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### QAS 471: QUALITY ASSURANCE AND PROGRAM EVALUATION IN TVET

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# QUALITY ASSURANCE FOR TECHNICAL VOCATIONAL EDUCATION FOR INCREASED PRODUCTIVITY- LITERATURE REVIEW.

Over the course of the years, quality assurance has evolved into an increasingly crucial

#### Introduction

component of technical vocational education and training TVET planning and practices (Shirley et al., 2015). According to Odo, Okafor, Odo, and Ugwuoke (2017), this is because of the role that TVET plays in the improvement of human capital and the advancement of technological advancement for the purpose of national development. TVET lends a hand to the expansion of economies, the alleviation of poverty, and the generation of new wealth within societies. In order to boost its productivity, particularly in the context of globalization, the government must ensure that effective TVET provision is made through quality assurance (Kamin et al., 2018; Asadullah, 2019). However, technical and vocational education and training (TVET) has not been significantly contributing to national development in most developing countries, despite the fact that this is one of the program's primary goals. This is because there is insufficient funding, which poses a risk to the overall implementation of the plan. As a result, the TVET system has been unable to produce graduates who are employable and capable of creating new jobs; consequently, there is a pressing need to investigate the realistic nature of quality assurance in TVET in terms of productivity through the use of literature reviews (Okorafor & Nnajiofo, 2017). In general, the digitalization of

technologies in today's world is penetrating all aspects of modern life, which is resulting in an increase in the amount of information, knowledge, and creativity available to the society as raw materials (ILO, 2016; Kromydas, 2017). In addition, digitalization in the world of work means that workers need to have better skills to keep up with the fast pace of technological change (Masino & Nio-Zaraza, 2016; Kromydas, 2017). To prepare a large number of qualified workers with the right knowledge and technical skills to meet the needs of a country's productivity, TVET policy-making needs to be aware of how to ensure quality through good governance, staffing, and resources. This will lead to sustainable TVET that is relevant, fair, and effective (UNESCO and Commonwealth of Learning, 2017). Above all, quality supervision, monitoring, and evaluation must be used to enforce policy implementation, which has not been done well enough in TVET in most developing countries, so that the country can adapt to changes in technology, train its workers to meet the needs of the high-tech industry, and create more skilled jobs to attract high-quality investment to the country. As a result, the demand for TVET needs to be developed and implemented alongside associated procedures for quality assessment, monitoring, and improvement. This is because TVET needs to expand and diversify its training system. Additionally, the demand for TVET needs to be combined with the expansion of its training system (Shirley et al., 2015).

In spite of all of the successes that TVET has had in contributing to national development through its goals, graduates of TVET programs in many developing countries have not received the technological progress that they deserve. This is because the training programs do not have sufficient amounts of both people and material resources, as well as facilities and infrastructures. According to Oviawe et al.

(2017), a large number of developing countries do not have the fundamental infrastructures and facilities necessary to offer an efficient learning environment for TVET training. In addition to this, educators have challenges about how to make use of new technologies in order to remain current with acceptable teaching methods for the purpose of instructing a variety of courses within technical vocational education and training programs. This is one of the challenges that needs to be addressed in order to achieve the quality assurance goals for TVET reform in poor nations (Paryono Seameo, 2017). In addition, according to the research that was conducted for this study, there is a lack of consensus on whether or not TVET is relevant and effective in achieving its goals. As a result, TVET requires realistic quality assurance as a solution to improve its productivity in light of the current unemployment crisis in developing countries. This review literature review was directed by four different research questions in order to ensure quality control in TVET programs.

- 1. What are some realistic QA factors for TVET?
- 2. Can real quality assurance in TVET be affected by how involved the different parties are?
- 3. What makes it hard for QA to happen in TVET?
- 4. What methods can be used to achieve QA happen in TVET?

#### **Article Sources**

Quality assurance is a big topic with many different ways to talk about it. In this study, it was ensured that the questions for the reviews were covered by the data sources.

Based on what Short (2009) says is the best way to do a systematic review, secondary data were gathered by looking at relevant materials and searching Google Scholar to find relevant studies. The article papers were found by doing multiple searches with keywords and terms related to quality assurance (QA). Among these are quality, assurance, technical, vocational, education, training, productivity, quality assurance, technical education, vocational education, and increasing productivity.

