International Labour Organization | PROSPECTS

▶ A review of skills testing and certification in TVET in Lebanon

Kingdom of the Netherlands

A review of skills testing and certification in TVET in Lebanon

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▶ Acronyms

AEES	Administration of Education and Extension Services
ALI	Association of Lebanese Industrialists
AVSI	Association of Volunteers in International Service Foundation
BT	Technical Baccalaureate
CBT	Competency-based Training
CCIA-B	Chamber of Commerce, Industry and Agriculture for Beirut and Mount Lebanon
CCIA-Z	Chamber of Commerce, Industry and Agriculture for Zahle and Bekaa
CGTL	General Confederation of Lebanese Workers/Confédération Générale des Travailleurs Libanais
DACUM	Developing a Curriculum
DGTVET	Directorate General of Technical and Vocational Education and Training
FAO	Food and Agricultural Organization
FENASOL	National Federation of Worker and Employee Trade Unions Federation/Federation Nationale Des Syndicats Des Ouvriers Et Employes Au Liban
GIZ	German Society for International Cooperation/Deutsche Gesellschaft für Internationale Zusammenarbeit
ICT	Information and Communication Technology
ILO	International Labour Organization
LOST	Lebanese Organization for Studies and Training
LT	Technical License
M&E	Monitoring and evaluation
MEHE	Ministry of Education and Higher Education

MoA	Ministry of Agriculture
MoL	Ministry of Labour
MoSA	Ministry of Social Affairs
MS	Social Movement/Mouvement Social
NCVT	National Centre for Vocational Training
NEO	National Employment Office
NGO	Non-governmental Organization
NQF	National Qualifications Framework
NSF for TVET	National Strategic Framework for TVET
NSSCs	National Sector Skills Councils
OJT	On-the-Job Training
PLAR	Prior Learning Assessment and Recognition
PWD	Person(s) with Disabilities
QA	Quality Assurance
QAA	Quality Assurance and Accreditation
RMF	René Moawad Foundation
RPL	Recognition of Prior Learning
TIB	Test Items Bank
TS	Technique Superieur
TVET	Technical and Vocational Education and Training
TVQF	Technical and Vocational Qualification Framework
UNICEF	United Nations International Children's Emergency Fund
VT	Vocational Training
WBL	Work-based Learning

▶ Acknowledgment

Executive summary

Within the context of the "PROSPECTS" partnership, funded by the Kingdom of Netherlands, this study reviews the existing skills testing and certification systems of technical and vocational education and training (TVET) programs in Lebanon. Skills testing and certification is commonly known as the process of gathering information to determine a person's level of competency according to specific criteria for a particular qualification. This study aims to identify the strengths and weaknesses of the existing final summative skills testing practices as well as their associated certification systems and processes implemented by public and private TVET institutions. Accordingly, it proposes recommendations to a quality-assured testing and certification approach for the TVET system in Lebanon. It addresses the following main Research Questions (RQ):

RQ1:
To what extent are practitioners, chambers, and employer and worker organizations involved in skills testing and certification?

RQ2:
To what extent are institutional capacities, resources, and conditions available to support outcome-based skills testing and certification?

RQ3:
To what extent do the existing skills testing and certification promote the inclusion and equity of disadvantaged groups?

RQ4: To what extent do existing skills testing and certification promote the recognition of prior learning?

The data for this research was collected through literature and desk review to explore the current and best practices in skills testing and certification; in addition, key informant interviews with officials in sixteen institutions and organizations helped understand the existing skills testing and certification system. They include:

- Four public TVET institutions: the Directorate General of Technical and Vocational Education and Training (DGTVET) at the Ministry of Education and Higher Education (MEHE), the Administration of Extension and Education Services (AEES) at the Ministry of Agriculture (MoA), the National Employment Office (NEO), and the National Centre for Vocational Training (NCVT)

- Five employer and worker organizations: the Chamber of Commerce, Industry and Agriculture for Beirut and Mount Lebanon (CCIA-B); the Chamber of Commerce, Industry and Agriculture for Zahle and Bekaa (CCIA-Z); the Association of Lebanese Industrialists (ALI); the General Confederation of Lebanese Workers/Confédération Générale des Travailleurs Libanais (CGTL); and the National Federation of Worker and Employee Trade Unions Federation/ Nationale Des Syndicats Des Ouvriers Et Employes Au Liban (FENASOL)

- Seven private TVET institutions and non-governmental organizations (NGOs): the Association of Volunteers in International Service Foundation (AVSI), the CIS college (CIS), the Lebanese Organization for Studies and Training (LOST), Makhzoumi Foundation, the Social Movement/ Mouvement Social (MS), René Moawad Foundation (RMF), and Safadi Foundation.

