GUIDELINES TO MONITORING AND ASSESSMENT OF TVET TEACHER'S PERFORMANCE AND QUALITY

REFERENCE TO THE REGIONAL TVET TEACHER STANDARD FOR ASEAN







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SEAMEO VOCTECH AND GIZ

Prof. Dr. Matthias Becker and Prof. Dr. Dr. h. c. Georg Spöttl December 2019

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ABBREVIATIONS

AMS	ASEAN Member States
AQAF	ASEAN Quality Assurance Framework
AQRF	ASEAN Qualification Reference Framework
CPD	Continuing Professional Development
RQAM	Regional Quality Assurance Model for TVET and TVET Personnel in ASEAN
RTTS	Regional TVET Teacher Standard for ASEAN
TVET	Technical and Vocational Education and Training

INTRODUCTION

1. INTRODUCTION

These guidelines complement the second version of the *Regional TVET Teacher Standard for ASEAN* (RTTS) developed at the end of 2019. The aim of the guidelines is to demonstrate opportunities to identify TVET teachers' competence at a macro level and to provide orientation for quality development processes of TVET teacher competences. They are not intended for use in developing a *Quality Assurance Framework* (QAF) or a *Qualifications Reference Framework* (QRF) which already exist in ASEAN Member States (AMS), although the RTTS Tool has a reference to level 7 of the *ASEAN Qualification Reference Framework* (AQRF). The RTTS Tool described in these guidelines is a type of supplement to the *Regional Quality Assurance Model* (RQAM) for TVET personnel in ASEAN introduced in a fourth draft in 2017. An interlinkage between the revised RTTS model and the RQAM (2017) model is given, especially to the focus area 2: TVET personnel.

The focus of these guidelines is to ensure the TVET teacher's performance in terms of TVET teacher's competences of a fully qualified TVET teacher and – of course – to give orientation to those TVET teachers who are lacking in some competences or who are not yet fully qualified. A special component of the RTTS Tool is the balancing of quality assurance and quality development of TVET teacher's competences. Therefore, aspects of valuation, certification or judgement are not the main focus of these guidelines.

TVET TEACHER'S COMPETENCES AS A REFERENCE OF THE RTTS TOOL

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A TVET teacher is a professional in vocational education and training processes in an occupational field. TVET teachers can plan, carry through, evaluate and improve teaching and learning processes in such a way that learners will develop occupational competence in occupational action fields within vocational disciplines. Such a TVET teacher profile with largely developed competences described in the RTTS is referred to as "fully qualified teacher".

AQRF-Level TVET Researcher "Fully qualified TVET Teacher" RTTS Semi qualified TVET Teacher Trainer and Instructor

Figure 1: Level and TVET teacher type of the Regional TVET Teacher Standard in ASEAN

The Regional TVET Teacher Standard in ASEAN describes an integrated TVET teacher profile¹ of a fully qualified teacher. Other profiles can also be described with the help of the named competences of the RTTS; however (e.g. semi-qualified TVET teachers), they lack some of the competences or specific competences are not fully developed. Fully qualified teachers should be able in particular to also carry out research-oriented tasks in relation to the teaching tasks and are allocated to level 7 of the AQRF. TVET researchers normally are allocated to level 8 of the AQRF.

The term TVET teacher used in this paper refers to a "Fully Qualified TVET Teacher".

The RTTS consists of two holistic competence areas described as TVET teacher tasks:

- 1. Personal and Social Competences which describe the competences of a TVET teacher to become acquainted with the TVET school as an institution, with the underlying system and personal attitude for constantly further developing own skills and competences.
- 2. Vocational Research, Discipline, Didactics, Pedagogical and Management Competences which describe the competences for identification, preparation and implementation of teaching with the focus on occupations in the vocational field and based on competences in a vocational discipline. These second points consist of several categories or setting of priorities:

¹ A teacher with an integrated profile is qualified to provide theoretical and practical instruction in vocational education programmes. The qualification is usually gained by an academic degree at least at the Bachelor level;

