

EMERGING ISSUES IN VOCATIONAL AND TECHNICAL EDUCATION (VTE) FOR SUSTAINABLE WORKFORCE DEVELOPMENT

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Preamble

I sincerely thank the organizers of this Association of Vocational and Technical Educators of Nigeria (AVTEN) South East Zone, for appointing me to give the keynote address. I therefore seize this opportunity to welcome all participants to this conference.

Highlights of the Paper

- The place of Vocational and Technical Education in development
- Aim and objectives of Vocational and Technical Education
- Digitization in Vocational and Technical Education
- Sustainable Development
- Emerging trends in Vocational and Technical Education
- Emergent Models for integrating Information and Communications Technology in Vocational and Technical Education
- Challenges
- Conclusion
- Recommendations

Introduction

The theme of this conference, Emerging issues in Vocational and Technical Education (VTE) for sustainable workforce development is good for the discourse above, and it is also timely and appropriate in today's Nigeria. Emerging Technology Competencies in VTE refer to the new competencies needed by individuals for the maintenance and repair of modern machineries. This is according to the manufacturers specifications. The major goal of every nation is to ensure sustainable social, environmental, and economic development that empowers the citizens for good quality life. Our children of today require skills to unlock their potentials for innovation, employability and responsible citizenship. Realizing Africa's potentials and aspirations, depends on the investments we make today, towards the development of our children. This indeed underpins our country's prioritization of the transformative roles of Vocational and Technical Education (VTE) in building human capacity, empowering our youth and marginalized groups. Vocational and Technical Education is considered as the bedrock of industrialization in developed countries all over, and its impact on productivity, social and economic development, cannot be over emphasized.

This paper focuses upon the emerging issues in Vocational and Technical Education, and Vocational Technical Education instructors, as it is affected by the digital age. Through inclusive youth equitable and equality education, in VTE we are sure of promoting lifelong learning opportunities for all in 21st century. Although we need to go a long way in positioning Vocational and Technical Education as a springboard for employability among youth with ICT related careers. There has been new innovative ideas and processes, to inspire youth to dedicate themselves to technical and technological careers, to build a better future through development of Vocational training systems, and transformation of the labour market, to enhance youth employability. On this initiative, special emphasis will be made on the critical role of teachers in enhancing skills development. Focus on the competence development by using digital learning situation in Vocational and Technical Education, in crafts sector in Nigeria; the use of digital media leads to positive experiences of motivation. Looking at the contributions to the relevance of digitization, for workplace learning, we need to discuss on digital competencies in

the workplace, to gain an understanding of what they comprise of and to throw light on a specific facet of digital competencies, for instance, how digital competence beliefs can be promoted through training. Nwokolo (2012) stresses that there is a need for Vocational and Technical Education to respond to these challenges, which includes preparing students to become active and intentional learners, for their initial preparation, and ongoing development across working life. The covid -19 pandemic, e-learning and insecurity brought about e-learning technologies in the world, where movements are restricted. For instance, zoom conferences, meetings, church services.

Traditional models of Vocational and Technical Education, which view formal training as terminal, will not prepare workers well enough for the constantly evolving world of work in an age of technological transformations. Technology has continued to play significant roles towards improving the quality of education globally. The above scenario explains why education has decided to use Vocational and Technical Education, to contribute towards the survival of the nation in socio-economic and industrial sector and the survival of the nation in these areas, spell out national stability and sustainable development.

The world continues to be dramatically transformed by digitization, the young have grown up in the digital world to embrace it. There is therefore the need to prepare for this transformation process. According to Denga (1999) the days of pure meritocracy and Aristocracy are over, Egalitarianism now opens the gates wide, to individuals based on their potentials, regardless of their socio-economic, intellectual, and religious background. The digital revolution is rapidly transforming the world of work and the skills profiles of many occupations. Quite allied to science and technology, is the development of Vocational and Technical Education (VTE), which can furnish employable skills in order to participate effectively in developing the nation. Youths must develop skills that will make them to be self-reliant. With Vocational and technological skills, youths can be engaged in self – employment, reducing the high rate of unemployment, which always make nations unstable economically. The rate of armed robbery being experienced today is evident, and youths are the active and flexible individuals in the society for such acts. This is why VTE becomes handy. Technology, according to Nwokolo and Amenger (2016) is the use of the product of creativity, inventions and scientific research in the service of man. Miller, Bakere and Iketule (2010) described technology as the process by which humans modify nature to meet their needs and wants. It involves new machines (electrical and electronics) equipment and ways of doing things, that are based on modern knowledge about computers.

