PREPARING TODAY'S STUDENTS FOR TOMORROW'S WORK ENVIRONMENT

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Abstract
The world of work and the skills required to be successful in the work/office environment continues changing at an unprecedented rate and at a very fast pace too. There is an observed gap between what is learned at school and what is required to function at the workplace and in the modern society of today. There is also a widespread consensus or acceptance that our education systems are failing to adequately prepare students with the essential 21st century knowledge and skills necessary to succeed in life and in the workplace. What are we expected to do as educators to bridge this gap is a vital question that demands an answer. Therefore, the paper considered a broader range of skills required to learn, communicate, collaborate, and solve problems in a global digital 21st century work environment. Recommendations were made which included the use of adequate modern technologies in teaching and learning in schools, encouragement of collaborative learning environment in schools, teaching of digital literacy skills which include information literacy, media literacy and information and communication technology literacy and updating of curriculum as the need arises to get students ready for the jobs of the future among others.

Key Words: 21st Century Skills, Students, Technology, Change, Future, Workplace

Introduction

The recent global pandemic and rapid advancement in technology and communications has made the world of work look different from how it used to be. During the global pandemic most organizations moved away from their traditional office buildings to working from home; these recent developments has brought a prediction that the future of the world of work together with its practices and cultures has changed and will definitely continue to change. The truth is that the world we live and work in is constantly changing at a very fast pace. In addition, there is a rapid increase in the advancement of technology which has resulted in changes in the way people learn, live and work.

There is an observed gap between what is learned at school and what is required to function at a modern workplace and in the modern society at large. Mastery of core academic subjects was the measure of becoming a successful graduate in the past, but today's 21st century work environment; requires a different attainment. To actively get involved actively in the increasing complex society and to become part of the global economy, students are required to think critically, communicate effectively, collaborate with divers persons, solve or give solutions to complex problems, have a global mindset and actively participate and use information and communication technologies among others. In today's world educators are expected to equip their students with a set of soft skills deemed crucial in the increasingly global and competitive society.

Nowadays especially in developed countries many organizations and industries prefer virtual workers or flexible home working to working from a traditional office building, on this note, one is tempted to question how the workplace will look like in the next ten or twenty years to come especially in developing countries like Nigeria; Stace (2021) noted that the future of work is expected to be based around digital work spaces; technology will be a critical element of work, with a greater use of AI, specialist software and new digital services. This will create a new and previously unheard roles, requiring workers of the future to have new skills with digital competencies and agility, communication and teamwork all coming to the fore (Stace, 2021 p. 3).

The 21st century skills are abilities, and learning dispositions that are necessary for success in the society and in the workplace at large. The 21st century skills are competencies that showcase students who are prepared for the future complex work environment; these 21st century skills is a separator; it separates prepared students from those who are unprepared for the future needs of the workplace. Students who are competent in the 21st century skills will have a far better chance of being relevant and productive by contributing to be needs of the society where they belong. The 21st century skills include critical thinking and reasoning, creativity and creative thinking, problem solving, collaboration, communication and information literacy, information and communications technologies (ICT) and digital literacy, communication, among others (Muhmud & Wong, 2022; Stauffer, 2022). Buynay (2023), further stated that the 21st century skills can be categorized into three frame works. Firstly, learning skills -(creative thinking, collaborations and communication); these set of skills help students acquire, process and retain information effectively. Secondly, life skills (information literacy, media literacy and technology literacy); these set of skills enable students go through their day to day activities successfully and also achieve professional success. Thirdly, literacy skills -(flexibility, leadership, initiative, productivity and social skills); these set of skills enable students to read, write and communicate very well and as well become successful in their everyday activities whether in school or in the work place.