- **a. Vocational Research:** Competences of TVET teachers for determining occupational competence requirements, development of the occupations and teaching requirements
- **b. Vocational Discipline:** Competences of TVET teachers for analysing the occupational subject (Manufacturing, Automotive, etc.) and the relevant requirements and changes in the world of work
- **c. Vocational Didactics:** Competences of TVET teachers to choose and structure relevant contents and methods for supporting vocational learning processes
- **d. Vocational Pedagogy:** Competences of TVET teachers for planning, carrying through and assessment of learning sessions
- **e. Vocational Management:** Competences of TVET teachers for organizing and further developing vocational schools and vocational education programmes.

ASSESSMENT OF TVET TEACHERS

3. ASSESSMENT OF TVET TEACHERS

At the end of their training period, every TVET teacher should receive a nationally and/or regionally recognised TVET teacher certificate. Organizing such a certification process also serves as a quality assurance mechanism. The assessment of TVET candidates should include a performance in a professional teaching situation in front of an examination board which should include, where possible, members from the business sector. In such an assessment, the teacher candidate can show their ability to plan, execute and assess a teaching sequence for TVET students. Their performance will be used to judge whether the teacher candidate is ready to teach at TVET schools according to the professional standard.

To be more specific: A possible final exam setup according to the approach of this *Regional TVET Teacher Standard for ASEAN* could be designed in the following way (the proposal might be adjusted according to national regulations):

- 1. Teaching practice
 - **a.** One integrated training exercise reflecting a work process (rated by the supervisor as at least sufficient)
 - **b.** One announced visit to a lesson (rated at least sufficient)
 - » Conducted by an examination commission including chairman and supervisor
 - » Announced two weeks in advance
 - **c.** One unannounced visit to a lesson (rated at least sufficient)
- 3. Written exam
- 4. Oral exam
 - a. Vocational pedagogy / pedagogical psychology
 - **b.** School law (including school organization), youth and civil service law
 - c. Subject-based methodology, instructional methodology of TVET training.

In order to establish a regionally recognised TVET teacher standard, the development of an assessment question database would be very helpful. Also, the level of the TVET teacher assessment could be calibrated among the different member countries.

To identify and visualise the status of the competence development of TVET teachers at a macro level the following tool – see Chapter 4 – based on the RTTS competences can be used. The instrument helps to design an overall competence profile of the teacher being assessed.

THE RTTS TOOL

4. THE RTTS TOOL

4.1 STRUCTURE OF THE RTTS TOOL

For the assessment of the further development² of teacher competences in the competence areas, a simple tool can be used, which will make use of the RTTS competence areas and competences. Under the "parameter value actual and desired" the status of the competences will be described and the "desired" profile will be characterised. Under "activity", comments will be given about what teachers should do and how they should be supported for further development.

Such a RTTS Tool can look like the following scheme:

REGIONAL TVET TEACHER STANDARDS' TOOL (RTTS TOOL)

Competence		Code	Parameter Value*		
area	area		Actual	Desired	Activity
Personal and Social	Promote the dignity, culture, values, beliefs and rights of individuals/groups nationally and in the ASEAN region	P1	3	4	
	Plan and implement professional development to enhance TVET teacher skills, knowledge and attitudes towards lifelong learning	P2	2	4	
	Utilize entrepreneurial and soft skills in the learning environment	Р3	1	3	
	Identify and apply laws and regulations of educational institutions (e.g. schools) and act according to youth and young adult legislation	P4	4	5	
	Perform with their colleagues in teams to enhance TVET delivery and school development.	P5	2	3	
	Set goals for challenges and establish a safe and stimulating environment for students, rooted in mutual respect	P6	3	5	
	Promote green skills and sustainability in the learning environment	P7	2	4	
Vocational Research, Discipline,	Analyse the requirements of technology and the changing work and develop strategies or modes for learning in different learning environments	V1	3	4	
Didactics, Pedagogy, Management	Determine occupational competence requirements and respective learning efforts and training needs of students	V2	3	5	
	Analyse technology and its meaning for learning in the context of organization, methods, tools, equipment and materials in the world of work	V3	1	4	
	Analyse didactical approaches and evaluate their use for learning in the context of digital technology and changes of work and work organization	V4	2	4	

² These guidelines for the assessment of the overall teacher competence are based on the approach and instruments explained in the Regional TVET Teacher Standard for ASEAN (RTTS 2019). The guidelines for the assessment of overall teacher competence do not replace self-assessment, subject-related assessment or final exams at a national level.

