BUILDING QUALITY ASSURANCE CAPACITY FOR TVET HIGHER EDUCATION

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QUALITY ASSURANCE IN TVET

1. High-quality TVET, leads to a higher status and improved attractiveness of TVET.
2. Therefore the standards of **Quality Assurance** should be applied to TVET. That can be done by seeking a certification from a standardization organization or by adopting quality assurance management mechanism to ensure quality of training.

VOCATIONAL EDUCATION AND TRAINING STANDARDS

Describe the work tasks to be carried out within the framework of a specific occupational activity as well as the related knowledge, skills and abilities.

Quality Assurance in TVET (unesco.org)

AIM OF QUALITY ASSURANCE IN TVET

Quality assurance may be understood as the composite measures established to verify that processes and procedures are in place, which, when effective, ensure the quality and quality improvement of TVET.

The aim of quality assurance in TVET is to support processes and procedures that ensure good or quality TVET; this includes the following key features:

1. Responds to labour market, societal and individual needs;
2. Leads to nationally, or even internationally, recognized qualifications or credentials;
3. Provides access to decent jobs and sustainable employment;
4. Is attractive, inclusive and accessible;
5. Fosters capabilities that enable progression to further learning.

The overall **purpose** of VET quality assurance is to support the attainment and maintenance of TVET quality standards.

B77049AC22B5B2E9C125820B006AF647_Promoting QA in VET.pdf (europa.eu)

EUROPEAN COMMON QUALITY ASSURANCE FRAMEWORK (CQAF)

A common framework and tools to improve, monitor and evaluate quality assurance policies and practices. The CQAF consists of four main components:

1) A **model**; planning, implementation, assessment & evaluation, review & improvement;
2) A method for **self-assessment and review**; input, processes, output, outcome results; (combined with external evaluation);
3) A **monitoring** system; and
4) A **measurement** tool.

MONITORING SYSTEM

Self-assessment is an important method in quality assurance, but as an **internal monitoring,** it is an 'introspective' procedure and thus biased. It needs therefore to be combined with **periodic external monitoring** by an independent and appropriate third party body at national, regional or sectoral levels. This is a precondition to ensure the credibility.

Quality Assurance in TVET (unesco.org)

MEASUREMENT TOOL

1. Measuring quality and its components at all levels is a major challenge in quality management. Qualitative and quantitative **Indicators** are used in each of the elements of the model.
2. Institutions are expected to denvelop and use quality indicators.
3. Indicators are used to ensure adequate and consistent follow-up and evaluation of quality improvement.
4. Selection of adequate reference indicators is guided by (1) applying quality management systems at both VET provider and systems levels, and (2) linking quality management activities to policy objectives.

KPIs FOCUS

1. A certain focus is given to indicators oriented towards measuring outputs and outcomes of VET. Tough indicators at input and processes are as important.
2. For certain indicators, existing data sources at National, Regional or International level can be exploited; for other indicators surveys could be used and extended.
3. Additional data collection will be necessary for three indicators: share of VET providers; investment in training of faculty and trainers; and utilisation of acquired skills at the workplace.

Microsoft Word - EN text.doc (europa.eu)

LABOUR MARKET AND TRAINING NEEDS

1. Establishing mechanisms to identify training needs in the Labour Market.
2. Use of research publications on labour market needs.
3. Identifying tools and systems for better matching the demands of the labour market and training and competences offered to increase employability at local, regional, sectoral or national levels;

1. German Institute for Employment Research
2. The German Institute for the Study of Labor
3. The International Comparisons on the Annual Labour Force Statistics
4. the US Bureau of Labour Statistics

TVET vs. HIGHER EDUCATION

1. Reinforce confidence and trust in TVET qualifications and certifications by demonstrating that they meet national standards and match labour market demands; i.e. equal level of knowledge, skills and competencies/abilities to that of higher education qualifications and certifications.
2. Identifying, creating and/or strengthening links between quality assurance approaches in TVET and those in higher education.

