

**INFLUENCE OF PSYCHOLOGICAL TESTING AND INDIVIDUAL  
INVENTORY SERVICES ON SECONDARY SCHOOL STUDENTS'  
ACADEMIC ACHIEVEMENT IN ENUGU STATE**

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**Abstract**

*The main purpose of the study was to determine the influence of psychological testing and individual inventory services on secondary school students' academic achievement in Enugu state. Descriptive survey research design was adopted for the study. Two research questions and two hypotheses guided the study. Area of the study was Enugu state of Nigeria. The population for the study comprised all the 18,243 (11,500 female and 6,743 male) students in the secondary schools in Enugu state. The sample for the study comprise 486 students consisting of 320 females and 166 males. Proportionate, stratified and simple random sampling techniques were used to draw the sample for the study. Two instruments were used for data collection in the study. They were Psychological Testing and Individual Inventory Services Scale (PTIISS) and Academic Achievement Record Form (AARF). PTIISS was a 9-item questionnaire constructed by the researchers and validated by three research experts. AARF was a form designed and used to collect academic achievement scores of students from their form teachers. PTIISS yielded an overall reliability coefficient value of .75 obtained through Cronbach's Alpha Method. Mean and standard deviation were used to answer the research questions while z-test statistic was used to test the hypotheses at 0.05 significant level. Major findings made in the study indicated that both psychological testing and individual inventory services influenced secondary school students' academic achievement positively in Enugu state.*

*Also, male and female school Counsellors did not differ significantly in their perceptions of how psychological testing and individual inventory services influenced secondary school students' academic achievement. Based on the findings, it was recommended among other things that Secondary school Counsellors in Enugu state and beyond should adopt regular psychological testing and individual inventory services so as to improve their students' academic achievement.*

## **Introduction**

Secondary education in Nigeria refers to the education given to the child after primary education and before tertiary education. Specifically, the broad goals of secondary education, according to the Federal Republic of Nigeria (2013) in the National policy on Education are to prepare the individual for useful living within the society and higher education. Hence, secondary education among other things, is expected to provide trained man power in the applied sciences, technology and commerce at sub-professional grades; foster national unity with an emphasis on the common ties that unite us in our diversity; raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate those values specified under our board national goals and live as good citizens and provide technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.

Unarguably, the extent to which the laudable goals of education in general and secondary education in particular are achieved can be judged through the students' academic achievement. Al-Gazir (2019) defined achievement as the process of bringing out or accomplishing something through effort, skill or course. Al-Gazir averred that academic achievement generally suggests an achievement relating to education and scholarship. Tenty (2021) added that academic achievement depicts student's

performance on a standard of measurement such as performance test, skill test, analytical thinking test, etc. Academic achievement can therefore be described as the gain in knowledge of students as result of taking part in a learning activity or programme. According to Kuntu (2020) academic achievement is a result-oriented construct that encapsulates the extent of performance of a describe task. Academic achievement reflects the outcome of education, it is the extent to which a student, teacher or institution has achieved their educational goals, (Ward and Murray, 2018). In recent times, the reports of poor academic achievements of students especially in secondary schools have raised more attention and greater concerns among parents, teachers, and stakeholders in Nigeria.

In Enugu state, academic achievement of secondary school students has been observed to be generally poor. A look at the Senior Secondary School Certificate Examination (SSCE) results in the past eight years (2018–2025) shows clearly that Enugu state secondary school students' academic achievement is yet to hit the most desired satisfactory level. Parents, teachers, curriculum experts and evaluators have expressed considerable concern over the deteriorating academic performance of students in Nigerian secondary schools, (Ayoola, 2022). Research evidences such as Kaita (2018), Iyela (2020) and Kuntu (2020) attributed the poor academic performance among secondary school students to a variety of factors. These factors include; student-related, parents-related, curriculum-related, peer-related and teacher-related factors. Undoubtedly, guidance services is a major counsellor related factors that could determine students' academic performance in secondary schools, (Kaita, 2018). But due to non-availability of

professional counsellors in schools, some para-teacher counsellors have been recruited to help out. Also Modo (2019) observed that there was statistically significant relationship between guidance services and students' academic performance. According to Bell (2021), guidance is a process of helping individuals to understand themselves and their world.

