

Competencies for the 21st Century Graduate in Higher Institutions of Learning for Excellent Performance

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Abstract

Competency is generally a combination of skills, knowledge, attributes and behaviours that enables an individual to perform a task or an activity successfully within a given job. Global competence is a multi-dimensional lifelong learning goal. It is a comprehensive set of attitudes, skills and knowledge that can be interdependent, interdisciplinary and leveraged in a variety of situations both locally and globally. Global competencies include knowledge, skills, attitudes and values that enable an individual to examine local, global and intercultural issues that lead to understanding and appreciating different perspective and worldviews of others. The paper adopted the historical research design and concluded that students/graduates of higher institutions need to be abreast with present day global competencies due to the present-day technology which has brought about the need to be knowledgeable with global information. Also, it reiterated that students and graduates need such global competencies plus the various skills of manipulating the computer such as word processing, data processing, information processing and general management and communication competencies. It was recommended among others that the National Board for Technical Education (NBTE), the National Universities Commission NUC and the National Commission for Colleges of Education NCCE, should not wait for decades before reviewing the curriculum of Universities, Polytechnics and Colleges of Education because technologies are evolving daily.

Keywords: Innovation, Higher Institutions and Global Competencies.

Introduction

Present day society is faced with rapid changes taking place in all facets of human life as a result of technological advancement. The introduction and application of technology advancement according to Muhammed (2016) has brought a revolution and greater effectiveness in day to day working of an office due to this, procedures have become more simplified and office work has become more interesting and challenging. Adalele and Adeoye in Ikelegbe (2020) recounted that innovation in technology is already transforming social and economic life and is moving at near lighting speed and that computer technology is one of the most potent forces that has shaped the 21st century. Ikelegbe however noted that the competencies required to match present day modern office technological era is a big challenge to all professionals.

Higher education which is also referred to as tertiary education according to Nzeyi, Ene and Nwosu (2022) while citing the National Policy of Education NPE, states that tertiary education is education given after

secondary. Institutions such as colleges of education, polytechnics, monotechnics and universities including those institutions offering correspondent courses are in this group. The goal of tertiary education according to the authors as stated on the national policy of education shall be to;

- a) Contribute to national development through high level relevant manpower training.
- b) Develop and inculcate proper values for the survival of individual and society.
- c) Develop the intellectual capability of individuals to understand and appreciate their local and external environments.
- d) Acquire both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society.
- e) Promote and encourage scholarship and community service.
- f) Forge and cement national unity; and promote national and international understanding and interaction.

NPE added that tertiary education shall pursue these goals through teaching, research and development. Nigeria's educational system encompasses three different sectors; basic education (nine years), post-basic/senior secondary education (three years), and tertiary education (four to six years), depending on the program of study.

However, with the present technology era, every aspect of our work life has changed due to innovation that has permeated every facet of organizations.

Innovation is centred on creating something new and of value. Innovation in organizations' of today has changed the mechanical methods of yesterday to automated procedure. This has facilitated investment in networks of computer based work stations and other automated equipment which aid to transform traditional media. This transformation according to Shelly (2018) resulted in the development of automated systems that rely on electronic collaboration and communication networks, to aid text processing, image processing and other information and communication technologies.

The modern office technologies introduced and used today is due to technological innovations which includes electronic computers with modern office accessories or packages, internet and intranet facilities for online communication and collaboration, computer printers, plotters, digital memo, fax machine, photocopier, digital video camera, close circuit television and video projector. Others are computer conferencing, audio conferencing, video conferencing, voice recognition multimedia system, electronic, whiteboard, smart board, scanners, web pages, web-based e-mail, electronic calendars and many more. These innovations altered the ways in which organizations were run, the ways in which information is organized and the ways individual use in carrying out their jobs.

Global Competencies by Higher Institution Graduates–Teacher's Approach

We are living in a global information society with a global economy that is increasingly dependent on the creation, management and distribution of information resources due to innovation in technology. People in many nations and their workforce consist primarily of workers in services occupations or knowledge workers that "are people who spend most of their workday creating and distributing information. Enang and Okute (2019) referred to the present times as electronic world (e-world). According to the authors, to fully participate in today and tomorrow's economic, social and cultural life, training individuals with relevant skills for the e-world is fundamental. They added that the evolving nature of the e-world required individuals to adjust to the skills that are demanded globally and that emphasis should be placed at ensuring that individuals are equipped with skills to participate perfectly in the e-world, this means leveraging on new technologies to improve the access and the quality of education and training of students.