Microsoft Word - EN text.doc (europa.eu)

INTERNAL AND EXTERNAL PROGRAM QUALITY ASSURANCE MECHANISMS at CNA-Q

INTERNAL QUALITY MECHANISMS

1. College

a. Board of Trustees – Policies
b. Academic Council (AC) /AC Committees
c. Academic Program Framework
d. Program Quality Assurance Framework
    e1. Teaching and Learning
    e2. Assessment Framework
e. Institutional Accreditation

2. School

a. School Committees
b. Faculty Evaluation of Student Learning Outcomes
c. Student Evaluation of Student Learning Outcomes
d. Work Placement/Clinical Supervisor Feedback
e. Program Advisory Committee
f. Graduate Exit Survey

3. Academic Business Units

a. Applied and Experiential Learning
b. Applied Research and Innovation
c. Faculty Affairs
d. Institutional Excellence
e. Program Development and Academic Quality
f. Student Affairs

EXTERNAL QUALITY MECHANISMS

a) Government Regulations / National Qualifications Framework
b) International Standard Classifications of Occupations
c) Occupational Standards
d) Accrediting Bodies
e) Professional Associations
f) Alumni Evaluation of Program Educational Outcomes , Student Learning Outcomes, and Graduate Attributes
g) Quality assurance frameworks requirements
h) Employer Evaluation

PROGRAM QUALITY ASSURANCE – POLICIES & STANDARDS

- Program Development & Review
- Program Content
- Assessments
- Faculty
- Admission Standards
- Stakeholder Consultation
- Research-Teaching Nexus
- Quality of Teaching
- Qualifications Types
- Academic Support Services
- Recognition of Prior Learning
- Technology Use

EXAMPLES OF KEY STANDARDS AND INDICATORS

Standard	Indicators & Supporting Evidences
Assessment of Student Achievement	
Assessment (all forms of coursework and examinations) is designed to enable students to demonstrate achievement of learning outcomes, and is conducted in ways which ensures that academic standards are maintained.	a) Approach to assessment s provided to students. b) A variety of assessment methods are used; these are clear, effective and reliable. c) Assessment items include both formative) and summative assessments. d) Assessment criteria are clear in conveying to students the knowledge, understanding and skills that students are expected to demonstrate in an assessment. e) Assessment criteria are based on the intended learning. f) Assessment measures effectively different levels of student achievements of the intended learning outcomes. g) There are clear and appropriate marking criteria for each grade of student's performance.. h) Assessment benefits from regular review and evaluation, including through consultation with external experts, both locally and internationally.

EXAMPLES OF KEY STANDARDS AND INDICATORS

Standard	Indicators & Supporting Evidences
Curriculum	
The curriculum supports achievement of the program aims and intended learning outcomes, and is firmly based on national and international expectations of the academic discipline/field of study; there are defined and effective processes for the design, evaluation, review and revision of the program curriculum.	a) Curriculum design is informed by: • international expectations of the academic discipline/field of study, • internal and external stakeholders; • subject benchmarks and other external reference points; recognized good practice. a) The curriculum supports achievement of the program LOs. b) The curriculum is coherent. c) The design of the curriculum ensures: i) Academic and intellectual progression in terms of: intellectual challenge; acquisition of knowledge and skills; the capacity for conceptualization & contextualization; and learner autonomy. ii) Appropriate balance between: theoretical and practical elements; academic learning and personal development; breadth and depth of subject material f) The currency of the curriculum is maintained.

DEFINITION OF APPLIED DEGREES

Bachelor of Applied Science (B.A. Sc.) / Bachelor of Engineering (B.Eng.)

"Applied Baccalaureate Degree Programs are programs that have the same level of knowledge, skills and competencies as Bachelor of Science Degree, with the disciplinary content oriented to one or more occupational field(s) of practice, utilizing applied, experiential and **contextual learning** methods".

Degree Designation

[B.A.Sc. (Discipline) Engineering] or [B.Eng. in (Discipline) Engineering]

e.g.

- *B.Eng. in construction engineering Technology & Management*
- *Bachelor of Applied Business Administration in Applied Accounting (B.A.BA A Acct)*
- *Bachelor of Applied Science in Data Science & Artificial Intelligence (B.A.Sc. DSAI)*
- *Bachelor of Applied Science in Dental Hygiene (B.A.Sc. DH)*

PROGRAM CONTENT
(ORIENTATION, LENGTH & BREADTH, CREDIT VALUE)

1. Consistent with the institution's Mission.
2. Designed, reviewed and approved systematically.
3. Adheres to policies, standards, requirements and other QA measures.
4. Qualified academic and admin staff are involved in the developments processes.
5. Courses reflect current knowledge within a discipline and occupation.
6. Benchmarking with international standards and good practices.
7. Enhancement based on assessment findings.

