TEACHERS' AWARENESS AND CONSIDERATION OF GARDENER'S MULTIPLE INTELLIGENCE IN INSTRUCTIONAL PLANNING AMONG PRIVATE PRIMARY SCHOOLS IN ASABA, DELTA STATE

¹Adewunmi F. **AYO-VAUGHAN** & ²Florence B. **IGWENWANNE** ¹Department of Curriculum and Instruction ²Division of Professional Diploma in Education Federal College of Education (Technical), Asaba

Abstract

In an age where Social Studies need be re-positioned to address recurring societal problems it was established to solve over fifty years ago, this study was carried out to ascertain teachers' level of awareness and consideration of Howard Gardner's multiple intelligence theory in instructional planning in private primary schools in Asaba. The target population of this study comprised an estimate of 400 private primary school teachers. Two research questions and hypothesis guided the study. Simple random sampling technique was used to select 80 teachers from 10 private schools selected for the study. Data was collected with the use of a questionnaire tagged Teachers' Awareness and Consideration of Howard Gardner's Multiple Intelligence in Instructional Planning Questionnaire (TACHGMIIPQ). The study revealed that private primary school teachers are not aware of Gardner's theory on multiple forms of intelligence and they do not consider it when planning instruction. Also, the study found that years of teaching experience did not

influence teacher's awareness and consideration of the theory. The study recommended that there is the need for teachers to be ready to sponsor themselves and be sponsored for trainings to upgrade their knowledge on Gardner's Multiple Intelligence theory so as to effectively position implementation of curriculum contents for the new world we all intend to create.

Keywords: Curriculum Implementation; Forms of Intelligence; Instruction; Instructional Planning; Lesson Planning; Multiple Intelligence.

Introduction

Primary education is the education given in institutions for children aged 6 to 11 plus. It is also described as the foundation on which the educational system is built and therefore central to the success or failure of the entire education system. Some of the goals of Primary education in line with The National Policy on Education document, FRN (2013), are to inculcate permanent literacy and numeracy skills and to communicate effectively, lay a sound basis for scientific and reflective thinking, mould the character, develop sound attitude and morals in the child, and to develop in the child the ability to adapt to his changing environment (Enueme, 2006; Ayo-Vaughan, 2020).

Social Studies as a theme in National Values is one of the subjects currently taught at the primary school level to achieve these goals. This level of education is therefore crucial to producing learners with appropriate problem-solving skills the society needs. Ahmad (2016) stated that the current Nigerian national curriculum is activity-based and provides the framework for assessing what should be taught, how it is to be taught, and how learning outcomes should be. This is aimed at helping teachers to move away from the traditional "chalk and talk" and "minds-on" approaches to "hands on and learning by doing approaches" which has been widely acknowledged as suitable for pupils to do well and to develop based on their individual differences, practical skills needed in a sustainable learning process (Ayo-Vaughan, 2016; Ezurike & Ayo-Vaughan, 2020). However, TESSA, 2012 noted that one of the major weaknesses of the teaching profession in Nigeria is that once teachers complete their initial training, they hardly have the opportunity to continue to grow on the job professionally.

In a classroom, no two human beings are the same. We have innate differences in character, thinking patterns, physiology, desires, inclination and hobbies. It is the duty of the teacher to discover and fan to flame the individuality and uniqueness of each student hence the need to understand the intelligence theory. Gardner (1983) a Harvard researcher believed that culture defined intelligence too narrowly. He believed intelligence had more to do with capacity for problem solving. Accordingly, humans are intellectual beings who procure a core set of intelligences (Gardner, 1999). We learn and understand information in our own unique way.

However, the education system over the years, in its bid to produce learners that will be problem solving through various curriculum content taught, had tightly held on to the belief that intelligence was a single entity that was inherited (Gardner, 1983; Bowker, 2020). This way of thinking is still the paradigm in which most students are being taught today. Gardner changed the status quo when he propounded the multiple intelligence theory. Armstrong (1993) brings to light the true meaning of intelligences other than logical/mathematical intelligence in one of his books entitled 7 Kinds of Smart. He expounded that we have grown accustomed in the twentieth century to associating high intelligence to intelligence quotient (IQ) scores. He also maintained that intelligence is not measured only by an IQ test, but that it is the ability of a person to respond successfully to new situations and the capacity to learn from one's past experiences. Armstrong further pointed out that this should be the ideology reflected by teachers in instructional planning so that learners will end up developing appropriate sociocritical thinking and decision-making patterns suitable for problem solving beyond just retaining knowledge.

