

## **Teachers' Proficiency and Application of Instructional Strategies for Teaching in an Inclusive Classroom in Abia State**

**By**

**Ejinwa, Emenike (PhD)**  
ejinwa2019@gmail.com

**&**

**Ojiaku, Fidelia Chikaodili (Ph.D)**

College of Education  
Department of Adult and Continuing Education  
Michael Okpara University of Agriculture, Umudike

### **Abstract**

This study investigated teachers' proficiency and utilization of instructional strategies for teaching in an inclusive classroom in Abia State. The study adopted descriptive survey design to assess the extent secondary school teachers in Abia State are proficient and utilize the various instructional strategies available for teaching in an inclusive classroom in Umuahia education zone. The population consist of 7,400 Senior Secondary teachers. The sample size of the study was 84 secondary school teachers comprising 34 males and 50 females. Simple random technique was used to select one education zone. The instrument for data collection was the questionnaire constructed by the researcher. Face and content validity were established by three experts. The reliability of the instrument was obtained by administering 20 copies to a school which was outside the sampled schools. The scores obtained from the test were analysed using Cronbach Alpha. Reliability index of 0.79 was obtained indicating that the instrument was reliable for the study. Data collected was analysed using mean with standard deviation and t-test. Findings indicated that many teachers are handicapped when it comes to teaching special needs students in an inclusive classroom as a result of lack of knowledge and utilization of the various assistive technologies. Findings also showed that most teachers in Abia state do not know nor apply the instructional strategies for teaching in an inclusive classroom. It was recommended that teachers in an inclusive classroom should be trained on the various instructional strategies for teaching in an inclusive classroom.

**Keywords:** Assistive technology, Special needs education, Inclusive Education Accommodation, Modification.

## Introduction

Special needs education is the practice of educating students with special educational needs in a way that addresses their individual differences and needs. This process involves the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, and accessible settings (Gartner & Dorothy, 2018).

Different instructional strategies are used to teach students in an inclusive classroom. Instruction for special needs students in an inclusive classroom can be done through accommodation and modification. It's important to understand the difference between accommodations and modifications. Accommodations refer to how a special needs student learns. Modifications refer to how much a special needs student is expected to do or learn (Great, 2016).

Special needs education is concerned with how to improve the learning ability of students with different disabilities. The Nigerian National Policy on Education (2004) defined Special Needs Education as the: Education of children and adult who have learning difficulties because of the different kinds of handicaps such as blindness, partial sightedness, deafness, hardness of hearing, mental retardation, social maladjustment, limb deformation or malformation etc; due to circumstances of birth, inheritance, social position, mental and physical health patterns, or accident later in life. Nigeria's National Policy on Education (2004) stated the three key objectives of special needs education as:

- 1.to give concrete meaning to the idea of equalizing educational opportunities to all children, disabilities notwithstanding.
- 2.provision of adequate education for all people with special needs in order that they may fully contribute their quota to the development of the nation.
- 3.diversified and appropriate curriculum for all the beneficiaries.

Schools use many strategies to help students receiving special education services succeed in general education classroom. These strategies include:

1. Assistive technology.
2. Accommodations .

### 3. Modifications.

4. Paraprofessionals who serve as teachers' aides helping students with various tasks such as taking notes and highlighting important information.

5. **Inclusion classroom:** This type of classroom includes a mix of students who do and do not receive special education services. A special education teacher and a general education teacher share equal responsibility for teaching the class (Beattie, 2014).

Inclusive education is based on the simple idea that every child deserves the same opportunities and experiences. Inclusive education is about children with disabilities participating in everyday activities alongside able children. Inclusive education is every child's right, not a privilege. The Individuals with Disabilities Education Act (DO-IT, 2019) clearly states that all children with disabilities should be educated with non-disabled children their own age and have access to the general education curriculum. The Individual with Disabilities Education Act is designed to ensure that children with disabilities be granted a free appropriate public education in the least restrictive environment. The National Policy on Education defined inclusive education as the integration of special classes and units into ordinary/public schools under the UBE scheme (FGN , 2014).

