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Strategies for Involving Communities in the Funding of Computer Education in Secondary Schools in Anambra State

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Abstract

This is a survey design which investigated the strategies for involving communities in the funding of computer education in secondary schools of Anambra state, Nigeria. Two research questions guided the study. A 30-items researcher developed questionnaire titled "Strategies for Involving Communities in Funding Computer Education SICFCE" was used for data collection. The findings revealed that the communities would be involved in funding computer facilities like Computer & its Accessories; Multimedia Television & projectors; Virtual Library; Internet Connectivity; Computer Laboratory etc. It was also revealed that the strategies to be used include: P. T. A. levies; Tasking the students to pay for computer equipments; Encouraging age grades and groups to embark on computer projects; Donations from philanthropists; Appealing communities to contribute towards computer projects; Organizing fund raising ceremonies; Alumni associations; Encouraging schools to embark on fund generating projects; Appealing communities to pay

uniform tax rate; Organizing conferences and workshops in the communities on the need to fund computer projects. Based on the findings, it was recommended among others that the government should initiate policies and provide incentives capable of enhancing community participation in funding computer education, etc.

Key words: Strategies, Funding, Computer Education, Community Involvement, Secondary School

Introduction

Education is an instrument for developing to the fullest the potentials of the individual in accordance with the social and moral values of the society (Akpakwu, 1995). It helps an individual to live a useful life, establish better social relations with one another and is one of the most effective means of establishing an equitable and just society with better and equal opportunities for all irrespective of one's sex, age, social status and religious affiliations. Educational system around the world are under increasing pressure to use the new information and communication technologies to bring changes to classroom teaching and learning, become lifelong learners within a context of collaborative enquiry, work and learn from experts and peers in a connected global community (Plomp, Pelgrum, & Law, 2007). Development in science and technology has brought into lime light the indispensable roles of computer in the area of information technology.

Computer according to Anigbogu (2003) is an electronic machine which is capable of accepting data as an input performs arithmetic and logical operations on the data and finally gives the result in the form of information. It is a new instructional system widely used in schools in presenting instructional programme. Computer has virtually touched all fields of human endeavours in one way or the other. Therefore it has become necessary for everybody to become at least computer literate irrespective of one's profession, as this, no doubt, would exert some influence on ones quality of life. Due to computer networks and on-line information, people enjoy a number of services

without so much effort. News reports and entertainment programmes, banking and mail services across the world are readily available. With electronic banking and fund transfer services, one can stay anywhere and transact bank business including cashing money. A traveller who is cash trapped can stop over at the nearest bank; cash some money to continue his journey. By this, quality of life is enhanced. With the help of computer software packages (Computer Aided Learning (CAL) and Computer Aided Instruction (CAI)), one can stay at home and receive lectures/instructions without going to a formal school for classes.

The use of automated system in the lines of production of goods and services also makes costs of goods and services relatively cheap and available to the citizens at affordable prices. Anigbogu (2003) noted other areas of computer application in the society to include: simulation, national planning, revenue allocation, linear programming, decision making, industrial instrumentation, education, manufacturing, health care delivery (medicine), private practitioners, operation research, statistics etc

Computer education involves computer literacy, computer assisted instruction and computer appreciation. Computer education is the effort or the ability to make the generality of the people computer literate. Computer literacy means ability to tell the computer what you want it to do and understand what the computer says. To be computer literate amounts to be able to read, write and speak the language of the computer (Ajibade, 2006). It was in the light of the importance of computer in the acquisition of knowledge, diversification, development and improvement of teaching and learning that made Federal Government of Nigeria to launch the National Policy on computer literacy at primary, secondary and tertiary levels of education. The objective of federal government policy on computer education and literacy in secondary school includes: to bring about a computer literacy in each state in Nigeria; to develop the use of computer as teaching tool in all subject areas and to familiarize students with the use of computer technology; to enable the present

generation of school children at the secondary school level appreciate the potentials of the computer and be able to utilize the computer in various aspects of life and later occupation; and to expose the teachers and the students to the latest scientific knowledge and skills. From the fore going, introducing computer into the Nigerian educational system can be said to be a step in the right direction.