Thus, being aware and giving due consideration to Gardner's multiple intelligences theory can provide students with a better understanding of how they learn and even the learning materials created by the teacher (Bilash, 2009; Gardner 2020). These realities thus bring up the concept and importance of instructional planning.

According to Edozie (2013), instruction is the dualism between teaching and learning. It is the process of manipulating the environment of an individual or group of individuals in a planned manner to enable him/her emit desired behavior.

To implement the curriculum therefore, the process of instruction must be planned. Instructional planning is thus the process of creating objectives, instructional and assessment methodology in a bid to achieve stated classroom objectives. It is a systematic planning, development, evaluation and management of the instructional process based on principles of learning and instruction (Stepniak, 2019).

Consequent on the above, the current one-size-fits-all educational approach is limiting learners' potential to learn and be sustainably productive in societal development. If what Gardner claims about humans acquiring multiple intelligence is true and state assessments being limited to only the success of students that hold linguistic and logical-mathematical intelligence, there needs to be a complete change in the education system in which students are being taught, because students are not being efficiently assessed of their true knowledge (Gardner, 1983; Bowker, 2020). Gardner provided a means of mapping the broad range of abilities that humans possess by grouping their capabilities into eight categories: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and existential. Gardner believed that intelligences are galvanized by participation in some kind of culturally valued activity and that the individual's growth in such activity follows a developmental pattern (Gardner, 1993; Edozie, 2013). These developments therefore, led the researcher to examine teachers' level of awareness and consideration of Howard Gardner's multiple forms of intelligence in instructional planning in private primary schools.

Objectives of the Study

The general objective of this study is to determine the level of awareness and consideration of Howard Gardner's multiple forms

of intelligence in instructional planning in private primary schools in Asaba. Specifically, the study aims to:

- i. ascertain the extent to which private primary school teachers are aware of the concept of multiple intelligence;
- ii. determine in what ways private primary school teachers consider the application of multiple intelligence when implementing the curriculum in their classrooms;
- iii. determine if years of experience of private primary school teachers has any influence on level of awareness of the concept of multiple intelligence; and
- iv. determine if years of experience of private primary school teachers has any influence on level of consideration of multiple intelligence in implementing the curriculum.

Research Questions

- i. What is the level of awareness of multiple intelligence among private primary school teachers?
- ii. To what extent do private primary school teachers consider the application of the theory of multiple intelligence in instructional planning?

Hypotheses

Ho1: There is no significant influence of years of experience on private primary school teachers' level of awareness of the concept of multiple intelligence.

Ho2: There is no significant influence of years of experience on private primary school teachers' level of consideration of multiple intelligence in instructional planning.

Methods

The study adopted the descriptive survey research design. Descriptive research design was found appropriate for the study because it helped to systematically describe the phenomenon. This study was conducted in Asaba metropolis in Delta State which is located in the South-South geo-political zone of Nigeria. The preference of the area of the study was informed by the population of privately owned primary schools. The population of the study comprised an estimated number of 400 private primary school teachers with teaching experience ranging from one year and above. The study focused on primary school teachers because on their shoulders lay the educational foundation the learner needs to grow progressively in their all-round academic pursuit. Also, the research area is highly populated with children of private primary schools whose teachers will greatly benefit from an exposure to the multiple intelligence theory.

The researcher adopted purposive sampling technique to select a representative sample of schools for the study based on the conditions of: agreement to participate in the study, use of the official curricula and having teachers whose teaching experience range from a year and above. Eight teachers were randomly selected from ten private primary schools based on simple random sampling technique, using balloting without replacement procedure, making a total sample size of 80 respondents. A questionnaire tagged "Teachers' Awareness and Consideration of Howard Gardner's Multiple Forms of Intelligence in Instructional Planning Questionnaire (TLACHGMFIQ)" was used to collect data. It was rated on a 4-point scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). The questionnaire was made up of 15 items and divided into sections A and B. Section A elicited responses on demographic characteristics of respondents. Section B elicited responses on the research questions and hypothesis that guided the study.

The draft copy of the instrument was subjected to face and content validity by two research experts in the fields of Measurement and Evaluation and Curriculum. To determine the internal consistency of items within the instrument, the researcher administered the questionnaire to 20 teachers in private schools outside Asaba metropolis, with similar characteristics to the intended population of the study. Their responses were subjected to Cronbach's Alpha analysis and a reliability coefficient reliability of 0.86 was obtained indicating the reliability of the instrument. The researcher administered the research instrument to the respondents using on-the-spot method in their respective schools which lasted for two days. The 80 copies of administered questionnaire were duly responded to, retrieved and used for analysis. Descriptive statistics involving frequency count, mean and standard deviation and inferential statistics of One-way ANOVA were used answer the research questions and to test the two hypotheses stated at 0.05 level of significance respectively. The decision rule of 2.50 average mean rating response score was used for the descriptive statistics while the decision rule of when P-value is greater than the alpha level 0.05 (P>0.05), the tested null hypothesis is retained; but where the P-value is lesser than the alpha level 0.05 (P<0.05), the tested and the alternate hypothesis is accepted was used for the inferential statistics.