According to Cortiella (2019) accommodations and modifications are key component of inclusive education. It is very vital to know the difference between accommodations and modifications. How a student learns is referred to as accommodation and how much ( in terms of reduction in the content) a special need student is expected to do or learn is called modification. For example, some students may be given shorter writing assignments or fewer math problems. Other students may be provided books with a lower reading level than the ones that are assigned to their non-disabled peers (U.S. Dept. of Education. 2008). Accommodations and Modifications to the regular program may include changes in the curriculum, supplementary aides or equipment, and the provision of specialized physical adaptations that allow students to participate in the educational environment as much as possible. Students may need this help to access subject matter, answer question or physically gain access to the school, or meet their emotional needs.

Instructional strategies are techniques meant for bringing improvement in the instructional procedure. (Mangal & mangal, 2011). Instructional strategies make the teacher aware or

conscious of the need to select and utilizes suitable instructional techniques which are essential in teaching special needs students in an inclusive classroom. Instructional strategies try to adopt a process-oriented technique for the utilization of suitable teaching/learning materials, teaching/learning strategies and suitable evaluation techniques for achieving the stipulated objectives.

There are two major instructional strategies used in teaching special needs students in an inclusive classroom. They are classified under 'accommodations' and 'modifications'. An accommodation is a reasonable adjustment to teaching style so that the student learns the same material, but in a format that is more accessible and suitable for the student (Bos & Vaughn, 2005). The school may accommodate a student with visual impairments by providing a large-print textbook. A modification changes or adapts the material to make it simpler or easier for the special need student to understand. Modifications may change what is learned, reduction in the difficulty of the material to be learnt, level of mastery the student is expected to achieve or how the student is assessed. The school may modify a reading assignment for a student with reading difficulties by substituting a shorter, easier book or provide the abridge version of the book for easy understanding.

#### Examples of modifications

1. **Skipping subjects:** Special needs students may be taught less information than typical students, skipping over material that the school deems inappropriate for the student's abilities or less important than other subjects.
2. **Simplified assignments:** Students may read the same literature as their peers but have a simpler version.
3. **Shorter assignments:** Students may do shorter homework assignments or take shorter, more concentrated tests.
4. **Students might use a calculator when other students do not.**
5. **Extended time:** Students with a slower processing speed may benefit from extended time for assignments and/or tests in order to have more time to comprehend questions, recall information, and synthesize knowledge.
6. **Students can be offered a flexible setting in which to take tests.** These settings can be a new location to provide for minimal distractions.

### Examples of accommodations

1. Typing assignments rather than hand-writing them.
2. Listening to audiobooks rather than reading printed books.
3. designating a person to take notes for the special needs student during lectures.
4. Moving the class to a room that is quiet or physically accessible.
5. Special needs students may be given extended time on tests.

All developed countries permit or require some degree of accommodation for students with special needs, and special provisions are usually made in examinations which take place at the end of formal schooling. (Gaylord-Ross, 2022).

### Statement of the problems

Teachers in Abia State schools who have one or two special needs students in inclusive classroom do not have thorough knowledge of the instructional strategies needed in teaching special needs students in an inclusive classroom. The lack of proficiency and utilization of instructional strategies by teachers needed to teach special needs students in an inclusive classroom adversely affect the academic achievement of special needs students found in an inclusive classroom. It is against this backdrop that the researchers decided to examine teachers proficiency and utilization of the various instructional strategies needed to teach in an inclusive classroom with normal and special needs students.

### Purpose of the Study

The purpose of this study is to find out the level of teachers' proficiency and utilization instructional strategies in teaching in an inclusive classroom in Nigeria. Specifically, this study aims to find out:

1. the extent secondary school teachers in Abia State are proficient of the various instructional strategies in teaching in an inclusive classroom.
2. the extent secondary school teachers in Abia State utilize the various instructional strategies in teaching in an inclusive classroom.

## Research Questions

The following research questions were raised to guide the study:

1. To what extent are secondary school teachers in Abia State are proficient of the various instructional strategies for teaching special needs students?
2. To what extent do secondary school teachers in Abia State utilize the various instructional strategies for teaching special needs students?

## Hypotheses

The following null hypotheses are formulated and tested at 0.05 level of significance.

HO<sub>1</sub>: There is no significant difference in the mean ratings of male and female secondary school teachers on the extent they are knowledgeable of the various instructional strategies for teaching in an inclusive classroom.