#### **Article Selection**

The preliminary search criteria uncovered two hundred different resources. However, after applying the screening and eligibility processes, a total of 20 article papers were found to be eligible for full-text retrieval. Out of these 20 article papers, only 7 article publications were chosen and kept because they fulfilled the final inclusion criteria for full review and syntheses.

#### **Analysis of Publications**

Analyses will be provided for the findings of this research based on the aforementioned research questions.

#### **Discussion**

#### What are some realistic QA factors for TVET?

Quality Assurance mechanisms- The actions involved in quality assurance
procedures in TVET are contingent on the existence of appropriate mechanisms,
which are maintained by realistic quality assurance. Both internal and external
quality assurance are referred to as the mechanisms.

Internal Quality Assurance- This method makes it possible for TVET to be responsive in terms of quality standards and principles through monitoring and reviewing. This is accomplished by ensuring that the teaching personnel, learning environment, and enough resources are of sufficient quality (Eton et al., 2019). This is so that the inputs, processes, and outputs of the TVET educational system can be improved and made more reliable. These are the minimum standards needed to meet the TVET goals. TVET quality is the process of meeting and processing a workforce that is relevant, sound, and reliable (Bevitt, 2015; UNESCO and Commonwealth of Learning, 2017; Rahnuma, 2020) (Bevitt, 2015; Rahnuma, 2020). This workforce is required for labor markets and economic development. As a result, the mechanism for quality assurance in TVET needs to ensure that assessment activities are carried out for suitable quality standards and operations in inputs, processes, and outputs/outcomes. Therefore, the evaluation of the quality of TVET should begin with the inputs, the process, and the output or outcome, as stated by UNESCO and Commonwealth of Learning (2017). Inputs and processes are the most important parts of quality assurance because they shape the learning experiences (outputs/outcomes) (Randall, 2008; Moraga et al., 2019; Moraga et al., 2019; Moraga et al., 2019). Peer evaluations of inputs and processes will stay the same as long as TVET focuses on the skills, knowledge, and abilities of TVET recipients. Because of this, many national benchmarks for TVET qualifications focus on skills that can be used at work and in the community as well as in school. By all of this, a holistic assessment of TVET is made based on how well the processes and use of resources lead to the desired results and how well those results fit with socioeconomic development (Eton et al., 2019).

## Can real quality assurance in TVET be affected by how involved the different parties are?

(Moodie et al., 2019) says that it is the responsibility of an individual or group of individuals in the TVET context to involve TVET stakeholders in quality assurance that is based on reality. Brady and Bates (2016) say that a realistic quality assurance system is not regulatory in the sense that it requires adherence to TVET quality standards. Instead, it works to improve the quality culture in the TVET educational system. This makes it the responsibility of all parties involved to work toward a shared vision and goals for students' learning outcomes (Tikkanen et al., 2019). (Dzimiska et al., 2018) This quality improvement can only be done if there is a collaborative culture based on trust and a sense of ownership among all the stakeholders. They would make sure that the goals that are set to reach TVET goals are the right ones. Above all, those with a stake in TVET need to focus on quality assurance to make sure that TVET graduates have the knowledge, skills, and abilities they need to be productive on the job market (Moodie et al., 2019; Saruddin, Majid, Bakar, and Ashari, 2018; Schroder, 2019).

However, in order to make quality assurance in TVET more practical, the process of engaging stakeholders requires self-reflection and the development of reflective communities. Therefore, making the staff the owners of the quality assurance process to respond to the problems in order to fulfill the goals and objectives of TVET (Itua, 2013; Bakar et al., 2018). As a result of this, it is vital for the stakeholders of TVET to guarantee that the educational experiences provided by TVET are both sound and relevant for the socioeconomic development of the country (Bagale, 2015). In order to accomplish this objective, it is necessary to have a structure in the TVET systems that is both effective and efficient in order to monitor the TVET activities and ensure that they are compatible with the TVET mission and goals in order to accomplish the objectives that have been established.

