



EVALUATION OF STRATEGIES/METHODS ADOPTED IN TEACHING ENVIRONMENTAL STUDIES IN SOCIAL STUDIES CURRICULUM IN SECONDARY SCHOOLS IN ENUGU STATE

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Abstract: This study seeks to Evaluate Strategies/Methods Adopted in Teaching Environmental Studies in social studies Curriculum in Secondary Schools in Enugu State. The study sought to accomplish the following specific objectives which were to find out the strategies/methods adopted in, the teaching of environmental studies in secondary schools and examine the availability of instructional materials used for teaching environmental studies in secondary schools. The design adopted in this study is basically a descriptive survey type. Primarily and secondary data was used as source of data collection. The population of the study consists of 100 Social Studies teachers in Junior Secondary Schools in Nsukka Education Zone. A sample size of eighty (80) out of 100 Social Studies teachers was used for the study. A random sampling technique was adopted in selecting the respondents for the study. The researcher made use of questionnaire and checklist. The study finds out that teaching methods used by social studies teachers do not adequately suit the objectives of environmental studies topics. Therefore almost all rated below the theoretical mean of 2.5 and most instructional materials for the teaching environment education are not available. The study recommended that teaching methods for environmental studies should be clearly taught to the teacher trainee to enable them effectively teach environmental studies topics to suit its objectives. They should equally learn to improvise any of the unavailable instructional materials.

Keywords: Strategies/Methods, Environmental Studies Curriculum

Introduction

Environmental studies is not a new phenomenon, but on the Nigerian educational scene, it is both a late comer and a new comer. It is late, in the sense that while environment conservation and pollution were burning socio-political issues in Europe and America since the late 1960s, sub-Saharan Africa has lagged seriously behind in environmental awareness (Peters 1993).

Environmental issues did not feature noticeably in the school curriculum in Nigeria until recently and therefore it is relatively new. Environmental issues which were viewed as peripheral issues have today moved to the forefront of political, economic, national security and foreign policy concerns all over the world. The emphasis is on the knowledge of the problems and consequences of pollution, energy shortage, and depletion of natural resources, world starvation, population growth rate and

many others point to the need for effective utilization of the environment (Odumosu, 1990).

Environmental studies are a new field in education introduced into the education system in order to enhance the awareness of the people on environmental issues at all levels of education. It is a new approach to education which is intended to bring some solutions to the deteriorating relationship between man and the environment. Through environmental studies, it is believed that man would be able to form a mechanism where a clean environment will be adequately enhanced through consistent day by day increase in the knowledge of emerging environmental problems. The students will be adequately equipped intellectually, emotionally and with the necessary manipulative skills that will help them to meet the challenges posed by both the present and future environment.

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Teaching strategies refer to the structure, system, methods, techniques, procedures and processes that a teacher uses during instruction. These are strategies the teacher employs to assist student learning. Learning activities refer to the teacher guided instructional tasks or assignments for students. These are student activities. To Esu and Inyang-Abia (2004) "the right way for our purpose" from this, teaching method can be said to be a chosen systematic and correct way through which the act of teaching is performed in order to accomplish the set objectives of instruction. It is a means, procedure, broad or general right way through which the desired positive changes is induced to occur. Environmental studies are not theoretical subject. It is practical, action packed, problem oriented and issue based. The classroom of an environmental educator is the field. Hence field based methods like field trip, projects., inquiry and so on are preferred for its teaching as they will create avenue for the student to observe, ask questions, collect and collate data, analyze data and pass value judgment as well as participate in an environmental action.

Statement of the Problem

Affective based strategies facilitate good environmental behaviour while strategies that are cognitive- based make the learner to have good knowledge of his physical, social and cultural environment as well as constant awareness of the causes, consequences and solution to environmental problems. In support of the above fact, Ekhaton and Amayo (2001) emphasized that any strategy and method of teaching that would facilitate the accomplishment of the objectives of environmental studies in the learner must be such that would provide the learner with facts, knowledge, skills, and attitudes that will help him to understand, protect and preserve the environment. These have been the key challenges faced by educators in alignment of the chosen strategy with their environment. Hence, instructional strategies that are used must embrace the three domains of learning; the psychomotor, the affective and the cognitive domains. From the study it is seen that psychomotor-based instructional strategies enable the learner to be more active in solving environmental problems. Affective based strategies facilitate good environmental behaviour while strategies that are cognitive- based make the learner to have good knowledge of his physical, social and cultural environment as well as constant

awareness of the causes, consequences and solution to environmental problems.

