

---

# A Critical Analysis of Modern Educational Research and Teaching Strategies in Nigerian Educational System

**Oluwafunmilola Rebecca Oluwatosin**

ORCID Number: 0009-0000-7507-2234

funmiopawale01@gmail.com

doi: <https://doi.org/10.37745/ijbmr.2013/vol12n78090>

Published August 26, 2024

---

**Citation:** Oluwatosin O.R. (2024) A Critical Analysis of Modern Educational Research and Teaching Strategies in Nigerian Educational System, *International Journal of Business and Management Review*, Vol.12, No.7, pp.80-90

---

**Abstract:** *The study critically analysed modern educational research and teaching strategies in Nigerian educational system. Technology has certainly changed the way we live. It has impacted different facets of life and redefined living. Undoubtedly, technology plays an important role in every sphere of life. Also, many complex and critical processes can be carried out with ease and greater efficiency with the help of modern technology. However, the teachers are afraid of technological advancement as they need to keep upgrading. Whereas, the learners/students are conversant with the latest technology and can easily cross check whatever that is taught in the class at an instance. Teachers using analog methods to teach modern students create discouragement for learning. More so, because of the emergent in modern educational research there is a shift from teacher-centered to student-centered approach as a result prioritize student engagement, creativity and critical thinking, preparing students for the future. It therefore concluded that as a medium for massive change, technology has improved our existing understanding by assisting educators and students in making the most use of cutting-edge teaching techniques.*

**Keywords:** modern educational research, teaching strategies, educational system, Nigeria

---

## INTRODUCTION

Education has undergone a remarkable evolution throughout history, adapting to societal changes, technological advancements, and the shifting needs of learners (Paris, 2023). From its earliest forms of informal knowledge sharing to the establishment of formal educational systems, education has played a crucial role in shaping individuals and societies. This introduction provides an overview of the evolution of education, highlighting key milestones and transformations that have occurred over time. In ancient times, education was primarily conducted through oral traditions and apprenticeships, where knowledge was passed down from one generation to another.

Publication of the European Centre for Research Training and Development-UK

As civilizations developed, formal educational institutions emerged, such as the academies of ancient Greece and the medieval universities in Europe. These institutions focused on intellectual pursuits, cultivating critical thinking, philosophy, and religious teachings. The industrial revolution marked a significant turning point in education. As societies became more industrialized, the need for a skilled workforce grew. Public education systems were established to provide basic literacy and numeracy skills to the masses, with an emphasis on discipline, conformity, and memorization. This period saw the rise of standardized curricula, textbooks, and classroom-based instruction (Parker, 2022).

This era also saw the integration of psychology and educational research, leading to the development of new teaching methodologies and instructional practices. The advent of technology, particularly the rise of computers and the internet, has revolutionized education in recent decades. The digital age has brought about a shift from traditional to modern education. Online learning platforms, multimedia resources, and interactive educational tools have transformed the learning experience, offering flexibility, accessibility, and personalized learning pathways. The integration of media in education has expanded access to knowledge, enhanced engagement, and opened up new avenues for collaboration and global connectivity. Furthermore, contemporary education recognizes the importance of holistic development, promoting not only academic knowledge but also skills like critical thinking, problem-solving, creativity, and digital literacy. There is an increasing focus on lifelong learning, recognizing that education is a lifelong journey that extends beyond formal schooling (Babalola, 2020).

However, educational research throughout the twentieth century was too biased in different specialties that have had extremely defined methodologies and favorite models. From classic educational psychology, biology education, philosophy of education, sociology of education, economics of education, history of education, educational theory, etc., to specialties within the scope of teaching approach or new frameworks of educational technology. There have been multiple compartments in which science education has been fragmented with their corresponding research models (Gómez Galán, 2015). This situation has reached today. Thus, this is the first problem we have to face: educational research has not been tackled as a whole, from a global perspective, in the pursuit of dialogue among the multiple disciplines that were taking shape in the context of an excessive specialization which, academically, opened the way into the twentieth century, and in so many cases made it impossible to approach educational problems in many different areas. According to (Bash, 2023) modern educational research is the effective integration of modern technology into teaching and learning. However, because of the emergent in modern educational research there is a shift from teacher-centered to student-centered approach which prioritizes student engagement, creativity and critical thinking, preparing students for the future.

