



UTILIZATION OF ARTIFICIAL INTELLIGENCE IN THE MANAGEMENT OF VALUE EDUCATION IN PUBLIC SECONDARY SCHOOLS IN RIVERS STATE.



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Abstract

The study focused on Utilization of Artificial Intelligence in the Management of Value Education in Public Senior Secondary schools in River State. The descriptive research design was adopted for the study, two research questions and two hypotheses guided the study, the population of the study comprised of 8142 teachers in public senior secondary schools in Rivers State with a sample of 382 130 male and 250 female teachers in line with taro yemen sampling techniques. The instrument used for data collection was titled Utilization of Artificial Intelligence in the Management of Value Education in Public Senior Secondary Schools in River state questionnaire (YAIMVEPSCQ). The validated instrument has a reliability co efficient of 0.79, the data generated via the instrument were analyzed to answer the questions using mean and standard deviation, whereas the hypotheses were tested using z- test statistical test at 0.05 alpha level. The findings of the study revealed that teachers awareness on the use of AI technologies in teaching value education in public senior secondary schools in River state is high with the aggregate mean score of 2.71 for female respondents and 2.55 for male respondents. Recommendations made among others included that; the government should formulate a comprehensive policy that will boast teachers training in AI tools, provide constant electricity, and integrate AI tools in value education. In addition, the ministry of education should liase with educational stakeholders to assist in enforcement of facility provision stipulations.

Keywords: Artificial Intelligence, Value Education, Management

Introduction to the Study

In the ever changing world, Artificial Intelligence (AI) has emerged as a transformative force in the educational sector. AI technologies do offer innovative tools and structure that can uplift teaching and learning experiences, making education more interesting, interactive, personalized, and efficient. However, it is imperative to highlight that AI can have significant impact in the teaching and management of value education fundamental aspect of secondary education which is aimed at inculcating moral, ethical, and civic values in students Okoroma (2020) as cited in (Wobo and Chukwu 2023).



In Nigeria, and particularly in Rivers State, public secondary schools face increasing pressure to uphold academic excellence while also nurturing socially responsible and morally upright individuals. However, the integration of AI into educational practices, especially in value education, is still at a developmental stage, hence educational administrators and planners remain either unaware or under-equipped to utilize AI tools effectively in their classrooms (Stie, 2024). As a result, there is a growing need to assess how well teachers are trained to understand and make use of AI technologies in delivering value-based education, that will instill ethical and core values on students. This study, therefore, stands to create awareness regarding the use of AI technologies for teaching value education and to determine the extent to which these technologies are being utilized in public secondary schools across Rivers and encourage more effective integration of AI in teaching values to the younger generation.

Value Education (VE)

Value education can be seen as the process in which values, ethics and moral principles that guides an individual in taking the right decision is learnt. If the core values are properly learnt and imbibed in an individual as a way of life, it enables the personality to live a life that worth's to be emulated and aidher to develop strong and moral compass which enables one to be informed and make reasonable choices as to live a responsible, fulfilling life and contribute immensely in her environment. Wobo and Chukwu (2023) insisted that value education is the best way to promote appropriate society norms and value, as it is an imperative measure to curb youth restiveness and up lift the societal values. Value education is paramount to everyone because, it is expected to guide and direct an individual to do the right thing inside and outside the classroom. it is an integral part of the curriculum that will uphold and oversee the upbringing of the total child (Wobo and Okafor 2018). No wonder Aja, Eze, Igba and Ukaigwe (2017) in Wobo (2023) highlighted that values like self-confidence and control, honesty, obedience, respect for one another, integrity and co-operation among peers are indispensable for effective integration in the society.

Wikipedia (2025) defined value education as the process in which people give moral values to each other. It is an activity by which individuals assist each other, not minding the differences in age. Powney (2025) sees it as a process that gives young people and youths an initiation into values, with the knowledge of the necessary principles and ideologies needed to relate with peers or people within an environment. Good (2025) insisted that it is the aggregate of all the processes in which an individual develops abilities, positive behaviour, in the society in which he lives. The researcher sees it as a means of learning about life and wisdom of life in a more systematic and scientific life through formal, non-formal, informal and special education.

