

REDEFINING SECONDARY EDUCATION IN THE 21ST CENTURY: A CRITICAL  
ASSESSMENT OF AKWA IBOM STATE

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ABSTRACT

*The evolution of secondary education in the 21st century demands a reevaluation of traditional educational frameworks to align with the dynamic needs of global societies. In the context of Akwa Ibom State, this paper critically assesses the state of secondary education, examining how current educational practices, curricula, infrastructure, and pedagogical approaches meet the challenges of modernity. The study explores issues such as access to quality education, the role of technology in learning, teacher training, and the integration of local culture with global educational trends. By analyzing both the strengths and weaknesses within the existing system, this research offers recommendations for reform that focus on enhancing student outcomes, fostering critical thinking, and preparing youth for the demands of an ever-changing world. The findings aim to inform policy-makers, educators, and stakeholders about the necessary steps to redefine secondary education in Akwa Ibom State and create a sustainable educational system that is both inclusive and forward-thinking.*

**KEYWORDS:** Redefining, Secondary Education, 21st Century, Critical Assessment and Akwa Ibom State

INTRODUCTION

The concept of "21st Century Education" refers to the evolving approaches, skills, and frameworks that are increasingly seen as necessary to prepare students for a rapidly changing, globalized world. As technology advances, economies shift, and societies become more interconnected, education systems around the world have been revisiting traditional models to better meet the demands of modern life. The 21st-century secondary education is about equipping students with the knowledge, skills, and mindsets needed to succeed in an ever-evolving world. It's no longer just about preparing students for Tertiary Institution or specific careers, but about preparing them for a lifetime of learning and adaptability. By focusing on critical thinking, technology, collaboration, and real-world problem-solving, secondary education can help students thrive in an increasingly complex, global, and digital society.

## KEY CHARACTERISTICS OF 21ST CENTURY SECONDARY EDUCATION

- Critical Thinking and Problem Solving
- Integration of Technology
- Collaboration and Communication
- Global Awareness and Cultural Competence
- Personalized Learning
- Soft Skills and Emotional Intelligence
- Focus on STEM and Innovation
- Career Readiness and 21st Century Skills
- Flexible and Interdisciplinary Learning
- Assessment Reform
- Sustainability and Environmental Awareness
- Inclusive Education
- Pedagogical Strategies for 21st Century Education
- Project-Based Learning (PBL)
- Flipped Classrooms
- Gamification and Learning Technologies
- Blended Learning.
- **Critical Thinking and Problem Solving**

The shift from rote memorization to higher-order thinking skills is central to 21st century education. Students are encouraged to develop analytical, evaluative, and creative thinking skills, enabling them to tackle complex, real-world problems.

- **Integration of Technology**

Technology is a major enabler in 21st-century education, both as a tool for learning and as a subject matter. Digital literacy is crucial, as students need to be able to use and adapt to new technologies to succeed in virtually any field. Learning tools like digital platforms, coding languages, and simulations are increasingly incorporated into the curriculum. The rapid expansion of the Information and Communication Technologies (ICTs) has transformed learners into digital learners, requiring teachers to integrate technology into their pedagogical approaches, where teachers' attitudes, technological knowledge, and skills play a significant role in its effective integration (Akram *et al.*, 2022).

- **Collaboration and Communication**

In today's interconnected world, the ability to collaborate with others—across geographic, cultural, and disciplinary boundaries is vital. 21st-century education emphasizes teamwork, both in-person and online, as well as the development of strong communication skills. This includes writing, speaking, and digital communication.

- **Global Awareness and Cultural Competence:**

As economies and societies become more global, education systems are increasingly focusing on global awareness. Learners are exposed to diverse cultures, global issues, and interconnected systems, helping them understand their place in the

world and fostering empathy and social responsibility.

- **Personalized Learning:**

Recognizing that every student has unique learning styles, interests, and abilities, 21st-century education aims to personalize learning experiences. This could involve differentiated instruction, flexible learning environments, and the use of data and technology to tailor educational content to individual students.