Guidance is a process aimed at assisting individuals to discover, accept and use their abilities, aptitudes, interest and beliefs in relation to their aspirations. This discovery and acceptance of self, helps an individual to live effectively in his or her society. Guidance can also be seen as an educational construct. As an educational construct, guidance involves those experiences that assist each learner to understand him/herself, and live effectively in his/her society. This is in addition to the learner's experiences in the world of work and the people found there (UNESCO, 2016). Al-Gazir (2019) see guidance as the purposeful direction of the growth of an individual in his five worlds. These five worlds in which every individual lives are the physical, mental, social, emotional and psychological. According to Kaita (2018) guidance services capable of influencing students' academic performance include; psychological testing and individual inventory services. Kaita averred that in counselling service, the counsellors and teachers are expected to administer psychological test to students, score the psychological test administered (to students) and interpret results of the psychological test administered to students. Individual inventory service involves teachers' role such as gathering students' personal, family and academic data before counselling him/her.

Another variable that is of interest to the researchers in this work is the influence of gender of respondents. Hence, the influence of psychological testing and individual inventory services on secondary school students' academic achievement as perceived by male and female school Counsellors. Put in another way, the researchers are interested in ascertaining how the gender of school counsellors would influence their perception of the influence of psychological testing and individual inventory services on their students' academic achievement. Bell (2021) asserted that gender refers to the socially, culturally constructed characteristics and roles which are ascribed to males and females in any society. Gender is a major factor that may influence how people perceive things. According to Modo (2019), gender or sex refers to those characteristics of males and females which are biologically determined such as possession of the male and female reproductive genital organs. Modo further gave a broad analytical concept which draws out females role responsibilities in relation to those of males describing the males attribute as bold, aggressive, tactful and economical use of words, while females are fearful, timid, gentle, dull, submissive and talkative.

Evidently, school counsellors also, encourage gender stereotype by giving different treatment to males and females. Teachers go further to give different career guidance to males and females. More worrisome to the researcher is the fact that past researchers have reported conflicting findings on the influence of gender of school counsellors on their perceptions of influence of psychological testing and individual inventory services on students' academic achievement. Egbo (2018), Eko (2019) and

Gatua (2020) in their separate studies found that male school Counsellors perceived that psychological testing have higher positive influence on students' academic achievement than individual inventory services whereas their female counterparts perceived that individual inventory services had higher positive influence on students' academic achievement than psychological testing.

On the other hand, Al-Gazir (2019) and Iyela (2020) in their separate studies reported that female school Counsellors perceived that psychological testing have higher positive influence on students' academic achievement than individual inventory services whereas their male counterparts perceived that individual inventory services had higher positive influence on students' academic achievement than psychological testing. While Tenty (2021) and Ayoola (2022) found no significant difference between the perceptions of male and female school counsellors on the influence of psychological testing and individual inventory services on secondary school students' academic achievement. This no definitive conclusion justifies the need for this present study.

### **Purpose of the study**

The main purpose of the study was to investigate the influence of psychological testing and individual inventory services on secondary school students' academic achievement in Enugu state.

Specifically, the study sought to:

1. ascertain how psychological testing service influences secondary school students' academic achievement in Enugu state

2. investigate how individual inventory service influences secondary school students' academic achievement in Enugu state

### **Research Questions**

The following research questions guided the study

1. How does psychological testing service influence secondary school students' academic achievement in Enugu state?
2. How does individual inventory service influence secondary school students' academic achievement in Enugu state?

### **Hypotheses**

The following hypotheses were tested at .05 level of significance;

1. Male and female school counsellors do not differ significantly in their perceptions of how psychological testing service influences secondary school students' academic achievement in Enugu state.
2. Male and female school counsellors do not differ significantly in their perceptions of how individual inventory service influences secondary school students' academic achievement in Enugu state.

### **Methodology**

Descriptive survey research design was adopted for the study. In descriptive survey design, a group of people, items or things are studied by collecting and analyzing data from all or only a few people, items or things considered to be representative of the entire population. This design was found most suitable for this study because the

researchers collected data from a representative (sample) of the population under study whose responses formed the basis for inference that were generalized on the entire population. From the specific purposes of the study, two research questions and two hypotheses were formulated to guide the study. Area of the study was Enugu state of Nigeria. Enugu state is made up of 17 Local Government Areas namely: Enugu-East, Enugu-North, Isiuzo, Awgu, Udi, Nkanu-East, Nkanu-West, Igbo Etiti, Aninri, Igbo-Eze North, Igbo-Eze south, Udenu, Enugu south, Nsukka, Orji River, Ezeagu and Uzouwani. At secondary education level, Enugu state is partitioned into six education zones namely; Agbani, Awgu, Enugu, Nsukka, Obolla-Afor and Udi zones.