The Place of Vocational and Technical Education (VTE) in Development

Vocational and Technical Education is defined by Nwokolo and Shitmi (2019) as all those experiences whereby an individual learns to carry on successfully useful occupation. Vocational and Technical Education (VTE) is also defined as that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge. The major focus is to examine the trends in VTE related goals such as;

- (i) Introduction into world of Technology
- (ii) Acquiring technical skills
- (iii) Exposing students to career awareness
- (iv) Enabling youths to have an intelligent understanding of the increasing complexity of technology.

As stated earlier, Digital Revolution is rapidly transforming the world of work and the skills profiles of many occupations. The pace of change necessitates continuous skilling and reskilling for lifelong learning. Research on emerging innovative approaches to Vocational and Technical Education (VTE) in both developed and developing country is reviewed, with a special focus on

new models for work-based and community – based learning, which can promote transformative lifelong learning. Information and Communication Technology (ICT) has transformed every facet of human endeavor in business, industry and education. The role of VTE now is linked to the process of social change with a great emphasis on global economy and human development in 21st century and beyond. It is expected that pragmatic and innovative techniques should be used to prepare VTE Teachers such that they are equipped with knowledge and work skills to enable them cope with the challenges of the present millennium (Nwokolo-Ojo 2016). The curriculum of VTE is a qualitative and functional education carefully selected, bearing in mind the acquisition and application of the useful and usable solid and pragmatic type of knowledge, skills, values and attitudes for enhancing Self – employment, economic efficiency, transformation of community consciousness and socio – political progress. Vocational and Technical Education should be well versed in ICT courses such as Microsoft word, Microsoft Excel, Web page design, Desktop publishing, Management Information System, Corel Draw, Ms Power point, Modern office Technology, among others.

Information and Communication Technology is used for preparing lecture notes for students, Examination results, lesson presentation and for designing and drawing. Information can be disseminated through computer, Micro films, audio visual, C.D. ROMS, teleconferencing, Video disc, Video tapes, Micro cards, Magnetic tapes, among others (Okwori & Ogbu 2012). These are imperative because the knowledge of ICT rules the world affairs and economy. Everything in the world is ICT driven and it is expected that VTE Teachers should be ICT compliant to be able to achieve the intended outcome specified in the National Policy on Education (FRN, 2014), for Vocational and Technical Education in Nigeria. The needs to focus on training and retraining, adequate funding and maintenance of facilities as emergent issues in VTE should be emphasized in the system. Information and Communication Technology (ICT) is seen as the use of computer system, internet and communication equipment in information processing. It is the acquisition, processing, storage and dissemination of vocal, textual, pectoral and numerical information by a micro-electronic based combination of computers and telecommunication equipment's (Audu & Bature, 2016). Emenato (2004), there is now an emergent industry called the “Consciousness industry” to which formal education and mass media belong. This industry is propelled by ICT based tools, electronics, computers, television, telecommunication, their component parts and soft wares which animate them.

There is a great deal of awareness in Nigeria of the importance of using ICT in classrooms but beyond this level of awareness, little appears to be on ground in terms of practice. Every teacher seeks to convey to the students certain basic information, ideas, knowledge, and skills in the shortest possible time and in accordance with the principles of learning. Current development in both psychological research and technology have given rise to adoption of improved methods of teaching and learning. Ensuring that learning is transformative, is of particular importance in VTE in terms of economic growth, social equity, and environmental sustainability. Sustainability means that Technical and Vocational Education systems must play a central role in the sustainable development agenda. Vocational and Technical Education (VTE) as a major producer of the future workforce, the sector has a responsibility to prepare teachers to contribute to sustainable development. UNESCO – UNEVOC (1999) point out that in addition to preparing people for the world of work, VTE is expected to be an instrument of social cohesion and integration. It is a type of education that focuses on developing specific skills of knowledge that is required for a particular trade, profession or occupation. It aims to prepare individuals for workforce by equipping them with practical skills and competencies that are directly applicable to their chosen career paths.