TECHNOLOGY USE

1. Information and learning technology services are appropriate for the program, and support the program's approach to teaching, learning and, where appropriate, research.
2. Information and learning technology requirements specific to the program are made available (for example, specialized software; dedicated computer laboratories; online learning materials).
3. Program students receive appropriate and adequate support to develop the skills needed to make effective use of learning technology services.
4. Program students and staff have the opportunity to provide feedback on the quality of the information and learning technology services. This feedback contributes to the regular evaluation of information and learning technology services leading to quality improvement.

ADMISSION STANDARDS

1. Entry standards for the program are appropriate to the level of the program, transparent, and consistently and fairly applied;
2. Program entry standards ensure that students have adequate and appropriate prior knowledge and skills to undertake the program successfully, including where relevant English language proficiency.

STAKEHOLDER CONSULTATION

1. Industry and employer stakeholders are **actively involved in the planning and design of the curriculum**, and in the **review of the program**;
2. There are formal processes for gathering feedback, such as **advisory committees/boards and/or other forms of engagement and ongoing dialogue**.
3. Program design and delivery facilitates **opportunities for students to make links with industry and employers** (for example, **guest lecturers** from relevant organizations; **career days**; **practical training**; **work placements** and other **workplace exposure**; and **topics for students' projects**).
4. There are opportunities for program staff to make links with industry and employers (through, for example, **consultancy**; **company board membership; relevant research and development; delivery of executive education courses**; **industry and cross-industry benchmarking**).
5. Employers feedback **surveys**.
6. The **effectiveness of the relationsh**ip with industry and employers is **reviewed regularly.**

RESEARCH - TEACHING NEXUS

Research-Teaching Nexus: There is a systematic and effective approach to developing and maintaining research-teaching linkages within the program, and these linkages make a positive contribution to the design, delivery and development of the program (SACS).

- Use of assignments that involve elements of research processes (e.g. literature reviews, drafting project outlines, analyzing existing project data).
- Use of teaching and learning processes that simulate research processes (e.g. project - based courses, dissertation courses, problem-based learning). (Standards and policies)
- Giving students the possible opportunity to work on research projects alongside staff (e.g. SEED and UREP).
- Where possible, students will work on real-life research projects at the university or with external partners as part of their dissertation, capstone, final year projects, or work-based learning module.
- Teaching incorporates previous undergraduate research to help students appreciate how research progresses incrementally and highlighting previous students' contributions.

PROGRAM DELIVERY

1. Delivery plan is sound and achievable
2. Control and review of all aspects of program delivery
3. Quality ensured through availing the needed resources

RECOGNITION OF ACADEMIC CREDIT OF PRIOR LEARNING

1. Based on learning outcomes, evaluating, awarding, and accepting credit for transfer, advanced placement
2. Appropriately qualified faculty/committee evaluate prior student work and achievements for credit acceptance
3. Articulation agreements must ensure comparability and quality through conformity with policy and criteria on credit transfer
4. Maximum limit for credit transfer

AWARDING COURSE CREDIT VALUE

1. Criteria for amount and level of credits awarded for courses

QUALITY OF TEACHING

1. Student engagement
2. Quality of assessment and feedback
3. Exposure to scholarship and innovative practice
4. Level of personalization in the learning experience
5. Research – based teaching
6. Student: Faculty ratio

ASSESSMENTS

1. Outcomes are clearly defined in measurable terms
2. Assessment activities are appropriate and documented
3. Assessment instruments are valid and reliable
4. Sampling criteria on students work are documented and benchmarked
5. Programmatic, course and students outcomes assessed, reviewed, and used for improvements

ACADEMIC SUPPORT SERVICES

1. Amount and level of students engagement
2. Peer tutoring
3. Counseling
4. Disability services
5. Resource center
6. Information technology

FACULTY

1. Faculty Qualifications and industrial experience and competence
2. Faculty evaluation
3. Faculty development
4. Faculty role in governance

CHALLENGES FACING TEVET QUALITY ASSURANCE

1. Public perception; TVET is often seen as "last choice education" because of a lack of or lower quality.
2. Fragmentation of oversight authorities (Ministries and licensing bodies)
3. Different standards requirements
4. Lack of reliable statistics and data on market needs and trends
5. Separate qualifications framework
6. Progression/ transfer between TEVET and higher education institutions
7. Focus on practical only instead of theory and practical
8. Level of qualifications and industrial experience of faculty
9. Slow response to market needs and fast development in technology

CHALLENGE vs. GOOD PRACTICE

Challenge	Public perception; TVET is often seen as "last choice education" because of a lack of or lower quality

Good Practice	Country: Austria

Approximately 80% of young Austrians in the upper secondary education are in post-compulsory vocational education.