### **Modern Technology in Education**

According to the latest insights as to how exactly modern students of today prefer to use technology and how does their learning get an impact if they use technology, it was revealed that the use of

Publication of the European Centre for Research Training and Development-UK

modern equipment technology and tools, the learning and interactivity of students increases (Knight, 2021). They also find it much more interactive, as well as full of interesting areas, when aided by technology. The transfer of knowledge becomes very easy and convenient, as well as effective. What this means is, that our minds now tend to work faster when assisted with the use of modern technology, be it any part of life, here we talk about education. According to Rowe (2020) the reliance and dependence of such an innovation, that simply makes life an easy, smooth journey is completely unavoidable these days even in schools, universities and colleges. Students today can make use of technology in the following ways:

**Internet connection and round the clock connectivity:** The internet has grown in importance by many folds, over the process of decade. Its importance in the education world can now never be undermined. Despite the chances of fraud and drawbacks, the use of the internet is like a blessing for students. Today, the internet is something that is present in almost everything we use. From television to gaming consoles, and our phones, the internet is literally everywhere. The use of the internet allows students to find amazing convenience, they can find various kinds of help, tutorials and other kinds of assisting material which could be used to academically improve and enhance their learning (Knight, 2021).

**Using projectors and visuals:** Visual images always have a strong appeal compared to words. Using projectors and visuals to aid in learning is another form of great technological use. Top institutions around the world, now rely on the use of amazing PowerPoint presentations and projections in order to keep the learning interactive and interesting. Technological use such as projectors within the schools and colleges can take the interaction and interest levels right up and also improve motivation. Students like to see appealing visuals and something that entices them to think rather than just reading words. The learning part also becomes pretty efficient when it comes to technology (Patrick, 2021).

**Digital footprint in the education sector:** If we talk about digital and education, then the penetration of digital media within the education sector has now grown. This penetration has resulted in round the clock connectivity with students and different forums that are available for different kinds of assignments or help. As the power of digital increases, there are and there will be more applications that will assist students in development and learning (Knight, 2021).

**Online degrees with the use of technology:** Online degrees now have become a very common phenomenon. People wish to take up online courses for their learning and certifications. Top institutions offer amazing online programs with the use of various applications and the internet. This is a concept that will continue to rise as it gets more support and awareness. The online degree scenario around the world is more famous among students who work and look for flexible studying programs (Bash, 2023).

Publication of the European Centre for Research Training and Development-UK

In another development, modern educational research is affecting teaching methods in Nigeria in the following ways according to (Knight, 2021):

- **Improved quality of education:** Technology is improving the overall quality of education by providing tools that improve education standards, assessment and evaluation.
  - **Unlimited access to information:** Technology provides access to unlimited information and resources for both teachers and students.
  - **Distance learning:** Technology enables distance learning by providing EdTech tools for teaching and assessing students.
  - **Smart classrooms:** Technology is being used to create smart classrooms that promote interactive and collaborative learning.
  - **Gamification:** Technology is being used to make learning fun through gamification.
  - **Digital libraries:** Technology is providing access to digital libraries that contain a wealth of information and resources.
  - **E-learning:** Technology is enabling e-learning through platforms such as Google Classroom, LinkedIn Learning, and Coursera.
  - **Learning management systems:** Technology is providing learning management systems that enable easy assessment and evaluation.
- Modern educational research has brought about some trending teaching methods such as:
- i. **Hybrid model:** This approach combines in-person and online learning for flexibility and continuity.
  - ii. **Personalized learning:** Technology enables tailored instruction to meet individual students' needs and abilities.
  - iii. **Immersive technologies:** Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI) create interactive learning experiences.
  - iv. **Online resources:** Digital libraries, educational apps, and websites offer access to information and learning materials.
  - v. **Gamification:** Technology makes learning fun and engaging through game design and mechanics.
  - vi. **Virtual classrooms:** Video conferencing and virtual learning environments connect students and teachers remotely.
  - vii. **Adaptive assessments:** Technology provides real-time feedback and adjusts difficulty levels to match student performance.
  - viii. **Flipped classrooms:** Students learn basics at home and work on activities and projects in the classroom.
  - ix. **Microlearning:** Bite-sized lessons and short videos cater to shorter attention spans.
  - x. **Research Based Teaching:** Research-based teaching refers to an approach to education that is informed by scientific research and evidence-based practices. By adopting research-based teaching practices, educators can create a more effective and evidence-based learning environment that supports the success of all students. It involves; staying current with research in one's field and in education, applying research findings to teaching practices, continuously assessing and evaluating the effectiveness of teaching methods,

---

Publication of the European Centre for Research Training and Development-UK

making data-driven decisions to improve student learning, collaborating with colleagues to share research findings and best practices.