Vocational and Technical Education ensures that students gain real-world experiences and are better prepared for the demands of their chosen careers. Vocational and Technical Education programmes should therefore be designed in collaboration with industry-relevant curriculum. Professionals ensure that curriculum reflects current industry standards best practices of emerging trends. This alignment helps to acquire job – specific skills and knowledge that are demanded in the job market. These experiences allow students to work directly with employers, to gain practical experience. This means that the digital age necessitates a re-evaluation of what VTE is, for optimizing the means by which its objectives may be met, and enable digitally comfortable Instructors to facilitate that constant skills development process. The central theme has addressed major issues that the sub-themes for this conference are expected to explore. There is need to create all in-road as the paper presenters shall discuss them more authoritatively. Every aspect of VTE environment is complex and technical. For example, Business is now done electronically, such as e-documentation, e-budgeting, e-employment, e-payment, e-marketing, e-banking among others. All these skills determine to a large extent, the type of job that has to be carried out by an individual.

Aims and Objectives of Vocational and Technical Education

- To provide trained manpower in applied sciences and technology, commerce at professional and / or sub-professional levels.
- To provide Activities which are related to the preparation of individuals for paid jobs among others.

Are we really achieving these at this digital age?

Digitization and Vocational and Technical Education

Digitization is the process of converting analog information into digital form. It involves the conversion of physical or analog assets such as text, images, audio and video into digital formats that can be easily accessed, manipulated and stored using electronic devices and computer systems. It typically includes the use of scanners, cameras, or other specialized hardware to capture the physical content and convert it into binary code (Os and Is) which can then be processed and stored digitally. This process enables greater efficiency, accessibility and preservation of information, as digital data can be easily replicated, distributed, and searched. In addition, it also encompasses the creation of born – digital content, which is content that is originally created in digital format. This includes document created using word processors, digital photos or videos taken with camera or smart phones and digital audio recording. Vocational and Technical Education (VTE) is very low, mismatch in skills and is a big challenge in the country. Looking back at the development of VTE, a sustainable and systematic integration of digital media into classrooms is still not the standard today, and high-light the potentials of technology –based simulations, for training and learning, as well as for the implementation of valid methods for the assessment of competencies. Vocational and Technical Education is a tool for self-employment and national transformation.

Digitization has revolutionized various industries such as publishing, entertainment, education and archives, by providing easier access to information, faster distribution of content, and enhanced possibilities for analysis and manipulation of data. Every aspect of VTE environment is complex and technical, this is because business is now done electronically. For instance, in government, everything is done using e-documentation, e-budgeting, e-employment, e-payment, e-marketing, e-banking among others. The digital revolution is rapidly transforming the world of work and the skills profiles of many occupations. Quite allied to science and technology, is the development of VTE, which can furnish employable skills in order to participate effectively in developing the nation. Youths must develop skills that will make them independent of public employment. With Vocational and technological skills, youths can be engaged in self –

employment, reducing the high rate of unemployment, which can make nation unstable economically.

Technology is the use of the product of creativity, inventions and scientific research in service of man. In other words, technology can be seen as the process by which humans modify nature to meet their needs and wants. It seeks to strive a realistic balance between dangers and possibilities, hopes and fears, aspirations and constrains subject to constant change. Emerging version of it, responds to an imperative need to how do we make it happen? Imagine a new basis for relationship among peoples and with the habitat that sustain human life. The longer we pursue unsustainable development, the more its consequences are likely to become, that is why we need to take action now. It's also about ensuring a strong, healthy and just society. This means, meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity. Vocational and Technical Education is the pivot of national development and should be nourished to discharge its tasks of producing manpower,

Examples of digitization include

- Scanning and storing paper documents as digital files.
- Converting physical media, such as VHS tapes or Vinyl records into digital formats.
- Creating electronics versions of books, magazines, newspapers.
- Digitizing photograph by scanning and taking digital pictures.
- Transforming hand writing notes or drawings into digital documents.
- Converting analog audio recording into digital files.
- Capturing and storing data from sensors or IoT devices in digital form

