

State of the Art of National Teachers' Institute (NTI) Physical Facilities
For National Certificate Of Education (NCE) Social Studies By Distance
Learning System (DLS)

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Abstract

This study investigated the state of the art of National Teachers' Institute (NTI) Physical facilities for National Certificate of Education (NCE) Social studies by Distance Learning System (DLS). To carry out this investigation the researchers posed two research questions and two hypotheses which were tested at 0.05 level of significance. The research questions were answered using mean and standard deviation. The population of the study consisted of 151 research subjects. No sample was drawn. This is as a result of small population size. The instrument used for this study was a structured questionnaire. This was trial tested after face validation. Factor analysis was carried out and finally the instrument was subjected to a test of reliability analysis using Cronbach Alpha test statistics with a coefficient of 0.71 and 0.74 respectively. The findings were as follows: NTI physical facilities for the teaching and learning of NCE-DLS Social studies programme was very poor. Based on the findings, it was recommended among others that NTI should have her own structures at every NTI-NCE-DLS designated centres; NTI should endeavour to make sure that the blue-print for the establishment of centre for education technology (CET) be fully implemented.

Introduction

Teacher education has been the priority of the national government, hence no educational system can rise above the standard of its teachers. In her efforts to improve teachers' standard, quality and quantity, the Federal Republic of Nigeria established National Certificate in Education(NCE) by Distance Learning System(DLS) in 1990 (National Teacher's Institute, 2002).

To achieve the objective of this establishment, the Federal Republic of Nigeria among other factors considers the importance of physical facilities in realizing the goals of education. This is because the standard of learning by the student teachers has a close relationship with the prevailing circumstances in the learning environment. However, to ensure quality, the national commission for colleges of education (NCCE 2002) recommended minimum standard for both academic staff as well as physical facilities for each subject programme. For the purpose of this study, our focus should be on physical facilities for Social studies NTI-NCE-DLS programme.

The recommended minimum facilities for social studies by the NCCE (2002) are as follows: workshops with a sitting capacity of 80 students, other instructional facilities such as video machines, T V sets, World globe, state of the art libraries, computer facilities as well as conducive learning environment. The reason behind this recommendation hinged on the fact that standard of learning by the student teachers is contingent on the prevailing learning environment. Secondly, Social studies being "a living subject" (Nworji, 2006) should be practical oriented as the knowledge acquired through social studies helps man in no small measures in solving societal problems (NTI, 2000 and NTI, 2004).

Apart from the recommended physical facilities, National Teachers' Institute (2002) noted that there is a blue print for establishing centres for education Technology (CET) at the field and is dependent on the instructional materials produced by the NCE students. It was also recommended that apart from the materials produced by the students to build up the centre, the study and state offices are also expected to buy facilities such as computer, video recorders, tape recorders among others for the centre.

The recommendations of the NCCE for NCE-DLS is in line with Mohammed (2008:5) who succinctly stated that "Distance learning systems employ different methods for programme delivery". These range from paper-based correspondence to the use of multiple technologies

such as the internet, streaming videos and live video conferencing. The above view and the recommendations of NCCE go a long way to explain the efficacy of physical facilities in actualizing the lofty goals of education in general and teacher education in particular.

Despite its (physical facilities) importance in achieving educational goal, one still doubt whether such facilities are readily available and in use in various NTI-NCE-DLS designated centres in Enugu State for effective teaching and learning of social studies. It appears that the NCCE minimum requirements for NCE-DLS are hardly met by the NTI in Enugu State. During one of the researcher's investigations visit to the 5 sampled NTI study centres, it was discovered that the buildings where NTI rented in most places were dilapidated and that the communities or principals of such schools were not given impress for the rehabilitation of those structures. Some of the centres lacked good classroom accommodation, seats and good Social studies studios. In some centres where there is library, Social studies texts and other relevant instructional materials like magazines, newspapers were lacking. It is important to note that despite these recommendations, experience has shown that CET has not been fully established in the NTI study centres in Enugu State. It is important also to note that provision and effective management of the educational facilities by the NTI can lead to better attainment of Social studies teacher training objectives. The need for verification of physical facilities of NTI-NCE-DLS programme is informed by the fact that as a stake holder in education process and as a fore-runner in Education for All (EFA) initiative, it is important to evaluate the state of the art of NTI-NCE-DLS to see ways of re-aligning their programmes to the present reform initiative in education.

