Efficacy of Assistive Technology on the Educational Programme of Children with Learning Disabilities in Inclusive Classrooms of Plateau State Nigeria

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Abstract
The purpose of this research was to find out how assistive technology can be effectively used as part of the educational programmes of students with learning disabilities in an inclusive classroom setting by investigating the teachers' perceptions regarding the use of assistive technology. Using a cross-sectional survey, the sample includes the teachers of the students with learning disabilities from three selected schools that consisted 40 respondents. The result from the study, using descriptive and inferential statistics of mean and chi-square respectively, revealed that assistive technology can be used to improve the educational programme of students with learning disabilities in an inclusive setting when it is being used for remediation and intervention services and as instructional material as well. It equally revealed that bond exited between assistive technology and inclusive education as regards to students with learning disabilities. The analysis carried out showed that indeed the success of educational programmes of students with learning disabilities was dependent on the use of assistive technology. The study recommended that technological devices should not be abusively used; rather it should be appreciated in educational endeavour of individual learners with learning disabilities in inclusive classrooms.

Keywords: Assistive Technology, Inclusive Classrooms, Learning Disabilities, Educational Programme

Introduction
A child who does not achieve what he or she is expected to achieve leaves a puzzling effects on his/her parents and teachers (Azubike, 2009). The child himself gets frustrated trying to unravel the reason behind his/her failure in specific academic area. Consequently, the child may not acquire skills that will empower him/her to live a self-actualized life and to the expectation of the society. Such a child needs specially designed instructions or strategies to meet the unique needs which special education
proffers. The educational needs of any child, especially those with one disability or the other cannot be met without any additional adaptations, assistance or specialist. In the same vain the challenges children with learning disabilities are facing in school can only be eliminated or reduced to a minimal level through the effective use of assistive technology.

Although, the issues of disabilities has become a part of the national educational system and the management of the educational programmes is to be seen in the context of individual learners (disabled) from the view point of survival and success. Emma (2011) posits that inclusive education involves bringing the support services and requires only that the child will benefit from being in the classroom than having to keep up with other students. That is, an individual with learning disabilities cannot be rehabilitated in the regular class or school without quality education, which is essential to real learning and human development, as well as influenced by factors both inside and outside the classroom. In addition to enabling the transfer of knowledge and skills necessary for an individual with learning disabilities to succeed in their educational career, and to break the cycle of poverty; assistive technology plays a critical role in closing a gap between readers with learning disabilities and those without. In other words, to meet the educational demands of these students, support service providers will likely rely on assistive technology for teaching and learning processes. Without any iota of doubt the advancement in today’s technology has much to offer to the students in question both as tools for instruction and as independent tools that is capable of compensating for any specific impairment. The “high tech” educational tools that include computerized devices and interactive software from the teaching perspectives offer an underestimated functions ranging from assessment, lesson planning, lesson presentation, record keeping and classroom management as well.

Duhaney & Duhaney (2000) opined that Assistive technology can be a fundamental tool in special education because many students with learning disabilities require instruction that can be tailored towards their needs, and assistive technology can afford them that type of instruction. From on-going, it is now very obvious that assistive technology holds the key for the students with learning disabilities to be empowered and prepared for an integrated future through programmes of inclusive education. Assistive technology in an inclusive setting creates opportunities where impossibility is defined, ignore and overcome virtually all barriers. With technology, well initiated programmes, intellectual, physical and human components can be put together to unravel the mysteries of effective inclusive education (Emma, 2011).

Lewis (1998) comment that assistive technology serves two major purposes: to augment an individual’s strengths, thereby counterbalancing the effects of the disability, and to provide an alternative mode of performing a task. Thus, the use of technology allows students with learning disabilities to be compensated for their discrepancy. However, the place of assistive technology can never be overemphasized in the education of children with learning disabilities. Although the use of assistive technology in teaching and learning process of students with special needs in Nigeria is yet to be fully in place as we have in advanced countries. Without the use of assistive technology in teaching students with learning disabilities, it will not sublime with modern technological trends.

