



Modern Learning Approach in The Educational Sector: Bridging The Gap in Education For Sustainable Future.

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ABSTRACT

Modern learning has become the new normal with the introduction of Artificial intelligence and E-learning apps and technologies such as Augmented Reality & Virtual Reality solutions, Micro learning, Big Data Analysis, Cloud Services, Personalized Learning and others. Modern learning is a new way of teaching and learning which are nowadays rather technological and different from the traditional classroom-based learning. These techniques which are increasingly applied make learning more active, creative and contemporary. This paper presents modern learning as a tool in bridging the gap in education for sustainable future. The study was conducted in three major local government Areas of Rivers State Nigeria. The study adopted the descriptive survey research design; the population of the study comprised of adults in Bonny, Obio-akpor and Phalga Local Govt areas of Rivers State. A population of two hundred respondents constitutes the study using the simple random sampling technique. The primary data was used as a source of data collection and descriptive statistics design was employed for the data analysis. Result of findings reveals that seventy five percent of the study population was able to further their education and acquire higher degrees using the modern learning approach. The study concludes that modern learning is the new phase of education, bridging the educational gap between young and old and building a sustainable future. The study recommends that government should maximize resources and tech facilities that will aid modern learning in the society and also make policies that will encourage modern learning among citizens

Keywords: Modern learning, educational sector, sustainable future, Artificial intelligence, E-learning.

INTRODUCTION

Throughout history, education has been a teacher student interaction in which knowledge flows from one person to another (Pepple I.E., 2026). This is still the standard but a lot of technologies are being launch to challenge this approach. The most significant of these is artificial intelligence along with related technologies such as neutral intelligence along machine learning. With these technologies, developers are beginning to build applications that can collect, sort and organize information automatically, essentially producing encyclopaedia of knowledge using publicly available information. These tools are also being used to spot which topics learners struggle with, to identify those who need additional help and to provide personalized content plans at the click of a button. Artificial intelligence is already being used in a heap of online learning platforms including Quizet, Duolingo Querium each of which uses AI to deliver tailored content to students without the need for any human involvement. Many of these platforms also use spaced repetition learning systems and artificial intelligence powered chat bots to help with queries and ensure retention, helping to maximize efficiency. The tremendous potentials of artificial intelligence, not only in the education sector but also in administration, governance and multinational companies has seen an explosion in corporate interest and is now rank as the fourth most desirable skill for companies in 2020 (Simon Moser, 2021).

Rapid digital transformation is disrupting every sphere of life. Today online education has advanced so much that it improves professional skills to help workers find better jobs or even start earning on their own. Self-starters can leverage e-learning technology to learn upskill in medical fields, launch their own business and acquire university and professional degrees. While teaching can be based in or out of the classrooms, the use of computers and the internet form the major component of modern learning. Prior to this time, e-learning was



not accepted wholeheartedly as it was assumed that the system lacked the human element required in learning. However, with the rapid progress in technology and the advancement in learning systems, coupled with the outbreak of the COVID 19 Pandemic, it is now being embraced by many countries of the world. The introduction of computers was the bases of this revolution and with the passage of time, as we get hooked to smartphones, tablets and the likes, these devices now have an important place in the homes and classrooms for learning. Books are gradually getting replaced by electronic educational materials like optical discs or pen drives. Knowledge can also be shared via the internet which is accessible 24/7 anywhere and anytime.

BACKGROUND OF THE STUDY

The background of this study therefore is to examine modern learning approach that is gradually replacing the traditional way of leaning and acquiring knowledge, challenges and recommendations in the educational sector of Rivers State.

Statement of the problem

Modern leaning approach has become a global phenomenon and gradually replacing the conventional method of learning in the education sector. However, the people of Rivers state are withdrawn and hesitant to leverage on this method of learning to enhance their educational journey.

Objectives of The Study

- i) To emphasize the significance of modern leaning in the education sector
- ii) To identify modern learning approach as a global trend
- iii) To evaluate modern learning approach in bridging the gap in education in Rivers State.