Vocational Research, Discipline,	Design learning sessions through use of innovative teaching methods to open up the complexity of work	V5	4	5	
Didactics,	Develop lesson plans, syllabus and learning material	V6	3	4	
Pedagogy, Management	Plan theoretical and practical lessons in classrooms and workshops and industrial workplaces	V7	4	4	
	Carry through learning sessions to support competence development of learners	V8	3	3	
	Carry out assessments and evaluations of the learners' occupational competence	V9	2	3	
	Accompany students competence development reflecting the competence development level, living environment and individual learning conditions	V10	3	3	
	Improve learning and interaction processes by choosing and developing suitable methods	V11	2	3	
	Shape and manage learning and work environments and industrial workplaces	V12	2	4	
	Shape the learning and school culture and further develop the school environment to encourage lifelong learning	V13	1	3	
	Develop curricula for TVET at school level and participation at national level	V14	0	2	

^{*} parameter value: (example); scale: 1 Novice, 2 Advanced Beginner, 3 Competent, 4 Professional, 5 Expert

The result will be a TVET teachers' competence profile (see figures below) on the one hand and, on the other, a starting point for quality development processes.

The scaling of the assessment takes into account that the competences of the TVET teachers are generally not fully developed in real life. Teachers who are experts in the tasks associated with the respective competence receive a rating of five points (expert). Beginners or Novices, on the other hand, are rated with only one point. A missing competence will be rated with zero points. The rating scale of the RTTS Tool is based on the Dreyfus/Dreyfus model (see Dreyfus/Dreyfus 1986; Markowitsch et al. 2008) which takes into account the successive competence development of personal skills in a specific domain.

The scaling used by the RTTS Tool reflects that TVET teachers perform on different levels even if they already have a certification. Personal strengths and weaknesses are normal in reality and do not mean that a determined TVET teacher competence is *unacceptable*. Rather, each teacher has their individual competence profile. While there are teachers with strong skills in certain areas, they are less pronounced in others. A minimum requirement for competence has to be defined depending on national requirements; a competence level of 3 should be aimed for.

	SITUATIONS			ABILITIES	ACTIONS		
.		Learning through		Solving of complex problems and experience based work on open problems			
REFLECTED RATIONALITY	Expert V	holistic, complex problem situations with domain relation. The experts proves himself in this situation.	IOW	Ability as "part of the person" – knows what to do in this situation (without specific conscientiousness) Intuitive recognition of problem situations and similarities.	Committed, distance-free problem solving. Intuitive, situation-related acting. Practised, intuitive action.		
	Versed Professional IV	Learning through	KNOW HOW	Coping with responsible, partly unstructured tasks beyond purpose rational acting			
INTUITION AND		reflected and committed coping with tasks. The versed person is part of a sensitively perceived holistic situation.	KN	Memory triggers plans and hypotheses. Intuitive recall of complex patterns. Holistic understanding / recognition of similarities.	Reflected combination of intuitive, committed and experience-based acting		
	Competent Actor III	Learning through		Confrontation with complex problem situations/ acting situations without previous solutions.			
ATED RATIONALITY		combination of objective necessities and subjectivity. Structurization of problem solving conditions based on the selected aims.		Recognise, interpret and concluding the most important parts of situations and factor constellations, . Formulate hypotheses. Reflective understanding.	Hierarchically, sequentially classified acting according to selected plan. Organise situations with a small amount of relevant facts. Subjective acting.		
F CALCUI	ginner	Learning through	THAT	Confrontation with situations where facts, patterns and rules have to be adhered to and have to be weighted in a situative context.			
CONSCIENTIOUS USE OF CALCULAT	Advanced beginner II	the situation- related recognition and networking of facts and rules.	KNOW	Understand how facts and patterns interact in their functions and/or their importance for actions.	Acting according to context-free and situative elements by considering practical experience.		
SCIEN	Novice (Beginner) I	Learning through		Experience opportunities in "real" situations and during the use of "complicated" rules			
CON		the understanding of context-free facts and rules which are independent from each other.		Recognise and apply different facts, patterns and unambiguous assignment rules between facts and actions.	Acting according to context-free rules: Information processing.		