Assistive technology has being considered to have effects on the educational programmes of students with special needs particularly those with learning disabilities in the regular classroom setting and with that, rapid proliferation of assistive technology devices has being developed and made available for consumers which the specialists and other professionals in the field should be aware about and the benefits such devices can provide when it comes to the teaching and learning process of students with learning disabilities within the conventional classroom setting. Students with learning disabilities must participate and have access to the general curriculum, and assistive technology is one accommodation that educators can use to help students with disabilities access the general education curriculum allowing them to be included in the general education classroom. As a result of that, this research is being conducted to determine the availability, usage, role, and great effect of assistive technology towards the educational attainment of students with learning disabilities.
Statement of the Problem
It has been observed that a lot of regular teachers, special educators and other related professionals to the field of special education are not adapted to the advent of both high-tech devices like computers and low-tech, manually operated devices that can deliver and facilitate learning beyond drill and practice. Likewise the teaching aids with capacities of creating a psychological conducive environment that accommodates learning, and also enhances equitable learning for special need individuals to beneficent learners. Hence, the study set out to investigate the efficacy of assistive technology on educational programmes of students with learning disabilities in an inclusive setting.

Purpose of the Study
The purpose of this research is to find out how assistive technology can be effectively used as part of the educational programmes of students with learning disabilities in an inclusive classroom setting by investigating the teachers’ perceptions regarding the use of assistive technology. Specifically, the study tends to:
- To find out how the use of assistive technology facilitate teaching and learning process of students with learning disabilities.
- To find out whether the use of assistive technology devices be used as instructional media for students with learning disabilities to support their learning.
- To determine how assistive technology be used to improve the educational programmes of students with learning disabilities.
- To determine how the provision of assistive technology be used to support the educational programmes of students with learning disabilities.

Research Questions
To achieve the objectives of this study, the researcher was poised to providing answers to the following questions as a guide to the study:
- To what degree does the use of assistive technology facilitate teaching and learning process of students with learning disabilities?
- Will the knowledge of the use of assistive technology devices be instructional media for students with learning disabilities to support their learning?
- How can assistive technology be used to improve the educational programmes of students with learning disabilities in an inclusive setting?
- To what extent will the provision of assistive technology support the educational programmes of students with learning disabilities?

Statement of Assumptions
The following statements will be tested in the course of the investigation;
- The success of educational programmes of students with learning disabilities is dependent on the use of assistive technology.
- The relevant effectiveness of inclusive education will largely depend on embracing assistive technology.

Significance of the Study
With this study, the governments’ vigorous and wholesome campaign to ensure that the future of the citizens is being secured through a functional literacy seems to become reality rather than a reflection of blue print on our National policy on education. That is, there will be a restructure, reconstructive and rehabilitation to educational programmes and services of persons with learning disabilities as this research work tends to probe into efficacy of assistive technology on educational programmes of students with learning disabilities in an inclusive setting.
This study will make children with learning disabilities to cope with the activities taking place in the regular classroom. Also, their interest will be aroused and geared up towards any related learning activities through the use of assistive technology. It will also groom the regular teachers towards principle, methods and system of teaching and learning process of individual with learning disabilities in their various classes. Finally, the confidence of parents of students with learning disabilities will be revived towards the better future of their children as this study will enable their children competing with their non-disabled counterpart in any given task.

Methodology

Research Design
A cross-sectional survey was used for this study.

Population and Sample
The population for the study was the teachers of students with learning disabilities in Jos metropolis, capital city of Plateau state of Nigeria. The teachers were considered because of the strong assumption that they will be in better position to provide necessary information on the awareness, usage of assistive technology, method and procedure for its usage and its effects on academic attainment of the students. The sample includes the teachers of the students with learning disabilities from selected schools, Otana Inclusive School, Othneil Model School and Ganaka International Special schools, in the study area. The samples consisted of 40 respondents from the three schools.

Sampling Techniques
A simple random technique was adopted for the selection, by folding pieces of paper containing yes or no for teachers in the selected schools to pick. The teachers who picked yes were considered part of the sample of the study. A total of forty teachers formed the sample of the study consisting of 20 males and 20 females. In that 13 respondents were sampled from Otana Inclusive School, 13 respondents from Othneil Model School and 14 respondents from Ganaka International Special Schools.