- **Soft Skills and Emotional Intelligence:**

In addition to academic knowledge, soft skills such as emotional intelligence, adaptability, resilience, and leadership are becoming increasingly important. These skills prepare students to thrive not just academically, but in their personal lives and future careers.

- **Focus on STEM and Innovation:**

Science, Technology, Engineering, and Mathematics (STEM) subjects have gained significant emphasis, as they form the foundation for many of the careers in the future. But beyond just teaching these subjects, there is an increasing focus on fostering innovation, creativity, and entrepreneurship to solve problems.

- **Career Readiness and 21st Century Skills:**

Schools are incorporating career readiness into the curriculum, offering students pathways to understand various careers, including vocational, technical, and entrepreneurial options. Skills such as project management, financial literacy, and work ethics are integrated into students' learning experiences.

- **Flexible and Interdisciplinary Learning:**

-Traditional subject boundaries are becoming more flexible, allowing students to explore interdisciplinary connections. For instance, the integration of arts into STEM (STEAM) or cross-disciplinary projects can help students understand how different fields complement each other in solving complex problems.

- **Assessment Reform:**

Assessment is moving away from standardized testing toward more holistic and formative assessments. Portfolios, project-based assessments, and real-world problem-solving tasks help measure not just content knowledge, but also skills like critical thinking, creativity, and collaboration.

- **Sustainability and Environmental Awareness:**

With climate change and sustainability being central global issues, secondary education is increasingly incorporating themes related to environmental stewardship and sustainable practices, both in the curriculum and through school practices.

- **Inclusive Education:**

There's a growing recognition of the importance of diversity and inclusion in educational settings. Educational approaches are becoming more inclusive, ensuring that students from diverse backgrounds and with varying needs— whether they have disabilities, are from marginalized communities, or speak different languages—receive the support and opportunities they need to succeed.

- **Pedagogical Strategies for 21st Century Education:**

Project-Based Learning (PBL): This approach emphasizes real-world problem-solving and student-driven inquiry. Students engage in long-term projects that require critical thinking, collaboration, and practical application of knowledge.

- **Flipped Classrooms:**

This is an instructional strategy in education that reverses the traditional role roles of in-class and out-of-class activities. In a typical educational setting, students learn new content during class time through lectures, and then they apply or reinforce that knowledge through homework assignment outside of class. In a flipped classroom model, students learn new content at home (via videos, readings, or online modules) and spend classroom time working on applying this knowledge through discussions, problem-solving, and hands-on activities.

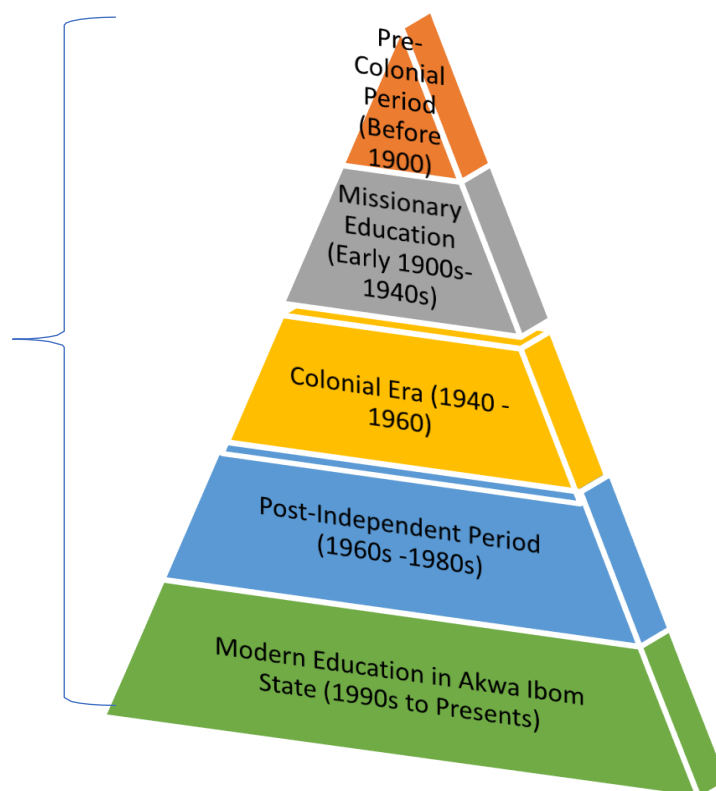
- **Gamification and Learning Technologies:**