Sustainable Development

Sustainability refers to ability to meet the needs of the present generation without compromising the ability of the future generation to meet their own needs. There are three (3) pillars of sustainability:

1. Social sustainability: Focuses on promoting social equity, justice, and well-being. It involves ensuring that communities and individuals have access to basic needs such as food, water, health care, education, and safe living condition. It requires addressing issues like poverty, inequality, human rights and cultural preservation.
2. Environmental sustainability: This emphasizes preservation, conservation, and restoration of the natural environment. It involves utilizing resources in a responsible manner, minimizing pollution and waste, protecting and restoring ecosystems, and mitigating climate change.
3. Economic Sustainability: involves creating a viable and inclusive economy that supports long-term growth and prosperity. Supporting fair trade practices for example, local businesses, minimizing resource consumption, fostering innovation for sustainable development, and ensuring a just distribution of wealth and resources. Economic sustainability also entails balancing economic growth with environmental and social considerations.

These three pillars of sustainability are interconnected and mutually dependent. Achieving sustainability requires striking a balance between these three pillars. It involves making decisions and taking actions that promote long-term well-being and maintain the health of the planet for future generations.

The concept of sustainable development can be interpreted in many different ways, but at its core is an approach to development that looks to balance different and often competing needs

against an awareness of the environment, social and economic limitations we faced as a society. If such developments are highly encouraging, it would be imprudent to expect VTE to find a solution to every problem that the young ones are capable of creating for it. It seeks to strive a realistic balance between dangers and repeat possibilities, hopes and fears, aspirations and constraints subject to constant change.

Emerging Trends in Technical and Vocational Education

There are several emerging trends in Vocational and Technical Education:

- **Skills-based Education:** There is a growing emphasis on providing students practical, industry – relevant skills that can immediately be applied in the workforce. This approach focuses on hands – on training, real-world projects, and internship to ensure students are job ready upon completion of their Vocational and Technical Education programmes.
- **Digitalization and Technology Integration:** As industries became more Technology driven, Vocational and technical Education programmes are incorporating digital tools and technologies into their curriculum. This includes training students on emerging technologies such as artificial intelligence, data analysis, cyber security and robotics.
- **Personalized learning:** Recognizing that students have diverse learning needs and preferences, Vocational and Technical Education is shifting towards personalized learning. This encompasses individualized instruction, adaptive learning Technologies, flexible learning pathways and allowing students to learn at their own pace and according to their specific interest.
- **Entrepreneurship and innovation:** Vocational and Technical Education is increasingly focusing on fostering an entrepreneurial mindset and encouraging innovation. Students are to be equipped with the skills and knowledge needed to start their own businesses and drive innovations within their respective industries.
- **Collaboration with industry/partners:** Strong partnership between Educational Institutions and industry's partners are becoming more prevalent. These collaborations facilitate curriculum developed to provide students with industry exposure and increase job placement prospects through internship, apprenticeship and mentorship programmes.
- **Emphasis on soft skills:** Alongside Technical skills, Vocational and Technical Education (VTE) is recognizing the importance of developing soft skills such as communication, teamwork, problem solving and critical thinking. These skills are deemed essential for success in the modern workplace and are increasingly integrated into the curriculum.
- **Lifelong learning and up skilling:** Given the rapid pace of Technological advancements and changing job market demands, VTE is shifting towards the lifelong learning model. This includes providing opportunities for continuous up skilling and deskillling through short courses, certifications and online learning platforms.

Examples of innovation and immerging trends in Vocational and technical education

- **Virtual and augmented reality:** These immersive technologies are being incorporated into VTE to provide realistic and hands- on training experiences. For instance. Students can practice medical procedures in a virtual operating room or simulate automotive repairs using augmented reality overlays.
- **3D printing:** This technology allows VTE programmes to create prototypes, models, and real –world products. Students can learn about design principles, manufacturing processes, and problem – solving through 3D printing.