Instrument for Data Collection
The instrument used for this study consisted of structured questionnaires which contain two main sections (A-B). Section A sought for the personal data or information about the respondents, while section B sought information from the respondents on the efficacy of assistive technology on educational programmes of students with learning disabilities. The questionnaires had 20 items, structured in the fashion of Likert model in which respondent’s responses were graded on a five point scale from Strongly Agreed (SA), Agreed (A), Undecided (U), Disagreed (D), to Strongly Disagreed (SD).

Method of Data Analysis
The data collected for the study was analysed using descriptive and inferential statistics of mean and chi-square respectively. The statistical mean was used to answer the research questions, while the chi-square was used to test it. The strength or significance of any of the issues raised in the research question was determined by the level of respondents’ opinion expressed on a five point scale. This was added up and the average computed and compared with the criterion mean to take decision relative to the research questions.

Results

Research Question 1: To what degree does the use of assistive technology facilitate teaching and learning process of students with learning disabilities?

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assisting technology allows students to participate at the same level of</td>
<td>10</td>
<td>25</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>4.10</td>
</tr>
</tbody>
</table>
It is obvious from the data in table 1 that the computed means value of the item 1 (4.1) is greater than the criterion means (3.00). This provided the researcher with a sufficient basis to conclude that assistive technology allows students to participate at the same level of involvement in learning activities. Meanwhile a comparison of the computed mean value of item 2 of the research instrument is 4.33 with the criterion means (3.00) proved a strong evidence that assistive technology devices provides a multiple learning style when its being adopted in educational system. Also, the data confirm that learners achieve more with the aid of assistive technology due to the fact that calculated mean of item 3 (4.28) is greater than the criterion. In other word, the data as contained in table1 show vividly that the computed mean of item 6 (2.88) is not up to the criterion (3.00) signifying a negative teacher response. There was therefore sufficient basis to conclude that assistive technology creates not an unconducive learning environment in anyway.

Also, the data collected reveals that the teacher responded positively on item 5 of the research instrument, as its computed mean (3.83) is greater than the criterion mean. With this, there is ground for the researcher to conclude that assistive technology helps to instruct students at their own individual level. Therefore, the summing up of the teacher responses testify to the degree the use of assistive technology facilitate teaching and learning process of students with learning disabilities ranging from its capability to allow students to participate at the same level of involvement in learning activities, provision of multiple learning style, creation of a conducive psychological learning environment to the improvement of learning of an individual learners.

**Research Question 2:** Will the knowledge of the use of assistive technology devices be instructional media for students with learning disabilities to support their learning?

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Have full knowledge on what assistive technology mean</td>
<td>10</td>
<td>20</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>3.68</td>
</tr>
<tr>
<td>7</td>
<td>It is not advisable to use assistive technology devices for teaching and learning activities of learners with disability</td>
<td>-</td>
<td>20</td>
<td>2</td>
<td>3</td>
<td></td>
<td>2.70</td>
</tr>
<tr>
<td>8</td>
<td>Need for use of assistive technology devices for instructional purposes</td>
<td>8</td>
<td>23</td>
<td>-</td>
<td>4</td>
<td>5</td>
<td>3.65</td>
</tr>
<tr>
<td>9</td>
<td>Assistive technology does not help students in anyway</td>
<td>3</td>
<td>-</td>
<td>18</td>
<td>17</td>
<td>2</td>
<td>2.63</td>
</tr>
<tr>
<td>10</td>
<td>Learners with disability require the use of assistive technology</td>
<td>10</td>
<td>25</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>4.05</td>
</tr>
</tbody>
</table>

The above table shows that the calculated means (3.68) of the item 6 of the research instrument was found to be more than the criterion (3.00). Therefore, this attested to the fact that the teachers of the learning disability have full knowledge about assistive technology. From the same table 2, the responses of the teachers negate the question item 7 that says “it is not advisable to use assistive
technology devices for teaching and learning activities of learners with disability”. This was proved when the computed mean (2.70) is less than the criterion (3.00). Based on the data collected on item 8 and a comparison of the calculated mean of 3.63 with the criterion mean of 3.00 provided a sufficient ground for concluding that there is need for use of assistive technology devices for instructional purposes. On item 9 the table reveals that the teacher responded negatively. This implies that assistive technology helps students (in particular those with disability) because the computed mean (2.63) is less than the criterion (3.00). Meanwhile the computed mean as shown in the table for item 10 is 4.05 as against the criterion of 3.00. For this reason, the researcher concludes that learners with disability require the use of assistive technology. However, the findings concur with the research question 2 that is, the use of assistive technology devices as instructional media to support learning activities is possible because of the full knowledge the teachers are having about it.