Research Questions

- i) What is the significance of modern learning approach in Rivers State?
- ii) What is the effectiveness of modern learning in bridging the gap in education?
- iii) How can modern learning sustain the future of education in Rives State?

LITERATURE REVIEW

Conceptual Framework

Modern learning approach is a system of leaning that involves computer learning, machine learning, E-learning, Artificial Intelligence and other advance technologies in education and learning (Pepple I.E, 2026). It involves the use of electronic and internet devices that can be self-operated. These technologies have a long history and are constantly evolving. Artificial Intelligence for instance, has been widely use in education as it opens new possibilities and challenges in educational practices confirmed that AI technologies impact teaching and learning both positively and negatively in the education sector (Rathore, A.A et al.). Modern learning is a modern way of teaching which are nowadays rather technological and different from the traditional classroom-based learning. These techniques which are increasingly applied, make learning more active, creative and contemporary. Modern learning is important because it is flexible and accessible; it is engaging, personalized, collaborative, effective and a lifelong learning approach regardless of age.

Modern learning incorporates the e-learning method. E-learning is not new to the educational sector. However, the outbreak of COVID 19 has fuelled schools need to leverage the technology platforms to drive learning initiatives. There is heightened demand for schools to provide learning solutions to students using online platforms as the advantages far out weight the disadvantages³. In simple terms, e-learning or online learning is the act of learning or educating via digital resources such as software programmes, mobile devices and the internet (trueeducationpartnerships.com). Traditional classroom training days are slowly coming to an end due to speed internet and technology advancement. The pandemic has grown the importance of e-learning globally.



E-learning is so ubiquitous and massive that it's difficult to articulate a brief outline that indeed does justice to it. Unlike the conventional chalk and board teaching methods, online learning makes learning convenient, where lessons can be accessed remotely from anywhere. E-learning is a fantastic way to learn new skills, acquire degrees, get professional certifications, expand one's horizon and access learning courses at a much cheaper rate than one might do otherwise – all from the comfort of your home. It is a type of learning conducted digitally via electronic media, typically involving the internet. It can be accessed via most electronic devices including a computer, laptop, tablet or smart phones, making it a versatile and easy way for learners to learn wherever they are. E-learning resources come in a variety of forms from software programmes and digital courses to interactive online platform and apps. Some common methods of e-learning are: Digital materials – e-learning can be carried out via the consumption of videos, PDF documents, slideshow and word documents. Thanks to the availability of these resources, it's incredibly easy for anybody to teach themselves a new skill at their own pace. Online courses – they are often provided by Learning Management Systems (LMSs) and allow learning material to be delivered at a steady rate, organised into sections to make it easier for the learner. They often come with interactive materials to allow the learner to test and apply their own knowledge. Popular online providers include Skillshare and Udemy⁸. Virtual Tutoring – thanks to the internet, private tutors are no longer as expensive as they once were. Thanks to websites like MyTutor and TutorHub, it's now easy to find online tutors for any subject at an affordable rate. Lessons are completed via video communication platforms like Skype and Zoom. E-learning has made it possible for lots of older folks to acquire high school degree thereby changing their educational status.

Key Benefits of Modern Learning for Students

Modern learning integrates technology and other original advancements to promote critical thinking and essential skills. It transforms the way students learn, think, understand, interpret, and prepare for the future. Modern learning emphasizes engagement, adaptability, and creativity rather than rote memorization. Let's look at the following benefits of modern learning:

1. Interactive and engaging learning methods

- Modern learning provides engaging and interactive methods shifting from the passive world.
- It includes multiple resources such as videos, exhibitions, and animations rather than solely relying on textbooks and lectures.
- To keep students motivated, it interacts with gamification techniques, interactive exercises, and quizzes.
- It brings forward real-world scenarios that enhance the understanding between students through project-based learning.
- It incorporates flipped classrooms to encourage students to learn at their own pace.
- It provides access to the online before engaging in discussions on problem-solving activities.