Purpose of the Study

The broad objectives of the study are to Evaluation of Strategies/Methods Adopted in Teaching Environmental Studies Curriculum in Secondary Schools in Enugu State.

The study sought to accomplish the following specific objectives:

1. To find out the strategies/methods adopted in, the teaching of environmental studies in secondary schools.
2. To examine the availability of instructional materials used for teaching environmental studies in secondary schools.

Research Questions

The following questions are posed to guide the study:

1. What strategies/methods do the teachers adopt in the teaching of environmental studies in secondary schools?
2. To what extent are instructional materials available for teaching of environmental studies in secondary schools?

REVIEW OF RELATED LITERATURE

The Importance of Environmental studies

The environment plays a very important role in the life of man and therefore should be treated with the seriousness it deserves. It is reflected in every aspect of life hence, we talk of physical, social, cultural, economic and political environment. Each of these influences man in one way or the other. It affects the peoples' quality of life for instance; all forms of life depend on the physical environment for their continued existence. This goes to show that there is need for one to study and understand his environment as it reflects in all he does. That is why environmental studies is very necessary so that people will be aware of the importance of their participation in preserving and improving the quality of their environment and in desisting from environmental degradation and abuse.

The problem of the environment assumed a new dimension with the advent of modern technology and industrialization. So it has become pertinent to impress on the new generation the importance of the environmental studies such education would enable them to understand the need for good environment for their health and that of future generations. Such knowledge will minimize environmental abuse.

It will encourage public awareness in promoting and understanding the linkage between the environment and good



health. Such awareness will also encourage public participation in good health environmental control and management. Environmental studies will therefore enable the youths to recognize environmental problem and understand their dimension as well as encouraging individuals to do something to minimize environmental hazards.

Uchendu (1997) posited that for one to understand the importance of environmental studies, it is necessary to discuss the consequences of environmental abuse. According to him, many parts of Nigeria are becoming urbanized and it is through environmental studies that the effects of urbanization on air, water, land, climate, natural resources and people are made known and measures identified to minimize environmental crisis that are facing many cities.

It has become necessary to make youths understand that nature is not inexhaustible or indestructible, rather, that one should look at the environment as a delicate and intricately interconnected whole, an ecosystem, a term ecologists use to mean a system formed by interaction of a community of living things with their environment (Light and Killer in Uchendu, 1997).

The knowledge of all these is important to man as the continuation of human life depends upon new ethics that stresses cooperation with, rather than conquest of the environment, The fact remains that modern technology, urbanization, industrialization and so on make environmental studies

necessary for man to enjoy his environment.

Guideline for Teaching Environmental studies

The intergovernmental conference organized by UNESCO in collaboration with United National Environmental Programme (UNEP, 1997) endorsed the following guiding principles for environmental studies:

1. The environment should be considered in its totality and presented in a holistic manner. This means that other aspects of the environment such as the cultural milieu, the technological, political, moral and aesthetic aspects should be considered. The cultural environment includes the settlement patterns, beliefs, 'myths, taboos, religious practices, land use system etc.
2. Environmental studies should be lifelong process and should be continuous, spanning all age levels from preschool age to school and out of school. It should

also be part of non-formal as well as professional and vocational education.

3. Environmental studies should emphasize active participation of all individuals towards solving or preventing environmental problems. This presupposes that the programme should stimulate sufficient interest and increase motivation capable of engendering participation.
4. Environmental studies should encompass local immediate surroundings to communities, regional, national to global issues.
5. Environmental studies should be inter disciplinary in its approach drawing on the specific content of each discipline in making possible a holistic and balanced view on the environment.
6. Environmental studies should focus on current and potential environmental situations. Individuals should be enabled to cultivate attitude of sustainability in such a way that present needs are met while ensuring that future generations can also benefit.
7. Environmental studies should stress the complexity of environmental problems as well as the need for critical thinking and problem solving skills. Individuals should know the inter relatedness of nature and the fact that pollution in one's environment can affect others in distant places.

Strategies/Methods for Teaching Environmental studies

Teaching strategies refer to the methods and procedures to teaching. Some scholars perceive teaching method as referring to the way, approaches, procedures and kinds of activities which teachers and students engage in the interactive process with, a view to inducing, inspiring and facilitating learning for the purpose of accomplishing set instructional objectives.

To Esu and Inyang-Abia (2004) "the right way for our purpose" from this, teaching method can be said to be a chosen systematic and correct way through which the act of teaching is performed in order to accomplish the set objectives of instruction. It is a means, procedure, broad or general right way through which the desired positive changes is induced to occur.