The purpose of the study is to find out the state of the art of NTI physical and instructional facilities for the NCE Social studies Distance Learning system in Enugu State. In pursuance of the purpose of the study, the following research questions were used to guide the study:

- 1) What is the state of the art of physical facilities of the NTI-NCE-DLS for Social studies instruction?
- 2) What is the state of the art of instructional facilities available for Social studies instruction in the NTI-NCE-DLS Social Studies training programme?

Hypotheses

The following null hypotheses were formulated to guide the study. These were tested at 0.05 level of significance.

H0₁: There is no significant difference in the mean ratings of the Social studies facilitators and Social studies students on the state of the art of physical facilities for NTI-NCE-DLS Social Studies programme.

H0₂: there is no significant difference in the mean ratings of the Social studies facilitators and Social studies students on the state of the art of instructional facilities for NCE-DLS Social Studies programme.

Method

The study used descriptive survey research design. This is because the study verified from the respondents the state of the art of the NTI-NCE-DLS social studies by Distance Learning System in designated centres in Enugu State. The rationale for using Enugu State is because, it has been the capital of the rest of other south-East States of Nigeria and it is expected that the physical facilities there will be adequate. The population of the study is made up of all the NTI Social studies course tutors (facilitators), and the final year Social studies student teachers of NCE-DLS in the 10 designated centres. The NTI Social studies course tutors are 21 while Social studies final year student teachers are 130, totally 151 respondents. No sample was conducted due to the small size of the population. Structured questionnaire entitled 'state of the art of NTI-NCE-DLS physical facilities questionnaire (SAPQ)' was developed by the researchers.

It was a 16-item questionnaire and used to obtain information on infrastructural and instructional facilities of the NTI-NCE-DLS for social studies programme. The following sequence was followed: Infrastructural facilities- items 1-10, Instructional facilities- items 11-16. The responses to the items on the questionnaire were rated on a 4 point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Values 4,3,2 and 1 were allotted to the scale for positive items respectively, but for negative items reverse is the case.

Validation of the Instrument

In order to ensure the validity of the instrument, the draft instrument was subjected to validation, by 5 experts in education at University of Nigeria, Nsukka (two experts in Social science education and three experts in Education measurement and evaluation). During the validation exercise, some items were restructured, some were discarded, and some were merged while some new items were added. These amendments were effected accordingly, which reduced the number of items to 16.

The questionnaire was trial tested on 35 Social studies students randomly selected from 3 of the study centres of NTI-NCE-DLS and 3 Social studies course tutors in the selected school, all in Ebonyi State. The idea of using Ebonyi State for trial testing was because the two states have similar features as Ebonyi state was part of Enugu State before 1996 State creation. The rationale for this exercise was to enable the researchers generate data for computing the internal consistency reliability.

Data collected from the trial testing were used to carry out construct validation to determine the loading of each item on the Principal Component Matrix. Five (5) items were dropped leaving sixteen (16) items.

Reliability of the Instrument

The instrument was subjected to a test of reliability analysis using Cronbach Alpha test statistics. Data from the 16 items were used which gave a reliability coefficient of 0.71 that was adjudged to be highly consistent.

Method of Data Collection

The researchers with the assistance of 10 NTI-NCE Social studies course facilitators in the various study centres administered and collected the questionnaires.

Method of Data Analysis

Both descriptive and inferential statistics were used in analyzing data. The data collected were analyzed in relation to research questions and hypotheses using Mean and Standard deviation to answer the research questions, while t-test statistics was used to test the null hypotheses.

Decision Rule

The bench mark for positive response is 2.50 and above, while any item below 2.50 was considered negative. For the null hypotheses, reject when t-cal is higher than t-crit. On the other hand, do not reject when t-cal is less than t-crit.

Results

The data obtained were presented in tables 1-4 below, which contained the information that answer the research questions and hypotheses.

Research Question One:

What is the state of the art of physical facilities of the NTI-NCE-DLS for Social studies programme?

The data for answering research question one are presented in Table 1 below.