Also, technical vocational education and training is thought to be good if it has the right facilities, equipment, qualified students, and teachers in terms of their qualifications, experience, professional exposure, and attitude (Sokwane & Adekanmbi, 2019; Okeke, 2019). In addition to the study of Destiny and Onosahwo (2018), an electronic library with current textbooks, journals, an ICT center, internet access, and other reference materials is needed to help TVET participate more effectively in the world of work.

Based on the evidence fromBakar, Hanafiah, Tun, Onn, and Melaka (2018) andOviawe (2018), TVET is planned programs that prepare learners for a career based on practical activities related to a specific trade or occupation. So, all TVET stakeholders must work together to make the change that is needed to make sure quality TVET based on the acquisition of knowledge, skills, and competencies for building capacity and long-term development (Oviawe et al., 2017). Also, the school-industry partnership should work

with formal TVET education and the industrial sector to create a place where students can get hands-on experience, knowledge, skills, and the right attitude for work (Organisation for Economic Co-operation and Development OECD, 2018). So, when synergy is packaged and followed, and resources are managed well, the most needed TVET products that will boost productivity will be made (Organisation for Economic Co-operation and Development OECD, 2018).

#### What makes it difficult for QA to happen in TVET?

The difficulties that the TVET systems face in maintaining quality standards are directly related to their ability to fulfill the needs of the labor market through the distribution of innovations and technologies that are pertinent to the requirements of the societies and the industries (Pavlova, 2014; Oviawe, Uwameiye, & Uddin, 2017). The following elements have been recognized as obstacles that prevent TVET systems from achieving a reasonable level of quality assurance.

#### **Politics**

It is common knowledge that governments and education in general have a connection due to the roles that governments and education have played in the founding and growth of TVET educational systems. Politics, on the other hand, is about disputes and the use of power by political leaders over the implementation of programs and the financing of the TVET system. This is due to the fact that different political controlling classes adhere to various philosophies regarding educational programs. As a result of insufficient funding, politics are said to play a big part in the TVET patronage-based

educational system and implementations (Williams & AI-samarrai, 2019). This is because of the importance of TVET to national objectives. The education offered by TVET institutions is considered a public good. Both Oviawe(2018) and Lyon et al. (2018) came to the conclusion that any government that is currently in power must rely on education to promise support and control in order to participate in political action together.

Nevertheless, Oviawe et al. (2017) argued that TVET education systems and policies could be well developed; yet, without an adequate quantity of funding, even the well-conceived intervention will not be successful. As a result of the aforementioned, the aims of TVET have been rendered moot due to the lack of application of quality assurance criteria, which are meant to guarantee that production skills, knowledge, and attitude are maintained (Adepoju, 2017; Williams & Al-samarrai, 2019).

#### Lack of public support

The core of the role that technical and vocational education and training (TVET) plays is in the acquisition of practical skills, information, attitudes, and understanding relevant to occupations in a variety of areas of economic and social life. According to Oviawe (2018) and Schroder (2019), the purpose of TVET is to provide individuals with the professional and technical competencies necessary for the advancement of industry. A quality TVET program will require students to obtain the right to improve their skills in a variety of learning environments and to continue their education throughout their lives. In addition, to drive social transformation, it is necessary to educate individuals, train

professionals, and certify their competence (Schroder, 2019; European Commission, 2020). The Vocational and Technical Education and Training (TVET) programs are seen as an engine room for the production of skills and knowledge for the benefit of the recipients for economic growth; however, societies are ignorant of supporting the program because it is seen as a program for those who are unable to perform well in general education. Because of a lack of political will on the side of funding, technical and vocational education and training (TVET) has been devoiced from its declared aims, as Okorafor and Nnajiofo (2017) have also confirmed. TVET is a costly form of education. As a consequence, parents and other members of the general public lose faith in the reliability of TVET.