2. Development of critical thinking and problem-solving skills

- Modern learning prioritizes analytical skills, unlike traditional education which focuses on broad memorization.
- It allows students to question, evaluate, and interpret the information in their understanding rather than accepting it passively.
- It enables students to develop independent opinions by conducting debate sessions, open-ended assignments, and case studies.
- It emphasizes STEM education to logically reason and solve problems.
- It provides different perspectives for students living beyond conventional solutions through global resources.
- It prepares students for real-world challenges, enhancing their academic performance with real-world scenarios.

3. Personalized and flexible learning experiences



- Modern education recognizes the unique learning style of each student and offers a personalized learning experience.
- It enables students to understand their strengths and weaknesses and provides tailored content accordingly.
- It enables students to learn at their own pace by providing online courses and e-learning platforms.
- It combines personal and online education through hybrid learning models ensuring accessibility.
- It provides additional support for students with different learning abilities.
- It enhances academic confidence and a deeper understanding of subjects through personalized and flexible methods.

4. Integration of technology in education

- Modern learning incorporates technology to make learning more efficient, accessible, and enjoyable.
- It collaborates with various digital tools and AI tools to enhance the learning experience.
- Modern learning provides immersive learning by including virtual reality and augmented reality programs to explore historical sites and conduct virtual experiments.
- The cloud-based resources are made accessible for the students to enable seamless integration of various studied materials.
- Modern learning with the use of technology also prepares students for the digital-driven world.

5. Focus on practical and skill-based learning

- Unlike conventional education which emphasizes theoretical memorization, modern education emphasizes practical knowledge particularly.
- It enables students to gain real-world experience through vocational training, industry collaborations, and internships.
- It encourages innovation and problem-solving skills through entrepreneurship programs.
- Modern learning plays an important role in fostering soft skills, financial literacy, and coding.
- It develops the competencies within students beyond basic academics.
- These enable them to be job-ready and competitive in the workspace for future careers.

6. Better collaboration and communication skills

- Based on today's professional world, modern learning promotes effective communication and teamwork abilities.
- Through group projects, discussions, and peer mentoring, it promotes collaborative learning.
- Modern learning exposes them to diverse perspectives, enabling students to work with peers from different parts and perspectives of the world.
- It enables students to articulate their ideas confidently, clearly, and concisely through diverse presentation programs, debates, and extracurricular activities.
- They encourage students to navigate social interactions and resolve conflicts through collaborative and teamwork experiences.

7. Encouragement of Creativity and Innovation

- Modern learning encourages students through diverse subjects to explore their ideas that are beyond conventional boundaries.
- They are encouraged to experiment and range from unique solutions rather than just memorizing facts.
- Through various integration programs such as arts, design, thinking, and STEM activities, students are nurtured with creativity.
- Diverse programs like entrepreneurship programs, coding challenges, and project-based learning promote innovation.
- Students are made to step out of their comfort zone and enable them to take risks and make mistakes to learn from them.



- They are fostered with an innovative mindset that helps them become original thinkers and problem solvers.

8. Emphasis on emotional intelligence and well-being

- Modern learning emphasizes that academic success alone is not the overall growth.
- It highlights that mental well-being and emotional intelligence are very important to improve both academic and personal lives.
- It convenes various programs to foster self-awareness, empathy, and resilience.
- It includes mindful sessions and stress management techniques for students to cope with their personal or academic pressures.
- With a collaborative learning environment, modern education nurtures emotional intelligence through constructive communication, active listening, and teamwork.
- It prioritizes developing emotional resilience to ensure students improve their learning.

9. Global exposure and multicultural learning

- Modern learning exposes students to global perspectives and cultural awareness.
- It makes the education and curriculum more interconnected to access the global educational content to broaden the perspectives.
- It fosters inclusivity and open-mindedness by making them learn about different cultures, traditions, and values.
- It enables students to communicate with peers through various language learning apps in global classrooms.
- It makes global education adaptable to different environments and social settings through multicultural learning.