Environmental studies are not theoretical subject. It is practical, action packed, problem oriented and issue based. The classroom of an environmental educator is the field. Hence field based



methods like field trip, projects, inquiry and so on are preferred for its teaching as they will create avenue for the student to observe, ask questions, collect and collate data, analyze data and pass value judgment as well as participate in an environmental action.

In support of the above fact, Ekhaton and Amayo (200 I) emphasized that any strategy and method of teaching that would facilitate the accomplishment of the objectives of environmental studies in the learner must be such that would provide the learner with facts, knowledge, skills, and attitudes that will help him to understand, protect and preserve the environment. They further stressed that the instructional strategies that are used must embrace the three domains of learning; the psychomotor, the affective and the cognitive domains. They believe that psychomotor-based instructional strategies enable the learner to be more active in solving environmental problems. Affective based strategies facilitate good environmental behaviour while strategies that are cognitive- based make the learner to have good knowledge of his physical, social and cultural environment as well as constant awareness of the causes, consequences and solution to environmental problems.

The strategies/methods to be discussed in this work include: project, problem-solving, field trip or excursion, use of resource persons, simulation game and dramatization.

Project method

A project method is a large- scale exercise with relaxed time lag. The exercise is targeted on a problem or an issue. There is both process and product dimensions of the task. Projects are holistic. Projects have the cognitive, psychomotor and affective dimensions. Projects can lead students into problem identification, hypothesis formulation, gathering, collecting and analysis of data and presentation of result. The teacher may ask students to investigate the man-made environmental problem in the vicinity.

Problem solving method

This method is aimed at making the learners more independent in their attempt to solve problems themselves. It refers to the application of individual idea which encompasses a continuum of well integrated, well-articulated and meaningful activity. It starts with a problem situation and end with the solutions of that

To Mezieobi (2001) Problem solving method is a teaching learning method in which students either individually or in a group activity attempt to solve problems through the utilization of trial and error approach.

In the Problem solving method, the learners actively participate in the learning experiences. This process involves a systematic resolution of environmental problems through problem or investigation in order to understand and find appropriate solutions to them.

This method inculcates the skills of observation, experience, monitoring and measuring in the learner. It is an intellectual approach that is appropriate for solving real and pressing environmental problems. It promotes training and education that will enable the learners to acquire environmental ethics and also take personal and collective initiatives towards environmental issues. This is why problems solving method is considered as very appropriate for the teaching of environmental studies.

Field trips

Field observation, field trip and field excursion fall under the umbrella of field work. Any educational venture that takes the students outside the classroom can be regarded as field trip.

Hence field trip and project method are related in the sense that most project methods are field oriented. The laboratory of environmental studies is the field. Human beings interact in the fields which are places of lithosphere, atmosphere and hydrosphere components of the biosphere. The settlement patterns, urbanization problems, agricultural activities of man etc. take place in the field. So, going to the field to see things, perceive and obtain firsthand information about any particular problem is the best approach to the study the concepts of environmental studies. Learners get firsthand experience, make their own investigations and draw some conclusions, as learning is no longer a change of future behaviour but a change of the present behaviour of the individual.

Use of resource persons

According to Ezeudu (2003) "A resource person is any person invited to the class to share his or her experiences with the students". The resource person may be an expert, a professional, a parent or a government official or leader in the local community. Therefore, this approach involves the invitation of an expert or even a teacher from another class to deliver a lecture in the class to students on environmental issues or problems.

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Through the expert sharing his experiences with the learners, they will become more enlightened and aware of environmental problems and how to tackle them.

Simulation game method

The word simulation come from the Latin "simular", meaning (to copy) or simi lis, meaning like. Thus simulations are like real life situations. Ezeudu (2003) said "A simulation is a working representation of reality". Learners can look at or take part in the simulations and learn about real life from them. It allows students to explore systems where reality, is too expensive, complex, dangerous, fast or slow.

Therefore, incorporating the critical features of reality is the main idea in simulations. Akinlaye (2002) and Ezeudu (2003) observed that simulations are dynamic and lively ways in which thought-provoking ideas and problems of life can be presented in the classroom setting.

