

Instructors' Use of Blended Learning Strategy and Teaching Effectiveness in NTI Distance Education in Akwa Ibom State Nigeria

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Abstract

The study sought to obtain empirical evidence on the views of instructors and students on the application of blended learning strategy for teaching and learning in National Teachers' Institute (NTI)'s Postgraduate Diploma Programmes, Akwa Ibom State. The research design adopted was descriptive survey. Four research questions guided the study. Population of the study comprises 392 students and instructors of NTI Postgraduate Diploma programmes of Akwa Ibom State. A sample size of 94 students and 24 instructors were used for the study. The instrument used for data collection was a researcher's made questionnaire captioned; Instructors' and Students' Perception on Use of Blended Learning Questionnaire (ISPUBLQ). Mean

was used in answering the research questions while t-test was used in testing the hypotheses. It was found that, blended learning strategy has multiple benefits to teaching and learning of NTI programmes. Also, some challenges to integration of Blended learning were revealed. Recommendations were made to ensure that adequate provisions are made to enhance the integration of blended learning in NTI's Postgraduate Diploma programmes of Akwa Ibom State.

Keywords: BLENDED LEARNING,
TEACHING EFFECTIVENESS, DISTANCE
EDUCATION

INTRODUCTION

Education is a two-sided process. Seen by the society, it seeks to socialize individuals so as to equip them with desired mode of behaviour that is in conformity with the way of life of the society in which they live. From the perspective of individuals, however, it provides opportunities to improve their chances to promising careers and good lifetime professions (Hamid, 2017). To

improve the quality of teachers to some reasonable extent, the National Teachers' Institute (NTI) was mandated by the Act of 1978 (then Decree 7 of 1978) to organize programmes for training, development, upgrading and certification of teachers at all levels, a task which it has engaged in for the past thirty-six years.

NTI as a reputable institute with a singular goal of promoting teacher education nation-wide, has introduced

advanced and postgraduate diploma programmes over a decade now specifically designed to equip the trained, serving teachers and offer pedagogical training to the army of untrained graduate teachers that abound in our school system. This programme is made possible through its rich course modules that are written by seasoned educationists and education administrators that are drawn from our universities and colleges of education nation-wide. Non-professionals throughout the federation are offered in-service training to enhance their knowledge and skills and to upgrade their professional status as practicing teachers (Osuji, 2005).

This makes it possible for the teachers to plan, design, develop, implement and evaluate their instructional content/packages via ICT tools based on the level of the learners and their capabilities. This is to enable instructional contents to be delivered/or presented by the teachers in such a way that the learners (students) will be able to learn and transfer what they have learnt in classroom situation to their day to day activities and in solving societal problems.

Progressively, new educational technology tools and resources such as blended learning strategy have been integrated into conventional methods of teaching to supplement and deploy teaching and instruction in a

complementary manner. Etim (2016) viewed blended learning as a formal education program in which a student learns at least in part through delivery of content and instruction via digital and online media with some elements of student control over time, place or pace. He stressed further that in blended learning, students are required to use digital and online technologies; this helps them to acquire more technological literacy and greater confidence using new technologies.

Garrison and Kanuka (2004) defined blended learning as “the thoughtful fusion of face to face and online learning experiences”. Blended learning is a shift to an online delivery for a portion of the day to make students, teachers, lecturers and schools more productive academically. Operationally, blended learning can be identified in three modes to indicate the level of use of technology in teaching and learning;

Mode 1: Technology is used to facilitate course management and resources for learners’ support. For example to provide information and resources to students (e.g. lecture notes or recordings etc) and to perform basic administrative functions (e.g. announcements or course e-mails).

Mode 2: Technology is used to enrich the quality of the students’ learning experiences through interactive learning

activities beyond those attainable through face-to-face classroom interactions e.g utilizing technology to support communication and collaboration, assessment and management of their courses.

Mode 3: Technology is used to support learning that is largely self-directed but also includes the use of interactive and collaborative learning activities. In this mode courses are delivered online.

In blended learning, the in-person and the online element work together to create a richer learning experience and do not simply duplicate course content in varying formats. Technologies used in blended learning courses include the following; learning management systems, in-class response systems, adaptive learning platforms, tablets, smart phones, learning analytics and more. The landscape of blended learning tools and technology is not only vast but also still evolving.