10. Better career preparation and future readiness

- Modern learning is well known to focus on career readiness for the students.
- It primarily emphasizes practical skills rather than just theoretical knowledge.
- It ensures students are well-equipped with the skills required in the ever-evolving job market.
- Through relevant courses, internships, workshops, and mentorship programs, it bridges the gap between academics and employment.
- It prepares students for real-world challenges by fostering them with soft skills such as leadership, networking, and adaptability.
- Modern learning provides career counseling services, mock interviews, and resume-building workshops, enhancing employability and success.

Theoretical Framework

The study is underpinned by Richard Mayer's **Cognitive Theory of Multimedia Learning**

According to Mayer (1997), the cognitive theory of multimedia learning focuses on how people learn through various sets of media which is a subject very fitting in the world of e-learning. The theory puts forth three important cognitive processes that are necessary for meaningful learning. These are selecting, organizing and integrating. Selection of words and pictures is the first step of learning; the learner concentrates on perceiving relevant words and images from the material being presented. After selecting pertinent data, the learner mentally organizes the data into logical verbal models and visual representations. Finally, these two sets of representation are then integrated with each other and assimilated into prior knowledge. In summary, words and pictures presented to the learner through multimedia are processed along two discrete, non-contradictory channels. These are the auditory and visual channels where sensory data enters via the eyes and ears. This is also the stage where words and images are screened and selected. They then enter the working memory where the second step occurs allowing data to be organised into a verbal and visual model. Note that only a few



chunks of data can be processed at a time in working memory, limiting the learner's capacity to absorb large amounts of data all at once. After verbal and visual models are established, these are then integrated with each other and incorporated into existing knowledge. This step occurs within the working memory after each section of multimedia instruction presented to the learner.

METHODOLOGY

The study was conducted in three major local government Areas of Rivers State. The study adopted the descriptive survey research design; the population of the study comprised of adults in Bonny, Obio-akpor and Phalga local government areas of Rivers State. A population of two hundred respondents constitutes the study using the simple random sampling technique. Data were collected through structured questionnaire and analysed using descriptive statistics. The questionnaire item is – Modern Learning approach as a tool in bridging the gap in education for sustainable future; respondents were rated using a 5-point Likert scale.

RESULT

Table 1: Questionnaire Distribution and Retrieval

Questionnaire distributed	Retrieval	Useful	Percentage
200	180	177	88

Survey Data, 2026.

Table 1 above shows the distribution and retrieval of questionnaire: 200 copies of questionnaire were distributed; 180 copies were retrieved but only 177 copies were useful at 88% rate.