A game is an exercise whereby people compete or cooperate for pay offs according to a set of rules making it possible for a winner or loser to emerge. When the features of games are combined with those of simulation, we have simulation games. Ezeudu (2003) observed that simulation games are education games which combine the features of games that is competition, cooperation, rules, players with those of a simulation that is problem solving oriented. Mezieobi, Fubura and Mezieobi (2008) said simulation game is a game like activity situation in which more or less accurate aspect of real life situation is replicated or recreated.

At times, learners in an orthodox classroom setting cannot reach the psychological dimension of the environment. Through simulation game, the environment has to be manipulated and manifested in the classroom setting where participants operate as real participants taking and making judgmental decisions as if they were operating in the real world.

Simulation game is problem --oriented, practical and gives students joy in playing life roles. It trains students in decision making and encourages student to student interaction in the classroom. Through simulation, some issues related to drought, flooding, waste control, etc which are environmental can be discussed without necessarily stretching students out on the field.

Dramatization

This is a situation where students take roles of other people in the society. The work of the environmental agency can be

dramatized. Dramatization arouses the interest of learners, holds their attention in what is being taught. It encourages a lot of active participation of learners, suits students of all ages and imbibes the, learners with self-confidence, self-control and self-esteem.

METHODOLOGY

The design adopted in this study is basically a descriptive survey type. The research was carried out in Nsukka Educational Zone. Nsukka Educational Zone comprises three Local Government Areas with 60 secondary schools namely: Nsukka Local Government Area with thirty (30) secondary schools, Igbo-Etiti Local Government Area with sixteen (16) secondary schools and Uzo-Uwani Local Government Area with fourteen (14) secondary schools. Primary and secondary data was used as source of data collection. The population of the study consists of 100 Social Studies teachers in Junior Secondary Schools in Nsukka Education Zone. A sample size of eighty (80) out of 100 Social Studies teachers was used for the study. A random sampling technique was adopted in selecting the respondents for the study. The researcher made use of questionnaire and checklist. In establishing the content validity of the instruments for this study the initial draft of the instruments were subjected to the scrutiny of three experts in the field of social studies education in addition to the researcher's supervisors. To ascertain the reliability of the checklists, the checklists were photocopied and given to two research assistants to score independently. The two results were correlated using percentile ranking. The researcher assesses the reliability of the questionnaire by administering the questionnaire to twenty (20) teachers outside the study area twice within the interval of two weeks. The test-retest correlation coefficient between the first and second administration were computed with the Pearson product moment correlation statistics. A correlation coefficient of 0.87 was obtained. Thus, the questionnaire was very reliable.

Data Analysis and Presentation

Research Question One

What methods do the teachers of social studies adopt in the teaching of environmental studies in secondary schools?

Research question three is answered on Table I. 'Mean and standard deviations are used in analyzing the data.



Table 1: Methods used by Social Studies teachers to teach environmental studies topics

Item	Instructional methods	Total	\bar{X}	SD	Decision
1	Problem solving	195	2.44	0.16	Rejected
2	Project method	185	2.31	0.81	Rejected
3	Field work	170	2.12	0.65	Rejected
4	Lecture method	215	2.68	0.64	Accepted
5	Discussion	215	2.68	0.64	Accepted
6	Story telling	230	2.80	0.59	Accepted
7	Simulation	180	2.25	0.65	Rejected
8	Use of resource persons	165	2.06	0.69	Rejected
9	Exposition method	235	2.94	0.60	Accepted
10	Discovery method	161	2.01	0.69	Rejected

Source: Researcher's field work 2011

The above table shows the mean scores responses of teachers regarding the methods used in teaching Social Studies, thus; Problem solving: \bar{X} = 2.43, Project method: \bar{X} = 2.31, Field work: \bar{X} = 2.12, Lecture method: \bar{X} = 2.68, Discussion: \bar{X} = 2.68, Storytelling: \bar{X} = 2.8, Simulation: \bar{X} = 2.25, Use of resource persons: 2.06, Exposition method: \bar{X} = 2.94, Discovery method: \bar{X} = 2.01.

An observation of table I reveals that the teachers of social studies employed the following teaching methods: lecture method, storytelling, and exposition methods which rated above the mean score of 2.5 which is the benchmark.

Research Question Two

How adequately available are instructional materials for teaching of environmental studies in secondary schools?