Research Question 3: How can assistive technology be used to improve the educational programmes of students with learning disabilities in an inclusive setting?

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Integration of assistive technology to inclusive classroom influences the intervention and remediating services of learners with disability</td>
<td>10</td>
<td>23</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3.90</td>
</tr>
<tr>
<td>12</td>
<td>Introduction of assistive technology to inclusive classroom enhances learners achievement</td>
<td>21</td>
<td>17</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4.48</td>
</tr>
<tr>
<td>13</td>
<td>The use of assistive technology in an inclusive classroom requires excessive amounts of class time.</td>
<td>23</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>-</td>
<td>2.65</td>
</tr>
<tr>
<td>14</td>
<td>The use of assistive technology in inclusive classroom disrupt teaching activities</td>
<td>3</td>
<td>-</td>
<td>18</td>
<td>17</td>
<td>2</td>
<td>2.63</td>
</tr>
</tbody>
</table>

The data as contained in table 3 show vividly that the computed value of each items 11 and 12 (3.90, 4.48 respectively) is greater than its criterion means (3.00) signifying a positive response. There was therefore sufficient basis to conclude that integration of assistive technology to inclusive classroom influences the intervention and remediating services render to learners with disability and with that learner achievement is enhanced. On the other hand the teachers responded negatively on items 13 and 14. This means that the use of assistive technology in an inclusive classroom neither requires excessive amount of time nor disrupt teaching and learning activities due to the fact that the calculated value of the responses (2.65 &2.63) is less than the criterion mean. Moreover, this finding provided a strong basis for justifying that assistive technology can be used to improve the educational programme of students with learning disabilities in an inclusive when it is being used for remediation and intervention services and as instructional material as well.

Research Question 4: To what extent does the provision of assistive technology for use to support the educational programmes of students with learning disabilities?

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>The use of assistive technology devices never promotes IEP</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>12</td>
<td>2</td>
<td>3.05</td>
</tr>
<tr>
<td>16</td>
<td>Assistive technology devices are not provided for use in our school</td>
<td>3</td>
<td>5</td>
<td>20</td>
<td>11</td>
<td>1</td>
<td>2.95</td>
</tr>
<tr>
<td>17</td>
<td>There are varieties of assistive technology devices for use in my classroom</td>
<td>4</td>
<td>6</td>
<td>9</td>
<td>18</td>
<td>3</td>
<td>2.75</td>
</tr>
</tbody>
</table>

The use of assistive technology enhances sense of self-esteem in students with disability.

Table 4 shows a relatively high value of the computed mean of items 15 and 18 as 3.05 & 4.15 compared to the criterion mean of 3.00. On this note the use of assistive technology devices ever promotes Individual Education Programme (IEP) rather than never, and the devices enhances sense of self-esteem in students with disability. While items 16 and 17 clearly shows AT devices are not adequately provided for use in school and where they are, varieties of it are not found in class for use. This was confirmed through the disparity between the calculated values (2.95 & 2.75) and the criterion means. Thus, the provision of assistive technology device for use to support the educational programmes of students with learning disabilities is not effective.

**Hypothesis 1:** There is no significant gender difference in the mean response of teachers on the success of educational programmes of students with learning disabilities is dependent on the use of assistive technology.

**Table 5:** Testing the teachers’ opinion towards dependence of educational programmes of learning disabilities on the use of assistive technology.

<table>
<thead>
<tr>
<th>Teacher Group</th>
<th>N</th>
<th>Mean</th>
<th>df</th>
<th>SD</th>
<th>cal x²</th>
<th>critical x²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>20</td>
<td>17.23</td>
<td>19</td>
<td>22.73</td>
<td>1.185</td>
<td>.251</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>11.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table value for P< at 0.05 level*

The analysis in table 5 as regards to the statement of assumption one demonstrated that the critical t-value is less than the calculated value at the 0.05 level of significance. Therefore, we reject that there is no significant gender difference in the mean response of teachers on the success of educational programmes of students with learning disabilities is dependent on the use of assistive technology. This provides a good platform for the acceptance of the assumption and thus the conclusion that the success of educational programmes of students with learning disabilities is dependent on the use of assistive technology. It is obvious that from inspection of the data that the respondents supported the use of assistive technology due to its functionality. This implies that AT is an inevitable tool to the academic pursuit of learners with disabilities.