Figure 1: Demographic characteristics of respondents

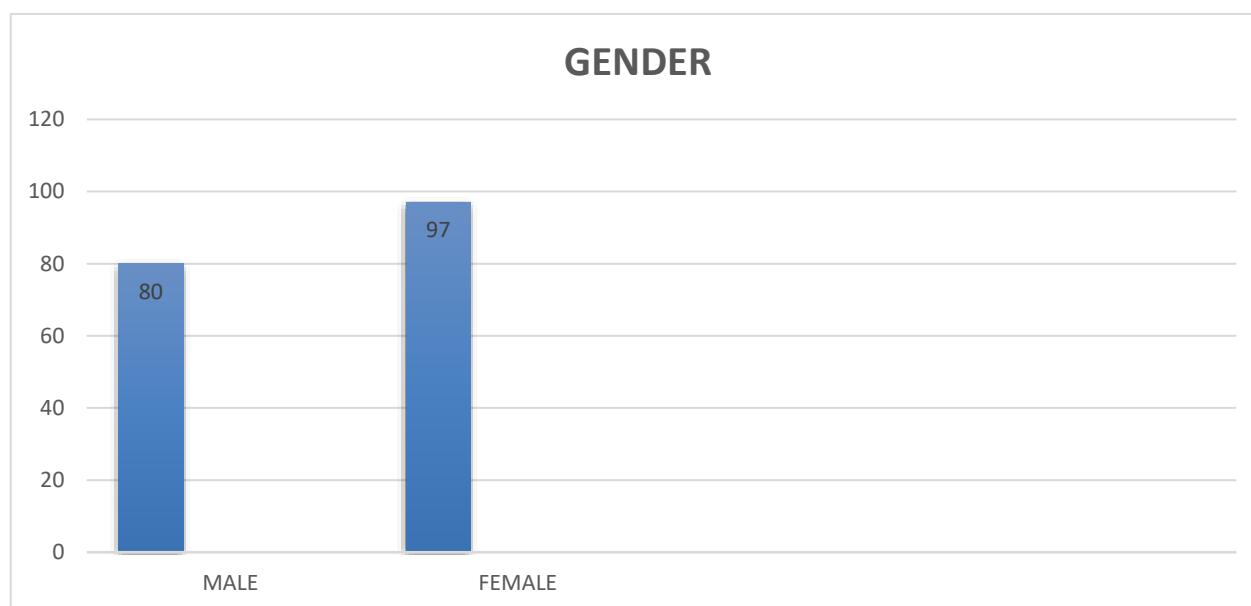


Figure 1 above shows the gender of the respondents. 80 (40%) of the respondents were male while 97 (48.5%) of them were females. This shows that majority of the respondents were females.

Data Analysis

Research Question one

What is the significance of modern learning approach in Rivers State?

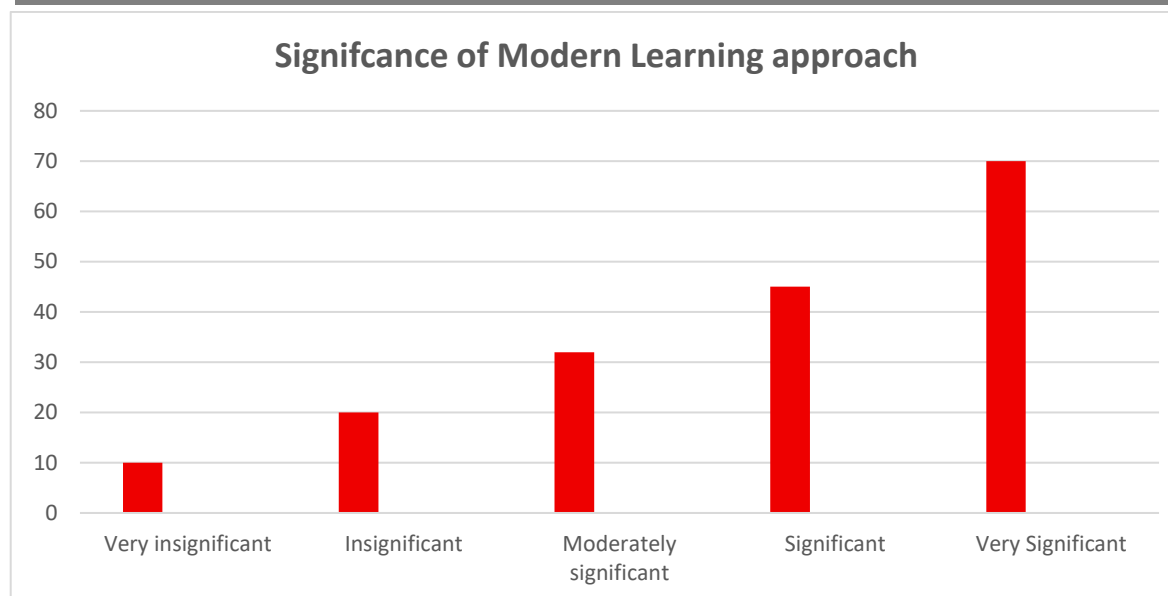


Figure 2: The figure above shows the level of significance of modern learning approach in Rivers State. From the 177 respondents, it is obvious that 10 (5%) favoured very insignificant, 20 (10%) favoured insignificant, 32(16%) favoured moderately significant, 45 (22.5) favoured significant while 70 (35%) favoured very significant. This means that modern learning is very significant in Rivers State.

Research Question two

What is the effectiveness of modern learning in bridging the gap in education?