One of the most important benefits of blended learning is its flexible medium. It provides ultimate flexibility in presenting contents, complex topics can be presented in the classroom, while other subject matter can be available online. It can be used in delivering lectures to on and off campus students simultaneously using an online virtual classroom tools; this helps to create a sense of community

for the whole group and reduces workload for the instructors by presenting only once. It also broadens the space and opportunity available for learning (Etim, 2016; Patterson, 2016; Dina Ciornei, 2015). In this case, effective blended learning is a “best of all world’s solution” that can help instructors cater for all learning styles through a variety of methods and technologies.

However, Hofmann (2014) outlined some hidden challenges that can create a roadblock to success of blended learning include the following;

Technical challenges:

1. Ensuring the participant can successfully use the technology
2. Resisting the urge to use technology simply because it is available

Organizational challenges:

3. Overcoming the idea that blended learning is not as effective as traditional classroom training.
4. Redefining the role(s) of the facilitator.
5. Managing and monitoring participant’ progress.

Instructional design challenges

6. Looking at how to teach and not just what to teach.
7. Matching the best delivering medium with the performance objectives

8. Keeping online offerings interactive rather than just “talking at participants.
9. Ensuring participants’ commitment and follow-through with “non-live” elements.
10. Ensuring all the elements of the blend are coordinated.

Moreover, according to some researchers; (Ivowi, 2007; UNESCO, 2006; Abimbade, 2006; Clark, 1994) who argued that the new methods of designing for teaching by means of new information technologies stimulate improvement of the education quality but their effective utilization in certain situations of teaching and learning encountered some technical problems. To strengthen this opinion knowledgewave.com (2018) detailed that the most note-worthy disadvantages of blended learning is that it often relies on technology to deliver online experiences. The digital tools and online assets need to be reliable, easy to use and up-to-date for them to have meaningful impact. Technical problems encountered by employees, whether perceived/real, can be a significant barrier. So it is important to put measures in place for higher availability and strong technical support.

The problem of pedagogical efficiency in the use of new information technologies including blended learning strategy is yet new to some instructors.

Therefore, it may not be effectively used unlike the obvious ones that almost all the instructors have been using. It is against this background that this research work identified Instructors’ use of blended learning strategy and their teaching effectiveness in NTI’s Postgraduate Diploma Programme in Akwa Ibom State.

STATEMENT OF PROBLEM

The teacher education programmes over the years have been producing teachers who learned how to teach with traditional methods that have been taken over by technology for more than two decades ago. It is regrettable that teachers training after being taught the concept of teaching, theories and principles of effective teaching are not given opportunities to explore the web-based learning environments/tools for imputing of online learning strategies in this 21st century for quality assurance, but are left to rely on printed-materials during field experience. This has been an issue of serious concern to the teacher educators, professional bodies and other stakeholders in the Nigerian educational system. This prompt the choice of this topic; Instructors’ use of Blended Learning Strategy and Teaching Effectiveness in NTI Distance Education in Akwa Ibom State, Nigeria.

RESEARCH QUESTIONS

The main purpose of the study was to ascertain the perception of the instructors and students in the use of blended learning strategy in teaching and learning of NTI's postgraduate Diploma programme in Akwa Ibom State. The following research questions become necessary:

- (1) What is the level of awareness of instructors and students on the use of blended learning strategy in NTI's postgraduate Diploma programme in Akwa Ibom State?
- (2) What is the level of availability of blended learning resources for teaching and learning of NTI's postgraduate Diploma programme in Akwa Ibom State?
- (3) How often do instructors use blended learning strategy in teaching and learning of NTI's postgraduate diploma programme in Akwa Ibom State?
- (4) What are the problems in the usage of blended learning strategy by instructors and students of NTI's postgraduate Diploma programme?

HYPOTHESES

The following Null hypotheses were formulated to guide the study:

- HO₁: There is no significant difference between the mean perception of Instructors' and Students' level of awareness of the use of blended learning strategy in NTI's Postgraduate Diploma programme.
- HO₂: There is no significant difference between the mean perception of Instructors and Students on the availability of blended learning resources in NTI's Postgraduate Diploma programme.
- HO₃: There is no significant difference between the mean perception of Instructors and Students on the usage of blended learning strategy in NTI's Postgraduate Diploma programme.
- HO₄: There is no significant difference between the mean perception of Instructors and Students on problems in the usage of blended learning strategy in NTI's Postgraduate Diploma programme.