Brahma Kumaris world spiritual university incorporated twelve based values in education as; unity, peace, happiness, hope, humility, simplicity, trust, freedom, co-operation, honesty, courage and love which invariably formed the school approach.

According to Arishu (2025) value education plays a vital role in a society where moral problems and emotional gaps are on the increasing height. It therefore prepares an individual with the necessary skills needed for ethical living, emotional strength and social balance.

Reasons for Teaching Value Education in Public Secondary Schools

In the modern world, the teaching of value education in public secondary schools has become imperative due to the increasing need for character development, responsible citizenship, and ethical behavior among youths. Value education fosters the holistic development of learners by equipping them with the moral compass necessary to navigate the complexities of life and contribute meaningfully to society. It raises emotional balance, thereby teaching students to regulate and become self-aware as to form a more conductive inter personal relationship.

One of the primary reasons for teaching value education is to enhance character formation. Students at the secondary school level are at a developmental stage where identity and values are being shaped. Integrating value education helps instill honesty, integrity, respect, and empathy (Shockden,



Abdulrahman, & Dogara, 2023). These values guide students in forming healthy relationships, making ethical decisions, and developing a sense of accountability.

Secondly, value education promotes responsible citizenship. It educates students about their civic duties, including respect for laws, participation in community development, and national loyalty. This is particularly important in nations like Nigeria, where curriculum reforms are being implemented to emphasize civic responsibility, practical skills, and moral instruction (Federal Ministry of Education, 2024).

Moreover, value education contributes significantly to the mental and emotional well-being of students. A strong sense of belonging and emotional resilience, which stems from value-based instruction, enhances academic motivation and social interaction. Dolan and Boateng (2023) found that students with a sense of moral purpose and school belonging demonstrated better emotional regulation and reduced risk-taking behaviors.

Value education also supports students' academic performance through future-oriented thinking. When students understand the value and purpose of education, they are more likely to set long-term goals and work diligently toward them. You and Kim (2024) revealed that students' value beliefs about education significantly predicted academic achievement, as they were more motivated and committed to learning, thereby eliminating bullying, violence and discrimination. Schools that adopt value education-based learning experiences a low degree of aggressive behaviours, as they learn to respect each other, tolerate each other and avoid violence, as students are highly honored, protected, accepted and valued.

Furthermore, across the African continent, the integration of values into education has been linked to improved student outcomes and national development. Ofori and Moyo (2024) emphasized that value-based reforms, when embedded in the curriculum, empower learners to become ethical leaders, productive citizens, and socially responsible individuals.

Artificial Intelligence (AI)

Artificial Intelligence (AI) is the science or the field that transforms the human potentialities to machine as to perform tasks that are ordinarily done by man.

It is the capacity given by humans to machine to memorize and learn from experiences, to think create, speak, judge as to make decisions. University of Cincinnati (2025) see AI as the ability of machines to perform tasks requiring human intelligence such as learning, reasoning, and problem solving, using technologies like neural networks and machine learning. The researchers see it as a recent technology that imitate the human mind. AI is not magic powers, it is an extra ordinary amplifier and accelerator that do add speed effectively and seems very accurate (Andreas 2019). AI amplifiers whatever is applied to it be it good or bad ideas and practices. Peter (2020) maintained that AI is neutral but always in the hands of people who are not neutral, however AI and biotech are seen as an avenue to change the world in the nearest future, hence the need for man to restructure and change himself for a better future. However, to be relevant and adapt to the ever-changing world, we need to emphasize on the power of learning, knowing that it is a continuous process, that will shape man to be economically and socially balanced as to adjust and reinvent himself using AI as it can give ownership on what to learn, how to learn, where to learn and when to learn. No wonder Andreas (2019) insisted that AI can make learning easier as to suit one's personal learning style, as well as allowing the learner to learn at his or her pace knowing that AI as a modern technology in the 21st century are better than what any traditional classroom setting can possibly do.

According to Lin and Wu (2022) and UNESCO (2021), AI is a key player in changing education. It can handle big data, automate tasks, and provide tools for inclusive learning. AI helps make education more effective and fairer. As public secondary schools adapt to the digital age, AI's role becomes more vital and enriching.