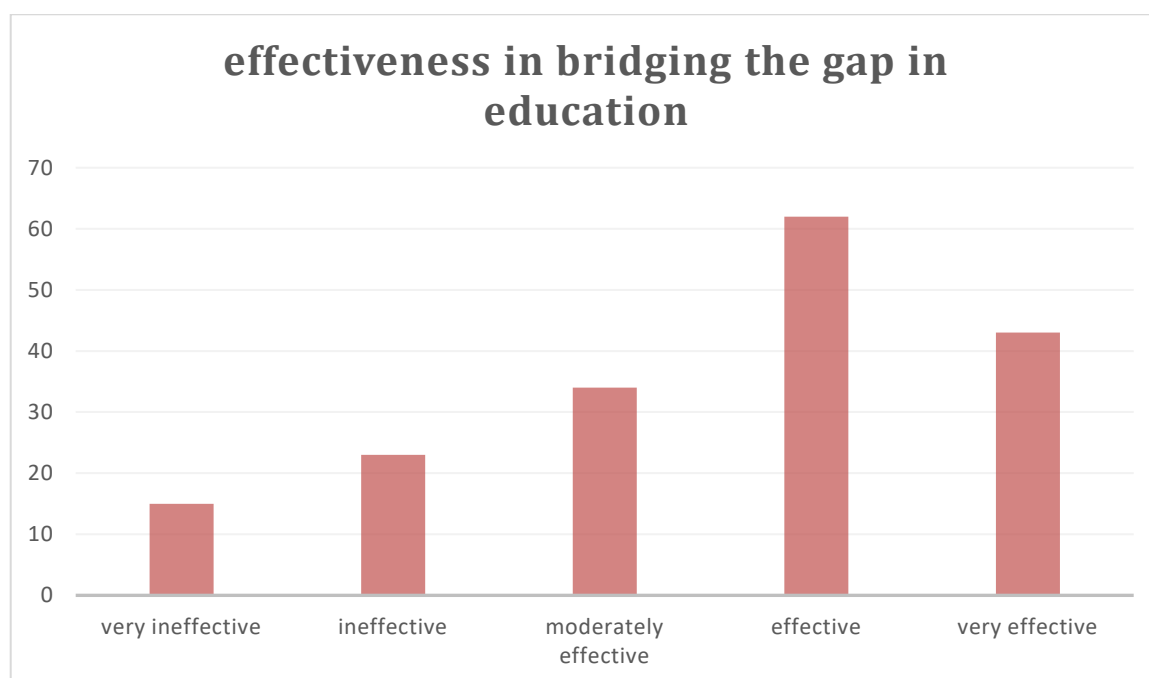


Figure 3

Figure 3 shows the effectiveness of modern learning in bridging the gap in education. From the chart above, 15(7.5%) of the respondents favours very ineffective, 23(11.5%) favours ineffective, 34(17%) favours moderately effective, 62 (31%) favours effective while 43(21.5%) favours very effective. This means that majority of the respondents agrees that modern learning is effective in bridging the gap in education.

Research question three

How can modern learning sustain the future of education in Rives State?