The collected data was analyzed to answer the main research questions and provide recommendations to improve institutional capacities and enhance the inclusion of the various processes of skills testing and certification within recognition of prior learning (RPL). The proposed recommendations also address cross-cutting issues pertaining to the involvement of employer and worker organizations.

▶ Engagement of the employer and worker organizations in skills testing and certification

Apart from their participation in boards of directors and advisory committees, employer and worker organizations are seldom engaged in skills testing and certification. The interviewed institutions attributed this inadequate involvement, witnessed in TVET in general, to four main factors: i) the lack of a systematic framework which introduces it as a win-win situation, ii) the lack of trust in TVET provision, iii) the absence of capacity-building activities for employer and worker organizations and, lastly, iv) the TVET institutions' view of the labour market as already being represented in training and skills testing through the instructors.

For active involvement of workers and employers in skill testing and certification

- Public TVET institutions need to address the key factors driving the likelihood of employer participation in the skills testing and certification system. These factors particularly revolve around i) employers interest in the qualifications of workers, ii) their awareness and trust in the quality of the system, iii) its costs and benefits, iv) their concern about the potential correlation between granting certificates and, consequently, employees demanding promotions or higher wages, and v) the established link between skills and productivity

- Public TVET capacities must be built within the institutions delivering skills training so they channel awareness, trust and confidence, and promote these activities to employer and worker organizations

- Regulatory and governance frameworks of TVET institutions should ensure and determine the participation of employers, practitioners, craftspeople, and employer and worker organizations at the different TVET levels in skills testing and certification

- Employer organizations should demonstrate active participation from the start of the design stage: promoting human resources policies, participating in developing occupational profiles, financing processes, and providing real-life workplace situations for conducting tests, the needed equipment, and assessors to implement them

- Worker organizations need to support the process of skills testing through activating its systems and mechanisms, protecting the interests of their constituents, having representation in relevant bodies – such as sector skills councils and sectoral councils for qualifications – and providing inputs regarding policy and regulatory issues, national policy and strategy, skills standards, qualifications, certification,

occupational licenses and RPL. Other forms of support include working on collective agreements, involving provisions for apprenticeship programs and training members to become 'activists' who in turn provide information and guidance to workers

- Establishing sector skills councils should be implemented as per the recommendation of the National Strategic Framework (NSF) in Lebanon for TVET. The envisioned National Sector Skills Councils (NSSCs) must involve representatives from employer and worker organizations. Its mandate could include establishing skills testing and certification centers in the relevant sectors or occupations and supervising its processes

- TVET institutions should create a system which supports the participation of enterprises and companies as third-party assessment bodies to conduct final assessments. Chambers and employer organizations need to support this process and assume the role of a "moderator" connecting TVET institutions with companies