Some key principles of research-based teaching include:

1. Focus on student learning outcomes
2. Emphasis on active learning and engagement
3. Use of formative and summative assessments
4. Differentiation and personalization
5. Explicit teaching and scaffolding
6. Opportunities for feedback and reflection
7. Emphasis on critical thinking and problem-solving

Research-based teaching is important because it improves student learning outcomes, enhances teacher effectiveness, increases student engagement and motivation, encourages evidence-based decision making, and supports continuous professional development. Some examples of research-based teaching strategies include:

1. Project-based learning
2. Flipped classrooms
3. Personalized learning plans
4. Technology-enhanced instruction
5. Collaborative learning approaches

### **Type of Teaching Methods**

The following are the common types of teaching methods:

**Teacher-Centered Method:** The teacher is the primary authority, and students passively receive information.

**Student-Centered Method:** Students are actively engaged in learning, and the teacher facilitates their progress.

**Chorus or Repetitive Method:** Students repeat information out loud to reinforce learning.

**Clinical Method:** Students learn through hands-on experience and experimentation.

**Project Method:** Students work on real-world projects to apply learning.

**Problem-Solving Method:** Students learn through solving problems and critical thinking.

**Discussion Method:** Students engage in group discussions to explore topics.

**Demonstration Method:** Teachers demonstrate concepts, and students observe and learn.

**Expository Method:** Teachers provide clear explanations, and students take notes.

**Discovery Method:** Students discover concepts through independent exploration.

**Montessori Method:** Students learn through self-directed activity and hands-on materials.

**Flipped Classroom Method:** Students learn basics at home and work on activities in class.

**Blended Learning Method:** Combines traditional and online learning approaches.

**Personalized Learning Method:** Tailors instruction to meet individual students' needs.

**Gamification Method:** Uses game design and mechanics to engage students.

**Microlearning Method:** Breaks learning into short, focused chunks.

### **Traditional Teaching Methods versus Modern Teaching Methods**

A comparison of traditional teaching methods versus modern teaching methods:

#### **Traditional Teaching Methods**

- Focus on teacher-centered approach
- Emphasis on memorization and rote learning
- Lecture-based and textbook-driven
- Limited technology integration
- Standardized assessments and evaluations
- Emphasis on discipline and obedience
- Limited opportunities for student feedback and participation
- Focus on core subjects like math, science, and language

#### **Modern Teaching Methods**

- Focus on student-centered approach
  - Emphasis on critical thinking, creativity, and problem-solving
  - Interactive and collaborative learning
  - Technology integration and digital resources
  - Personalized and adaptive learning
  - Formative and summative assessments
  - Emphasis on soft skills like communication, teamwork, and time management
  - Encourages student feedback, participation, and reflection
  - Incorporates diverse subjects and interdisciplinary approaches
- Some key differences between traditional and modern teaching methods include:

- 1 Shift from teacher-centered to student-centered approach
- 2 Increased emphasis on critical thinking and problem-solving
- 3 Greater use of technology and digital resources
- 4 More focus on soft skills and personal development
- 5 Greater emphasis on student participation and feedback
- 6 Modern teaching methods prioritize student engagement, creativity, and critical thinking, preparing students for the challenges of the 21st century.

### **Factors Associated with the Utilization of Modern Technology in Teaching Strategies**

Technology performance is a complex process that relies on its uniqueness, the relationships between human resources, and educational environments. The use of technology in education is influenced by the following elements, according to Brandstrom (2017).

**Teacher factor:** Teachers are associated with a frequently stated collection of characteristics that impact the use of technology in education. The main element associated with the use of technology

Publication of the European Centre for Research Training and Development-UK

has consistently been recognized as the teachers' perspectives on the use of and comfort with it (Balogun, 2023). If a teacher does not hold on to positive beliefs about technology and is not required to use it in the classroom. In addition, variables that seem to support the appropriate use of current technology in teaching and learning methods, as well as the scarcity of teachers in Nigerian schools, are the teachers' instructional attitude and the philosophy they put into practice (Urien, 2024). The teachers are afraid of technological advancement as they need to keep upgrading. Whereas, the learners/students are conversant with the latest technology and can easily cross check whatever that is taught in the class at an instance. Teachers using analog methods to teach modern students create discouragement for learning. Balogun (2023) identified a few factors that teachers face while attempting to incorporate modern technology into their teaching methods:

1. **Digital Literacy:** Many teachers in Nigeria lack the necessary digital skills to effectively integrate technology into their teaching practices.
2. **Resistance to Change:** Some teachers may be hesitant to adopt new technologies due to fear of change or lack of confidence in their ability to use them effectively.
3. **Limited Resources:** Teachers may not have access to the necessary technology, internet connectivity, or technical support to effectively integrate technology into their teaching practices.
4. **Lack of Training:** Teachers may not receive adequate training or professional development opportunities to learn how to effectively use technology in their teaching practices.