- **Internet of Things (IoT):** Connected devices and smart system are increasingly used in VTE to provide practical training in areas such as smart home automation, and infrastructural management.
- **Online learning and remote classrooms:** The covid-19 pandemic has accelerated the adoption of online learning in VTE. Remote classrooms and virtual labs allow students to acquire Vocational skills from anywhere, overcoming geographical barriers and increasing accessibility.
- **Green and sustainable practices:** As the world increasingly focuses on sustainability, VTE programmes are incorporating training on green technologies, renewable energy, eco- friendly construction, and sustainable agricultural practices.
- **Artificial intelligence (AI) and automation:** Artificial intelligence is revolutionizing various industries, and VTE is no exception. Students can learn about artificial intelligence (AI) applications in areas like robotics, logistics, cyber security, and data analysis.
- **Data analysis and predictive analytics:** Vocational and Technical Education (VTE) programmes are embracing data analysis to identify trends, forecast industry needs, and optimize performance. This enables students to develop skills in data collection, analysis, and decision – making.
- **Soft skills and emotional intelligence:** Recognizing the importance of interpersonal skills, VTE programmes are increasingly focusing on the development of soft skills, such as communication, teamwork, and problem – solving. Emotional intelligence training is also gaining prominence to enhance students self – awareness and empathy.
- **Cyber security:** With the rise of digital threats, VTE programmes are incorporating cyber security training into their curriculum. Students learn about network security. Other examples include;

Virtual Reality (VR) is a technology that immerses users in a computer – generated virtual environment. It typically involves wearing a headset that blocks out the real world and replaces it with a simulated environment. Virtual Reality (VR) allows users to interact with the virtual world through specialized controllers or other input devices. Augmented Reality (AR) is a technology that over lays digital content onto the real world, enhancing the user’s perception and interaction with their surroundings. Augmented Reality (AR) is typically experienced through a mobile device, such as Smartphone or tablet, or through specialized Augmented Reality glasses. It can protect digital images, information, or objects onto the real world, allowing users to interact with both real and virtual elements simultaneously.

In the realm of VTE, Virtual Reality (VR) and Augmented Reality (AR) can play a crucial role in improving the learning experience and preparing students for real- world scenarios.

Ways VR and AR can be Utilized in Vocational and Technical Education

- Virtual Reality and Augmented Reality can provide simulation environment where students can practice technical skills without the need for physical equipment. Students in automotive repair can virtually disassemble and reassemble car engines, or medical students can practice surgical procedures in a virtual operating room.
- Interactive learning experiences: Students can explore virtual models of machinery, equipment, or architectural structures, understanding their functioning and operation step by step.
- This can facilitate real – time collaboration among students and instructors, if they are geographically dispersed. This allows students to work together on projects, share ideas, and receive guidance from instructors, enhancing teamwork and communication skills.

- Field trip and virtual tours: Virtual Reality and Augmented Reality can transport students to places that are inaccessible or impractical to visit. They can explore historical sites, museums or remote locations.

Emergent Model For Integrating ICTs In Vocational and Technical Education (VTE)

Globalization has created a new world order for doing business. New ICT has dramatically changed the way we live, learn, and work and even think about work. The synergy of combining globalization with new Technology has had dramatic economic and social impacts on individuals. It has created new opportunities as well as new challenges and uncertainties. Many workers have been dislocated, while significant numbers of young people are structurally unemployed or underemployed, because of lack of ICT skills. Skills polarization between so called mind or knowledge workers and unskilled low knowledge workers has widened the gap in income inequalities. Youth, women and older workers are the groups most affected. While these changes have brought about considerable challenges to Vocational and Technical Education (VTE) they have created new opportunities for change and innovation.

In the 1980s to 1990s, the status and condition of VTE did not match the importance of its potential contributions to society. However, in this new environment where human capital has become the most critical element in achieving a competitive advantage, VTE can now aim to reach its full potential. ICT drives the new economy, and human capital is its fuel. In fact, the ICT revolution makes knowledge a competitive resource. In this economic era, economic prosperity depends on brain and value is created by employing knowledge workers and continuous learning. The need for recurrent education and the changing labour market conditions, call for flexible access to VTE. Continuing Education models that will meet workers lifelong learning needs have to be relevant and flexible to provide just in time learning without distance. ICTs can play a crucial role in removing distance from education and in developing a lifelong learning culture in Vocational and Technical Education. In spite of these potentials little is known regarding the usage of ICTs in VTE within our societies. The purpose of this analytical survey is to bridge the knowledge gap.