Enugu state also has 303 public secondary schools as at 2024/2025 academic session. Enugu State is chosen as area of this study because the state is very strategic to South East geopolitical zone of Nigeria in particular and the entire country at large. The population for the study comprised all the 38,243 (21,500 female and 16,743 male) students in the secondary schools in Enugu state as at the time of this study. The sample for the study comprise 486 students consisting of 320 females and 166 males. Proportionate, stratified and simple random sampling techniques were used to draw the sample for the study. Two instruments were used for data collection in the study. They were Psychological Testing and Individual Inventory Services Scale (PTIISS) and Academic Achievement Record Form (AARF). PTIISS was a 9-item questionnaire constructed by the researchers and validated by three research experts. AARF was a form designed and used to collect academic achievement scores of students from their form

teachers. PTISS yielded an overall reliability coefficient value of .75 obtained through Cronbach’s Alpha Method. Copies of the instrument for data collection were administered to the respondents by the researchers. Direct (hand to hand) delivery and retrieval system was used. This helped the researchers to recover all the copies of the instruments from the respondents. Mean and standard deviation were used to answer the research questions while z-test statistic was used to test the hypotheses at 0.05 significant level.

**Results**

**Research Question 1**

How does psychological testing service influence secondary school students’ academic achievement in Enugu state?

**Table 1:** mean and standard deviation scores on research question 1 items: How psychological testing service influence secondary school students’ academic achievement

Items	Students are likely to perform better when;	Male			Female			Overall		
		Mean	SD	Remark	Mean	SD	Remark	Mean	SD	Remark
1	When school counsellors administer psychological test to them	3.5	0.11	SA	3.6	0.51	SA	3.6	0.18	SA
2	When school counsellors score the psychological test administered to them	3.6	0.33	SA	3.5	0.22	SA	3.5	0.24	SA
3	When school counsellors interprets results of the psychological test administered to them	3.5	0.22	SA	3.7	0.33	SA	3.6	0.41	SA
4	When school counsellors use the psychological test to assess their behavioral tendencies	3.7	0.16	SA	3.5	0.11	SA	3.7	0.43	SA

5	When school counsellors use psychological test also as tools in Counselling them	3.6	0.34	SA	3.6	0.45	SA	3.6	0.11	SA
<b>GRAND</b>		<b>3.6</b>	<b>0.21</b>	<b>SA</b>	<b>3.5</b>	<b>0.29</b>	<b>SA</b>	<b>3.6</b>	<b>0.32</b>	<b>SA</b>

From table 1, the grand mean for male was 3.6 and that of female was 3.5, the overall grand mean was 3.6. This result indicates that both male and female school Counsellors strongly agreed that psychological testing service influenced secondary school students' academic achievement positively in Enugu state. The standard deviation values 0.21 for male, 0.29 for female and 0.32 for overall were low, indicating that there were little or no extreme values. Thus, the mean values so obtained represented the actual views of the whole respondents.

### Research Question 2

How does individual inventory service influence secondary school students' academic achievement in Enugu state?

**Table 2:** mean and standard deviation scores on research question 2 items: How individual inventory services influence secondary school students' academic achievement

Item	Students are likely to perform better when;	Male			Female			Overall		
		Mean	SD	Remark	Mean	SD	Remark	Mean	SD	Remark
6	School counsellors gather their personal data before Counselling them	3.4	0.21	A	3.2	0.51	A	3.4	0.85	A
7	School counsellors gather their family data before Counselling them	3.3	0.11	A	3.4	0.11	A	3.5	0.99	SA
8	School counsellors gather their academic data before Counselling them	2.9	0.01	A	3.5	0.12	SA	3.3	1.26	A
9	School counsellors gather their co-curricular activities	3.5	0.01	SA	3.3	0.23	A	3.4	1.06	A

	data before Counselling them									
<b>GRAND</b>		<b>3.3</b>	<b>0.14</b>	<b>A</b>	<b>3.4</b>	<b>0.40</b>	<b>A</b>	<b>3.4</b>	<b>1.05</b>	<b>A</b>

From table 2, the grand mean for male was 3.3 and that of female was 3.4 the overall grand mean was 3.4. This result indicates that both male and female school Counsellors agreed that individual inventory service influenced secondary school students’ academic achievement positively in Enugu state. The standard deviation values 0.14 for male, 0.40 for female and 1.05 for overall were low, indicating that there were little or no extreme values. Hence, the mean values so obtained represented the actual views of the whole respondents.