HO<sub>2</sub> There is no significant difference in the mean ratings of male and female secondary school teachers on the extent they utilize the various instructional strategies for teaching in an inclusive classroom.

## Methodology

The study adopted descriptive survey design to assess the extent secondary school teachers in Abia State are proficient as well as utilize the instructional strategies for teaching in an inclusive classroom in Abia State. The area of the study is Abia State. The population consist of 7,400 Senior Secondary teachers comprising of 3,020 male and 4,380 females in the three education zone of the state. The sample size of the study was 84 secondary school teachers comprising 34 males and females. Simple random technique was used to select one education zone. The instrument for data collection was the questionnaire constructed by the researcher. Face and content validity were established by three experts. The instrument was subjected to trial testing to ascertain its reliability. The reliability of the instrument was obtained by administering 20 copies to a school which was outside the sampled schools. The scores obtained from the test were analysed using Cronbach Alpha. Reliability index of 0.79 was obtained indicating that the instrument was reliable for the study. Data collected was analysed using mean with standard deviation and t-test.

## Result and Discussion.

Research Question 1: extent secondary school teachers in Abia State are proficient of the various instructional strategies for teaching in an inclusive classroom.

Table 1: Mean Rating and standard deviation of male and female teachers on the extent they are proficient of the various instructional strategies for teaching in an inclusive classroom.

| S/N                    | Item Statement  | Students  |      |      | Teachers  |      |      |
|------------------------|---|-----------|------|------|-----------|------|------|
|                        |   | $\bar{X}$ | SD   | De   | $\bar{X}$ | SD   | De   |
| 1.                     | I encourage students to type homework rather than hand-writing them                                     | 2.36      | 1.17 | D    | 2.18      | 0.72 | D    |
| 2.                     | I sometimes designate someone else to write down answers given verbally                                 | 2.41      | 1.06 | D    | 2.30      | 0.88 | D    |
| 3.                     | I encourage special need students to listen to audiobooks rather than reading printed books             | 2.23      | 0.87 | D    | 2.47      | 0.76 | D    |
| 4.                     | I sometimes designate a person to read to the student,  | 2.57      | 1.11 | A    | 2.21      | 1.05 | D    |
| 5.                     | I provide text to speech software   | 2.18      | 1.22 | D    | 2.19      | 1.13 | D    |
| 6.                     | I sometimes move special needs students to take their test in a quieter room.                           | 2.74      | 0.88 | A    | 2.64      | 0.77 | A    |
| 7.                     | I designate a person to take notes for special needs student during lectures.                           | 2.70      | 1.16 | A    | 2.81      | 1.06 | A    |
| 8.                     | I encourage students to use talking calculator rather than one with only a visual display               | 2.00      | 1.01 | D    | 2.10      | 0.92 | D    |
| 9.                     | I sometimes move the class to a room that is physically accessible.                                     | 2.41      | 1.22 | D    | 2.15      | 1.14 | D    |
| 10.                    | I arrange seats to benefit special needs student, e.g. sitting at the front of the classroom.           | 3.00      | 1.14 | D    | 2.80      | 1.01 | A    |
| 11.                    | I give special needs students extended time on tests and exams.   | 2.59      | 1.17 | A    | 2.69      | 1.06 | A    |
| 12.                    | I give students shorter writing assignments or fewer class works.                                       | 2.52      | 1.20 | A    | 2.64      | 1.09 | A    |
| 13.                    | I provide books with a lower reading level than the ones that are assigned to their non-disabled peers. | 2.47      | 1.27 | D    | 2.15      | 1.11 | D    |
| 14.                    | I understand what 'accommodation' means in teaching special needs students                              | 2.36      | 1.24 | D    | 2.18      | 1.13 | D    |
| 15.                    | I understand what 'modification' means in teaching special needs students                               | 2.30      | 1.06 | D    | 2.24      | 0.90 | D    |
| $\bar{X}_G$ and $SD_G$ |   | 2.46      |      | 1.11 | 2.34      |      | 0.98 |

Where  $\bar{X}$  = Mean, SD= Standard deviation, A= Agree,  $\bar{X}_G$ =Grand mean,  $SD_G$ =Grand standard deviation

Table 1 shows the opinions of respondents with regards to the mean score of male and female teachers on the extent they are proficient of the various instructional strategies for teaching special needs students. From the table, all the items listed for male respondents had the grand mean score of 2.46 and grand standard deviation of 1.11 while the grand mean and grand standard deviation for female teachers are 2.34 and 0.98 respectively. These mean scores are seen to be below the criterion mean of 2.5. This result shows that both male and female teachers are not proficient of the various instructional strategies for teaching special needs students in an inclusive classroom.