Challenges

Digitization is fundamentally altering our world and with it, the roles, requirements and potential of VTE will undoubtedly change. This is why VTE has played a significant role in the upliftment of the standard of living of people across the world. Vocational and technical Education therefore connected with the practical use of the skills acquired in machinery and methods. Skills acquired in VTE measure the quality of performance that enables the person to create something new or to apply such skills in a novel situation as a useful tool for self – development. The necessity is to reinvent VTE for our time and the central challenge is to conceptualized and to create VTE structures, methodologies, and arrangements appropriate to these dramatically new digital age circumstances. The demand for work- related skills provision will be massive, multifarious, and lifelong, and these need to be efficiently and equitably met, efficiently. VTE also exposes the students to career awareness by exploring useable options in the world of work. It also involves the acquisition of skills and competencies that can help individual to function productively in industrial and commercial occupations (Longmans, 2012). The goals of VTE is the production of manpower which possesses the requisite knowledge, skills and attitude for harnessing other resources and bringing them to a cooperative relationship, yielding the goods and services that are demanded by the society for the satisfaction of wants and needs (Olarinmolu in Nwokolo-Ojo & Agishi 2016). The gains so far made in the development of VTE on the continent could be derailed if we do not pay particular attention to the factors contributing to high school dropout rates and the endangering of the lives of children and youths attending schools and universities. It is in this light that we need to encourage all to

express interest, prepare and participate in the upcoming world skills acquisition such as digital skills and job specific skills.

With digitization, it is assumed that a technological development is currently taking place that brings with it both opportunities and challenges. The new technological usage potentials are coming up, at the same time, these changes pose major challenges to the skills and competencies of future employees, education and training generally. Changing and increasing requirements in VTE, as well as further training become very important need to continuously developed competencies. However, VTE Institutions are also affected by digital change and must try to meet up with the new technologies. The task is to analyze the changes and develop the strategies, concepts, and models for individuals, companies and societal economies that benefit from the potential of digitization. We can concentrate on challenges of digitization for work and workplace learning as well as for VTE and training. We do not know how relevant this would become in a short while. We have been in the pandemic for several years, schools and universities are doing without classroom teaching, and in-house training, companies are changed to virtual training. Teachers, students, trainers and learners had to adapt quickly. The training should be staffed by competent, confident, cheerful, and well respected educators, working effectively to guide the learning. Lifelong professional development of VTE instructors should be put in place for teaching and learning.

The evidence of this technological transformation is readily apparent as one communicates with friends online or via mobile devices, checks in at a supermarket; dealing with one's bank, undergoing medical assessment or treatment, travel bookings, and access entertainment in one's home. At home with desktop, self-driving cars is arriving, self-repairing cars that converse with one another regarding those repairs in language that mere humans cannot comprehend. Uys (2018) with digitization, the world is so deeply transformed that entirely fresh educational approaches are both necessary and possible. Just as existing jobs now increasing, necessitate the possession of digital skills, for entirely new jobs based upon digital possibilities. VTE will assuredly alter roles; robots will take over many operations for example, factories and hospitals. A balance needs to be struck between educations and work in encountering digitization, VTE needs to take such challenges on board. Massiveness of the training and re-skilling is required, if people wish to stay relevant and marketable, in this rapidly changing digital environment, that too is made possible by digitization

The digital age necessitates a re- evaluation of what Vocational and Technical Education (VTE) is, for optimizing the means by which its objectives may be met, and enable digitally, comfortable instructors, to facilitate that constant skills development process.

This implies that the use of Technology as a means of facilitating learning outcomes, Technical and Vocational Education need to enhance acquisition of knowledge through e – learning. Computer application can be used for budget planning, accounting for expenditure, writing correspondences and reports, assigning students to classes, reporting student's progress, and testing students and scoring tests, which help to reduce paper work. It assesses how best these key digital skills development may be prepared, to deliver and facilitate the building of capacities, in effective and imaginative response to the rapid and accelerating changes in Technologies, economic, labour market, personal aspirations and the nature of work.

These Challenges Include

- **Rapid Technological Advancements:** ICT is a rapidly evolving field, and keeping up with the latest technologies is a challenge for Vocational and Technical Education (VTE) programmes. It requires regular updates of curriculum, training materials, and infrastructure to ensure that students are learning relevant skills.