Incorporating game elements, such as points, challenges, and rewards, can motivate students and enhance engagement. Technologies such as virtual reality (VR), augmented reality (AR), and adaptive learning platforms are being increasingly used to create immersive and personalized learning experiences.

- **Blended Learning:**

Combining in-person and online learning to provide students with a flexible and accessible learning environment.

### THE HISTORY OF EDUCATION IN AKWA IBOM STATE



A Pyramidal Structure Showcasing the Breakdown of Educational History in Akwa Ibom State - Prof. (Mrs) Usen G. Ikpe

The history of education in Akwa Ibom State, Nigeria, is deeply intertwined with the broader historical and socio-political developments of the region, as well as the evolution of education in Nigeria. The state, located in the southeastern part of Nigeria, was carved out of the old Cross River State in 1987. Its education system has evolved through several stages, influenced by traditional learning, missionary activities, colonial rule, and post-independence reforms. Here's a breakdown of the history of education in Akwa Ibom State:

- Pre-Colonial Period (Before 1900)
- Missionary Education (Early 1900s - 1940s)
- Colonial Era (1940 - 1960)
- Post-Independence Period (1960s - 1980s)
- Modern Education in Akwa Ibom (1990s - Present)

#### ● Pre-Colonial Period (Before 1900)

Before formal education took root in what is now called Akwa Ibom State, indigenous communities relied on traditional forms of education. This was based on oral transmission, cultural practices, and apprenticeship systems. Young people were taught vital skills such as farming, fishing, craftsmanship, and moral codes through stories, rituals, and direct participation. This form of education was community-based and aimed at preparing children to assume roles in society.

#### ● Missionary Education (Early 1900s - 1940s)

The advent of formal education in Akwa Ibom, as in much of Nigeria, was largely the work of Christian missionaries. In the late 19th century, European missionaries, particularly from the Church Missionary Society (CMS), Roman Catholic Church, and Presbyterian Church, established schools in the region.

- **The Early Schools:** The earliest schools in Akwa Ibom were missionary-run, and the focus was on religious instruction, literacy, and numeracy. Mission schools, such as those run by the CMS, were set up in towns like Eket, Ikot Ekpene, and Uyo. The curriculum primarily included reading and writing in English, Christian teachings, and basic arithmetic.

- **Influence of Missionaries:** The missionaries also played a role in spreading Western education and Western ideals. Many of the first generation of educated people in Akwa Ibom were products of these missionary schools, and they later became teachers, clerks, and local administrators under colonial rule.

#### ● Colonial Era (1940 - 1960)

Under British colonial rule, education was primarily for the children of the elite and for training clerks, teachers, and church leaders. The colonial government initially paid little attention to the development of formal education for the general population, but gradually, this changed.

**Government Involvement:** By the early 20th century, the colonial government began to take a more active role in the provision of education, though it was still limited to a small section of the population. In 1948, the British colonial government introduced the Western Region Education Policy, which led to increased investment in education, though it remained concentrated in urban areas.

Educational Expansion: During this period, schools were established in towns and villages, but rural areas in Akwa Ibom remained largely underserved. In 1955, the Udo Udoma's Report was published, which provided recommendations for the development of education in the region, including the establishment of more schools and the training of teachers.

- **Post-Independence Period (1960s - 1980s)**

After Nigeria's independence in 1960, the Nigerian government took on greater responsibility for education. Akwa Ibom, as part of the former Cross River State until 1987, saw several initiatives aimed at expanding access to education.

- **Expansion of Schools:** In the 1960s and 1970s, the Nigerian government introduced policies aimed at expanding education across the country. Akwa Ibom saw the construction of more primary and secondary schools, as well as the establishment of new teacher training colleges.