Ho1: There is no significant difference between the mean score of male and female teachers on the extent they are proficient of the various instructional strategies for teaching special needs students.

Table 2. Analysis of t-test on male and female teachers on the extent they are proficient of the various instructional strategies for teaching special needs students.

| Teachers | $\bar{X}$ | SD   | N  | Df | t-cal | t-critical | Decision |
|----------|-----------|------|----|----|-------|------------|----------|
| Male     | 2.46      | 1.11 | 34 | 82 | 1.03  | 0.89       | Rejected |
| Female   | 2.34      | 0.98 | 50 |    |       |            |          |

Data in Table 2 shows that there is a significant difference between the mean ratings of male and female teachers on the extent they are proficient of the various instructional strategies for teaching special needs students. This is because the t-cal 1.10 is less than t-tab 1.64. Therefore, the null hypothesis 1 is not rejected.

Research Question 2: extent secondary school teachers in Abia State utilize the various instructional strategies for teaching in an inclusive classroom.

Table 3: Mean Rating and standard deviation of male and female teachers on the extent they utilize the various instructional strategies for teaching in an inclusive classroom.

| S/N | Item Statement  | Students  |      |    | Teachers  |      |    |
|-----|---|-----------|------|----|-----------|------|----|
|     |   | $\bar{X}$ | SD   | De | $\bar{X}$ | SD   | De |
| 16. | I encourage students to type homework rather than hand-writing them                         | 2.26      | 0.91 | D  | 2.31      | 0.82 | D  |
| 17. | I sometimes designate someone else to write down answers given verbally                     | 2.31      | 1.19 | D  | 2.32      | 1.20 | A  |
| 18. | I encourage special need students to listen to audiobooks rather than reading printed books | 2.29      | 0.83 | D  | 2.15      | 0.78 | A  |
| 19. | I sometimes designate a person to read to the student,                                      | 2.77      | 1.14 | A  | 2.24      | 0.86 | A  |
| 20. | I provide text to speech software   | 2.22      | 0.75 | D  | 2.38      | 0.93 | A  |



|                        |   |      |      |      |      |      |   |
|------------------------|---|------|------|------|------|------|---|
| 21.                    | I sometimes move special needs students to learn in a quieter room.                                     | 2.71 | 1.33 | A    | 2.76 | 1.37 | A |
| 22.                    | I designate a person to take notes for special needs student during lectures.                           | 2.79 | 1.20 | A    | 2.57 | 1.12 | A |
| 23.                    | I encourage the students to use talking calculator rather than one with visual display                  | 2.42 | 1.03 | D    | 2.27 | 0.89 | A |
| 24.                    | I sometimes move the class to a room that is physically accessible,                                     | 2.11 | 0.91 | D    | 2.48 | 1.18 | D |
| 25.                    | I arrange seats to benefit special needs student, e.g. sitting at the front of the classroom.           | 2.76 | 1.34 | A    | 2.84 | 1.07 | A |
| 26.                    | I give special needs students extended time on tests and exams.   | 2.53 | 1.04 | A    | 2.71 | 1.16 | A |
| 27.                    | I give students shorter writing assignments or fewer class works.                                       | 2.62 | 1.21 | A    | 2.59 | 1.17 | A |
| 28.                    | I provide books with a lower reading level than the ones that are assigned to their non-disabled peers. | 2.38 | 0.83 | D    | 2.48 | 1.02 | D |
| 29                     | I understand what ‘accommodation’ means in teaching special needs students                              | 2.46 | 1.00 | D    | 2.36 | 0.86 | D |
| 30                     | I understand what ‘modification’ means in teaching special needs students                               | 2.35 | 0.89 | D    | 2.40 | 0.98 | D |
| $\bar{X}_G$ and $SD_G$ |   | 2.46 |      | 0.97 |      | 2.45 |   |
| 1.02                   |   |      |      |      |      |      |   |