On the importance of the 21st century skills, Llego (2022), stated that it helps students develop skills they need for the real world of work; it prepares students for an increasingly globalized world, it motivates students to develop deep interest in learning and helps students develop metacognitive skills needed to become a lifelong leaner.
The traits that help people qualify as effective workers in an information age are learnt through the 21st century skills (Ozturk, 2023). How should students be prepared for these unavoidable changes and future requirements in the world of work? This paper addressed

the skills that can be brought into the classroom today in order to prepare students for their future careers.

Needed 21st Century Skills for the Future Workplace

Building life skills is like forming good habits and it's process takes time and needs regular practice; the earlier it is started in life the better for these skills to be learnt and retained. The effective methods to bringing in these 21st century skills into the classroom include: - project-based-learning techniques, learning and assessments, crisis management techniques, note taking and self reflections. Others include real world connections, collaborative learning, experimental learning, technology integration and classroom instruction (Buynay, 2023, Lakshmi, 2023 & Stace, 2021).

The 21st century skills are discussed below:

Critical Thinking and Problem Solving Skills

Critical thinking is the ability to engage in reflective and independent thinking. Critical thinkers always identify, analyze and solve problems systematically rather than by intuition or instinct. Critical thinkers' painstakingly questions ideas and assumptions rather than accepting them at face value; they always seek to determine whether the ideas, arguments and findings represent the entire picture of any situation ("SkillsYouNeed", 2023). According to Nichols (2019) whatever be the discipline any student chooses to study, the ability to think and act quickly is an important and a necessary skill needed in the workplace. Critical thinking and problem solving skills enables students see problems from different angles and be able to formulate their own solutions. Nicholas added that educators should while teaching present their students with situational problems whereby students can be able to by themselves figure out solutions to the created situational problems. Critical thinking means looking at problems in new ways, making smart decisions and making connections to other subjects, opinions and ideas (Dimitriadis, 2018). According to Dimitriadis students should be presented with real-world scenarios and asked to identify possible solutions by themselves, and by positioning students as problem seekers and problem finders they are been encouraged to think critically when they are identifying needs and opportunities around them.

In the same vein, Nor & Sihes (2021) stated that academic institutions should incorporate critical thinking skills into their teaching and learning disciplines, that students should be made to engage in active learning activities, advanced problem-solving activities and work in groups or teams as this will help students to be productive in the future work environment and succeed in life. The critical thinking skill will also help them work collaboratively, think critically and analytically, communicate effectively, and solve problems efficiently in the workplace after graduation. Brandman (2020) opined further that critical thinking which involves the ability to reason effectively, use systems thinking, make judgments and decisions, and solve problems can be crucial in helping students develop other important skills like increased concentration, deepened analytical abilities and improved thought processing.

Collaboration and Leadership Skills
Dimitriadis (2018) defined collaboration as achieving shared goals with others; thinking together and harnessing the ideas, skills and expertise of others in the group. According to Dimitriadis, collaboration provides opportunities for students to work on collaborative projects or assignments where each student takes responsibility for an aspect of a larger group project. That is, each student becomes responsible for the design of a particular element or aspect of the project or assignment and also makes sure that this element is fitted with the overall design of the work or project. Furthermore, collaboration provides opportunities for students to work collaboratively on solving real-world workplace problems in order to arrive at one effective solution(s) to a problem(s). Baker (2022) added that collaborative skills are the tool that enables a person work with others to accomplish tasks and goals successfully because no person can do it all independently.

In addition, collaboration skill plays a significant role in learning; collaboration skills are needed by students to face the challenges of the 21st century and for success in global competition in any area. More so, technological evolution demands collaboration as a necessary requirement that students must have to survive in this era, and one of the ways to initiate collaboration skills in students is through learning; when students interact with each other in learning activities through collaboration, the development of cognitive skill and knowledge acquisition are equally facilitated (Silfia, Mimien & Fatchur-Rohman, 2021).