- TVET institutions, particularly the DGTVET and the MoA, must establish mechanisms to receive feedback from employers, workers, and other stakeholders who are interested/disinterested in skills testing and certification and consider their inputs towards improvement.
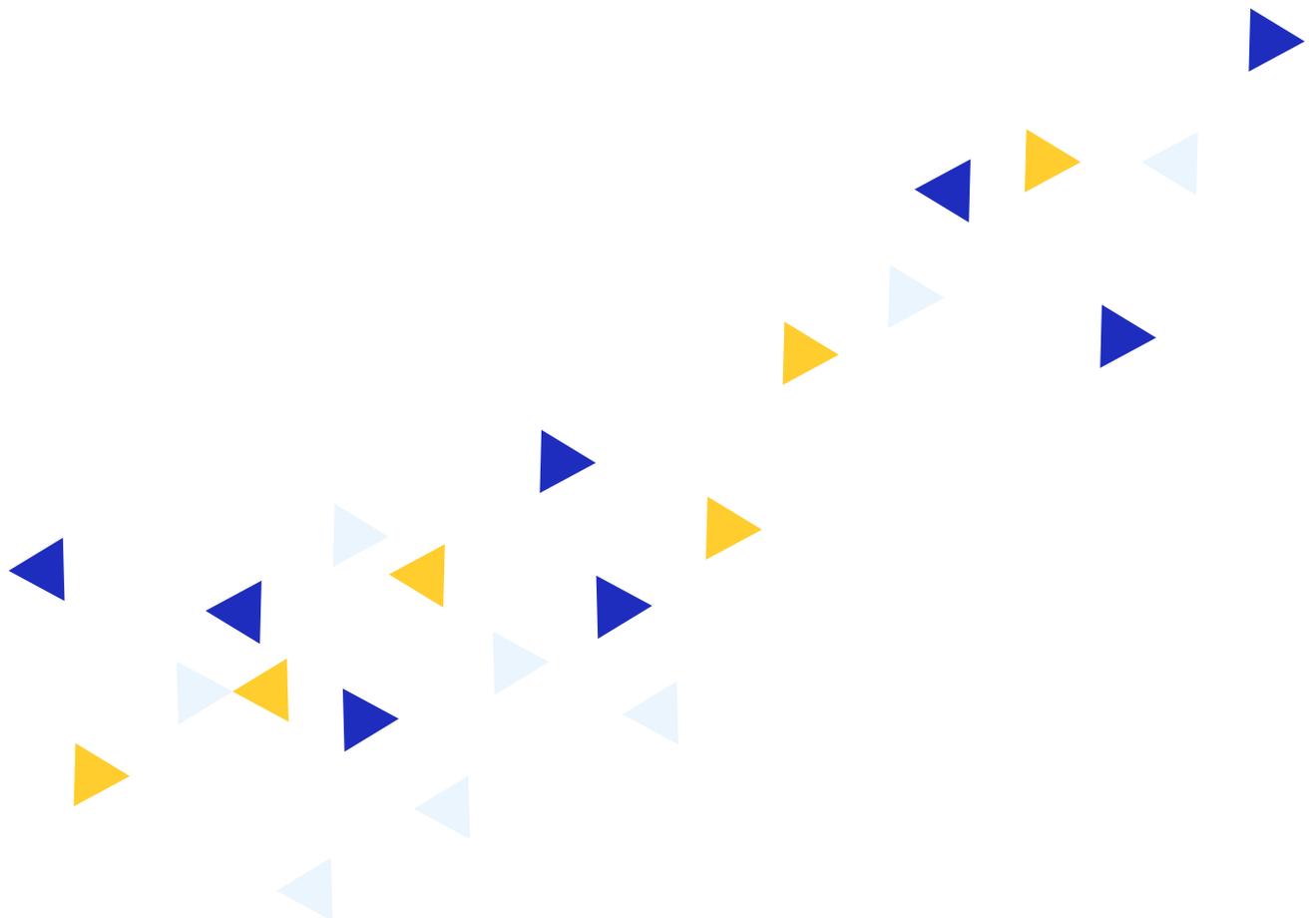
▶ Institutional frameworks and capacities in skills testing and certification

TVET institutions have not established specific rules, regulations, instructions, or standard operating procedures for skills testing and certification processes. Most of them have not developed their own quality assurance (QA) mechanisms as well which is mainly driven by the lack of a national quality assurance and accreditation (QAA) system and normally provides the framework of quality standards for assessment and certification. Additionally, the accreditation and endorsement process of training programs and certificates does not usually include sections specifying testing requirements.

The lack of technical staff on skills testing and certification is the main challenge facing TVET institutions particularly governmental institutions. They require adequate assessors, skills test developers, supervisors, correctors, as well as administrative and IT staff to prepare tests, manage student registration, issue test results etc. The inadequate number of staff is compounded with the absence of efficient capacity-building activities for their employees. Moreover, the sustainability of such activities is questionable since most of their instructors are recruited on a temporary-employment basis.