METHODOLOGY AND ETHICAL ISSUES

The study was conducted in Akwa Ibom State. The Postgraduate Diploma Programme of the National Teachers' Institute- Kaduna, Akwa Ibom State is managed by three viable centers, Uyo

(Uyo City Polytechnic), Eket (Government Secondary School, Afaha Eket), and Ikot Ekpene (State Secondary Commercial School, Okop Eto Road) respectively. They were established in 2005. The research employed a descriptive survey research design. The population comprises all the instructors and students of NTI's postgraduate diploma programme for 2017/2018 academic session in Akwa Ibom State. A sample size of Ninety four (94) students and twenty four (24) instructors were drawn from the entire population of the study. This was strictly for the convenience of the researcher. The instrument used for data collection was the researcher-made questionnaire captioned; Instructors' and students' perception on use of blended learning questionnaire (ISPUBLQ). The instrument had two sections; A and B; section A was on demographic information of respondents while section B was a four point modified Likert scale (Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD), Always, Often, Rarely and Not at all as well as Very High Level (VHL), Moderate Level (ML) Low Level(LL) and Very Low Level (VLL) respectively. Eight (8) tables were used for data presentation and analysis, each

containing relevant data analysed to answer each of the research questions and tested hypotheses. The instrument was subjected to content validation by two validates. Split half was used to establish a reliability co-efficient of 0.87, with this coefficient the instrument was considered reliable for the study. Out of 118 copies of the questionnaire administered, 98 were correctly filled and returned. The data were collected and analyzed using mean (x). Mean (x) scores of 2.50 and above were accepted while below 2.50 were rejected while t-test was applied in testing the hypotheses.

RESULTS

Data generated were analyzed and presented in tables below:

Research Question 1: What is the level of awareness of instructors and students on the use of blended learning strategy in NTI's postgraduate Diploma programme in Akwa Ibom State?

Table 1: Analysis of the level of Awareness of Instructors and students on the use of Blended Learning Strategy for Teaching and Learning of NTI's Postgraduate Diploma Programme

N = 98

SN	Use of Blended Learning Strategy	Mean		Mean Set	Remarks
		Instructors (20)	Students (78)		
1	Helps to stimulate students' interest in learning.	3.82	3.60	3.71	Strongly agreed
2	Helps instructors to have access to relevant lecture materials.	3.88	3.78	3.83	Strongly agreed
3	Facilitates rapid exchange of information by instructors on specific topics.	3.47	3.51	3.49	Agreed
4	Is used for giving assignments to students through the internet.	1.83	1.71	1.77	Disagreed
5	Is used for submission of assignments through the internet.	1.98	1.96	1.97	Disagreed
6	Facilitates rapid exchange of information by students on specific topics.	3.58	3.56	3.61	Strongly agreed
7	Makes it easier to teach abstract ideas where real life instructional materials are not available.	3.66	3.56	3.61	Strongly agreed
8	Motivates students through interactivity and collaboration.	3.51	3.47	3.49	Agreed
9	Broadens the space and opportunities available for learning.	3.98	3.68	3.83	Strongly agreed
10	Enhances effectiveness in group problem-based learning activities.	3.53	3.49	3.51	Strongly agreed
	Aggregate Mean	3.32	3.23	3.28	Strongly agreed

Table 1 indicated that instructors and students use blended learning strategy generally for exchange of information and to access relevant information online but they do not use it for instructional delivering in NTI's postgraduate Diploma Programme. It means that instructors' and students' level of awareness of blended learning strategy is high but there are

problems hindering its integration into instructions.

Research Question 2: What is the level of availability of blended learning resources for teaching and learning in NTI's postgraduate Diploma programme in Akwa Ibom State?