**Organizational factors:** The goal of the school as an institution is to relieve tension that arises from operating outside of or surpassing the authority of conventional regulation, rather than to solve a specific problem. In a similar vein, they will unavoidably and obviously resist any change that places demands on current practices. This suggests that anything that seems like a definite improvement to outsiders may be viewed as terribly distressing by an organization if it requires society to change their morals and methods of operation. The introduction of new technology demands drastic adjustments to the curriculum, methods of instruction, distribution of resources, and potentially even a reorganization of the fundamental elements of education. More importantly, because of this fundamental resistance to change, organizations are thought to contain a formation that averts widespread utilization of computers (Akinsola and Animashun, 2020).

**Technology-related factors:** A variety of elements, including technology itself, influence how teachers use it. Contradictory ideas about the important impacts of technology on education should be used nowadays. This leaves the teachers in doubt about the appropriate ethical use of technology in education. Moreover, teachers find it challenging to stay up to date with the newest technological developments due to the always changing nature of technology. This is due to the fact that new gear and software are released every day, making it difficult and intimidating for teachers to keep up with this enigmatic technological beast. However, because technology is unpredictable and can malfunction at any time, most teachers find it less appealing. They also find it inconvenient to spend their limited time in front of students troubleshooting issues that they may

Publication of the European Centre for Research Training and Development-UK  
or may not be able to resolve. Therefore, instructors may choose not to employ technology in the classroom if there isn't a compelling need for it and if there isn't consistent support (Jacobs, 2010).

### **Students' factors:**

1. **Digital Natives:** Students in Nigeria are increasingly digitally savvy and expect to use technology in their learning.
2. **Access to Technology:** Many students have access to mobile devices and the internet, making them more connected than ever before.
3. **Tech-Savvy:** Students are often more familiar with technology than their teachers, and may be able to provide valuable insights and support in the classroom.
4. **Engagement:** Technology can increase student engagement and motivation, particularly if used in interactive and collaborative ways.
5. Students feel that with technology, they can know what the teachers know without putting into consideration the human experience of the teachers.

### **Teaching Strategies in Nigerian Educational System**

Teaching strategies have always been understood as the set of educational decisions a teacher must make to facilitate the personal development of students and, from an educational perspective, this would have an impact especially on teaching-learning processes (Gómez Galán, 2015). It is, therefore, an extremely far-reaching, delicate process. Adopting useful and versatile strategies in education contributes decisively to the quality of learning. Teaching strategies are the culmination of the educational process, which allows us to achieve the objectives and makes the student acquire the skills and abilities needed.

All other key elements in education (educational policy, collaboration and involvement of families, teacher training, etc.) could fail if the work in the classroom is not suitable. Even the most innovative teaching methods, and think for example in the current processes of e-learning, in which the teacher becomes a coach rather than a transmitter of contents, didactic dynamics pursuing learning must always be adapted to the needs of student, whose involvement must be fully active; nevertheless, the design, creation and implementation of relevant teaching strategies must be the work of education professionals 'regardless of the subsequent participation of students in teaching-learning, which is assuming much more importance nowadays than in traditional models with the new technological means' (Gómez Galán, 2015).

From the teaching perspective the teacher should be the main driver, counselor, manager and developer of the leading educational dynamics in educational processes. We are dealing with teaching professionals. It is true that, throughout history, high-quality, efficient self-learning processes have been produced. In some circumstances this is not only desirable but also essential. But when we are talking about formal education, integrated in a state-run education system, in a context of highly complex massification conditioned by structural and legislative frameworks, the teacher's teaching ability is certainly decisive. In this educational level the employment and



Publication of the European Centre for Research Training and Development-UK  
development of appropriate teaching strategies, especially if they are innovative and original, and ultimately attractive for the student, are crucial to the success and quality of education.

The classroom atmosphere is substantially affected by the use of teaching strategies. Undoubtedly, the students will be the final recipients and beneficiaries (Kintsch & Van Dijk, 2018). When someone has confidence in their teacher, and collaborates enthusiastically in the educational proposals they organize, it is clear that the classroom atmosphere will be excellent. It is true that in regular school dynamics certain automatic strategies can be performed (it has already been referred to) without the presence of control or preplanning. However, this can lead to a certain monotony that might turn to be counterproductive. The teacher must continually innovate and seek the attention of students. Therefore, an intensive tracking of procedures providing any unexpected or inconvenient situation, and always at the service of the interaction, will always allow a didactic and productive use of the time available for each class. In this regard, teaching strategies that have been successful should be advised and, in the case of innovations, it is essential to take very good account of the results obtained just in case improvements or changes were required.