Results

Research Question One: What is the level of awareness of multiple intelligence among private primary school teachers?

Table 1: Mean and Standard Deviation Responses onthe Level of Awareness of Private Primary SchoolTeachers on the Concept of Multiple Intelligence

S/N	Statements	VHE	HE	LE	VLE	Mean	SD	Decision
1.	I am aware that Howard Gardner is the father of multiple forms of intelligence	16	9	16	39	2.03	1.19	Disagree
2.	The theory of multiple forms of intelligence is about learner's innate abilities.	14	20	23	23	2.31	1.07	Disagree
3.	Multiple intelligence can hardly be applied in the classroom	5	34	20	41	2.41	0.81	Disagree

22	A dan	E Anna	Variahan	0	El amarca a	р	Igwenwanne
ᇫ᠘	Ааежипти	F. AV0-	vaugnan	œ	Florence	Б.	igwenwanne

4.	All children are the same in terms of hobbies,	5	14	20	41	1.79	0.95	Disagree
5.	attitudes and intelligence Most children can learn better with a single teaching approach or	38	21	9	12	3.06	1.09	Agree
6.	methodology Each child has certain gifts and talents that can be applied by the teacher to enhance their	46	22	14	18	3.04	1.06	Agree
7.	learning A teacher's duty does not include discovering the innate abilities of the children in the	18	24	18	20	2.50	1.10	Agree
8.	classroom Only children that do well in Mathematics and English are regarded as intelligent in the classroom	34	9	9	28	2.61	1.35	Agree
	Grand Mean/SD	,		-		2.47	1.08	Disagree

Table 1 shows responses to teachers' level of awareness of Howard Gardner's theory of multiple forms of intelligence. It shows that respondents disagree with items 1-4 with mean scores of 2.03, 2.31, 2.41 and 1.79 which were below the mean score average of 2.50. This indicates that respondents are totally unaware of the theory of multiple intelligence. Items 5-8 which the respondents agree to with mean responses of 3.06, 3.04, 2.50 and 2.61 also indicates

that though respondents agree that each child has certain gifts and talents that can be explored by the teacher to enhance their learning, they are still totally unaware of the theory of multiple intelligence. Thus, the grand mean of 2.47 implies that respondents' level of awareness of the theory of multiple intelligence is very low. The grand standard deviation of 1.08 goes further to show that respondents were not far apart in their responses.

Research Question Two: To what extent do private primary school teachers consider the implications of the theory of multiple intelligence in instructional planning?

Table 2: Mean and Standard Deviation Responses onPrivate Primary Teachers' Level of Consideration ofHoward Gardner's Multiple Forms of Intelligence inInstructional Planning

S/N	Statements	VHE	HE	LE	VLE	Mean	SD	Decision
9.	Most teachers give full consideration to the theory of multiple intelligence when planning their lessons.	11	9	35	25	2.08	0.99	Disagree
10.	As a teacher, I mentally visualize my learners and their individual uniqueness while planning my lessons.	1	26	18	25	2.29	1.06	Disagree
11.	Most of my classroom activities are tailored to each learner's area of strength	12	21	11	36	2.11	1.15	Disagree

24	Adewunmi F.	Ayo-Vaughan	& Florence B.	Igwenwanne

 13. Most teachers score children's performance tasks. 14. Most teachers 28 20 20 12 2.80 1.08 Agree consider performance task scores as important enough to be added to continuous assessment tests and final result. 15 Not all 25 30 20 5 2.94 0.90 Agree children are excited about and interested in performance tasks tailored to their areas of multiple intelligence. Grand 2.35 1.07 Disagree 	12.	Most teachers engage learners in performance tasks like debates, oral presentations and project as a way of considering the multiple intelligence theory	12	21	12	35	2.13	1.14	Disagree
 14. Most teachers 28 20 20 12 2.80 1.08 Agree consider performance task scores as important enough to be added to continuous assessment tests and final result. 15 Not all 25 30 20 5 2.94 0.90 Agree children are excited about and interested in performance tasks tailored to their areas of multiple intelligence. Grand 2.35 1.07 Disagree 	13.	Most teachers score children's performance	14	15	14	37	2.08	1.17	Disagree
children are excited about and interested in performance tasks tailored to their areas of multiple intelligence. Grand 2.35 1.07 Disagree	14.	Most teachers consider performance task scores as important enough to be added to continuous assessment tests and final	28	20	20	12	2.80	1.08	Agree
Grand 2.35 1.07 Disagree	15	Not all children are excited about and interested in performance tasks tailored to their areas of multiple	25	30	20	5	2.94	0.90	Agree
							2.35	1.07	Disagree