Table 2: Level of Availability of Blended Learning Resources for Teaching and Learning in NTI's Postgraduate Diploma Programme

N = 98

SN	Blended Learning Resources	Mean		Mean Set	Remarks
		Instructors (20)	Students (78)		
1	Adequate internet experts in NTI centers	2.38	2.58	2.48	Rejected
2	Adequate provision of personal laptops with internet facilities for instructors	1.79	1.75	1.77	Rejected
3	Adequate projector to enhance the use of blended learning for teaching by instructors in NTI centres	1.78	1.76	1.77	Rejected
4	Functional internet connectivity site for each centre	1.82	2.12	1.97	Rejected
5	NTI website is free for all instructors and students	1.80	1.74	1.77	Rejected
6	Adequate computer services for browsing in NTI centres to serve interested students and instructors	2.13	2.01	2.07	Rejected
7	Regular power supply	2.11	1.99	2.05	Rejected
8	Online materials for enhanced instructional content	2.49	2.53	2.51	Accepted
9	Printers	1.89	1.65	1.77	Rejected
10	Online forum using e-mail by instructors and students	2.49	2.53	2.51	Accepted
11	Chat room using facebook	1.99	1.96	1.97	Rejected
12	Cyber café with functional ICT gadgets	1.69	1.85	1.77	Rejected
13	Adequate interactive white boards	1.75	1.79	1.77	Rejected
14	Adequate scanners	1.97	1.57	1.77	Rejected
	Aggregate Mean	2.01	1.99	2.00	Rejected

Table 2 showed low mean ratings on availability of blended learning resources with mean (x) scores ranging from 1.77 to 2.48 which means that internet resources are not adequate and accessible to instructors and students for effective use of blended learning strategy.

Research Question 3: How often do instructors and students use blended learning strategy in teaching and learning in NTI's postgraduate Diploma programme in Akwa Ibom State?

Table 3: Use of Blended Learning Strategy for Teaching and Learning of NTI's Postgraduate Diploma Programme

N=98

SN	Regularity in the use of Blended Learning Strategy	Mean		Mean Set	Remarks
		Instructors (20)	Students (78)		
1	Instructors use blended learning strategy for teaching and learning	1.75	1.79	1.77	Rejected
2	Instructors prepare online-based learning materials for NTI students	1.95	1.99	1.97	Rejected
3	Instructors join online forum using e-mail	2.67	2.65	2.66	Accepted
4	Instructors communicate with NTI students using their e-mail addresses	1.73	1.81	1.77	Rejected
5	Instructors do refer students to the internet for more information on their courses	2.78	2.76	2.77	Accepted
6	Instructors and students effectively use internet facilities for research purposes in NTI distance learning	2.80	2.92	2.86	Accepted
7	Instructors only use internet resources for updating of their knowledge generally	3.58	3.44	3.51	Accepted
8	Instructors diagnose and solve students' problems through online discussion	1.75	1.79	1.77	Rejected
9	Instructors encourage their students to learn effectively with colleagues through online instructions	1.82	1.72	1.77	Rejected
10	Instructors evaluate their students online	1.80	1.74	1.77	Rejected
	Aggregate Mean	2.26	2.25	2.26	Rejected

Table 3 showed that instructors do not use blended learning in teaching students of NTI's Postgraduate Diploma Programme with low mean (\bar{x}) scores ranging from 1.77 to 2.48. They only use blended learning for finding more information on their courses ($\bar{x} = 2.77$),

for research purpose ($\bar{x} = 2.86$) and for updating of their knowledge ($\bar{x} = 3.51$).

Research Question 4: What are the problems in the usage of blended learning strategy by instructors and students in NTI's postgraduate Diploma programme in Akwa Ibom State?

Table 4: Problems associated with the use of Blended Learning strategy in Teaching and Learning of NTI's Postgraduate Diploma Programme

SN	Problems	Mean		Mean Set	Remarks
		Instructors (20)	Students (78)		
1	Lack of internet software	3.66	3.56	3.61	Accepted
2	Insufficient computers in centres	3.81	3.85	3.83	Accepted
3	Lack of ICT skills and knowledge by instructors	2.68	2.64	2.66	Accepted
4	Irregular power supply	3.30	3.40	3.35	Accepted
5	Lack of internet experts in the NTI centres	3.76	3.66	3.71	Accepted
6	Instructors' traditional methods mentality	2.82	2.90	2.86	Accepted
7	Poor quality maintenance of ICT hardware	1.72	1.82	1.77	Rejected
8	Cost of access to internet	3.37	3.33	3.35	Accepted
9	Lack of interest on the side of the instructors	2.78	2.76	2.77	Accepted
10	Lack of motivation of instructors by government	3.64	2.56	3.61	Accepted
	Aggregate Mean	3.15	3.05	3.10	Accepted

The result on Table 4 indicated that insufficient ICT's resources is a major problem associated with use of blended learning strategy by instructors and

students in teaching and learning of NTI's Postgraduate Diploma Programme. Item 2 ($x = 3.83$) ranked first seconded by item 5 ($x = 3.71$) respectively.