#### Poor Implementation of quality assurance policies

It is vital to assure the quality of TVET and its learners in order to prepare them for the expected level of competency in today's world of work, which requires a trained workforce (UNEVOC Network, 2019). However, the vast majority of the teachers and administrators of the TVET were not devoted to their duties and obligations owing to corrupt practices, which posed a threat to the implementation of the quality assurance policy. Because of this, there was a shortage of suitable instructional materials, infrastructures, equipment, and resources, which led to poor political commitment to the achievement of the aims of TVET (Bakar et al., 2018). As a result, there are no appropriate activities for the ongoing improvement and innovation of the learning experience based on the expectations of the students. In addition to this, the majority of educational institutions, including TVET, do not comply with the law and do not contribute to society due to the existence of harmful practices that affect the learners'

competency. Because of this, quality assurance needs to be taken seriously in order to evaluate the processes of TVET.

#### **Poor Infrastructure**

Infrastructures are the structural and non-structural environment of the TVET educational institutions. The concept of infrastructure refers to the fundamental organizational and physical structures that are required for the operation of TVET. Infrastructures are the environment in which TVET is taught (Omebe, 2015; Norris & Weiss, 2019). The quality of the outputs produced by any TVET has a significant relationship to the quality of the infrastructure and learning facilities that are available at that TVET. As a result, the necessary TVET facilities, which include lecture halls, office space for lecturers, laboratories, workshops, ICT computer centers, internet connectivity and its accessories, as well as other learning materials, have to be sufficient. The majority of the TVET in underdeveloped nations is struggling with deteriorating facilities, which results in low-quality standards for graduates of TVET programs.

#### Lack of financial resources

The availability of financial resources is the single most important factor in determining whether or not a TVET educational system is able to successfully acquire the people and material resources necessary to enhance quality. A high-quality education is not just dependent on the amount of money that is invested in it, but also on how current resources are prioritized (The Commonwealth Education Hub, 2015). There are a number of essential supply-side factors that contribute to the provision of a quality education, some of the most important of which are a quality curriculum, quality textbooks, quality internet connectivity, and quality teaching-learning materials and environment (The Commonwealth Education Hub, 2015; Ubogu & Veronica, 2018). Consequently, this will undermine the provision of information and skills that are required by both society and enterprises (Ubogu & Veronica, 2018). In most of the world's less developed countries, the lack of sufficient financial resources makes it difficult for technical and vocational education and training (TVET) to realize its potential and to improve the quality of its educational institutions.

#### What methods can be used to acheive QA happen in TVET?

Approaches to quality assurance aim to avoid, detect, and rectify issues in the quality of services supplied by TVET (Okereke, 2014; Francis Ansah, 2017)). To make the training more effective and competitive, the development of the TEVT educational system needs to be centered on the quality assurance procedures (Ansah, Swanzy and Nudzor, 2017). Because of the sensitivity of issues relating to quality, it is necessary to create a strategy to quality assurance (QA) in order to make certain that the TVET system meets quality standards (Okereke, 2014). The following are some suggested strategies for improving the quality of knowledge and skills taught in TVET programs.

#### **Quality enhancement**

The purpose of quality assurance is to demonstrate and enhance the quality of TVET and educational services, products, and/or results. Enhancing the quality of TVET can be done in two different ways: first, by making improvements to the efficiency of the TVET learning experiences that students have. The quality of the curriculum, as well as the promotion and support for effective learning, is crucial to the learning experiences that students have in TVET. This is important for both sustaining quality standards and improving quality (International Labour Organization, 2019). The second priority is to enhance the quality of TVET programs in order to comply with the initiatives of quality control authorities. In order to accomplish this goal, the maximum number of students who are eligible to enroll in TVET programs should be made available, along with the human and material resources necessary to support teaching and learning, which should then be monitored by quality assurance agencies in order to guarantee a quality TVET education system (International Labour Organization, 2019). If you use this

strategy, you will need to limit the number of students who can enroll in your classes so that the average number of pupils assigned to each teacher can be brought down to a more manageable level, as mandated by the organizations responsible for quality assurance. Both the quality of the graduates and the interaction between teachers and students will improve as a result of this.