- **Universal Primary Education (UPE):** In the 1970s, Nigeria implemented the Universal Primary Education (UPE) policy, which sought to provide free and compulsory education to all Nigerian children at the primary school level. This policy contributed to the increase in enrolment in schools in Akwa Ibom and other parts of Nigeria.

- **Establishment of Higher Institutions:** The 1980s saw the establishment of higher educational institutions in the region. The University of Uyo, established in 1991 (though its origins date back to the 1980s as a campus of the University of Cross River State), was one of the key developments in higher education in Akwa Ibom. The university brought more focus on tertiary education in the state, creating opportunities for higher learning and research.

- **Modern Education in Akwa Ibom (1990s - Present)**

After Akwa Ibom was created as a separate state in 1987, there was a concerted effort by the state government to improve and expand education in the region. This involved a combination of infrastructural development, teacher training, and policy reforms.

**Infrastructural Development:** New schools were built, and old ones were renovated. The state government began investing in educational infrastructure, including classrooms, laboratories, and libraries. Secondary education became more widespread, and enrolment rates increased.

- **State Government Initiatives:** The Akwa Ibom State government has been active in promoting education through various initiatives, including the establishment of the Akwa Ibom State Education Endowment Fund to support educational development. The government also introduced various scholarships and assistance programs to promote learning. The victory recorded by the Akwa Ibom students at the 2024 Bilateral International Schools Debate in Singapore has been described as significant return on Governor Umo Eno's investment in the educational advancement of the state. Another amazing learning experience for learners in 2024 which caps the modern era of education in the State is the Akwa Ibom-UK Edutrip that exposed the suitably selected students in Secondary Schools across numerous rural areas in the 31 Local Government Areas to UK sponsored by the Governor, His Excellency, Pastor Umo

Eno. The aim of the exchange programme is a long-term strategy to stimulate better academic performance at the Secondary education level in Akwa Ibom State thereby raising “global thinkers from rural students”. The Exchange programme initiated by the Governor with Southwark Borough in London which rolled out in two batches between August and mid-September, 2024 served a memorable experience across a broad spectrum of academic and cocurricular interests for the participants throughout their stay. This is a no mean feat for the educational testimonial and impact of the State. Accompanying the students were the following key government functionaries and a number of care personnel: Commissioner for Education, Mrs Idongesit Etiebiet; Commissioner for Information & Strategy, Hon Iniobong Ememobong; Chairman, State Secondary Education Board, Dr Ekaette Ebong Okon.

*(Source – Expore Akwa Ibom (2024) – Akwa Ibom/UK Edutrip)*

**Private Sector Participation:** In recent years, private schools have flourished in Akwa Ibom, with many parents opting for private education due to perceived higher standards. Private schools are found in both urban and rural areas, providing alternatives to public education.

**Technological Advancements:** With the rise of the internet and mobile technology, Akwa Ibom has increasingly embraced digital education, with some schools incorporating e-learning and digital platforms into their curricula.

#### CHALLENGES AND CONSIDERATIONS:

The shift toward 21st-century secondary education presents a number of challenges. While there are significant opportunities for improvement and innovation in education, these challenges can impede progress. Here are some of the key challenges faced by educators, students, and policymakers in implementing 21st-century education:

##### ➤ Equity and Access

- **Digital Divide:** The increasing reliance on technology in education creates disparities in access. Not all students have access to reliable internet or modern devices, especially in rural or low-income communities. This digital divide limits students' ability to fully participate in a technology-driven curriculum.
- **Socioeconomic Barriers:** Economic disparities also affect the ability of schools to invest in the latest educational technologies, professional development for teachers, or extracurricular programs. Students from lower-income backgrounds may face more challenges in accessing high-quality educational resources.
- **Language and Cultural Diversity:** Students from diverse cultural and linguistic backgrounds may struggle with curricula that are not adapted to their needs. Teachers must find ways to integrate cultural relevance into their teaching while ensuring that language barriers are addressed.