TESTING OF HYPOTHESES

Hypothesis 1: There is no significant difference between the mean perception of Instructors and Students' level of

awareness of the use of blended learning strategy in NTI's Postgraduate Diploma programme.

Table 5: t-test of difference between the mean perception of Instructors and Students on their level of awareness of the use of blended learning strategy in NTI's Postgraduate Diploma Programme

SN	Categories	N	Mean	SD	df	t-value	2-tailed sig. value	Remarks
1	Instructors	20	3.32	.77	96	2.85	0.019	Significant
2	Students	78	3.23	.74				Ho: rejected

The t-test comparison of the mean perception of Instructors and Students on their level of awareness of the use of blended learning strategy as presented in Table 5 yielded a t-value of 2.85, which is significant at a 2-tailed significant value of 0.019. Since this obtained significant value is far less than the 0.05 level used in testing the hypothesis, this difference is considered significant (see remarks in Table 5). From this Table, it is clear that the mean for instructors is higher than that of students. This means that Instructors have a significantly higher perception of

their level of awareness of the use of blended learning strategy in teaching and learning than the students. This is so, since Instructors have been exposed to several level of training in teaching strategies than the students who are just being exposed to professional training in teaching.

Hypothesis 2: There is no significant difference between the mean perception of Instructors and Students on the availability of blended learning resources in NTI's Postgraduate Diploma programme

Table 6: t-test of difference between the mean perception of Instructors and Students on the availability of blended learning resources in NTI's Postgraduate Diploma Programme

SN	Categories	N	Mean	SD	df	t-value	2-tailed sig. value	Remarks
1	Instructors	20	2.01	.28	96	0.377	0.712	Not sig.
2	Students	78	1.99	.34				Ho not rejected

Table 6 showed the result of the test comparison between the mean perception of Instructors and Students on the availability of resources for blended learning strategies in NTI learning centres. The test yielded a t-value of 0.377, which is significant at 0.712 (2-tailed). This obtained significant value is far higher than the alpha level of 0.05 which was used for testing the hypothesis. The null hypothesis is therefore not rejected and the

finding is that there is no significant difference between the mean perception of Instructors and Students on the availability of blended learning strategy in NTI's Postgraduate Diploma programme. Considering that they both have the same level of access to resources in NTI learning centres, it is not surprising that they do not differ significantly in their assessment of availability of blended learning resources in these centres.

Hypothesis 3: There is no significant difference between the mean perception of Instructors and Students on the usage of

blended learning strategy in NTI's Postgraduate Diploma programme

Table 7: t-test of difference between the mean perception of Instructors and Students on the usage of blended learning strategy in NTI's Postgraduate Diploma Programme

SN	Categories	N	Mean	SD	df	t-value	2-tailed sig. value	Remarks
1	Instructors	20	2.26	.65	96	0.078	0.940	Not sig.
2	Students	78	2.25	.62				Ho not rejected

The comparison of the means of the two assessors on the usage of the blended learning strategy is presented on Table 7. The result of the test yielded no significant difference. This is because the obtained t-value of 0.078 was found significant at 0.940 (2-tailed), which is far higher than the alpha value of 0.05. The null hypothesis is therefore not rejected, meaning that no significant difference was found between the perception of Instructors and Students on the use of

blended learning strategy in teaching in NTI centres. If both categories of respondents are sincere in their assessment, their assessment should actually not differ significantly and this is what has been established.

Hypothesis 4: There is no significant difference between the mean perception of Instructors and Students on problems in the usage of blended learning strategy in NTI's Postgraduate Diploma programme

Table 8: t-test of difference between the mean perception of Instructors and Students on the problems in the usage of blended learning strategy in NTI's Postgraduate Diploma Programme

SN	Categories	N	Mean	SD	df	t-value	2-tailed sig. value	Remarks
1	Instructors	20	3.15	.66	96	0.956	0.364	Not sig.
2	Students	78	3.05	.62				Ho not rejected

Table 8 showed the result of test comparison of the assessment of problems confronting the use of blended learning strategy in NTI centres as assessed by Instructors and Students of the Diploma programme. As shown from figures and remarks on Table 8 their opinion did not differ significantly, hence the null hypothesis is not rejected. This is because the obtained t-value of 0.956 is significant at 0.364, which is higher than the alpha value of 0.05 used in testing the hypothesis. Since the problems are faced by both the Instructors and students, it is not surprising that they are in agreement in their assessment.