Table 1: Mean Response on physical facilities

	Item	SA	A	D	S D	x	S.D	Interpreta tion
1	NTI centres have enough seats in the classroom	47	32	46	26	2.66	1.09	Positive
2	NTI centres have good libraries with reasonable number of Social studies texts	19	31	60	41	2.18	0.97	Negative
3	NTI classroom blocks are well ventilated	47	62	29	13	2.94	0.92	Positive
4	There is enough space for NTI Social studies studio	22	32	60	37	2.25	0.99	Negative
5	There are stand-by generator(s) in NTI centres in case of power outage	13	19	63	56	1.92	0.91	Negative
6	Computers and its accessories have been provided in	8	17	79	47	1.90	0.79	Negative

	NTI centres							
7	NTI classroom blocks have been in good condition	22	34	65	30	2.31	0.95	Negative
8	NTI centres have enough space for recreation	45	34	57	15	2.72	1.00	Positive
9	The kind of seats and tables found in the NTI classes are standard	25	49	58	19	2.53	0.91	Positive
10	Toilet facilities at the NTI centres are properly managed	33	27	53	38	2.36	1.08	Negative
	Grand mean					2.38	0.96	Negative

Table 1, presents the opinions of the respondents on the state of the art of physical facilities of the NTI-NCE-DLS for Social studies programme. Looking at the above table, the mean scores of item nos 1,3,8 and 9 are 2.66, 2.94, 2.72 and 2.53 respectively, showing response of the state of the art of physical facilities of the NTI-NCE-DLS for social studies programme, since, their mean values were above the benchmark. On the other hand, the mean scores of item nos 2, 4, 5, 6, 7 and 10 are 2.18, 2.25, 1.92, 1.90, 2.31, and 2.36. This shows that, those items are not true of the state of the art of physical facilities of the NTI-NCE-DLS for Social studies programme; hence the above item means are below cut off mark. In summary, the grand mean score of 2.38 was recorded, so the general mean score of the respondents on the physical facilities is therefore not positive.

Research Question Two:

What is the state of the art of instructional facilities for Social studies instruction in the NTI-NCE-DLS Social studies programme?

The data answering research question 2 are presented in table 2.

Table 2: Mean Response on instructional facilities

S/N	Items	SA	A	D	SD	X	S.D	Interpretation
11	NTI Social studies studio is well equipped with reasonable cultural artifacts	21	30	68	32	2.26	0.95	Negative
12	Instructional materials for Social studies instruction are adequately provided in the centre	22	31	72	26	2.33	0.93	Negative
13	Writing materials are adequately and readily provided for students at the beginning of every session	34	30	59	28	2.46	0.14	Negative
14	The available Social studies instructional materials like computer, radio, TV set are properly used	12	34	66	39	2.13	0.89	Negative
15	In the centre where whiteboard exists, teachers are supplied with markers.	29	56	42	24	2.60	0.97	Positive
16	Social studies course materials are adequately detailed to give room for indept knowledge of the	23	32	64	32	2.31	0.97	Negative

	concepts discussed in the texts							
	Grand mean					2.34		Negative

Table 2, presents the view of the respondents on the state of the art of instructional facilities of the NTI-NCE-DLS for Social studies instruction. The result on table 2 shows that item nos. 11, 12, 13, 14, and 16 with mean scores of 2.26, 2.33, 2.46, 2.13 and 2.31 respectively are not positive as the state of the art of instructional facilities for Social studies delivery in NTI-NCE-DLS programme. The only item which the respondents considered to be the true state of the instructional facilities for the instructional delivery is item 15, which has the mean score of 2.60. Consequently, the grand mean score of 2.34 was recorded so, the mean score of the respondents on the state of art of the instructional materials is therefore negative.

H0₁: There is no significant difference in the mean ratings of the Social studies facilitators and Social studies students on the state of the art of physical facilities for NTI-NCE-DLS Social studies programme.

Table 3: T-test analysis on physical facilities

S/N	Variable	No	X	S.D	T-cal	T-crit	Decision
1	Staff	21	2.38	1.07	1.27	1.96	Do not reject
	Student	130	2.70	1.09			
2	Staff	21	2.33	0.96	0.75	1.96	Do not reject
	Student	130	2.16	0.97			
3	Staff	21	3.33	0.79	2.09	1.96	Reject
	Student	130	2.88	0.92			
4	Staff	21	1.95	1.02	1.53	1.96	Do not reject
	Student	130	2.30	0.92			
5	Staff	21	2.61	0.73	3.90	1.96	Reject
	Student	130	1.81	0.86			
6	Staff	21	2.09	0.83	1.17	1.96	Do not reject
	Student	130	1.87	0.78			
7	Staff	21	2.61	0.73	1.57	1.96	Do not reject
	Student	130	2.26	0.94			
8	Staff	21	3.04	0.80	1.62	1.96	Do not reject
	Student	130	2.66	1.02			