Competency according to Osinem and Ugwuoke in Baba, Victor and Baba (2015) is an essential knowledge and skills obtainable in a profession and those which the professionals in the field must possess and be able to demonstrate at optimal level of acquisition and functioning. They are the ability to do something well. International Atomic Energy Agency IAEA (2018) stated that competency is generally defined as a combination of skills, knowledge, attributes and behaviours that enables an individual to perform a task or an activity successful within a given job. Competencies are observable behaviours that can be measured and evaluated and thus are essential in terms of defining job requirements and recruiting, retraining and developing staff. IAEA added that using a competency framework enables an organization to successfully align its staff's skills, capabilities and knowledge with organizational priorities, resulting in business improvement and efficiencies. Specifically, competencies ensure that;

- Clear expectations are set and staff members are guided as to how they can assume and reinforce behaviours in line with the organization's mission, culture and goals.
- Share knowledge is created to describe what is needed and expected in the work environment, thereby providing for reliable and high-quality performance delivery.
- The various facets of human resources management can be integrated, enhancing consistency in human resource planning and recruitment, learning and development and performance management, and thereby contributing to the streamlining of human resources operations and ultimately to efficiency gains.
- Skill gaps are addressed, strengths are further developed and requirements for career progression are clarified.
- Staff mobility, organizational change and shaping of the organizational culture are fostered.

One of the desires of most developing countries and Nigeria is not an exception, according to Dambo, Enyekit and Enyekit (2019) is to have a functional education system that would train her products to be self-reliant through the acquisition of knowledge, attitude, skills and competencies. To this end, the authors positioned that educators should bear in mind the following factors in instructional planning process, if they would want their students to acquire the right competencies before graduating such as:

- a. Educators should determine what they want their students to learn from the course and why.
- b. Educators should determine the general objectives and specific objectives that should include the view of all that is to be covered.
- c. Educators should decide the course content that will lead to the fulfillment of the desired objectives.

From the foregoing it is imperative to deduce that to achieve the desired competencies in higher education programme, it is important for the teacher to organize the course in a way that the focus should be on the subject matter and how the students could benefit both practically and theoretically. According to Murga in Carrascal, Magro, Anguita and Espada (2019), for students to have the desired competencies before graduation, teachers should be able to deal with planning and carrying out educational proposals requiring a series of competencies, much more connected with practical applications. The authors highlighted four competencies that teachers must have to face the challenges of an information society.

1. Knowledge of the subject matter and of the current culture competence.
2. Pedagogical competence or teaching skills that enhance the effectiveness of the teaching-learning process.
3. Instrumental skills and knowledge of new technological, audio-visual and language advances.
4. Personal characteristics, such as maturity, security, self-esteem and emotional balance, empathy, imagination etc.

On the basis of the above, it will not be wrong to asset that education has to be dealt with, on one hand, by teachers from a transformative perspective and with a global and innovative approach to develop goal teaching practices, and on the other hand, by relevant institutions capable of developing responsible educational policies. In the views of Rieckmann's in Carrascal, Magro, Anguita and Espada (2019), fundamental social transformations required to achieve sustainable transformation in any nation should

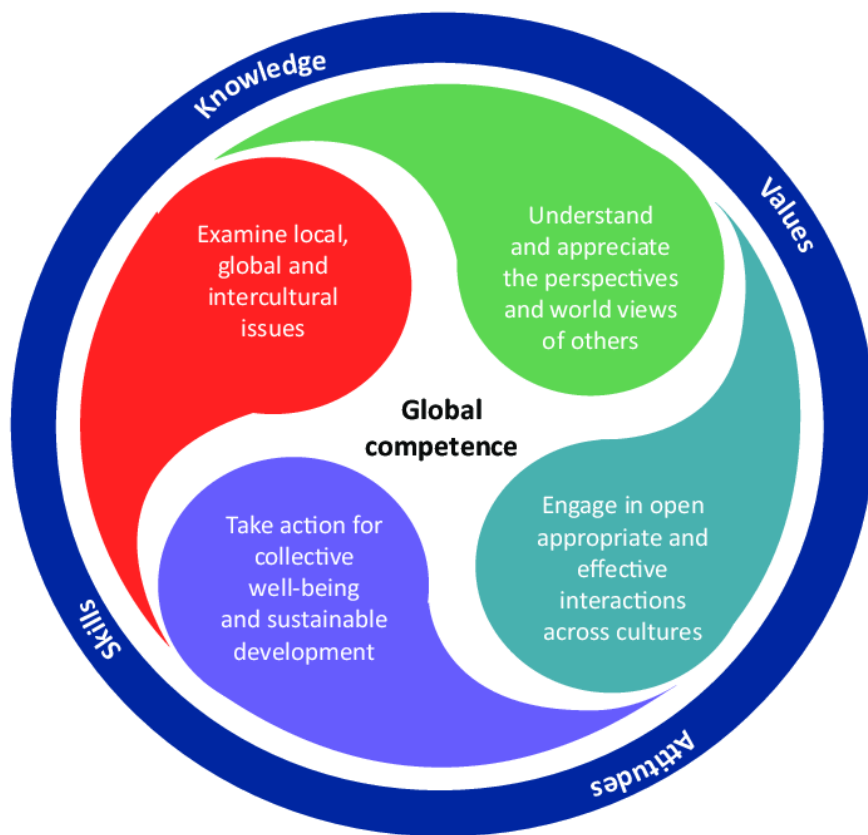
entail change of perspective in higher education. Likewise, the role of universities and other institution of higher learning are essential in providing teachers with the necessary tools they will use in the exercise of their functions to develop key competencies on the students.