**Hypothesis 2:** There is no significant difference in the mean response of teachers on the relevance and effectiveness of inclusive education in dependent on embracing assistive technology.

**Table 6:** Testing the teachers on the relevance and effectiveness of inclusive education in dependent on embracing assistive technology.

<table>
<thead>
<tr>
<th>Teacher Group</th>
<th>N</th>
<th>Mean</th>
<th>df</th>
<th>SD</th>
<th>cal x²</th>
<th>critical x²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>20</td>
<td>15.70</td>
<td>19</td>
<td>12.98</td>
<td>1.468</td>
<td>.158</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>11.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table value for P< at 0.05 level*
The result of the analysis in table 6 shows that the calculated values are greater than the critical value at the 0.05 level of significance. This means that there is a significant difference in the mean response of teachers on the relevance and effectiveness of inclusive education in dependent on embracing assistive technology.

**Discussion**

This study investigated the efficacy of assistive technology on the educational programme of children with learning disabilities in inclusive classrooms of plateau state Nigeria. Result of first research question indicated that the teacher responses testify to the degree the use of assistive technology, facilitate teaching and learning process of students with learning disabilities ranging from its capability to allow students to participate at the same level of involvement in learning activities, provision of multiple learning style, creation of a conducive psychological learning environment to the improvement of learning of an individual learners. This result accorded well with Lewis (1998)'s comment that assistive technology serves two major purposes: to augment an individual's strengths, thereby counterbalancing the effects of the disability, and to provide an alternative mode of performing a task. Thus, the use of technology allows students with learning disabilities to be compensated for their discrepancy. In line with the above information, LDonline (2013) also stated that for students with learning disabilities (LD), technology can be an assistive tool replacing an ability that is either missing or impaired. It provides the support needed to accomplish a task. For example, word processing assists students with LD in improving writing. Computers offer other support to motivate reluctant writers to write by facilitating motor actions, providing spelling assistance, helping with revising and editing, and producing a document that is neat and legible.

The second research question states that “will the knowledge of the use of assistive technology devices be instructional media for students with learning disabilities to support their learning?” The result showed appreciable level of agreement with the question above, which means that learners with disabilities require the use of assistive technology. The findings concur with the view of Zhang (2000) that posited that special education teachers can take advantage of the plethora of information about disabilities and assistive technology that is posted on various websites resources, chat rooms and articles can be accessed to provide current important information to any teacher, no matter how remote or rural her classroom is. He further stressed that contact could be made with consultants, well known professionals, and other early childhood colleagues through e-mail for sharing curriculum ideas and gaining resources information. Johnson further stated that the time saving features of databases spread sheets, desktop publishing and word processing software allow the teachers to organize their lessons, their classroom budgets, their communication with parents and children’s individualised education programmes (IEP), assessment portfolios and personal records which can be accessible and available for modifying and updating at time of need.

The third research question stated that “How can assistive technology be used to improve the educational programmes of students with learning disabilities in an inclusive setting?” This finding provided a strong basis for justifying that assistive technology can be used to improve the educational programme of students with learning disabilities in an inclusive when it is being used for remediation and intervention services and as instructional material as well.

The overall responses of this question were in accordance with the studies conducted by LDonline (2000); Raskind and Stanberry (2006); Male (1997) and Daiute (1992) that academic performance of an individual with learning disabilities received a great turn around as a result of advancement in their educational programme through effectively used of assistive technology and others supportive aids. Some of these assistive devices that are found in general education classroom (inclusive) for person with learning disabilities in accordance to their researches conducted. From example, the study of Raskind and Stanberry (2006) revealed that a personal FM listening system transmits a speaker's voice directly to the user's ear may help the listener focus on what the speaker is saying. The unit consists of a wireless transmitter (with microphone) worn by the speaker and a receiver (with earphone) worn by the listener.
The type of learning difficulty this tool addresses is listening or attention span disorder. Also, Male (1997) found out that some students with learning disabilities find graphic organizers helpful in mapping ideas during the planning stage. Graphic organizers such as Inspiration provide organizational frameworks to help writers generate topics and content for writing projects. Inspiration shows ideas in graphic "bubbles" that can be moved and then converted into a standard outlines.