Table 2: Types of instructional materials used for teaching environmental topics in secondary schools

Items	Instructional materials	Total	\bar{X}	SD	Decision
1	Textbooks	150	2.50	0.66	Accepted
2	Charts	155	2.58	0.78	Accepted
3	Pictures	185	3.08	0.54	Accepted
4	Maps and globes	178	1.97	0.70	Rejected
5	Television	0	0	0	Rejected
6	Internet connected computers	0	0	0	Rejected
7	Radio	0	0	0	Rejected
8	Chalkboard	210	3.50	0.34	Accepted
9	Broom	130	2.17	0.61	Rejected
10	Hoes	140	2.33	0.62	Rejected
11	Wheel barrow	0	0	0	Rejected
12	Weather cock/vane	0	0	0	Rejected
13	Rain gauge	0	0	0	Rejected

14	Real objects	208	3.47	0.63	Accepted
15	Community Resources	0	0	0	Rejected
16	Hygrometer	0	0	0	Rejected

Source: Researcher's field work 2011

Table 2 presents the various instructional materials used in teaching environmental studies topics in secondary schools thus. Textbooks: \bar{X} = 2.50, charts: \bar{X} = 2.58, pictures: \bar{X} = 3.08, maps and

globes: \bar{X} = 1.97, television: \bar{X} = 0, internet connected computers: \bar{X} = 0, radio: \bar{X} = 0, chalkboard: \bar{X} = 3.50, broom: \bar{X} = 2.17, hoes: \bar{X} = 2.33. Wheel barrow \bar{X} = 0, weather cock/vane: \bar{X} = 0, rain gauge: \bar{X} = 0, real object: \bar{X} = 3.47, community resources: \bar{X} = 0, hygrometer: \bar{X} = 0. An observation

of table 2 reveals that textbooks, charts, pictures, chalkboard are the major instructional materials used in teaching environmental aspect of the Social Studies curriculum contents. Other instructional materials such as: internet connected computers, maps and globes, weather cock, rain gauge, hygrometer, television, radio, community resources, wheel barrow, hoes etc, were rated below the mean mark of 2.5.

Discussions of the Findings

The study finds out that teaching methods used by social studies teachers do not adequately suit the objectives of environmental studies topics. Therefore almost all rated below the theoretical mean of 2.5.

This equates the opinion of Agiande (2006) who stipulates that at the secondary school level, the more scientific, ecological, social, political and economic aspect of environmental consideration should be introduced.

Instructional materials used in teaching environmental topics in secondary schools. The study revealed that most instructional materials were not available. It was textbooks, pictures and real objects that the teachers used mostly. Solutions proffered to prevent the factors militating against the teaching of Environmental studies in schools.

Recommendations

The teaching methods for environmental studies should be clearly taught to the teacher trainee to enable them effectively teach environmental studies topics to suit its objectives. They should equally learn to improvise any of the unavailable instructional materials.

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Conclusion

Base on the findings the study therefore concluded that social studies teachers in secondary schools are adequately trained. The problem therefore may not be with the teaching personnel in terms of certificate qualification and also teaching methods used for teaching environmental studies do not suit the objectives of environmental studies. This implies that some of the teachers were yet to understand the peculiar nature of environmental studies and how to effectively teach its topics. Most instructional materials are not available and they are needed to make teaching of environmental studies practical and lively.

References

- Agiande, D.U (2006). *Environmental-awareness and attitudes of secondary school students in Ogoja Educational one of Cross Rivers State*. Unpublished M.ED Thesis presented to the department of science Education, University of Nigeria Nsukka.
- Akinlaye, f.A, Bolarin, T.A, Olaniyonu, S.O and Ayodele, E.O (1997). *Essentials of social studies Education*. Ikeja. Puman igeria LTD.
- Ekhatior, J.U and Amayo (2001). Policy Formulation and Environmental studies in igeria. *Journal of Education* (1) 1,23-32.
- Ezeudu, S.A (2003). *Environmental studies for Sustainable Development*. Onitsha: Bells Books.
- Mbakwem, IN (2006). *Curriculum Actualization and instructional- Plan*. Owerri. Upthrust Ltd.
- Mezieobi, D.I. and Onuoha, J.e. (2008). Contemporary Issues for References in the Preparation of Social Studies Teachers in
- Meziobi, K.A (2001) . *Understanding Social Studies*. Owerri. Whyte and Whyte Publishers.
- Odumosu, A (1990). *Introducing Environmental studies into Secondary School through Introductory Technology*. Environmental studies workshop and Seminar Proceedings at University ofIlorin. 1,51-77.
- Peters, S.W. (1993). *Nigerian Environmental studies and Management*. University of Calabar Press Calabar, Nigeria.
- Uchendu, P.K (1997). *Contemporary Issues in Social Studies Education*. Okigwe: Fasman Communications. (USSR)October 14-16.