Collaboration and leadership skills will enable students learn how to work with others very well; this is because the ability to lead and work together as a team with others will help them advance and become successful in any chosen career in future. It is a known truth that not every person is born a natural leader and to prepare students in this area, just the typical teamwork is required, students can be encouraged to take on different roles within their group for every task within any group task or project assigned to them. There are many different roles that students can fill during a project work or team assignment with their course mates that will allow them to work with others in a more collaborative way than just breaking apart a project and then putting it back together in the end (Nichols, 2019 & Yan, 2019).

Agility and Adaptability
These skills are all about adapting quickly to change and embracing change. If we look back at the workplace and the world in general, the last fifteen years and year 2020 in particular showed so many changes. Therefore, students need to be comfortable with the idea of change and be willing to adapt to the changes around them (Oluwatoyin, 2022).

Educators are to create a very dynamic environment within the classroom that can help to prepare students for the future by varying their teaching strategies, adjusting the setup of the classroom from time to time; varying the ways that learning is demonstrated by students, and even the guidelines and instructions for group work or take-home assignments. These can help students learn to adapt to changes they may meet in the world of work in the future.

Creativity and Innovation Skills

Creativity and Innovative skills should be encouraged among students. Students need to be able to take initiative, be creative and contribute to the world of work. Creativity according to Dimitradis (2018) is about generating and testing new ideas, being innovative, inventive and enterprising. This skill according to him encourages students to come up with as many ideas as possible before they can select the best idea for a designed solution. Educators are to train students develop their minds to be able to arrive always with as much as 50 to 100 ideas in 10 minutes; they are to become fast thinkers, innovative, inventive and enterprising with their minds. Furthermore, "Indeed Editorial Team" (2022) contended that creativity skills help individuals develop innovative ideas that will enable them approach modern ideas and situations; such skill can be used to update ineffective and obsolete work strategies or policies and make them current and relevant to any modern situation.

Communication Skills

Oral and written communication helps students to effectively speak confidently and write good business correspondences clearly. Despite advances in technology, these skills can never diminish in importance. Failure to teach effective oral and written communication now in our schools may lead to emails (letter, memorandum, tenders, circulars etc) full of grammatical errors in the workplace as they graduate and become workers. Brandman (2020) emphasized that in other for students to communicate effectively; there is need for them to learn how to organize their thoughts in a variety of contexts. Students also need to learn how to listen effectively, decode meaning and discourse well in diverse environments using multiple media and technologies. This is because it is expected that working professionals should know how to determine which information sources are accurate, how such information can be used effectively and to their advantage. Brandman further added that complex communication often requires direct human interaction in the form of explanation or negotiation, jobs that require these skills are less likely to become automated in the future. Therefore, learning of communication skills will help students articulate thoughts and ideas and also to effectively use oral and written communication skills in a variety of forms and contexts.

Communication skills are also needed to ensure students academic success and effectively equip them for the job market (career readiness). It enhances students social and emotional development in the formation of positive relationships, helps them in analyzing and evaluation of information (critical thinking), and also in communicating across cultural boundaries (cultural competence) (Shubhda, 2020).

Digital Competency (Accessing and Analyzing Information Skills)

Digital literacy is a skill students needs in order to have access to information with the aid of digital technologies such as mobile devices, internet platforms and social media. Digital skills include information literacy, media literacy and information and communication technology literacy. Digital literacy is important because when a student graduates and enters into the professional world, he or she will be expected to interact with people in a digital environment. Digital literacy is all about understanding technology and using it appropriately, knowing its limitations, dangers and the precautions that it requires (Western Sydney University, 2020 & Siu, 2022). According to Brandman (2020), digital

competency must be taught in schools to enable students become active and engaged in life. They noted that students should to be able to determine the validity of the digital content they come across. Students should be able also to communicate effectively, listen actively, think critically, reason logically and interpret clearly.