The child's future as well as the future of a society in general depends largely on the quality of educational system. The high expectation of the society for students and teachers to perform highly and schools to guarantee the success of all students depends on effective and efficient allocation of resources. Since the economic downturn in the eighties, the Nigerian education sector has suffered unprecedented setbacks in resource allocation especially in funding. Resources allocation is one of the most challenging tasks of educational system so as to achieve long term goals. Finance as a resource has remained a controversial issues at all levels of education. Finance, according to Webster dictionary is the management of public or company revenue. Ogbonnaya (2000) defined educational finance as the process by which tax revenue and other resources are derived for the establishment and operation of educational institutions as well as the process by which these resources are allocated to institutions in different geographical areas. According to Adesua (1981) it is the means usually employed to provide for the expenditure involved in the staffing, equipment and maintenance of educational institutions. For any educational programme to function effectively, it must be financially viable because finance is required for the establishment of infrastructures, equipment and payment of the staff salaries for the success of the programme. According to Okunamiri (2000) educational finance critically examines all the costs and expenditure in the production of educational services which is both labour and capital intensive. Finance has remained a major constraint in the achievement of educational objectives in Nigeria right from the inception of formal western education. As Fafunwa (1974) observed,

Financing education was as much a problem in 1916 (and earlier) as it is today. Every school approved by the government was entitled to grants-in-aids, but government funds were limited

Nduka (1975) stated that the early colonial government in Nigeria was reluctant to finance education because “her resources were not limitless and the more schools she assisted the more schools sprang up...” most of the early schools established in Nigeria between 1842 and beyond were jointly financed through the effort of the missionaries and rich colonial merchants (Gravenir, 1984). The limited nature of financial resources for educational programmes and projects pre-supposes that scarce resources available to education should be properly planned and harnessed for the achievement of better results. Unfortunately, the history of educational finance in Nigeria at any instant has not shown any adequate planning. Adesina (1981) observed that the major constraints of educational financing in Nigeria included faulty planning and lack of good sense of direction in the execution of educational plans. As he wrote

The most important part of an educational development plan is not its projection and output targets, not even its list of educational priorities. It is that part which will be required to affect the planning expansion, change and how the government proposes to raise the required money and to recruit the necessary personnel.

The control and management of education in Nigeria from the beginning was a tripartite relationship (government, Grant aided or mission schools and private schools) up till 1960 when the nation gained her independence. Private proprietors through their schools increased the people’s ability and ingenuity to participate more meaningfully in the educational, social, political and economic life of the nation. In Nigeria today, the control of secondary education is a shared responsibility between the government and private agencies

because apart from historical connection, the human and material resources needed for the achievement of school objectives are provided by both government and private agencies. The cost of providing secondary education in a state was a responsibility jointly shared by the government through the ministry of education and the secondary school management board, the voluntary and private agencies which owned and ran them separately or jointly with the government and the parents of the school children. Briggs (1979) noted that the cost of secondary education may be viewed from two different perspectives: the cost of production – cost involved in the operation of secondary education by the relevant authorities such as the ministry of education, the school board and the school authorities. The other is the cost of secondary education to the students (and their parents) in the form of fees and other educational expenditures.

In the present day Nigeria, both costs are relevant and are therefore merged to yield the total cost of providing secondary education in the country. Briggs also stated that the cost of secondary education in most states of the federation is shared almost equally by the private and public sectors of the economy. While the public sector is the government and the agencies such as the ministry boards and school authorities, the private sector constitutes the communities, households (parents and students) and other private sources.

In view of government increased expenditure on secondary education, various state governments while maintaining control of public secondary schools since 1980s directly or indirectly invited private sector to assist in the provision of secondary education. The Anambra state government under the leadership of Dr C. C. Mbadinuju abandoned free education policy and introduced high fees in all state owned secondary schools in 2002 lamenting that the burden of financing education is enormous. Despite the effort of the government towards the revitalization of educational programmes, many school administrators still complain of inadequate fund to administer their institutions (Okafor, 1991).

The government due to the burden of financing secondary education devised various means of mobilizing resources around her. One of the most effective tools of such fund mobilization was the involvement of communities in the provision of secondary education in our localities. Ezeocha (1990) and Ogbonnaya (2000) also considering the heavy financial burden of education on the government advocated the need for the communities to be involved in the funding of secondary education. Communities in this context include: towns, villages, town and village associations, parents and teachers Associations (PTA), old students Associations (Alumni Associations), churches, social clubs etc.