Challenges inhibiting AI teachers

The integration of Artificial Intelligence (AI) in value education delivery is hindered by several challenges. Despite AI's potential to transform education, various obstacles impede teachers' utilization of this technology, as noted by UNESCO (2021), UNICEF (2021), and Wobo (2018). The key challenges includes:

Limited awareness and understanding of AI: Many teachers lack familiarity with AI and its practical applications, rendering them unequipped to effectively integrate AI into their teaching practices.

Inadequate training and professional development: Pre-service and in-service teacher training often neglect digital competencies, emphasizing the need for targeted training to facilitate effective AI use in the classroom.

Power supply issues: Reliable power supply is a prerequisite for AI adoption, yet many states in Nigeria, experience epileptic power supply, erratic power supply, and complete power failures.

Limited internet connectivity and data access: AI requires strong data platforms and high internet connectivity, which can be lacking in some areas, hindering AI's potential benefits.

Infrastructural deficiencies: The absence of computer laboratories, smart classrooms, and digital learning platforms limits AI integration and adoption, discouraging teachers from innovating and embracing new practices.

Lack of curriculum directives: The absence of clear curriculum guidelines makes it challenging for teachers to align AI use with learning objectives, highlighting the need for strategic planning and policy development.

Inadequate funding and investment in AI infrastructure: AI technologies require significant investment for procurement, maintenance, and training, yet poor budgetary allocation for technology hinders digital learning expansion (Federal Ministry of Education, 2020).

Incorporating Value Education in Artificial Intelligence.

We are in a modern world which is full of complexities where all things will soon be digitized and automated knowing that the future is at the pace of pairing AI with cognitive, social, emotional skills and human values (Andreas 2019) it is our utmost desire, imagination and sense of responsibility to allow value education to harness AI as to shape our world for a better tomorrow (Wobo and Chukwu 2024). Derek and Jason (2025) emphasized that the global rank of AI in the educational market is anticipated to grow from \$85.18 billion in 2024 to \$112.3 billion in 2034, while major headlines highlighted AI's potential to automate educational tasks, compelling narratives insist on how values can be incorporated in AI to establish and inculcate societal norms among scholars.

Moreover, value education can be incorporated in to AI by designing machines that will promote ethical decision making, foster empathy among peers as well as encouraging effective and efficient use of the recent technology. These involves;

Incorporating ethical AI development, this should be designed to capture ethical principles considering fairness, transparency, accountability as well as promoting social responsibility and human value Akgun and Greenhow (2022).

AI-Powered Educational Resource, AI should direct students to use different perspectives to brainstorm as to think critically concerning the ethical implication of the recent technology: it should equally consider leaving experiences to suit individual needs, providing resources and activities that will promote peace, respect, truth (UNESCO, 2024).

Teaching Critical Thinking: This is a vital means of incorporating value education on AI, it aid scholars to analyze information, evaluate evidence and make informed decision as well as helping students to question AI outputs, implication and deployment as to foster creative problem solving skill.

Collaboration and human thinking approach: This should be seen as an alternate human measure and not as a replacement, hence students and teachers should endeavor to collaborate with the AI automated computer machine system effectively, teachers should be trained on how to integrate AI into the classroom more effectively and ethically by incorporating the strategies. Administrators and educational planners can promote AI for positive values and encourage their students to use it.

Statement of the problem

The advancement of Artificial Intelligence (AI) has brought about remarkable changes in the field of education, providing new opportunities to improve teaching methods, promote learner engagement, and enhance educational outcomes. One critical area that can benefit from AI integration is value education, which aim is to instill moral, ethical, and civic values amongst students. Despite the growing global adoption of AI in education, the extent to which these technologies are understood and utilized by teachers in the context of value education remains uncertain, particularly in secondary schools in Rivers State, Nigeria. The problem of the study therefore is to address the factors inhibiting the awareness and utilization of AI technologies among teachers which could significantly affect the effectiveness of value education delivery.

Objectives of the study

To find out the level of awareness among teachers on the of use of AI technologies for teaching value education in public senior secondary schools in Rivers state

To find out the level of utilization of AI technologies among teachers in public secondary schools in Rivers state.

Research questions

What is the level of awareness among teachers on the use of artificial intelligence technologies for teaching value education in public senior secondary schools in Rivers state?

What is the level of utilization of AI technologies among teachers in Public senior Secondary Schools in Rivers State.