Table 2 shows responses on the extent to which primary school teachers consider the multiple intelligence theory during instructional planning. Respondents disagree with items 9-13 with mean scores of 2.08, 2.29, 2.11, 2.13, 2.08 which are below the

mean score average of 2.50. This indicates that primary school teachers do not give full consideration to the theory of multiple intelligence when planning their lessons, selecting their teaching methods and instructional resources. Items 14-15 with mean scores of 2.80 and 2.94 which are above the mean score average of 2.50 reveals that most teachers consider performance task scores as important enough to be added to continuous assessment tests and final result and not all children are excited about and interested in performance tasks tailored to their areas of multiple intelligence. However, the grand mean score of 2.35 implies that the extent to which primary school teachers consider the multiple intelligence theory during instructional planning is very low. The grand standard deviation of 1.07 also reveals that respondents were not far apart in their responses.

Test of Hypothesis

H₀**1:** There is no significant difference in the level of awareness of the concept of multiple intelligence among private primary school teachers based on years of teaching experience.

Table 3: One-Way ANOVA of Mean Response Scores on Primary School Teachers' Level of Awareness of the Concept of Multiple Intelligence Based on Years of Teaching Experience

Source of Variation	Sum of Squares	df	Mean Square	F	p- value	Decision
Between Groups	97.515	3	32.505	.585	.627	Not Significant
Within Groups	4226.285	76	55.609			U
Total	4323.800	79				

= .05

Table 3 shows F-calculated value of .585 was obtained and a p-value of .627 at 5% (0.05) level of significance with degree of freedom between groups (df1) being 3 and degree of freedom (df2) within groups being 76. Since the p-value .585 is greater than the alpha level 0.05 (P>0.05), the tested null hypothesis is retained. Thus, there is no significant difference in the level of awareness of the concept of multiple intelligence among private primary school teachers based on years of teaching experience.

HO₂: There is no significant difference in the level of consideration of multiple intelligence in implementing the curriculum among private primary school teachers based on years of teaching experience.

Table 4: One-Way ANOVA of Mean Response Scores onPrimary School Teachers' Level of Consideration ofMultiple Intelligence in Implementing the CurriculumBased on Years of Teaching Experience

Source of Variation	Sum of Squares	df	Mean Square	F	p- value	Decision
Between Groups	99.262	3	33.087	.723	.541	Not Significant
Within Groups Total	3477.726 3576.987	76 79	45.760			Significant

= .05

Table 4 shows F-calculated value of .723 was obtained and a p-value of .541 at 5% (0.05) level of significance with degree of freedom between groups (df1) being 3 and degree of freedom (df2) within groups being 76. Since the p-value .541 is greater than the alpha level 0.05 (P>0.05), the tested null hypothesis is retained. Thus, there is no significant difference in the level of consideration of multiple intelligence in instructional planning among private primary school teachers based on years of teaching experience.

Discussions

The study revealed that the extent to which private primary school teachers in Asaba metropolis are aware of Howard Gardner's theory on multiple forms of intelligence is very low. This finding is in line with Felipe (2013) that teachers are not exposed to current educational trends and what is obtainable in other developed countries where the education system works and there is therefore the need for new trainings and seminars on new methods and techniques in preparing teachers for best practices in the global world.

The study also revealed that private primary school teachers in Asaba metropolis do not consider strengths, talents and natural inclinations of the pupils when planning their lessons. This finding is in line with Lathan (2021) in his research where he compared the pros and cons of teacher-centered learning. He stated that students may get bored, their minds may wander and they mostly miss key information in a typical teacher-centered learning environment. Furthermore, the use of the one-size-fits all learning method is prevalent among teachers.

Finally, the study revealed that there is no significant influence of years of experience on the level of awareness of the concept of multiple forms of intelligence and its consideration in instructional planning. This finding validates the study conducted by Ricvkin *et al* (2005); Stuhlman and Pianta (2009) that there is evidence to show that teacher's years of experience have little or no impact on student outcomes. However, it negates the findings of Rugai and Agih (2008) that showed a high relationship between teacher's experience and their job performance. The reason for this disparity may not be disconnected from the fact that previous studies did not really connect teachers' years of experience to the use of the theory of multiple forms of intelligence. It was only connected to job productivity/performance.