##### ➤ Teacher Training and Professional Development

- **Adapting to New Pedagogies:** Many teachers were trained in traditional, teacher-centered approaches, and the shift toward student-centered, inquiry-

based, and technology-integrated teaching requires substantial retraining. This can be particularly difficult for educators who may be resistant to change or lack the time and resources to develop new skills.

- ***Ongoing Professional Development:*** Teachers need continuous support to stay up to date with emerging educational technologies, methodologies, and best practices. Professional development often takes a backseat due to heavy workloads or limited budgets, and many educators are not receiving the training they need to effectively implement 21st-century education.
- ***Workload and Stress:*** As the demands on teachers increase (with new tech tools, personalized learning strategies, and different pedagogical approaches), many teachers are experiencing burnout. Educators must balance a larger number of responsibilities, which can take a toll on their mental health and job satisfaction.
- **Curriculum Overhaul**
  - ***Outdated Curricula:*** Traditional curricula often fail to adequately prepare students for the demands of the 21st century. Updating and redesigning curricula to include critical thinking, digital literacy, collaboration, and problem-solving skills can be a complex and time-consuming process, and it requires careful consideration of local context, industry trends, and emerging technologies.
  - ***Standardized Testing:*** The persistence of standardized testing in many educational systems is a challenge. These assessments often focus on memorization rather than creativity, critical thinking, or collaborative skills—none of which are easily measured through traditional tests. Balancing the need for assessment with the desire for more holistic approaches remains a challenge.
  - ***Incorporating STEM and Soft Skills:*** While there is a strong push for STEM education, there's also a growing recognition of the importance of soft skills (e.g., emotional intelligence, resilience, and creativity). Balancing technical proficiency with these non-cognitive skills within the curriculum requires new frameworks and teaching strategies.
- **Resistance to Change**
  - ***Cultural Resistance:*** Some educators, students, and parents may resist changes in the educational system, especially if they perceive the changes as unnecessary or disruptive. Traditions in teaching and learning can be deeply ingrained, and changing how education is delivered can be met with skepticisms or reluctance.
  - ***Administrative and Policy Resistance:*** Educational reforms often face resistance from policymakers and school administrators, especially when the changes require significant investment or involve controversial ideas like moving away from traditional assessments or standardized testing.
  - ***Generational Divide:*** Teachers who are *digital immigrants* (i.e., not having grown up with digital technology) may struggle to understand how to effectively use technology in the classroom. On the other hand, "digital natives"



(students who have grown up with technology) may be more adept at using digital tools but need guidance on how to use them in educational contexts.

➤ **Balancing Technology Integration**

- ***Overreliance on Technology:*** While technology offers many benefits, there is a risk of over-relying on digital tools, leading to issues like screen fatigue or the erosion of face-to-face communication skills. Technology should be used to enhance, not replace, fundamental learning experiences.
- ***Digital Literacy and Security:*** As technology becomes more integrated into education, there is an increasing need for students to develop strong digital literacy skills. This includes understanding how to responsibly use technology, avoid cyberbullying, and protect their personal information online. Schools need to prioritize teaching digital citizenship and online safety, which can be challenging in an ever-evolving digital landscape.

➤ **Assessment Challenges**

- ***Measuring 21st-Century Skills:*** Traditional assessments (like exams or standardized tests) are often inadequate in measuring skills such as critical thinking, creativity, or collaboration. Project-based assessments and other alternative methods require significant planning, and creating fair, consistent, and effective ways to evaluate these skills remains a challenge.
- ***Pressure of High-Stakes Testing:*** Despite the push for reform, many education systems are still heavily reliant on high-stakes testing for assessing student performance. This can undermine the development of 21st-century skills, as teachers may focus more on test preparation than on fostering creativity or critical thinking.