TVET institutions have not created databases concerning capacities on skills testing and certification across Lebanon. Similarly, the DGTVET has established neither mechanisms for accrediting or registering national skill test developers and assessors nor a national network for exchanging knowledge and experiences.

They suffer from shortages in financial resources needed to implement skills testing, especially given that cost-sharing mechanisms are non-existent. On the other hand, employer organizations do not commonly fund TVET programs or skills testing. They believe that such a system should be self-sustainable whereby the apprentices pay for their testing and certification while employer organizations offer their support by providing the needed human resources and facilities.

TVET institutions do not typically conduct a separate cost estimation. Expenses are implicitly embedded in the fees of the training program as a whole and vary from one assessment to another based on, for instance, specializations, donor requests and assessment strategies. The cost of skills testing and certification is mainly inclusive of consumables and raw materials, tools and equipment, instructors, transportation, refreshments, tool kits, stipends, and third-party assessor (if any).

To improve skills testing frameworks and capacities

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- TVET institutions are required to have a clearly defined institutional framework for planning, management, design, and implementation of skills testing and certification

- They need to ensure the availability of enough competent technical and administrative staff as well as design and establish training programs for building their capacities

- The DGTVET and the MoA must create a mechanism for accrediting and/or registering skills testing and certification professionals, establish a database and form a national network intended for exchanging knowledge and experience. The DGTVET could also establish mechanisms for licensing skills testing centers

- The DGTVET and other governmental TVET institutions, in collaboration with employer and worker organizations, should create a national QAA system which normally provides the framework of quality standards for testing and certification. TVET institutions should also specify their own QA mechanisms (suggested examples are provided in the main report)

- TVET institutions, together with employer and worker organizations, should establish a financing framework with clearly defined cost-sharing mechanisms and a practice for calculating all costs to not only expand the benefits of skills testing and certification to all partners but to also achieve reliable, valid and broad testing.

▶ Designing skills tests

The interviewed TVET institutions do not have systematic test banks. Instructors update skills test items without clear, robust and documented criteria. Theory tests mostly focus on recalling facts and concepts through open-ended essays, true or false questions, and multiple-choice test items. Similarly, they have not established a unified template with the essential elements of practical tests which ensure defining clear and objectively verifiable performance criteria or adequate qualifiers for assessment. Life skills are mostly assessed in theory tests through open-ended essays. TVET providers pointed at the difficulty of implementing an efficient system in assessing life skills and expressed a need for relevant capacity building activities.

The competency-based approach for training and assessment is still not institutionalized for TVET in Lebanon. The evaluation of student performance in final assessments is still based on grades and not their competence. Although the occupational analysis approach for developing training programs, curricula, and assessment has started to become integrated in some TVET institutions in Lebanon, a few training programs and skills tests have been developed based on occupational analysis and standards.

To improve the institutional capacities in designing the skills tests

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- TVET institutions need to apply competency-based assessments associated with clear learning outcomes. They facilitate skills testing through innovative, reliable, and comprehensible assessment approaches which are also cost- and time-efficient within a context where education is acquired while the applicant's individuality is considered

- TVET institutions should build their competency-based assessments pertaining to occupational profiles and competency standards

- The DGTVET and the MoA need to develop competency-based test item banks (TIBs) to serve as storage units, containing all test items of comprehensive, valid and representative assessments

- Test developers should prepare assessment specification tables to identify relevant test items, the weight of these items for each learning or

performance outcome, and their cognitive complexity level

- Test developers should ensure that core life and workplace skills are assessed in theory skills tests. They should include innovative objective skills testing items such as high-level matching, cause-effect, and work sequences which measures capabilities at various levels of cognitive competency according to a test specification table. Emphasis is also placed on higher critical thinking skills needed in the labour market including problem-solving and troubleshooting