Conclusion

Nolen (2003) says that if teachers prepare their classrooms according to different intelligence areas and if they adapt their class

materials taking into consideration these different intelligence preferences, their students' achievements will have been supported and they will change into active participants. However, as the findings of the study has shown, primary school teachers in the private sector are not aware and do not consider Gardner's multiple intelligence theory in instructional planning and this does not speak well for the new world we intend to create through social studies which is one of the foundational subjects needed to mold the lives of the child into effective citizens.

Recommendations

The study recommends that State Ministries of Education, nongovernmental organizers and other concerned bodies should organize and sponsor mandatory continuous professional development activities for private primary school teachers to update their knowledge. In addition, the Ministry of Education at both federal and state levels should train education supervisors on multiple intelligence theory and consistently send them to private primary schools to ensure that teachers actually integrate these intelligences in instructional planning. This is to ensure teachers put the things they have learnt to practice so as to maximize learning and build a solid educational foundation in the pupils. Furthermore, school owners should try rewarding old but committed teachers with in-house sponsored trainings. This will ensure that such older teachers do not rest on their oars and become redundant in their comfort zones.

References

- Ahmed, A. H. (2016). Learner-centered instruction in English education: reality and expectations. *Arab World English Journal*. 7(1), 108-122.
- Armstrong, T. (1993). 7 Kinds of smart: identifying and developing your many intelligences. Plume.
- Ayo-Vaughan, A. F. (2020). Primary school teachers' perception and extent of usage of learner-centered methods in Asaba metropolis. *Social Science Education Journal*, 4(1), 41-48.
- Ayo-Vaughan, A. F. (2016). Effects of case study and puzzle-based learning

on students' achievement, attitude and civic competence in social studies and civic education (Unpublished doctoral thesis), University of Ibadan, Nigeria.

- Bilash, O. (2009). *Improve your classroom practice through action research – Become a researcher of your own instruction*. In Ihla Newsletter, Spring 2009. Retrieved from https://www.ihla.ca/ ihlaPagres/newsletter.htm
- Bowker, M. (2020). *Benefits of incorporating Howard Gardner's Multiple Intelligence theory into teaching practices.* (Unpublished Masters Project). California State University, Monterey Bay
- Edozie, G. C. (2013). *The fundamental of curriculum studies*. 2nd ed revised. Rupee-com Publishers & Coy.
- Enueme, C. P. (2006). *Education in Nigeria: A historical perspective*. Chembus Communication Ventures.
- Ezurike, C. P. & Ayo-Vaughan, A. F. (2020). Influence of teacher-centered and student-centered teaching methods on the academic achievement of post-basic students' in Biology in Delta State, Nigeria. *Teacher Education and Curriculum Studies*, 5(3), 120-124.
- Felipe, R. (2013). The importance of seminars and trainings in improving teacher's performance. Teacher III, Orion Elementary School Orion District. Retrieved from teacheressay.com
- FRN, (2013). National policy on education (6th ed.) NERDC.
- Gardner, H. (1983). *Frames of mind: theory of multiple intelligence*. New Horizon Basic Books.
- Gardner, H. (1993). Multiple intelligence. New Horizon Basic Books.
- Gardner, H. (2020). *The component of M.I.* Retrieved from https// www.multipleintelligencesoasis.org/th-componentss-of-mi.
- Lathan, J. (2021). *Teacher-centered vs student-centered (Pros & Cons)*. Retrieved from https://onlinedegrees.sandiego.edu/teacher-centeredvs.student-centered-learning
- Nolen, J. L. (2003). Multiple intelligence in the classroom. *Education*, 12 (1), 115-119.
- Ricvkin, S.G., Hanushek, E. A. & Kane, M. (2005). Teachers, schools and academic achievement. *Econometrica*, 73, 417-458
- Rugai, J. R. & Agih, A. A. (2008). Experience and qualification as correlation to teacher job performance in secondary schools in Bayelsa State. *African Journal of Education Research and Development*, 2(1) September, 2008.
- Stepniak, B. M. (2019). Instructional planning: an analysis of the second standard for Virginia's professional practice of teachers. Department

of Education, Hollins University. EDU 578: Language Acquisition & Reading II. Retrieved from https://stepnaik.step.hollins.edu Stuhlman, M. W. & Pianta, R. C. (2009). Profiles of educational quality in first grade. *The Elementary School Journal*, 109(4), 323-324 TESSA (2012). Basic classroom teaching methods and techniques. Manual for the retraining of primary school teachers. National Teachers Institute.