It is obvious that internet technology today provides an incredible research tool that can be used by students to have access to enormous amounts of information twenty hours every day and seven days a week (24/7). This can make the internet technology their best friend or worst enemy if not properly checked. Accessing information is fast and very easy, but accessing good information is more complicated. Students need to be taught how to sift through the millions of web pages available on a topic, find what they need, and be able to trust what they find. They need to learn the difference between factual information and factual-sounding ideas and opinions (Nichols, 2019).

Entrepreneurial Skill

An entrepreneurial skill comprises of a large range of both soft and hard skills. Entrepreneurial skills prepare students for life after school by making them more employable and more successful in their work-life. New businesses are emerging all the time, this may be positive but it brings uncertainty to the labour market because many new positions are being created at the same time while many other jobs are also being lost. To make the most of future opportunities, students will need to develop an entrepreneurial mindset; students who think more like entrepreneurs will adapt and do well in a complex work environment. They will have the ability to adapt to any change of job descriptions and new technologies at the same time; this is because entrepreneurship is about developing critical thinking and problem-solving skills as well. There are a number of ways that students' entrepreneurial skills can be built which include finding and sharing examples of new and innovative business startups and analyzing what made them successful. Another way is that students could be requested to come up with their own business ideas; they should be encouraged to be innovative and creative with their ideas; this idea is to get them thinking about entrepreneurship and using creative skills as well. Classroom debates and role playing activities is another good method of developing entrepreneurial skills. Students could be asked to come up with creative solutions to problems as a team and also deliver such ideas to their class members (Stace, 2021 & Herrity, 2022).

According Poth (2019), student should also be helped to think like entrepreneurs and innovators of the future by teaching them on how to take strategic advantage of technology to get the right digital skills which will prepare them for a variety of work environments. Barret in Ezeani (2012) mentioned some of the skills needed in entrepreneurship development to be as follows:

(i) Technical Skills: These involves writing, oral communication, monitoring environment, technical business management, technology, interpersonal, listening, ability to recognize, network building, management style, coaching and being a team player.

(ii) Business Management Skills: These involves planning and goal setting, decision making, human relationship, marketing, finance, accounting, management, control, negotiation, venture, launch and managing growth.

(iii) Personal Entrepreneurial Skills**:** These involve inner control discipline, risk taking, innovative, change oriented, persistent visionary leader and the ability to manage change.

Conclusion

When students are prepared across a broad range of knowledge, skills, and abilities, they not only get good jobs, they also work actively and efficiently as productive workforce. More so, as society has evolved, so must curricula, teaching and learning of 21st-century skills becomes a necessity and an important task in helping students understand themselves, understand others and also learn how to think creatively and critically no matter what field of study or work they plan to pursue. With these skills students will definitely feel empowered and very safe to enter the world of work prepared and confident that they are ready for anything.

Recommendations

Based on the discussions of the paper, the following recommendations are made:

1. Government should provide adequate modern technologies to schools and various institutions should make them available and assessable to teachers and students.
2. Teachers should incorporate the 21st-century skills into many subjects right from the secondary school level.
3. Tertiary institutions should reform and transform Students Industrial Work Experience Scheme (SIWES) to make students experience and see the real world of work as it is.
4. Training institutions should encourage collaborative learning environment should be in the school. This is because it helps strengthen and reinforce many core 21st-century skills that employers seek for.
5. Curriculum planners should update curriculum from time to time since the work environment changes constantly.

REFERENCES

Baker, C. (2022). Leading requires these collaboration skills. *https://www.leaders.com>Articles*

"Brandman University" (2020). What is 21st century learning? preparing today's students for tomorrow's workforce. *https://www.brandman.edu>news-and-events>blog*

Buynay, J.V. (2023). 21st century skills to prepare kids for the modern world. *https://www.info.dprep.ac.th/directions*

Dimitriadis, D.T. (2019). 12 ways to help students develop 21st century skills with Maker Empire. *https://www.makersempire.com*