9	Staff Student	21 130	2.42 2.54	1.12 0.88	0.55	1.96	Do not reject
10	Staff Student	21 130	2.71 2.30	1.00 1.09	1.60	1.96	Do not reject
t-test value					1.60	1.96	Do not reject

From **table 3**, it can be seen that the t-cal obtained in items 1, 2, 4, 6, 7, 8, 9, and 10 are 1.27, 0.75, 1.53, 1.17, 1.57, 1.62, 0.55 and 1.60 respectively. The obtained t-cal of those items is lower than the t-crit of 1.96 at 0.05 level of significance at 149 degree of freedom. This implies that the two groups of respondents are significantly the same in their mean ratings on the above items on the state of art of physical facilities for NTI-NCE-DLS Social studies programme at 0.05 level of significance. On the other hand, the t-cal of items 3 and 5 are 2.09 and 3.90 respectively. This is quite higher than the t-critical of 1.96 at 0.05 level of significance at 149 degree of freedom.

However, the t-test value of H_{01} , which is 1.60 is less than the t-critical of 1.96 at 0.05 level of significance for 149 degree of freedom. The null hypothesis is therefore not rejected.

H₀₂: There is no significant difference in the mean ratings of the Social studies facilitators and Social studies students on instructional facilities for NTI-NCE-DLS Social studies programme.

Table 4: T-Test analysis on instructional facilities

S/N	Variables	NO	X	S.D	T-cal	T-crit	Decision
11	Staff student	21 130	2.14 2.28	1.01 0.94	0.63	1.96	Do not reject
12	Staff student	21 130	3.04 2.20	0.86 0.88	4.04	1.96	Reject
13	Staff student	21 130	2.33 2.48	0.96 1.05	0.62	1.96	Do not reject
14	Staff student	21 130	2.85 2.00	0.85 0.84	4.29	1.96	Reject
15	Staff student	21 130	2.71 2.57	0.84 0.99	0.60	1.96	Do not Reject
16	Staff student	21 130	1.61 2.41	0.66 0.97	3.62	1.96	Reject
t-test value					2.30	1.96	Reject

The result on **table 4** reveals that the t-cal obtained in item nos. 11, 13, and 15 are 0.63, 0.62, and 0.60 respectively. The obtained t-cal of the above mentioned items are lower than the t-crit of 1.96 at 0.05 level of significance at 149 degree of freedom. Similarly, the t-cal of item nos. 12, 14 and 16 are 4.04, 4.29 and 3.62 respectively. From the result, it can be seen that the t-cal of those items are higher than the t-crit value of 1.96 at 0.05 level of significance at 149 degree of freedom.

Consequently, the t-test analysis of H_0_2 reveals a t-test value of 2.30. This implies that since the t-test value of 2.30 is higher than the t-crit value of 1.96 at 0.05 level of significance at 149 degree of freedom, the null hypothesis is therefore rejected.

Discussion

Results as shown in **table 1**, revealed that the respondents were of the opinion that physical facilities of the NTI-NCE-DLS for Social Studies programme were indeed very poor. The respondents disagreed that there were: good libraries stuffed with reasonable number of Social studies texts, enough space for Social Studies studio, stand-by generators in NTI centres, computers and their accessories, good classroom blocks and good management of toilet facilities. The respondents agreed that there were enough seats in the NTI classrooms, well-ventilated classrooms, enough space for recreation and good seats and tables in NTI classrooms.

The findings showed that there were no good libraries with Social studies texts, lack of space for social studies studio, no generator, no computers and their accessories, no classroom blocks and toilet facilities are in agreement with NCCE (2004) accreditation report of many colleges of education programmes cited in Ovute (2011: 317) as following: Many Colleges of Education programmes in Nigeria show general inadequacy of equipment, teaching facilities, teaching materials, lack of funds to purchase equipment, over-crowded classrooms and laboratories, inadequate teaching and non-teaching personnel.