Global Competencies Required by Higher Education/Tertiary Education Students Graduate in the 21st Century.

Acquisition of global competencies by graduates of higher education no doubt is important, as both students and graduates face a complex and unpredictable future due to changes in technology daily. The ambiguity and uncertainty of technological changes signal the urgency for educational institutions to provide younger generations with the knowledge, skills, values and attitudes that they will need to become lifelong learners, to understand issues of global interdependence and to be active global citizens.

The Council of Ministers of Education, Canada (CMEC) (<https://www.cmec.ca>) define global competencies as overarching sets of attitudes, skills and knowledge that can be interdependent, interdisciplinary and leveraged in a variety of situations both locally and globally. CMEC noted that there is growing recognition that global competencies promote deeper learning by equipping students with the necessary tools to adapt to diverse situations and become lifelong learners. Global competencies contribute to educational attainment, relationships, and employment, health and well-being outcomes. Additionally, global competencies increase understanding of global economic, social, political, technological and environment forces that transcend national boundaries.

Global competence according to the Program for International Student Assessment (PISA) (2018) is a multi-dimensional, lifelong learning goal, global competent individual, in the view of PISA can examine local, global and intercultural issues, understand and appreciate different perspectives and world views, interact successfully with others, and take responsible action towards sustainability and collective well-being. PISA presented the following diagram as the dimension of global skill which could be of benefit to any school program.



Adapted from PISA (2018): Global Competence Framework

The building blocks of global competence – knowledge, skills, attitudes and values.

The four dimensions of global competence are supported by four inseparable factors; knowledge, skills, attitudes and values. For example, examining a global issue (dimension 1) requires knowledge of a particular issue, the skills to transform this awareness into a deeper understanding, and the attitudes and values to reflect on the issue from multiple cultural perspectives, keeping in mind the interest of all parties involved.

Effective education for global competence gives students the opportunity to mobilize and use their knowledge, skills, attitudes and values together while exchanging ideas on a global issue in or outside of school or while interacting with people from different cultural backgrounds (for example, engaging in a debate, questioning viewpoints, asking for explanations of identifying directions for deeper exploration and action).

A school community that wishes to nurture global competence should focus on clear and manageable learning goals. This means engaging all educators to reflect on teaching topics that are globally significant, the types of skills that foster a deeper understanding of the world and facilitate respectful interactions in multicultural contexts, and the attitudes and values that drive autonomous learning and inspire responsible action.

In the views of Schejbal and Irvine (2009), global competencies could be categorized into knowledge, attitude and skills. They added that what is instructive is that, to be globally competent requires not only a certain skill set, but a broad and externally focused attitudinal and intellectual perspective such as:

Knowledge

- knowledge of world geography
- awareness of the complexity and interdependence of world events and issues
- understanding of historical forces that have shaped the current world system
- knowledge of one's own culture and history
- knowledge of effective communication, including knowledge of a foreign language, intercultural communication concepts, and international business etiquette
- understanding of the diversity found in the world in terms of values, beliefs, ideas, and worldviews

Attitudes

- openness to learning and a positive orientation to new opportunities, ideas, and ways of thinking
- ability to manage ambiguity and pressure in a self-reflective way and to use criticism as a growth opportunity
- strong interest in learning at multiple levels and in seeking opportunities for continuous learning and professional growth
- orientation toward action and commitment to achieving outcomes
- sensitivity and respect for personal and cultural differences
- empathy or the ability to take multiple perspectives; ability and desire to work constructively with people of all backgrounds and orientations
- self-awareness and self-esteem about one's own identity and culture
- Positive outlook about the future and proactive engagement in the world: initiative, enthusiasm, inquisitiveness, courage, self-reliance, self-control, independence, perseverance, creativity, flexibility, assertiveness, sense of humor.