- Assessors and test developers need to establish a unified template for practice tests which ensures that objectively verifiable assessment criteria and qualifiers, both process and product-based, are included in practice tests.
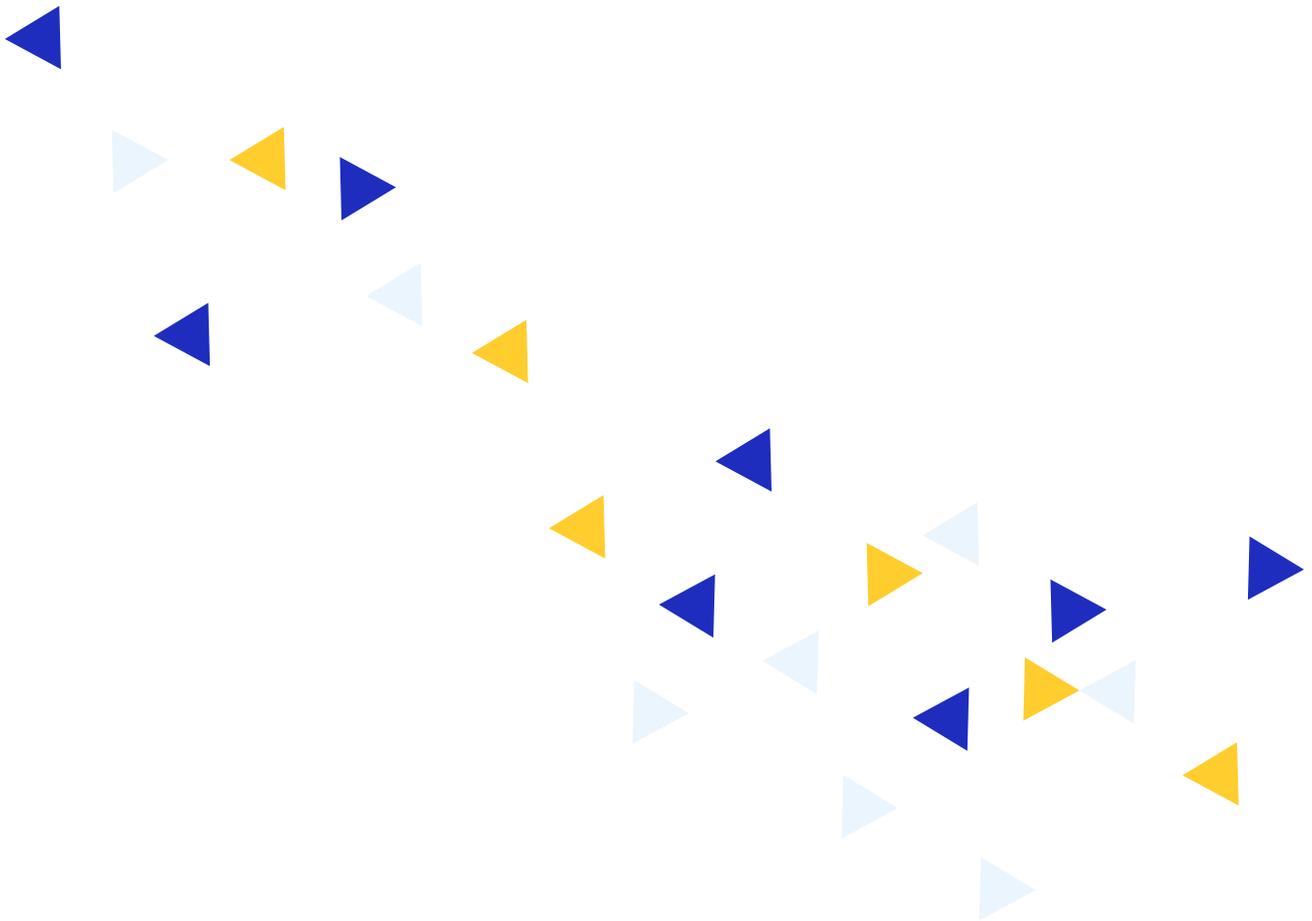
▶ Conducting skills testing

Tests are the primary skills testing tool used at the interviewed TVET institutions. Project, simulation, peer review, and case study-based assessment strategies are also offered for formative assessments. Final assessments are normally conducted at TVET schools and centers but not in actual workplaces.