The findings that there were enough seats in the classroom, well ventilated classrooms and enough space for recreation, seem to contradict the NCCE accreditation result as shown above. However, one still admits the fact that NTI in Enugu State operates in rented secondary school buildings and not in regular Colleges of Education. In most cases, they are not allowed to enjoy all the necessary facilities existing in the

secondary school environment where they operate. It is high time the NTI began to have NTI buildings in each designated centres, as this will give more room for efficiency and effectiveness. The above findings notwithstanding, experience and literature have shown that inadequate educational facilities were very much apparent in Enugu State Secondary schools.

However, Otegbulum (2011) in her study of administrative constraints to the implementation of curriculum reforms at secondary school level in Enugu State, discovered that lack of facilities in Enugu State secondary schools affected curriculum reforms in the State. In addition, the researchers' personal experiences when they went to some of the NTI centres, (secondary schools) to distribute copies of the questionnaire was not encouraging. In some cases, they met students in their classrooms and most of the classrooms have no windows, no ceiling while some have broken walls and floors and worse still, dilapidated chalkboards. One could hardly believe that at this age of Information Communication Technology (ICT), NTI classrooms could be ill equipped with dilapidated facilities and even without computers. The low state of art of the instructional facilities of NTI could be one of the reasons for low knowledge of Social studies students produced by NTI-NCE-DLS. This accounts for why Enugu State government since 2008 refused the recruitment of NTI-NCE-DLS graduates in their secondary school system. The above finding however, negates the NCCE (2008) recommendations of computer facilities, modern building and conducive environment for effective implementation of NCE Social studies programme.

The result of research question two as shown in **table 2** revealed that the respondents disagreed that: NTI-NCE-DLS Social studies studio were well equipped, instructional materials were adequately provided and that social studies course materials were well detailed. They equally disagreed that available Social studies instructional materials were properly used. These results showed that NTI-NCE-DLS system Social studies instructional facilities were poor. This is because, out of the six items on the instrument that answer research question two, only one item relating to whiteboard and markers was accepted by the respondents to be available.

By implication, the findings of this study are contrary to the NCCE (2008) requirements for social studies teaching and learning at the NCE level. Judging from the above findings, it could probably be that

inadequate provision or lack of instructional material for instruction adversely affected the proper teaching of Social studies programme in the DLS, since students were not appropriately taught with relevant instructional materials. The findings of this study correspond with Ezegbe and Nwaubani (2009) who maintain that the state of facilities in schools and classrooms used by the NTI for its NCE-DLS Social studies programmes was one of the reasons for poor quality teachers produced by the institute through DLS.

The result of hypothesis 1 (**table 3**) revealed that, apart from two items, nos. 3 and 5, there were significant difference in the mean ratings of Social studies facilitators and students with regards to enough seats in the classroom, good libraries with social studies texts, space for Social studies studio, provision of computers and their accessories, good classroom condition, enough space for recreation, standard seats and tables and toilet facilities at the NTI centres. So, the null hypothesis of no significant difference on each of these items was not rejected. For item numbers 3 and 5, the null hypothesis of no significant difference in each of the items was rejected because of differences in the opinion of the two groups of the respondents. However, the t-test value of the two groups of respondents on the state of art of physical facilities reveals no significant difference in their mean ratings so, the null hypothesis of no significant difference is therefore not rejected.

The t-test of hypothesis 2 (**table 4**), revealed no significant difference in the mean ratings of Social studies facilitators and students on item numbers 1, 3 and 5 relating to well equipped studio, provision of students' writing materials and whiteboard markers. So, the null hypothesis on each of these three items was not rejected. On the other hand, the mean ratings on item nos. 2, 4, and 6 revealed significant difference in their mean ratings, so the null hypothesis of significant difference in each of these items was rejected.

Conclusion

The problems of physical facilities for effective implementation of NTI-NCE-DLS Social studies Education Programme in Enugu State is quite apparent. The NCCE minimum requirements for NCE-DLS are hardly met by the NTI in Enugu State. The CET has not been fully established in the NTI Study Centers. All these challenges seem to defile effective teaching of NCE Social studies Education by the NTI via DLS. This ugly situation negates NCCE Minimum Standard for NCE Social studies education.

Recommendations

The study revealed that, Physical and instructional facilities of the NTI for NCE-DLS were not favourable for conducive teaching and learning of Social studies. Based on the findings of the study certain recommendations were made. The recommendations are:

1. NTI should have its own buildings at various NTI-NCE-DLS designated centres.
2. NTI should ensure that the blue print for establishing CET is implemented at designated centres to ensure maximum accomplishment of the objectives of teacher education as it concerns Social Studies programme.

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