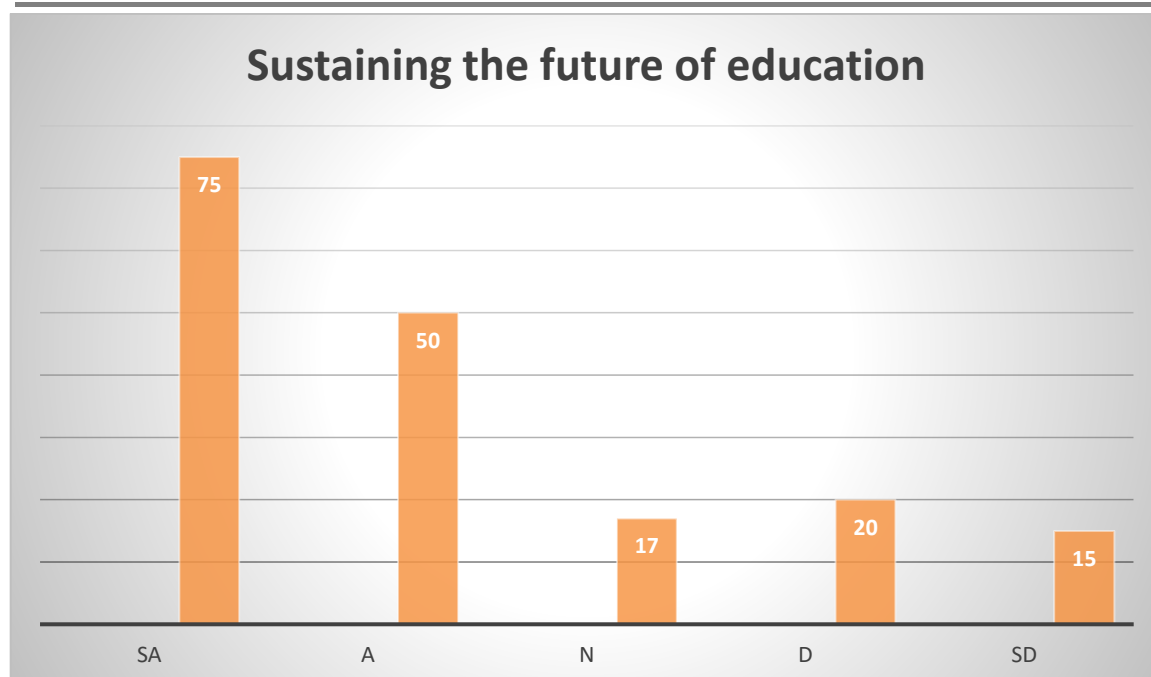


Figure 4: The figure above explains the position of the respondents when asked the question how modern learning can sustain the future of education in Rivers State. 37.5% (75) of the respondents strongly agree, 25% (50) agree, 8.5% (17) are neutral, 10% (20) disagree while 7.5% (15) strongly disagree with the question. This simply means that modern learning approach is a veritable tool in sustaining the future of education in Rivers State.

DISCUSSION

The study reveals that modern learning approach is very significant in Rivers State given the numerous benefits the student learner achieves in the use of these methods of study which includes: less time consuming, course work done at the student's pace and comfort and better understanding as the individual is the primary focus of the instructor. Life has become too busy with pursuing a living that the traditional way of leaning is no longer sustainable and education has to continue. Also, the analyses reveal that 31% of the respondents agree to the fact that modern learning approach is a veritable tool in bridging the gap in education. Education boasts the economic growth of a society; without education, "life in the society will be nasty, brutish and short" (Thomas Hobbes – the Leviathan 1651). Modern learning approach is bridging the gap between the educated and the uneducated as individuals can both learn and earn in a comfortable way. It is an effective way of learning that places the state among global competitors. The study also reveals that modern learning can sustain the future of the state this is because an educated generation is a generation that have prepared for the future.

CONCLUSION

Modern learning is revamping the style of providing and receiving education the world over. With the outbreak of COVID-19 in 2020, this method of learning has made its place firmly in the education sector. The idea behind modern learning is to empower learners to study without attending the physical school with better organization and quality curriculum. It has revolutionized the conventional method of chalk and board style of learning imparted to the learners. Unlike the traditional method of learning, modern learning makes giving and receiving of education simpler, more prolific, and productive. Tutors apply the method of teaching purely through the latest technology. The benefits of modern learning cannot be overstated, given the fact that modern learning has been introduced to empower learners to get basic schooling and enhance skills. Also, anyone regardless of age can pursue a degree, without actually attending school or university or any other institution. Modern learning has worked towards bringing learners, tutors, experts, practitioners, and other interest groups to one place. Thus, there is a good practice of knowledge sharing followed through different online platforms. This is important in current times as competition is rising and the world is also growing. Hence, quick information



helps in the better growth of an individual and bridging the gap in education for sustainable future.

RECOMMENDATION

1. The study recommends that government should maximize resources and technological facilities that will aid modern learning in the society
2. Rivers State government should make laws and policies that will encourage modern learning among citizens
3. Students at secondary school stage should be practically taught how to use the computer, internet and other digital devices.

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