Hypotheses

There is no significant difference between the mean score of male and female teachers on the level of awareness among teachers on the use of AI for teaching value education in public senior secondary schools in Rivers State.

There is no significant difference on the mean of male and female teachers on the level of utilization of AI technologies among teachers in public senior secondary schools in Rivers State.

Theoretical Framework

This study is anchored on Technological Pedagogical Content Knowledge (TPACK) framework, developed by Mishra, P. and Koehler, Mathew in 2006, is a valuable theoretical foundation for understanding the complex relationships between technology, pedagogy, and content knowledge in teaching, with three key components, Content Knowledge (CK) this refers to the subject matter or content that teachers are teaching, such as moral values like honesty, empathy, and integrity. Pedagogical Knowledge (PK) this oversees the methods and practices of teaching, including discussion, field trips, debates, and practical measures to impact values. Lastly technological Knowledge (TK) this Involves the use of technological tools, such as AI-powered chatbots and interactive apps, to support teaching and learning. Moreover, when the three components overlap, teachers can effectively integrate technology, pedagogy, and content knowledge to create rich learning experiences. In this study, the overlap enables teachers to:

Understand the moral values they are teaching (CK)

Use effective pedagogical methods to impact those values (PK)

Leverage AI tools and technologies to support learning (TK)

The TPACK framework highlights on the importance of teachers being proficient in using technology to support teaching and learning. By integrating AI tools and technologies, teachers can create engaging and interactive learning experiences that promotes student learning and achievement. The TPACK framework provides a valuable theoretical foundation for understanding the complex relationships between technology, pedagogy, and content knowledge in teaching. By applying this framework, teachers can develop the skills and knowledge needed to effectively integrate technology into their teaching practices and create rich learning experiences for their students.

Method of the Study

The design of the study is a descriptive survey design because value education and AI is an ongoing phenomenon in public senior secondary schools in Rivers State. The study addressed two (2) research questions and tested two hypotheses, the population of the study consisted of 8142 teachers in public secondary schools in Rivers State (Rivers State School board, 2024). The sample of study is made up of 382 public secondary school teachers in Rivers State in line with Taro Yemen sampling technique. Questionnaire titled utilization of AI technologies in the management of value education in public secondary schools in Rivers State (UAITMVEPSQ).

The instrument was designed to have two sections, the first elicited information from the respondents on their locations, the second was designed to have 12 items with response option on strongly agree (4), agree (3), disagree (2), and strongly disagree (1) respectively.

S/N	Description	Mean	SD	Decision	Mean	SD	Decision
	I am aware that AI technologies support value education.	2.90	0.91	A	2.80	0.87	A
	I often find it difficult teaching value education with AI tools.	3.20	0.95	A	2.90	0.85	A
	I am familiar with chatGPT for classroom use.	2.97	0.90	A	2.68	0.90	A
	I have received training using AI for value education	2.04	0.63	D	1.90	0.71	D
	my school promotes learning about AI in moral instructions.	2.51	0.80	A	2.53	0.84	A
	I can identify AI tools suitable for teaching values.	2.62	0.77	A	2.50	0.69	A
			0.83				
	Aggregate	2.71			2.55	0.81	

Items with serial number 1 to 6 was used to elicit responses on the teacher's level of awareness on the use of AI technologies for teaching value education in public senior secondary schools in R/S while item 7 to 12 was used to elicit information on the level of utilization of AI technologies among teachers in secondary schools in Rivers State. The instrument was validated from the department of educational management Rivers State University.

The reliability of the instrument was established at 0.79 coefficient using a Cronbach alpha. The research questions were answered using mean and standard deviation while the hypotheses were tested using z-test at 0.05 level of significance, items that scored above 1.96 were rejected while those below 1.96 were accepted

Result and Discussion

Table 1

Level of awareness among female and male teachers on the use of AI technologies for teaching value education in Public Senior Secondary Schools in Rivers State

Table 1

In table 1 above, examined the level of awareness among teachers on the use of AI tech for teaching value base education. In item one; the male & female teachers indicated that they were aware that AI technologies supports value education (2.90; 2.80). in item 2, the male and female respondents agreed that they often find it difficult teaching VE with AI tools. As revealed in their responses means scores of 3.20 and 2.90 respectively. However, the responses in item 4 which sought to determine if the teachers have received AI training for value education was disagreed (2.04; 1.90). The aggregate mean scores of 2.71 for female respondents and 2.55 for male respondents are higher than the criterion mean of 2.50; this implies that the level of teachers awareness on the use of AI technologies in teaching value education in public secondary schools in Rivers State is lo

Table 2

Level of utilization among female and male teachers on the use of AI technologies for teaching value education in Public Senior Secondary Schools in Rivers State.