Figure 2 : Dreyfus/Dreyfus model of increasing competence from beginner/novice to expert level (Spöttl/Becker 2005; Markowitsch et al. 2008, p. 173)

4.2 APPLICATION OF THE RTTS TOOL

Quality development processes with a focus on TVET teacher competences can be supported by a description and rating of the *actual* situation, a definition of the desired situation and competence – combined with a realistic time schedule – and a determination of activities to support the development process. Such a Quality Development Framework (QDF) was developed in a European project (see QualiVET 2007; Spöttl/Becker 2016) and might be used also in the ASEAN Member States.

In principle, the RTTS Tool can be used for various purposes, but they are all on an individual level; that means the assessment of the TVET teacher's individual competence stands in the centre in the first step:

- 1. As a self-assessment tool for TVET teachers (TVET teachers assess their own competence)
- 2. As a peer-assessment tool in a TVET Teacher Team or in a TVET school (colleagues evaluate the competence of a colleague³)
- **3.** As a basis for discussions among TVET institutions' staff to determine steps for competence development
- **4.** As a dataset of a TVET institution (the average of all competence profiles of the TVET teachers of an institution can be used for benchmarking)
- **5.** As a framework for the development of tests for TVET teachers.

Points 1 - 3 are the main focus of the RTTS Tool. The application steps of Table 1 below can be helpful to apply the tool with the objectives of points 1 - 3.

For the application of the RTTS Tool, it is necessary to adhere to evaluation and assessment standards. Such regulations⁴ about assessment and evaluation are available on an internationally approved level.

An agreement should be reached between all parties involved before using the RTTS Tool which contains at least:

- purpose of the assessment,
- timescale and repeating period,
- transparency and documentation about the methods, results, feedback and competence development process.

³ In TVET teacher training or during a mentoring and supervision programme, the assessment could be done by a mentor.

⁴ A regulation about rules for assessment and evaluation in the context of human resources development is in any case helpful to ensure fairness and acceptance. For example, in Europe there is an own regulation available, see e. g. https://www.degeval.org/en. The DEGEVAL regulation consists of 4 evaluation criteria with assigned indicators: Utility, Feasibility, Propriety/Fairness and Accuracy (DEGEVAL 2019). Norms and Standards for evaluation are also available in the United Nations at http://www.unevaluation.org. (see UNEG 2016).

To ensure an improvement of quality of TVET teachers' competences, it is very important to involve all affected persons and institutions. Therefore an intensive discussion and a kind of quality circle should accompany the process of application. The application steps in the table assume that these recommendations will be taken into account, especially in cases where reports with documented consequences will be produced. The process of improvement of TVET teacher's competence (step 5) should reflect the interactions between the quality of the TVET institution and its framework conditions and the individual competence development process of the TVET teacher. In practice, both will influence the quality of teaching and the lessons.