Computer education in secondary schools has been in crises for many years because the sector is poorly funded. This poor funding has resulted in shortage of ICT facilities and human resources required in the system, lack of skilled teacher of ICT, computer illiteracy, shortage of computer laboratories, inability of the students to purchase relevant computer facilities, lack of ICT infrastructures, lack of computer software programmes, lack of computer education instructional materials, lack of reliable source of power supply, lack of technologists and technicians for routine repair, problems concerning equity, fear of the new technology by the students, lack of Internet services & wide world web connectivity, lack of virtual material for academic development and research, lack of virtual library and a host of other problems.

Mgbodile (1997) asserted that allocating special fund to secondary school education in the budget will enhance rapid educational development. Ezeocha (1985) suggested that the government should get communities involved in funding secondary education through the collection of P.T.A levies, sports, cultural activities, founder day celebration and donations from good spirited individuals in the community. Ogbonnaya (2000) stressing the need to provide adequate fund for the running of primary, secondary and tertiary education in Nigeria and suggested that the government should set aside 50% of her annual budget towards the funding of education.

CBN (2000) stated that poor financial investment in education during budget allocation is the major problem of Nigerian educational system. Federal government allocation to education has declined steadily since 1999 compared to huge increase in number of intakes at all levels of education. Anambra state government in its 1984 budget said:

The cost of funding education in this state has continued to soar from year to year, this constituting a big burden on the lean finances of the state government. In order to alleviate the situation, it has become necessary to call on parents and guardians to help the state government in the funding of education

This statement increased school fees and other levies payable by students in secondary schools in the state since then. The nature and areas of community's participation in funding secondary education in Anambra state include:

- i. Community Effort – Many communities in the state had in the spirit of self effort engaged themselves in funding activities like reconstruction of the dilapidated school buildings, provision of office accommodation, classroom and laboratory equipment, maintenance of existing school infrastructures, plant and equipment, free tuition for all students, granting bursary awards, scholarship scheme for selected indigent students, construction of new classroom blocks, establishment of new schools, provision of science equipments and textbooks for the library, recruitment and payment of allowances to the PTA staff to fill existing vacancies in schools etc.
- ii. The contribution of Parents Teachers Association (P.T.A) – According to Ukeje, Akabuogu and Ndu (1992), P.T.A is a formal establishment in the school system comprising of parents whose children are currently registered in the school together with the teachers in that school. They see the P.T.A

as an appropriate forum for disseminating official policies, explaining needs, problems and satisfying identified needs. The Anambra state of Nigeria regulation for P.T.A (1976) defined P.T.A as a voluntary and welfare of parents/guardians of children of a school with the teacher of that school with the role of showing such intimate interest in and concern for the affairs of the school so as to ensure the achievement of high moral standards and academic excellence in co-operation with the board of governors or the school committee as the case may be; to give moral and financial support to schools among others. Ezeocha (1985) stated that in practice in our secondary schools the role of P.T.A has been tailored towards the collection of levies and execution of school building projects.

Other aspects of community participation include: Endowment fund, fund raising ceremonies, alumni support, proceeds from school activities like sale of school uniforms, textbooks, stationeries, handcrafts, sale of school farm products etc, self taxation by the communities where Ehiamentor and Aderounmu (1985) recommended the inhabitants to pay a uniform rate of tax irrespective of their wealth, efforts of the age grades; donations from individuals and charitable organizations; funds raised during founder's day celebrations, cultural activities and sports entertainments etc.

From the fore going, it could be inferred that reasonable percentage of the Anambra state government local annual capital and recurrent expenditure on secondary education is borne by the community participants. Bailey & Pownell, (1998) stated that without continuous [technical support](#), technology integration in the classroom will never be satisfactorily achieved. It is against this background that the study sought to investigate strategies for involving communities in the funding of computer education in secondary schools in Anambra state because if the funding of computer education is left in the hands of government alone will suffer. The pertinent question at this point is:

what are the computer education equipments that the communities would be involved in funding and the strategies for involving the communities in the funding of computer education. Proffering answers to these questions are the thrust of this study.