S/N	Description Female/Male	Mean Female	SD	Decision	Mean Male	SD	Decision
	I regularly use AI tools to support teaching aids	2.33	0.87	A	2.00	0.34	D
	I do apply AI application like virtual tutors	2.20	0.67	A	1.96	0.70	D
	I use AI tools to assess students understanding behaviour	1.58	0.64	D	1.61	0.92	D
	Integrate AI technologies into value-based lessons	2.69	0.77	A	2.53	0.64	A
	I use AI tools to prepare and review value education.	2.78	0.84	A	2.67	0.59	A
	I do use AI platoons to provide feedback students character development.	2.40	0.79	A	2.46	0.80	A
		2.33	0.76	A	2.20	0.75	A
	Aggregate						

Table 2

Above, presented the level of utilization of AI technologies among male and female teachers in Public Senior Secondary Schools in Rivers State.

In item 1 and 2 above the female teachers agreed that AI technologies are been utilized in Public Senior Secondary Schools in Rivers State with mean scores of 2.33 and 2.20 while the male teachers disagreed with mean scores of 2.00 and 1.96. In item 3, both the female and male teachers disagreed on the level of utilization of AI technologies with mean score of 1.58 from the female and 1.61 from the male.

However, items 4,5 and 6, were agreed by both female and male teachers with means scores of 2.69, 2.78, 2.40 for female and 2.53, 2.67 and 2.46 for male respectively.

The aggregate mean score of female respondents is 2.33 and male 2.20 which means that is lower than the criterion mean of 2.50, which means that the level of utilization of AI technologies among teachers in Public senior Secondary School is higher.

Table 3
Hypothesis1

Hypothesis 1									
S/N	Description n		$\bar{X}$	SD	DF	T cri	T cal	Sig Level	Decision Rule
	Female	250	2.71	0.83	380	1.96	1.94	0.05	Not Significant
	Male	132	2.55	0.81					
									HO accepted

Table 3 revealed that at 0.05 level of significant and 380 degree of freedom the value of T critical was 1.96 and this value T.cal was 1.94 which is below 1.96. therefore, the null hypothesis is accepted.

Table 4
Hypothesis 2

Hypothesis 2									
S/N	Description	n	$\bar{X}$	SD	DF	T cal	T cri	Sig Level	Decision Rule
	Female	250	2.33	0.76	380	1.60	1.96	0.05	Not Significant
	Male	132	2.20	0.75					
									HO accepted

Table 4:

revealed that at 0.05 level of significant and 380 of freedom, the value of t-critical was 1.96 and the value of t-cal was 1.60 which is below 1.96, therefore the null hypothesis is accepted.

Discussion of findings

Generally, the findings of the study revealed that both male and female teachers in public Senior Secondary Schools indicated that they were aware that AI technologies supports value education. The findings indicated that female teachers agreed that AI technologies are been utilized in public Senior Secondary Schools with mean of 2.33 and 2.20 while the male teachers disagreed with the mean 2.00 and 1.96

Conclusion

The utilization of AI for managing value education in Rivers State's public secondary schools is still in its formative stages, that holds considerable promise and capacity building among teachers, AI can be served not only as a tool for academic improvement but also as a strategic instrument for nurturing morally responsible and socially conscious learners in the 21st century.



Recommendations

Teacher training institution should integrate AI literacy and value-based digital pedagogy into both pre-service and in-service teacher education curricula. Educators should be adequately trained on how to apply AI tools to support character formation, ethical behaviour and moral instruction. The Rivers State Ministry of Education, in collaboration with relevant stakeholders, should formulate a comprehensive policy that promotes the integration of AI into classroom teaching, with specific emphasis on value education as this will provide guidelines on ethical AI use.

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