- **Skills Gap:** There is often a gap between skills taught in Vocational and Technical Education (VTE) programmes and the skills demanded by industries, as technology advances, new skills and competencies are required, and it can be a challenge to keep up with the changing needs of the job market.
 - **Access to infrastructure and Resources:** Adequate infrastructure such as computer laboratories, internet connectivity and software applications is needed for ICT and VTE training. This can limit the effectiveness of training programmes.
 - **Quality of Instructors:** Qualified and experience instructors are essential for effective training in ICT and VTE.
 - **Industry Collaboration:** collaboration between educational institution and industries is crucial for ensuring that VTE programmes are aligned with industry needs. Effective partnerships can be a challenge in meeting their requirements.
- Continuous Training and Lifelong Learning:** Due to the fast – paced nature of ICT Industry, people need to engage in continuous training and lifelong learning to update their skills.

Reasons for Incorporating ICT Into Vocational and Technical Education

There are several reasons why ICT is incorporated to VTE, these include;

- **Relevance to the modern workplace.** It is essential that students are better prepared for the demands of the modern workplace.
- **Enhance learning experience;** provide interactive and engaging learning experiences, making complex technical concepts more understandable and practical.
- **Skills development:** ICTs play a crucial role in developing technical skills such as programming, data analysis and design, which are important for VTE fields. Students can gain hand-on experience with relevant tools and technologies.
- **Improved access to resources:** ICTs allow students to access wide range of educational resources online, including tutorials, simulation, and industry-specific software. It can enhance their learning process and provide access to up-to date-information and materials.
- **Global collaboration:** enable students to collaborate with peers and professionals globally, enhancing their communications and teamwork skills.
- **Industrial Alignment:** many industries are increasingly reliance on technologies, it will ensure that students are prepared to meet industries standards and technological advancement
- **Workforce Development:** that meets the demands of the digital economy.
- **ICT is essentials** due to the need to prepare students with the skills and knowledge required for success in the modern workforce.

Conclusion

Nigeria is currently facing very difficult times that required proactive measures to reverse the trend. Vocational and Technical Education is the key to getting it right. There is need to prepare our young ones with skills on lifelong learning to enable them survive and thrive in this digital age. A full recognition of ongoing and future technological transformation, economic changes and occupational requirements is vital if VTE is to be credible and to achieve the high status that it deserves in this digital age. A new competency in VTE is needed by individuals to respond to these challenges, to prepare them for this constantly evolving world of work in an age of technological transformations. Vocational and Technical Education instructors should produce instructor who will place knowledge acquisition and skills development in a global context. Instructors should be educated to be responsive to digital age teaching and learning to accelerate changes in global society. This presumes that instructor is skilled enough to assist the learners.

Excellent digital tools and excellent life instructors working in tandem, seamlessly blended, for all trainings should be the VTE policy goal. Digital age necessitate and make possible the provisions of sufficient competent, VTE instructors playing key facilitative and professionally fulfilling roles in skill development founded upon digitization. The use of technology must go hand in hand with the models that are open and flexible, if lifelong learning in VTE objectives must be achieved. Our young ones need to be equipped with useable skills that can lift them from being job seekers to people who create wealth and generate jobs. Curriculums of VTE and changes in industry have to be matched to be able to meet up with constant changes in digitization world of work.

Recommendations

- There must be a strong collaboration between industry partners and educational institutions.
- Infusing (digitization) into all disciplines in the university, especially VTE.
- Instructors should be giving the opportunity for continuous skilling and reskilling to meet up with these technological changes.
- There should be proper monitoring of curriculum changes and implementation.
- All VTE instructors will be teachers of digital skills as effective agents in the propagation of digital literacy.
- Government should as a matter of urgency, increase budgetary allocation so that educational institutions can carry on their activities with ease and pay their workforce living wages.
- The curricula of our institutions should be restructured to inculcate practical skills that will make our students to be self-reliant.
- VTE institutions should make conscious efforts to strengthen their entrepreneurship programmes to prepare their students to be entrepreneurs by actually inculcating practical skills that will position them to be employers of labour rather than job seekers.

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