The current study differs in the teachers’ responses that the use of assistive technology in an inclusive classroom neither requires excessive amount of time nor disrupt teaching and learning activities due to the fact that the calculated value of the responses is less than the criterion mean.

The fourth research question that stated; “to what extent will the provision of assistive technology support the educational programmes of students with learning disabilities?”

In agreement with this study, Nkwoagba (2011) opined that the educational doors that have opened to children with disabilities, particularly to children with learning disabilities can never be underestimated, due to the versatility of assistive technology and other computerized programmes. He highlighted some benefits of assistive technology to students with learning disabilities in an inclusive education to be encouraging individualized instruction and independent study programme; helps to sustain retention and increases attention span, memory span and concentration of learning disabled individuals; provides a rich context for language exploration and allows persons with disabilities particularly those with dyslexia to experiment at their own interest, pace, latent and potential, among other benefits.

However, the current study indicated that AT devices are not adequately provided for use in school and where they are, varieties of it are not found in class for use. Thus, the provision of assistive technology device for use to support the educational programmes of students with learning disabilities is not effective. In general, the results of this study support the usage, as well reveal the bond that exit between assistive technology and inclusive education as regards to students with learning disabilities. The analysis carried out showed that indeed the success of educational programmes of students with learning disabilities is dependent on the use of assistive technology as evident in table 5. Also, learning is more interesting with the aid of AT because of its tendency to motivate and reinforce the learners especially when learning a new concept. Students are allowed to work on the same activities until perfection. This makes students to cultivate the habit of independent learning without relying on the teacher assistance before getting a task done.

For the assumption two which states that the relevant effectiveness of inclusive education will largely depend on embracing assistive technology. Inclusion of learners with disability into a regular classroom is rave of moment and assistive technology is the gateway through which the system can be effectively practiced. This was revealing when majority of respondents agreed that assistive technology promote IEP among the learners in a regular classroom. The study claimed that learners with disabilities participate at the same level of involvement with their non-disabled counterpart as a matter of the fact it provide the needed motivation for learning to take place as its teaches in real life situation, displaying and presenting learning with the use of minded captive picture, graphic and simulation.

**Conclusion**

With this study, one can reach a logical conclusion that the place of assistive technology devices in an inclusive education can never be underestimated. Also, there are improvements in the educational programmes of students with learning disabilities specifically when assistive technology is employed. The findings revealed that assistive technology provides a valuable aid to the teachers and help significantly to give those experiencing difficulties in the basic skills a better start, thus achieving independence, confidence and personal wellbeing that effective literacy brings.

**Recommendation**

In the light of major findings of the study the following recommendations were posed:
1. Government should come out with means or ways of adequate funding of our schools. This can be done by increasing fund allocation to educational sector, so that our schools can be well equipped with varieties of assistive technology.

2. Integration of assistive technology to the educational system should be enforced by the lawmakers.

3. More qualified-competent personnel should be recruited by government and frequent orientation and suitable training should be given to them on how to make use of assistive technology devices.

4. The benefits of inclusive education should be well defined and made known to the people of the society.

5. Parents of the children with learning disabilities should be supportive in terms of the provision of assistive technology devices for use in school.

6. Schools should partner with non-governmental agencies for the provision of assistive technology devices for children with special needs especially those with learning difficulties.

7. Uninterrupted power supply should be provided.

8. Individualized Educational Programme (I.E.P.) decision should be considered in selecting assistive technology devices for the learner.

9. Old methods of teaching should be not be used in educational programme of students with learning disabilities. Instead IEP is advisable.

10. Technological devices should not be abusively used; rather it should be appreciated in educational endeavour of individual learners with disabilities. For instance Ipad, Mp3, Tablet, computer internet can promote tasking learning experiences.

References