➤ **Changing Job Market and Career Readiness**

- ***Preparing for Uncertainty:*** The rapid pace of technological change and the evolving nature of the job market mean that many careers today may not exist in the future, or new, unexpected roles may emerge. This presents a challenge for schools, which must ensure that students are equipped with the adaptable skills and mindset needed to thrive in a world of work that is constantly changing.
- ***Connecting Education to Career Pathways:*** While STEM and tech fields are emphasized, not all students are interested in or suited for these areas. Schools must ensure that students are exposed to a wide range of career paths, including creative, social, and vocational options, and that they have opportunities for internships, apprenticeships, or real-world work experiences.

➤ **Student Well-being and Mental Health**

- ***Increased Pressure and Stress:*** As the demands on students increase, particularly with the focus on academic achievement, career readiness, and extracurricular involvement, students are often under more stress than ever before. The pressure to perform in a highly competitive, fast-paced world can negatively affect mental health and well-being.
- ***Balancing Technology Use with Mental Health:*** Excessive use of technology—

especially social media—has been linked to increased anxiety, depression, and feelings of isolation among students. Educators and schools need to address how technology is impacting student well-being and provide support for mental health in a digitally connected world.

➤ **Integration of Global Perspectives**

- **Teaching Global Competence:** With the emphasis on global citizenship, there's a challenge in incorporating global perspectives into local curricula. It requires broadening students' understanding of global issues (like climate change, inequality, and geopolitics) while also helping them navigate local contexts and identities.
- **Cultural Sensitivity:** Global awareness must also be accompanied by cultural sensitivity. Educators must be mindful of how they present and discuss different cultures, histories, and global issues, ensuring they don't reinforce stereotypes or bias.

➤ **Sustainability in Education**

- **Resource Constraints:** Many schools lack the funding and infrastructure necessary to support 21st-century learning models. This includes things like updated facilities, digital tools, and environmental sustainability practices. Schools may also face pressure to balance long-term sustainability with short-term funding needs.
- **Environmental Education:** With a growing emphasis on sustainability, integrating environmental issues into the curriculum presents logistical and pedagogical challenges, especially in areas where environmental concerns may be perceived as less urgent.

While the vision of 21st-century secondary education offers many exciting possibilities for innovation and transformation, the challenges involved in realizing this vision are considerable. These challenges require ongoing dialogue, strategic investment, and collaboration among educators, policymakers, students, and families. Addressing issues such as equity, teacher training, curriculum reform, and mental health will be key to creating a more inclusive, effective, and adaptive education system for the future.

## THE WAY FORWARD

Here are five ways the government of Akwa Ibom State can improve on education to foster and enhance 21st Century Skills needed to navigate complexity among the teachers and learners at both the primary and secondary levels of education.

1. **Investment in Infrastructure:** Ensure widespread access to high-speed internet and digital devices, such as tablets and laptops, to facilitate smart learning. Establish smart classrooms equipped with interactive boards, AR/VR tools, and cloud-based learning platforms geared towards enhancing the 21<sup>st</sup> Century skills.

➤ **Teacher Training and Digital Literacy**

Provide comprehensive training programs for educators to effectively use digital tools

and smart teaching methodologies. Encourage continuous professional development through online courses and certifications in technology integration. Tusiime *et al.* (2019) maintains that, the best way to develop teachers' digital competence is by assisting them to understand the relationships between technology, pedagogy and content, and to apply such knowledge in a productive way.

- ***Development of Localized Digital Content:*** Collaborate with educational experts to create engaging, culturally relevant, and curriculum-aligned e- learning content.

Promote the use of Open Educational Resources (OER) to provide affordable learning materials for all.

- ***Public-Private Partnerships (PPPs):*** Partner with tech companies, NGOs, and educational organizations to fund and implement smart education projects.

Leverage expertise and resources from private sector players for innovation in digital learning solutions.

- ***Policy and Regulatory Support:*** Government should develop clear policies to guide the adoption and integration of smart education across schools. Ensure equitable access to digital education by subsidizing costs for disadvantaged communities and promoting inclusivity.

- ***Online monitoring & evaluation of operations:*** Online monitoring of class rooms, offices and external environment through CCTV camera, biometric attendance replacing traditional time-book registers, etc all enhance effective database management system and quicker reporting.

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