#### **Staff Recruitment**

The academic staff is the most significant component among the learning resources, and recruiting ought to be done in a transparent manner and based on merit (Kirya, 2020). Choose applicants who are able to bring TVET and its objective to life, in addition to choosing applicants who are pertinent to the programs that are given by TVET (Oviawe et al., 2017). The newly hired staff members are the target audience for the staff induction programs, which are designed to provide information about TVET's history, mission, quality culture, fundamental value, and approved methods of teaching and assessment. Staff rules and regulations in TVET as regard quality assurance in terms of discharging tasks and students' assessment should be offered to new staff members, and existing staff members should be dedicated to their instructional delivery through competency-based teaching techniques.

#### **Staff Development**

Academic staff need to be provided with the necessary resources and supported in their use of appropriate pedagogical approaches in order for TVET learners to be able to acquire the required information and skills (Okolie et al., 2020). Also, people who are interested in furthering their careers should be provided equitable opportunities to do so, since this will increase their teaching capacity in the subject areas in which they specialize. Therefore, boost the students' knowledge and abilities regarding the most recent technological development, as well as the staff's level of research development.

#### **Quality Audit**

The process of an independent agency or entity assuring stakeholders on the sufficiency and appropriateness of quality standards component sets to ensure quality provisions is referred to as a quality audit. Through its various operations, the quality audit determines the qualitative goals to be achieved in TVET by reviewing the methods and processes that are in place to ensure continuous quality improvement (Unescounevoc, 2017). The task of quality auditing is based on the concepts of accepting responsibility for the self-assessment of an internal quality system, with the caveat that this evaluation be subject to appropriate checking by an external agency or organization. During a quality audit, the internal quality mechanism of TVET is examined to determine the degree to which it is effective in carrying out its responsibility for the quality assurance that is provided for the students. This is done so as to determine the level of quality assurance that is provided for the students (Suartini,

2019). However, quality audit is concerned with the evaluation of the effectiveness of the QA system within the TVET to establish the following (Kumar, 2017): 1. Appropriate TVET human and materials resources to uphold its mission and meet its stated objectives for continuous improvement; and 2. TVET learning outcomes and its effectiveness is to provide knowledge, skills, and competency.

#### Follow-up procedure after accreditation

Follow-up procedures are a report that ensures the recommendations made against the TVET accredited are correctly evaluated and treated as deemed. These processes are part of the external quality assurance that is charged with the accreditation exercise in TVET. This is done to ensure that the areas that were highlighted during the accreditation exercise are attended to in order to guarantee an improvement in quality.

#### Stakeholder feedback

The knowledge, abilities, and competency of learners can be used as an indicator of the quality of technical, vocational, and adult education and training (TVET). The term "feedback" refers to the opinions of various stakeholders, including students, graduates, employers, as well as the state and federal governments, that might be utilized as a remedy for improving the quality of the activities that are conducted by TVET. The feedback that is gathered through periodic surveying for the opinions of the stakeholders of TVET at regular intervals will lead to an improvement in the quality of the work that is produced by the students. The input will be investigated and utilized for the purposes of strategic planning in order to maintain TVET's excellent performance and high level of quality delivery.

#### Conclusion

With an increased focus on quality standards in order to fulfill the requirements of the industrial labor market, quality assurance in technical and vocational education and training (TVET) educational institutions has become a global concern for developing countries. Reviewing and assessing the quality of technical and vocational education and training (TVET) can be accomplished through the use of both internal and external quality assurance systems. This is done so that TVET can realize its ambitions for technical advancement while also making use of the technology that is now available. If it is adequately ensured, technical vocational education and training (TVET) can successfully contribute enormously to the socioeconomic growth of a nation as well as the development of society. In spite of this, all of the processes, outputs, and inputs of the form are cohesive with one another and aligned together in order to increase the quality of TVET. Process is the manipulation of inputs for output, and process is the utilization of inputs' materials and resources to produce the anticipated results, according to the reevaluated input-process-output methodologies for TVET quality assurance. As a result, the output serves as a method for providing feedback to help accomplish the TVET objectives. Therefore, a quality guarantee of TVET that is grounded in reality can only be accomplished by the concerted efforts of all parties involved in TVET to fulfill the quality requirements necessary for the actualization of quality in TVET. In addition to this, in order for TVET to fulfill its goals and actualize its technical growth, it is necessary to demonstrate the existence of the realistic quality assurance aspects that have been covered in this study.

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