Table 1: Application Steps for Applying the RTTS Tool

Step	Application Step
1	The TVET institution or a national or regional body agreed on a regulation for the assessment and evaluation of TVET teachers' competences.
2	The TVET Teacher (self-assessment) or a colleague (peer-assessment) rates the TVET teacher's competence. The values are entered in the RTTS Excel Tool in the column "actual".
3	The actual value of competence profile is discussed in a teacher team, department or with the principal. A desired value for each competence will be agreed upon. These values are entered in the RTTS Excel Tool in the column "desired".
4	A discussion of the desired competence profile in comparison with the actual profile will lead to the definition of actions/activities to reach the desired competence level. The activities (further education, CPD, changes, conclusions) are arranged and timed.
5	A follow up process for monitoring the competence development will be committed.

Personal and Social

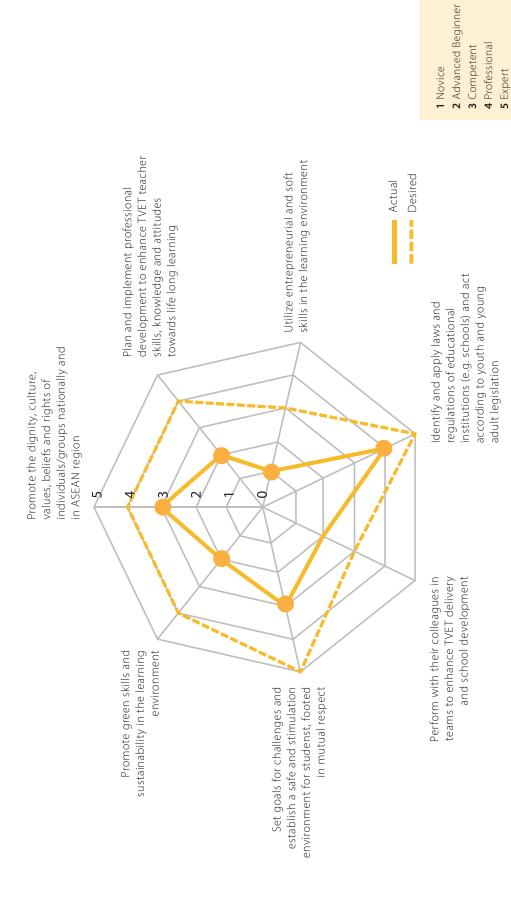


Figure 3: TVET Teacher's Competence Profile in the Competence Area Personal and Social (example)

Vocational Research, Discipline, Didactics, Pedagogy, Management

Analyze the requirements of technology and

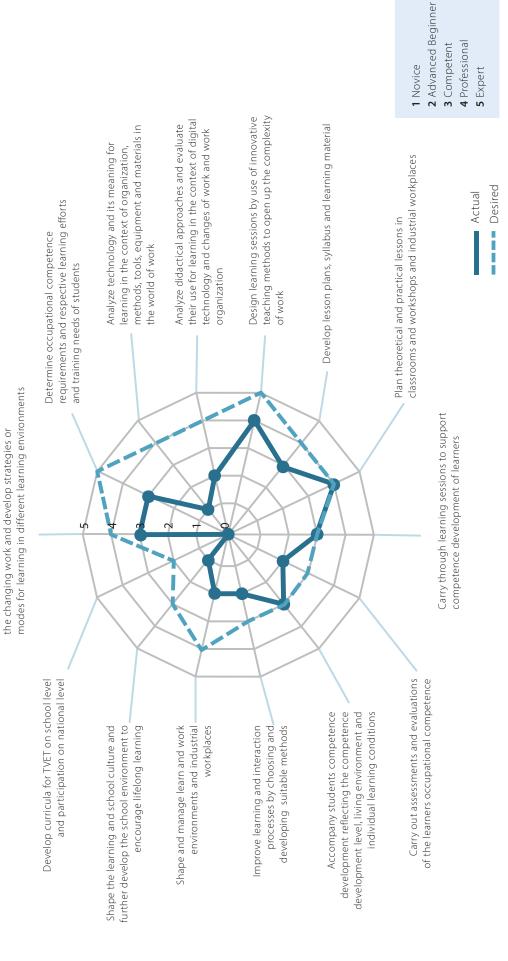


Figure 4: TVET Teacher's Competence Profile in the Competence Area Vocational (example)

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