Skills (general)

- technical skills (i.e., research skills) that enhance the ability of students to learn about the world
- critical and comparative thinking skills, including the ability to think creatively and integrate knowledge, rather than uncritical acceptance of knowledge
- communication skills: ability to express oneself clearly in conversations and interactions with others; listen actively; produce effective written communications; ensure that information is shared; use another language effectively to interact with people from other cultures; establish rapport quickly; work effectively as a part of a multinational/multicultural team
- coping and resiliency skills in unfamiliar and challenging situations, e.g., multicultural settings with a diverse range of personalities and learning styles
- learning through listening and observing
- effectiveness and astuteness when working in cross-cultural settings
- leadership skills: confidence in motivating staff to meet challenges and achieve objectives and in promoting ownership and responsibility for desired outcomes at all levels
- ability to identify and use synergies across organizations and with external partners

In the opinion of Shelly (2018), while we talk of global competencies in today's workforce, offices typically need administrative professionals to keep it organized, efficient and productive. As such global skills are a key way to ensure a company runs smoothly. Therefore, the need to acquire the basic competencies of a particular profession is required including the global competencies to fit in the professional area. Such skills and the basic competencies include;

1. **Word Processing Competencies:** Word processing is the production of written document such as letters or reports by using software programs and computers. Much information is communicated by the professional using written documents. Usually these documents are shared in printed form.

Increasingly, written documents are shared and read online. Electronic mail messages for example, are often used to communicate internally and externally. Communicating information effectively is important in all types of organizations.

Another important communication tool that is closely related to word processing is desktop publishing. This entails the production of documents which include both text and graphics. Example of these documents includes newsletters, brochures and forms. Basic competencies required by graduates include:

- Keyboarding with speed and accuracy
- Knowledge and skill in use of software programme.
- Skill in formatting and proofreading documents
- A large vocabulary
- Proficiency with grammar, punctuation and spelling
- Ability to learn special vocabularies
- Ability to following instructions.

2. **Data Processing Competencies:** Data processing is the collecting, organizing, analyzing and summarizing of data, generally in numeric form. The professional require competency in these skills. The activities are usually done at a computer, using spreadsheet and statistical software programs. Data processing and word processing often blend with one another and they are collectively referred to as information processing. Basic competencies required by graduates in data processing include;

- Proficiency with using spreadsheet, database and related programs.
- Knowledge of arithmetic processes and statistical methods.
- Ability to be consistently accurate
- Knowledge of methods of organizing and analyzing data.
- Ability to interpret data
- Ability to prepare reports that communicate information in a meaningful way.
- Ability to man an organized work station.

3. **Information Management and Transmission Competencies:** Information and communication refers to the organizing, maintaining and accessing data, transmission refers to the communication of information both within and outside the organization. The competencies required by the graduates in this regard include;

- Identification of information needed in the situation.
- Ability to maintain or develop an information system.
- Ability to give attention to details
- Ability to use established procedures
- Knowledge of records management principles and basic filing rules
- Good keyboarding skills
- Proficiency in working with databases
- Ability to meet deadlines and solve problems
- Ability to work with others

4. **General Management and Communication Competencies:** The duties of the professional may sometime include general management and communicating. Most times the manager relies on her/him to take care of businesses. Generally, managing and communicating are broad areas that involve handling work time and tasks efficiently and interacting with other employees and customers. The essential competencies the graduates require includes;

- Establishing priorities
- Work in teams
- Motivate others to complete work
- Give attention to several tasks at the same time
- Communicate effectively both orally and in writing
- Interact with many types of people at all levels of an organization or outside the organization
- Complete tasks with little or no supervision
- Meet deadlines (time management)
- Organize tasks and work independently
- Using initiatives
- Evaluating your own performance objectively
- Attention to details
- Flexible and adaptable
- Presentation and public speaking
- Ability.

Conclusion

Acquisition of relevant skills abilities and competencies in the 21st centuries is essential for professionals of all field especially, now that technology continue to play dominant role in defining required competencies to manage all organizations. Today's automated office came with modernization and is today referred to as global information society with a global economy that is increasingly dependent on the creation, management and distribution of resources. Graduates in Nigeria required the skills, knowledge, values and attitude to examine local, global and intercultural issues, to understand and appreciate the perspectives and world views of others plus the basic competencies of word processing, data processing, the use of various digital software technologies, information management and transmission and general management and communication competencies in order to be efficient in his/her routine tasks.

Recommendations

The following recommendations are made;

1. Curriculum planners should recognize and appreciate the trend in technology and to examine local, global and intercultural issues that may be of benefit to training students in order to include them in the curriculum for training students to enhance capability before leaving school.
2. Workshops and seminars should be organized to intimate lecturers in all profession of current trends in technology and competencies required to manage today's and tomorrow's organizations. The lecturers trained should in-turn transfer the knowledge to their students before graduating.
3. The National Universities Commission (NUC), National Board for Technical Education (NBTE) and National Commission for Colleges of Education (NCCE) should not wait for decades before reviewing higher institutions curriculum, because technology is evolving daily. It is therefore important to review curriculum every five years as that is the bench mark, so as to enable for update of the curriculum in line with present reality.

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