Research questions

1. What are the computer facilities that the communities would be involved in funding?
2. What are the strategies for involving the communities in the funding of computer education?

Research design

The study adopted a survey research design which sought information from the respondents without manipulation of the variables. It involved collecting data from a sample of teachers regarding computer facilities that the communities would be involved in funding and the strategies that would be used in involving the communities in the funding of computer education.

Population of the study

The population for this study comprised all the secondary school teachers in Anambra State public schools. Data from the Anambra State Education Commission (ANSEC) as at June 2007 stated that, there were a total of 5,587 teachers who were teaching in the 261 government owned secondary schools in the state.

Sample and sampling technique

The proportionate stratified-random sampling technique was adopted in selecting 1,219 teachers for the study. The schools were stratified on the basis of their education zones and 20 percent of the schools in each education zone were randomly selected. From each selected school, 23 teachers representing 20 percent of the teachers were randomly picked. This gave the total sample size of 1, 219 teachers.

Instrument for data collection

A questionnaire titled “Strategies for Involving Communities in Funding Computer Education SICFCE” was developed by the researcher and used for data collection. The instrument has two sections (1&2) that elicited information on the extent of agreement with the item statements from the respondents. Section ‘1’ was the biographic data of the respondents while sections ‘2’ contained 30 items separated into 2 clusters. Cluster 1 contained thirteen items that were concerned with computer facilities the communities would be involved in funding. Cluster 2 contained seventeen items concerned with the strategies for involving the communities in the funding of computer education. The items in the questionnaire were structured on a 4-point scale that ranges from strongly agree (4 points), Agree (3 points), Disagree (2 points), Strongly Disagree (1 point).

Validation of the instrument

The face and content validation of the instrument were established by one expert in the Department of Measurement and Evaluation and one expert in ICT both in Nnamdi Azikiwe University, Awka. Their corrections were effected in the final draft of the instrument.

Reliability of the instrument

The split half method for testing reliability was applied to estimate reliability of the instrument. The researcher administered copies of the questionnaire on 20 teachers from secondary schools in Owerri Area of Imo State. Their responses to the instrument were separated based on even and odd numbers, scored and computer analyzed using the Pearson Product Moment Correlation Analysis. The instrument yields a coefficient value of 0.85, which the researcher considered satisfactory for the study.

Method of data collection

The copies of the questionnaire were administered on the sampled respondents in their schools through the help of research assistants. They were correctly filled and returned.

Method of data analysis

Mean and Standard deviation scores were used in answering the research questions. The decision rule was that since items were based on a 4- point scale, the mean of 2.50 were regarded as agreement to the items while 2.49 and below were regarded as disagreement to the items.

Results

Table 1: Mean and Standard Deviation of respondents on the Computer facilities that the communities would be involved in funding

S/N	Item: Computer Facilities Communities would be involved in funding	X	SD
1.	Computer & its Accessories	2.73	1.06
2.	Multimedia Television	2.63	0.96
3.	Radio	2.77	0.80
4.	Fax Machine	2.73	0.82
5.	Multimedia Projector	2.72	0.95
6.	Digital Video Disc (DVD)	3.20	0.96
7.	Interactive CD-ROM	3.30	1.01
8.	Virtual Library	2.70	0.72
9.	Internet Connectivity	2.68	0.86
10.	World Wide Web (WWW)	2.90	1.02
11.	Audio & Video Tapes	3.51	0.77
12.	Computer Software Programmes	3.37	0.89
13.	Computer Laboratory	3.65	0.66
Grand Mean		2.99	0.88

Table 1 indicated that all the items are computer facilities communities would be involved in funding. The respondents responses were 2.50 and above.

