics: A Senior Secondary Course by Aguand Udu (2001)	82	_	1.00
3	Fundamentals of Economics for SSCE, NBCE, UTME and Similar Examination by Anyanwuocha (2011)	98	_	1.00
4	Comprehensive Economics for Senior Secondary Schools by Anyaele (2003)	80	1	0.97
5	Essential Economics for senior secondary schools by Ande (2005)	60	1	0.96

Acceptance = - 0.50 to 1.00

Summary of results in Table 3 indicates that all the five chemistry textbooks evaluated met the criteria for acceptance implying that for all the five textbooks their illustrations are very adequate.

Research Question Four: *How appropriate are the chapter summaries of the Economics textbooks in use in Enugu state secondary schools?*

To answer research question 4 on chapter summaries of Economics textbooks, the indices were estimated using the formula earlier stated. The indices obtained for the textbooks are as presented in Table 4.

Table 4: Indices of Study Chapter Summary of Economics Textbooks in Use in Enugu State Secondary Schools'.

S/N	Textbooks	Js	Jc	Ns	Nc	Index
1	Comprehensive Certificate Economics for Senior Secondary Schools by Aderinto(1992)	No summary	-	No summary	-	No Index
2	New System Economics: A Senior Secondary Course by Aguand Udu (2001)	No summary	-	No summary	-	No Index
3	Fundamentals of Economics for SSCE, NBCE, UTME and Similar Examination by Anyanwuocha (2011)	No summary	-	No summary	-	No Index
4	Comprehensive Economics for Senior Secondary Schools by Anyaele (2003)	No summary	-	No summary	-	No Index
5	Essential Economics for senior secondary schools by Ande (2005)	No summary	-	No summary	-	No Index

Acceptance range = 0.60 to 1.00

Table 4 shows the results of the chapter summaries index (CSI) obtained from the data from the five Economics textbooks in use in senior Secondary Schools in Enugu state. The results revealed that none of the Economics textbooks has chapter summary index.

Research Question Five: *How adequate are the study questions of the Economics textbooks in use in Enugu state secondary schools?*

Research question 5 on adequacy of study questions of the Economics textbooks was answered by estimating the study question indices using the formula stated earlier. The indices obtained for the textbooks are as presented in Table 5.

Table 5: Indices of Study Questions Index of Economics Textbooks in Use in Enugu State Secondary Schools.

S/N	Textbooks	T	R	Index
1	Comprehensive Certificate Economics for Senior Secondary Schools by Aderinto(1992)	128	26	0.66
2	New System Economics: A Senior Secondary Course by Aguand Udu (2001)	177	65	0.46
3	Fundamentals of Economics for SSCE, NBCE, UTME and Similar Examination by Anyanwuocha (2011)	583	13	0.95
4	Comprehensive Economics for Senior Secondary Schools by Anyaele (2003)	259	10	0.91
5	Essential Economics for senior secondary schools by Ande (2005)	281	22	0.85

Acceptance range = -0.25 to 1.00

The results presented in Table 5 revealed that all the five Economics textbooks evaluated are within the acceptance range of study questions index. This implies that all the textbooks evaluated contained appropriate study questions.

Discussion of Findings

It was revealed that in the study only four out of the five Economics textbooks evaluated are within the acceptance range of topical coverage. It is necessary to note that New System Economics: A Senior Secondary Course by Agu and Udu (2001) fall below the baseline. This implies that the authors may not have consulted the appropriate core curriculum while writing or time factor. The result of the findings in this study agreed with the work of Abonyi, (2011) who evaluated the content of chemistry textbooks in use in Nigerian secondary schools' and reported that two out of the five chemistry textbooks fall below the base line of index of topical coverage (ITC).

Furthermore, the result indicates that the learning activities indices in the five (5) Economics textbooks are adequate. This result also agreed with the findings of Umoke and Nwafor (2015), that the learning activities in the computer studies textbooks evaluated in Ebonyi state of Nigeria were adequate.

The results of data analysis obtained for the study indicate that all the textbooks evaluated had no chapter summaries. This finding agreed with that of Umoke and Nwafor (2015), who revealed that two out of the three computer studies textbooks evaluated in Ebonyi state of Nigeria had no chapter summary.

In terms of study question result of data analysis reveals that all the five Economics textbooks evaluated are within the acceptance range of study questions index and also that their illustrations are very adequate. These findings agreed with that of Abonyi, (2011) who revealed that all the five chemistry textbooks in use in Nigeria were within the acceptance range of both study questions and illustration indexes.

Conclusions

Based on the results of the findings of the study, the following conclusions were drawn: the contents of all the Economics textbooks evaluated appropriately reflected the contents specified in the core-curriculum, the five Economics textbooks in use in Senior Secondary Schools in Enugu State contain learning activities, the five Economics textbooks have high illustration index, none of the five Economics textbooks in use in Senior Secondary Schools in Enugu State has chapter summaries, all the evaluated Economics textbooks in use in Senior Secondary Schools in Enugu State contain study questions.

Recommendations

Based on the findings and conclusions of this study, it was recommended that those in the ministries of education in charge of recommending textbooks for use in secondary schools should ensure adequacy of the five indices identified by the QACEST model.

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