**Hypothesis 1**

Male and female school Counsellors do not differ significantly in their perceptions of how psychological testing service influences secondary school students’ academic achievement in Enugu state.

**Table 3: z-test analyses for hypothesis 1**

<b>Group</b>	<b>n</b>	<b><math>\bar{x}</math></b>	<b>SD</b>	<b>z-calculated</b>	<b>z-critical</b>	<b>Remark</b>
<b>Male</b>	166	3.6	0.21	0.56	1.96	Not significant (Do not reject hypothesis)
<b>Female</b>	320	3.5	0.29			

From table 3, z-calculated (0.56) is less than z-critical (1.96). Hence, at .05 significant level, the mean ratings of the two groups (male and female) do not differ significantly. Thus, hypothesis one is not rejected as stated, indicating that male and female school

Counsellors did not differ significantly in their perceptions of how psychological testing service influences secondary school students' academic achievement in Enugu state.

### Hypothesis 2

Male and female school Counsellors do not differ significantly in their perceptions of how individual inventory service influence secondary school students' academic achievement in Enugu state.

**Table 4: z-test analyses for hypothesis 2**

Group	n	$\bar{x}$	SD	z-calculated	z-critical	Remark
Male	166	3.3	0.14	0.88	1.96	Not significant (Do not reject hypothesis)
Female	320	3.4	0.40			

From table 4, z-calculated (0.88) is less than z-critical (1.96). Hence, at .05 significant level, the mean ratings of the two groups (male and female) do not differ significantly. Hence, hypothesis two is not rejected as stated, implying that male and female school Counsellors did not differ significantly in their perceptions of how individual inventory service influences secondary school students' academic achievement in Enugu state.

### Summary of Findings

Findings of the study can be summarized thus;

1. Psychological testing services influence secondary school students' academic achievement positively in Enugu state.

2. Individual inventory services influence secondary school students' academic achievement positively in Enugu state.
3. Male and female school Counsellors did not differ significantly in their perceptions of how psychological testing services influence secondary school students' academic achievement in Enugu state.
4. Male and female school Counsellors did not differ significantly in their perceptions of how individual inventory services influence secondary school students' academic achievement in Enugu state.

### **Discussion of Findings**

The findings of this study revealed that the school Counsellors sampled in the study perceived that both psychological testing and individual inventory services influence secondary school students' academic achievement positively in Enugu state. This finding is very apt. This is because psychological and individual inventory services are guidance oriented interventions that provide critical insights into students' cognitive, emotional, and personal development, which in turn may shape their academic performance. In similar finding, Gatua (2020) reported that psychological testing services were found to have a positive impact on students' academic achievement. These assessments, which include intelligence tests, aptitude tests, and personality inventories, helped educators and Counsellors identify students' learning strengths and weaknesses. Gatua hinted that through early detection of learning difficulties such as attention deficits,

memory challenges, or emotional instability, schools can implement targeted interventions that may improve students' academic outcomes.

Secondary students who undergo psychological testing are likely to demonstrate greater self-awareness and confidence in their academic abilities. The feedback from these tests will consequently enable them to understand their learning styles and adopt more effective study strategies. Ayoola (2022) further stated that teachers may also benefit from the insights provided by psychological testing, as they will be able to tailor instructional methods to suit individual students' needs. Similarly, personalized approach to teaching has the potentials to contribute to improved classroom engagement and academic performance. Moreover, psychological testing are good for reducing academic anxiety among students by clarifying expectations and providing structured support. Students who previously struggled with uncertainty or low self-esteem may through psychological testing, find reassurance in understanding their cognitive profiles. This understanding will help them approach examinations and assignments with greater confidence.