Discussion of Findings

The results of the investigations of the study are discussed based on the order of research questions and Hypotheses. The study revealed a significant difference in the mean perception of instructors and students on their level of awareness of the use of blended learning strategy in NTI's postgraduate Diploma programme. This means that instructors have higher level of awareness on the use of blended learning strategy than students. The reason for this result is that instructors have been exposed to several levels of training in teaching strategies than students who are just being exposed to professional training in teaching.

The findings of this study corroborates with the findings of Yeboah and Ewur (2014) who posited that the use of online technology in instructions makes communication easier and information sharing effective. The findings of this study also agree with the findings of Okon and Archibong (2015) who posited that the teaching methods adopted by the teacher and the school environment are determinants to the extent to which an individual student's potential can be developed and thereby enhanced his or her academic achievement.

The result of the analysis on availability of blended learning resources revealed no significant difference. This means that blended learning resources are not adequate and accessible to instructors and students of NTI's postgraduate Diploma Programme for inputting of blended learning strategy. This result corroborates with Ukpong, Etim and Okworo (2015); Okoronta, Kamkwis and Okeye (2010) who identified issues that pose challenges to effective utilization of technology in classroom to include lack of access to connectivity, technology appliances and affordable internet services etc.

The study also showed no significant difference in the usage of blended learning strategy. This means that instructors fail to use blended learning in

diagnosing, solving students' problems and in evaluating learning outcomes. This result agrees with that of Ushie, Okworo and Akpan (2010) who found that academic staff qualification does not influence the use of internet services. This finding is consistent with the findings of Ololube (2006) who observed that many Nigerian Teachers have not been able to use technology in any aspect of their teaching and learning life because they are not trained to use ICT's in teaching as a means of education sustainability. It was also indicated in the study that instructors exhibit a low frequency in the use of blended learning strategy for teaching. Specifically, they do not prepare online-based learning materials for students nor do they communicate with students through e-mail. This finding does not go in line with the stipulation or process of blended learning adoption instruction as described by Hamilton and SingWhat (2013) that students' learning processes occur through teacher contributions, mixed with learning interactions and feedback system. Greater learning, knowledge and skills transfer are possible when students are suitably prepared and pre-skilled for their ensuring learning experiences and for the varieties of teaching-learning interactions that they encounter.

The result as shown on table 8 indicated that there is no significant

difference in the assessment of the problems confronting the use of blended learning strategy by instructors and students. This is because the problems are faced by both the instructors and students, it is not surprising that they are in agreement in their assessment. This findings agrees with that of Hofmann (2014) who outlined some hidden challenges that can create a roadblock to success of blended learning to include; technical challenges, organizational challenges and instructional design challenges; ensuring that all the elements of the blend are coordinated.

CONCLUSION

From schools to universities, blended learning is being used to bring the digital world into the classroom. However, this depends on how internet facilities are employed in teaching and learning, especially in distance education such as NTI where teaching and learning is more technologically-driven. The use of internet technologies in blended learning is complementary creating a truly integrated/interactive learning environment that improves the educational experiences of both the instructors and students (www.google.ng). But this study has shown that not all instructors subscribe to the use of internet technology in blended learning likewise the students.

This is as a result of instructors' and students' lack of access to internet/blended learning resources, knowledge and skills for imputing of this innovative instructional strategy.

RECOMMENDATIONS

Based on the findings of the study the following recommendations were made;

1. Government and authorized institutions should supply institutions with ICT's tools/internet resources for effective integration of blended learning strategy.

2. Instructors of NTI's Postgraduate Diploma Programme should use modern/innovative instructional methods for delivering of courses and posting of assignments in order to ensure effective teaching and learning in NTI's distance learning.
3. The government and the various employers of instructors (teachers) should organize regular training programmes for them to acquire the needed skills for online instructional delivery.
4. Students should be made to be aware of varieties of online learning strategies for effective use.

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