Where  $\bar{X}$  = Mean, SD= Standard deviation, A= Agree,  $\bar{X}_G$ =Grand mean,  $SD_G$ =Grand standard deviation

Table 3 shows the opinions of respondents with regards to the mean score of male and female teachers on the extent they utilize the various instructional strategies for teaching special needs students in an inclusive classroom. From the table, all the items listed for male respondents had the grand mean score of 2.46 and Grand standard deviation of 0.97 while the grand mean and grand standard deviation for female teachers are 2.45 and 1.02 respectively These mean scores are below the criterion mean of 2.5. This result shows that both male and female teachers do not utilize the various instructional strategies for teaching special needs students in an inclusive classroom.

HO2: There is no significant difference between the mean score of male and female teachers on the extent they utilize the various instructional strategies for teaching special needs students.

Table 4. Analysis of t-test on male and female teachers on the extent they utilize the various instructional strategies for teaching in an inclusive classroom.

| Teachers | $\bar{X}$ | SD   | N  | Df | t-cal | t-critical | Decision |
|----------|-----------|------|----|----|-------|------------|----------|
| Male     | 2.46      | 0.97 | 34 | 82 | 1.24  | 1.06       | Rejected |
| Female   | 2.45      | 1.02 | 50 |    |       |            |          |

Data in Table 4 shows that there is a significant difference between the mean ratings of male and female teachers on the extent they utilize the various instructional strategies for teaching special needs students found in an inclusive classroom. This is because the t-cal 1.24 is higher than t-tab 1.06. Therefore, the null hypothesis is rejected.

## Result

Both male and female teachers recorded low mean score. This result shows that both male and female teachers are not proficient of the various instructional strategies for teaching special needs students in an inclusive classroom. There is a significant difference between the mean score of male and female teachers. This is because the t-cal 1.10 is less than t-tab 1.64. Therefore, the null hypothesis 1 is not rejected.

Both male and female teachers recorded low mean score. This result shows that both male and female teachers do not utilize the various instructional strategies for teaching special needs students in an inclusive classroom. There is a significant difference between the mean score of male and female teachers. This is because the t-cal 1.24 is higher than t-tab 1.06. Therefore, the null hypothesis 1 is rejected.

## Discussion of Findings

The result of analysis in research question three showed that all the items bordering on the extent secondary school teachers in Abia State are proficient of the various instructional strategies for teaching special needs students found in an inclusive classroom recorded low mean rating below the criterion level ind .This corroborates with the findings of **Singh and Yunus, (2021)** who stated that to a great extent, most teachers teaching in an inclusive classroom do not know much about the various instructional strategies used in teaching special needs students The corresponding hypothesis as shown in table 6 reveals that there is a significant difference between the mean score of male and female teachers. This is because the t-cal 2.17 is higher than t-tab1.89. This corroborates with the findings of Purva Chhabra (2012) that most teacher lack knowledge of the instructional strategies need to teach in an inclusive classroom.

The result of analysis in research question four showed that all the items bordering on the extent secondary school teachers in Abia State utilize the various instructional strategies in teaching in an inclusive classroom students recorded low mean rating below the criterion level indicating that both male and female teachers do not utilize the various instructional strategies for teaching in an inclusive classroom. This corroborates with the findings of **Singh and Yunus, (2021)**. The corresponding hypothesis as shown in table 6 reveals that there is a significant difference between the mean score of male and female teachers on the extent they utilize the various instructional strategies for teaching special needs students in an inclusive classroom. This is because the  $t_{\text{cal}} 1.24$  is higher than  $t_{\text{tab}} 1.06$ . Therefore, the null hypothesis is rejected.

### **Conclusion**

Based on the result of the findings which indicated low mean ratings in all the items investigated, the researcher concluded that male and female teachers do not have the proficiency and they neither utilize the numerous instructional strategies for teaching special needs students in an inclusive classroom in Nigeria.

### **Recommendations**

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

1. Workshops should be organized for teachers in Nigeria to acquire proficiency in the various instructional strategies needed to teach in an inclusive classroom
2. Concerted efforts should be made by the government and administrators to train and ensure that teachers teaching in inclusive classroom utilize the accommodation and modification which are major instructional strategies for teaching special needs students.

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