Individual inventory services also play a significant role in enhancing students' academic achievement. Individual inventory services involve the systematic collection and analysis of personal data related to students' interests, values, attitudes, and career aspirations. By maintaining detailed records of each student's academic history, behavioral patterns, and extracurricular involvement, Counsellors will be able to provide more informed and personalized guidance, (Kaita, 2018). In a descriptive survey, Tenty (2021) found that students who received individual inventory services were able to set

realistic academic goals and pursue their studies in subjects aligned with their strengths and interests. According to Tenty this alignment fostered the students' intrinsic motivation and improved their academic focus. Additionally, the individual inventory services can help school Counsellors identify students who are at risk of academic failure or disengagement. Consequently, the school Counsellors may offer timely interventions and supports aimed at recovering the students.

Individual inventory services may also facilitate better communication between students, teachers, and parents. With a clearer understanding of each student's background and aspirations, stakeholders could collaborate more effectively to support academic growth. This holistic approach to students' academic development are likely to contribute to a more supportive learning environment and better academic achievement, (Iyela, 2020). The positive impact of psychological testing and individual inventory services underscores the need for their widespread adoption in secondary schools across Enugu State and beyond.

### **Conclusion**

Consequent upon the findings of this study, it can be concluded that psychological testing and individual inventory services were perceived by both male and female school Counsellors to have the potentials to influence secondary school students' academic achievement positively. Hence, when these services are embraced as part of the educational culture, they can significantly enhance the quality of teaching and learning, promote equity, and support the holistic development of every student.

## Recommendations

Based on the findings of the study, the following recommendations were deemed necessary;

1. Secondary school Counsellors in Enugu state and beyond should adopt regular psychological testing and individual inventory services so as to improve their students' academic achievement.
2. Secondary schools' proprietors should organize regular workshops and seminars for their schools Counsellors and teachers on psychological testing and individual inventory services to acquaint them with benefits and innovative trends in those counselling services.
3. Parents and guardians should participate in school Counselling sessions as well as review of psychological assessment and individual inventory reports to understand their children/wards' academic and emotional needs.
4. Efforts should be made to raise awareness among teachers, parents, and students about the value of psychological and individual inventory-based guidance.

## References

- Al-Gazir, Z. (2019). Implications of adequate guidance and Counselling services on academic achievement and behavioural pattern of college students in Hung Kong. [www.psychoworld.org](http://www.psychoworld.org)
- Ayoola, M. (2022). Influence of psychological testing services on academic achievement of secondary school students in Akoko-Edo, Ondo state. <http://www.scholar/ib.vtedui/ejour/ijev/1472/haynie/.html>
- Bell, K.M. (2021). *Principles and practice of school Counselling* . Nairobi: Olive Press Inc.

Eko, T. (2019). Influence of individual inventory service on students' moral judgments and academic performance in Benue state. *Journal of Psychology*, 5(2), 310-332. <http://www.edu.org.com>.

Egbo, W. (2018). Attitude of secondary students towards guidance and Counselling services Edo state. <http://www.educatemind.tmp/meg.net>

Federal Republic of Nigeria (2013). *National Policy on Education*. Abuja: NERDC Press.

Gatua, S. (2020). Impact of Counselling services on students' behavior modification in social and emotional change in the selected public urban and rural secondary schools in Rift Valley province Kenya. *Journal of Psychology*, 5(2), 27-46. <http://www.edu.org.com>.

Iyela, B (2020). Guidance services utilized in secondary schools in Northern Nigeria. <http://www.scholar/ib.vtedui/ejour/ijev/1472/haynie/.html>

Kaita, D. (2018). Relationship between guidance services and academic performance of adolescents in Kachia local government area of Kaduna state. *GC Journal* 1(3), 88-107. [www.Counsellingworld.com](http://www.Counsellingworld.com)

Kuntu, G. (2020). Influence of individual inventory service on Islamic schools' students academic achievement in Uganda. <http://www.educatemind.tmcg.net>

Modo, S. (2019). *Basics of educational research*. Cape Town: Hierarchy publishing company.

Tenty, C. (2021). Improving academic achievement of high school student in Chicago. *GC Journal* 4(2), 230-251. [www.Counsellingworld.com](http://www.Counsellingworld.com)

Ward, S. & Murray, W. (2018) Guidance and Counselling services among secondary school students as coping strategy for improved academic performance. <http://www.scholar/ib.vtedui/ejour/ijev/1472/haynie/.html>