Table 2: Mean and Standard Deviation of respondents on the Strategies to involve communities in funding computer education

S/N	Item: Strategies to Involve Communities in Funding Computer Education	X	SD
14.	P. T. A levies	3.38	1.12
15.	Tasking the students to pay for computer education equipments	2.81	1.20
16.	Encouraging age grades and other groups to embark on computer projects	2.55	0.96
17.	Donations from philanthropists	2.80	1.09
18.	Endowment fund	2.09	0.90
19.	Appealing to communities to contribute towards computer education projects	2.85	1.57
20.	Urging schools to name computer projects after some dignitaries in the community.	1.98	0.70
21.	Appealing to the friends of the communities for financial assistance	2.13	0.81
22.	Organizing fund raising ceremonies	3.17	1.06
23.	Use of raffle draw	1.77	0.79
24.	Alumni associations	2.73	0.86
25.	Encouraging schools to embark on projects that will generate fund e.g. sale of school uniform, stationeries, etc	2.86	1.09
26.	Introducing the payment of computer education support levy	1.93	0.84
27.	Granting scholarship to best students in computer education	2.01	1.00
28.	Appealing communities to pay a uniform rate of tax irrespective of their wealth.	2.90	1.17
29.	Organizing conferences, seminars and workshops in the communities on the need to fund computer education in secondary schools	3.40	0.86
30.	Allocating special fund for computer education in the government budget	1.92	0.80
Grand Mean		2.55	0.99

Table 2 indicated that items 14, 15, 16, 17, 19, 22, 24, 25, 28, and 29 with mean rating 3.38, 2.81, 2.55, 2.80, 2.85, 3.17, 2.73, 2.86, 2.90, and 3.40 respectively were accepted by the respondents as strategies to be adopted in involving the communities in funding computer education. Conversely items 18, 20, 21, 23, 26, 27 and 30 with mean rating 2.09, 1.98, 2.13, 1.77, 1.93, 2.01, and 1.92 respectively were rejected by the respondents. They had mean rating below 2.50 which is the cut-off for decision making.

Discussion

From the study, table 1 revealed that the communities would be involved in funding computer facilities like Computer & its Accessories; Multimedia Television; Radio; Fax Machine; Multimedia Projector; Digital Video Disc (DVD); Interactive CD-ROM; Virtual Library; Internet Connectivity; World Wide Web (WWW); Audio & Video Tapes; Computer Software Programmes; Computer Laboratory. This agreed with the views of Gravenir (1984) & Adesua (1981) that students and their parents should be made to contribute to the cost of secondary education in Nigeria.

The result of Table 2 indicated that the strategies for involving the communities in the funding of computer education in secondary school are: P. T. A. levies; Tasking the students to pay for computer education equipments; Encouraging age grades and other groups to embark on computer projects; Donations from philanthropists; Appealing members of the communities to contribute towards computer education projects; Organizing fund raising ceremonies; Alumni associations; Encouraging schools to embark on projects that will generate fund e.g. sale of school uniform, stationeries, etc; Appealing communities to pay a uniform rate of tax irrespective of their wealth; Organizing conferences on the need to fund computer education in secondary schools. The findings is in line with Ezeocha (1985) who stated that the government should get communities involved in funding secondary education through the collection of P.T.A levies, sports, cultural activities, founder day celebration and

donations from good spirited individuals in the community. This also affirms Ehiamentalor and Aderounmu (1985) who recommended the inhabitants to pay as uniform rate of tax irrespective of their wealth to assist in funding secondary school education

Conclusion and recommendation

Computer education is one of the key elements that will help students for global competitiveness. Computers as well as other ICT facilities are among the catalysts to new developments in the provision of education (through distance learning and virtual library), delivering of instruction, and creation of greater diversity of qualifications and certificates among other things. The study revealed different computer facilities communities would be involved in funding and the strategies for involving the communities in the funding of computer education in secondary school.

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

- i. The government should continue to solicit for the participation of individuals and communities in funding computer education in secondary schools as a way of improving the quality of education at the secondary school level.
- ii. The government should initiate popular and dynamic educational policies and provide incentives capable of enhancing community participation in funding computer education in secondary school.
- iii. Teachers in computer science and computer education should be involved in policy formulation when it involves funding of computer education in secondary schools because they have grass root information on how this can work better.
- iv. Principals and teachers in secondary schools should endeavor to relate very well with the community in which the schools are situated to gain their attention in assisting the school.
- v. The students should assist by urging their community members to assist in the funding of computer education to enable them

improve the quality of education they obtain and also increase their accessibility of education.

- vi. Secondary school board of authorities should organize conferences, seminars and workshops in the communities on the need to fund computer education in secondary schools

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