Following are some key measures and policy initiatives that contribute to the high status of TVET:

1. **The education system is qualification-oriented;**
2. **TVET is provided through a highly developed apprenticeship system and comprehensive scholastic vocational training system. 50% of the students choose the school based option, while the other 50% opt for the dual-system of TVET;**
3. **There are constant efforts to develop educational opportunities with future oriented content;**
4. **Occupational standards and TVET curricula are regularly updated and revised;**
5. **New programs are introduced to meet labour market skills needs and changing workplace requirements.**

(Source: Schmid, K. (undated). Country Report: Austria, Achieving the Lisbon goal: The contribution of vocational education and training systems. European country reports. Institute for Research on Qualification and Training of the Austrian Economy.)

CHALLENGE vs. GOOD PRACTICE

Challenge	Social Status of TVET
Good Practice	**Country:** Paraguay

Today, technical high schools in Paraguay are highly reputed and some traditional schools only admit 40% of the total number of applicants every year.

Key measures taken to achieve this:

1. **At that time, the best staff available in the country (teachers, managers, psychologists, etc.) was selected to lead the experience of training technicians at high school level.**

2. **After a couple of years of good production (graduates with high qualification) and consistent marketing these schools became very popular.**

3. **At some point, the demand was so high that the Ministry of Education had to devise a mechanism to limit the amount of students that would be admitted.**

4. **An entrance examination was then conceived to measure achievements in Math and Language; along with a battery of psychological tests, which turned into a sort of filter for the best Junior High School graduates.**

Source: Country cases where TVET is popular (unesco.org)

CHALLENGE vs. GOOD PRACTICE

Challenge	Maintaining Graduates in Certain Technical Fields
Good Practice	**Country: Philippines**

TVET is fast becoming popular in the Philippines because of the importance that is being given also by the present Administration.

1. **In the last 4 years, budget for TVET has increased from P2B to P7 Billion. The 5 billion Pesos is for scholarships that will retrain, for example the BS Information Technology graduates in software developer courses.**

Source: Country cases where TVET is popular (unesco.org)

CHALLENGE vs. GOOD PRACTICE

Challenge	Regional Recognition of TVET Qualifications & Certifications
Good Practice	**Country:** East African Region

1. Countries in the East African region are to benefit from a harmonized framework [Regional TVET Qualifications Framework (RTQF)]for the recognition of qualifications and certification in (TVET) institutions.

2. The RTQF will help the regional flagship TVET institutions to produce workforces based on similar occupational standards, whereby certificate and diploma holders who pass through the standards will be recognized everywhere in the region.

3. Harmonization will lay strong foundations for the development of matched occupational standards and competency certification systems, he added.

Source: Countries take steps towards harmonised TVET qualifications (universityworldnews.com)

CHALLENGE vs. GOOD PRACTICE

Challenge	1. Different standards requirements 2. Lack of reliable statistics and data on market needs and trends

Good Practice		Country: Europe	
Characteristic	**Great Britain**	**France**	**Germany**
Training Market	Private companies choose the skills needed and offer training based on market demand. **The market demand** for specific occupational skills determines the type and standards of qualifications attained through training. The state does not control the size of the training market, rather, the **Sector Skills Councils provide research and support industry groups in identifying skills standards and estimating occupational demand** **Source:** TVET_Models.pdf	**State agencies decide on the training demand** and specify vocational trainings provided in state-run schools. Decision-making on the **content of the curriculum** is largely political and does not reflect economic demands. **The general vocational training focuses on a smaller number of basic professions**.	Public-private institutions are run independently of the general education system. The organizational structure combines public and private entities, and the **training criteria are regulated by both the state and private companies**.