Ezeani, N.S. (2012). The teacher and skills acquisition at business education: from the perspective of accounting skills. *Arabian Journal of Business and Management (OMAN Chapter), 2(4), 25-36*

Fadel, C. (2008). 21st century skills: how can you prepare students for the new global economy? Global Lead Education CISCO Systems, Inc. *https://www.oecd.org*

González-Salamanca, J.C., Agudelo, O.L., & Salinas, J. (2020). Key Competences, Education for Sustainable Development and Strategies for the Development of 21st Century Skills. A Systematic Literature Review. *Sustainability, 12, 10366.*

Heather, H. (2020). How to equip your students with real world skills to prepare them for future success. *https://www.xellow.world>blog>21stcentury-skills*

Herrity, J. (2022). A guide to entrepreneurial skills: definition and examples. *https://www.indeed.com>...>career development*

"Indeed Editorial Team" (2022). 21st-century skills:definition and examples *https://www.indeed.com>career development*

Jimenez, L. (2020). Preparing American students for the workforce of the future. Centre for the American Progress. *https://www.americanprogress.org>reports>2020/09/14*

Lakshmi. P. (2023). 10 ways for teaching soft skills to students: life after school. *https://www.ahaslides.com>blog*

Llego, M. A. (2022). 21st-Century learning: what it is and why it's important. *https://www.teacherph.com/21st-century-learning/*

Mugabi, T. (2019). How to incorporate 21st century skills into the classroom. *https://www.classcraft.com>blog>how-to-incoporate*

Muhmud, M.M. & Wong, S.F. (2022). Digital age: the importance of 21st century skills among undergraduates. *Front Education Vol. 7 https://www.doi.org/10.3389/feduc2022.950553*

Nichols, J.R. (2013). 7 skills students will always need. *https://www.teachthough.com*

Nor, H. M., & Sihes, A. J. (2021). Critical Thinking Skills in Education: A Systematic Literature Review. *International Journal of Academic Research in Business and Social Sciences, 11(11), 198 – 201. http://www.creativecommons.org/licences/by/4.0/legalcode*

Oluwatoyin, P. (2022). Agility and adaptability: today's skills for tomorrow's professional. *https://www.linkedin.com>pulse>agiligy-adap*

"Oxford University Press" (2013). 5 ways to prepare your students for the 21st centure. *https://www.WordPress.com*

Ozturk, O.T. (2023). Examination of 21st century skills and technological competences of students of fine arts faculty. *International Journal of Education in Mathematics, Science, and Technology (IJEMST), 11*(1), 115-132. https://doi.org/10.46328/ijemst.2931

Poth, R.D. (2019). The future of work: how do we prepare students? *https://www.GettingSmart.com*

Ramya, V. (2019). Integrating 21st century skills into education systems: from rhetoric to reality. *https://www.brookings.edu*

Reed, S. (2020). How to prepare students for jobs in the 21st century. *https://www.oupelkglobalblog.com*

"Relocate Editorial" (2019). Preparing students for the changing global workforce. October, 22nd, 2019. www.relocatemagazine.com

Silfia, I., Mimien, H.I.A., Fatchur-Rohman M.S. (2021). Student's collaboration skills in science learning advances in social science. *Education and Humanities Research, 619, 204-208 http://creativecommons.org/licenses/by-nc/4.0/. 204*

Sit, K. (2022). Importance of digital literacy. *https://www.teachourkidscode.com>why-is- digital-literacy....*

"SkillsYouNeed" (2023). Critical thinking. *https://www.skillsyouneed.com*

Stace, C. (2021). Preparing your students for the world of work. *www.blog.pearsoninternationalschools.com*

Stauffer, B. (2022). What are 21st century skills? https://www.aeseducation.com>blog>what-are-21st-c…

"Western Sydney University" (2020). What is digital literacy? *https://www.westernsdyney.edu.au>study-skills-guide*

Wikipedia (2020). 21st century skills. www.en.wikipedia.org.