The Nigerian educational system employs various teaching strategies, these strategies aim to promote effective learning, student engagement, and academic achievement in Nigerian schools (Gbadamosi, 2020). They include the following:

1. **Lecture method:** This is the most common method used in Nigerian classrooms, where the teacher lectures and students take notes.
2. **Discussion method:** Encourages student participation and engagement through group discussions and debates.
3. **Demonstration method:** Used for practical subjects, where teachers demonstrate experiments or procedures.
4. **Project method:** Students work on projects to develop problem-solving skills and critical thinking.
5. **Discovery method:** Encourages students to explore and discover concepts through hands-on experiences.
6. **Expository method:** Teachers use examples and illustrations to explain complex concepts.
7. **Collaborative learning:** Students work in groups to achieve a common goal.
8. **Problem-solving method:** Encourages critical thinking and problem-solving skills.
9. **Simulation method:** Real-life scenarios are recreated to teach students practical skills.
10. **Information and Communication Technology (ICT) integration:** Using technology to enhance teaching and learning.
11. **Student-centered approach:** Focuses on student needs, interests, and abilities.
12. **Differentiated instruction:** Teachers adapt instruction to meet individual students' needs.

## CONCLUSION

Based on the review, it therefore concluded that as a medium for massive change, technology has improved our existing understanding by assisting educators and students in making the most use of cutting-edge teaching techniques. Teachers and students should take advantage of this in the good light and eliminate the drawbacks which are pulling back many teachers and students from achieving excellence. More so, because of the emergent in modern educational research there is a shift from teacher-centered to student-centered approach as a result prioritize student engagement, creativity and critical thinking, preparing students for the future.

## REFERENCES

- Akinsola M, & Animashun I (2020) The effect of simulation-games environment on student achievement in and attitudes to mathematics in secondary schools. *Turkish Online Journal of Educational Technology*. 6(3):113-119
- Babalola, O (2020) The Integration of Modern Technologies in Education. *Journal of Educational Research and Practice*. 1 (1)
- Balogun, H.A (2023) The Teacher and The Modern Technology: Issues and Solution in Nigerian Schools. *International Journal of Education and Review*. I (2) 192 – 103
- Bash, R. (2023) How people learn: Brain, mind, experience, and school. Washington, DC: National Academic Press.
- Brandstrom, C (2017) Using the Internet in Education—Strengths and Weaknesses. A Qualitative Study of Teachers’ Opinions on the Use of the Internet in Planning and Instruction. Available from: <http://www.diva-portal.org/smash/get/diva2:438827/FULLTEXT01.pdf> [Accessed: 18 May 2024]
- Gbadamosi, L (2020) New Trends in Education: Theories and Practices. Jebu Publishing House: Ogun State
- Gómez Galán, J. (2015) A New Educational Research to Society, Citizens and Human Development. In J. Gómez Galán, E. López Meneses & A. H. Martín (Eds.). *Advances and Innovations in Educational Research* (pp. 7-12). Cupey: UMET Press.
- Jacobs, H.H. (2010). Curriculum 21: Essential Education for a Changing World. Cambridge University Press
- Kintsch & Van Dijk (2018) Toward a Model of TextComprehension and Production. *Psychological Review*, 85 (5), 363-394.
- Knight, L. (2021) Learning about Research: Exploring the Learning and Teaching/Research relationship amongst Educational Practitioners Studying in Higher Education. *Teaching in Higher Education*, 11 (1), 1-18.
- Paris, C. (2023). Perils and promises: University instructors’ integration of technology in classroom-based practices. *British Journal of Educational Technology*. 38(1), 95-105.

Publication of the European Centre for Research Training and Development-UK

Parker, J. (2022). *Theory and Educational Research: Toward Critical Social Explanation*. New York and London: Routledge.

Patrick, H. (2021) Does it compute? The relationship between educational technology and student achievement in mathematics. Princeton, NJ: ETS

Rowe, N. C. (2020) *Pragmatism and Educational Research*. Oxford: Rowman & Littlefield.

***Brief Academic Biography of the Author***

***OLUWATOSIN, Oluwafunmilola Rebecca has her Master's Degree in Education in Measurement and Evaluation, University of Lagos, Akoka; Master's of Science Degree in Business Administration, ESCAE University, Port Novo, Benin Republic; Master's of Art in Education, Sheffield Hallam University, England and Doctor of Philosophy (Ph.D.) Degree in Business Administration, Selinus University of Sciences and Literature, Bologna, Italy.***