These institutions have not established a well-defined, documented, and appealing process; only ad-hoc informal means are available. Except for grades, students are not provided with feedback on their performance gaps in skills tests.

To improve the institutional capacities in conducting skills tests

- Assessment committees need to ensure the choice of assessment tools are driven by the nature of knowledge, skills, and attitudes to be assessed and what evidence is required to demonstrate competency. Depending on the aim, the target group, and the competencies to be assessed, it is recommended to use a mixed-method approach of direct observation and evaluation of performance and products, services, projects, portfolio, and criterion-oriented interviews. Assessors must ensure that these testing tools are valid, objective, accessible, current, authentic, and efficient

- It is suggested that they prepare a matrix for proof of evaluation which ensures evaluation activities cover all competencies to be assessed and are mapped with their appropriate assessment strategies

- It is recommended that TVET institutions conduct final assessments in actual workplaces to enhance the participation of employers and master craftspeople, and to improve the reliability and authenticity of the assessment

- Assessment committees should determine the duration of tests based on the given occupation and whether they should be simultaneously performed at every venue to enable the use of the same test items and to compare results

- TVET institutions, particularly the DTVE, must provide mechanisms for applicants to appeal results and retake the test as an effort to enhance transparency and confidence in the certification process. Assessment committees should manage the appeal and procedures to retake the test

- Applicants should receive feedback on their performance for final assessments. If they are deemed incompetent and/or want to gain further skills in other units of competency, they should be offered this opportunity through the standard procedures of institutional/workplace training and assessment.

▶ Certification of skills

A trainee should complete the entire training program to be certified. Certificates for certain skillsets or training modules are not offered, however, they could be offered in a form of a letter of completion, attendance, or participation. These certificates are mainly limited to information pertaining to the specialization/training course, the name of the institution, and the course duration – excluding a list of gained skills and competencies. Most of the interviewed TVET institutions have a registry system for certificates which enables graduates to obtain copies of their certificates. Nonetheless, Lebanon has not established a system for granting occupational licenses, allowing certified workers to perform an occupation.

Only relevant public institutions sign formal TVET certificates while the NGO or the TVET provider signs those approved for non-formal short-term training courses. Yet, the interest of employer organizations lies in skills and competencies acquired rather than the awarded certificates.

TVET certification systems in Lebanon have yet to establish a parallel equivalence between occupational and qualification standards. Formal diplomas and certificates are linked to educational qualifications, however, a correlation between an educational or occupational qualification and the certificates for short-term courses do not exist. Few

private TVET providers issue short-term training course certificates which include skill levels defined by employers, national or international institutes, or companies working in certain occupational fields. In 2019, the MEHE Minister issued the ministerial decision No. 347 for adopting the TVET qualification framework along with its charts and descriptors – future TVET certificates are expected to match skill levels to those of the NQF.

To improve the institutional capacities on certification of skills

- The certification process should promote modular-based occupational qualifications with clearly defined standards and learning outcomes. They should state the exact qualification and the list of competencies attained

- An equivalence system between occupational and qualification standards should exist. To facilitate the compatibility between the two classes of standards, training programs should be built based on a national or sectoral competency standard. A strong partnership is required between the different organizations developing these two classes of standards

- TVET institutions and employer organizations are required to establish and/or revise occupational standards in targeted sectors. The scope of the competency standard should consider covering major categories of occupations or specialties, and a blend of small and large enterprises

- The TVET qualification framework issued by the decision of the MEHE in mid-2019 has been a positive step forward yet further effort is necessary to define policies such as registration of qualifications, a credit point convention system, RPL, and recognition of foreign qualifications

- Public TVET institutions should sign certificates along with corresponding craftspeople and employer and worker organizations to aim for increasing accountability and visibility of the certification process, broadening their future participation in skills testing, and enhancing the value of the certificates in the labour market

- Governmental ministries responsible for TVET must initiate a dialogue with the worker and the employer organizations on the feasibility of establishing a system for granting occupational licenses based on the certification process. These licenses should be a legal requirement to practice a specific occupation or perform certain work-related tasks restricted to those with the required competencies.

▶ Monitoring and evaluation (M&E) of skills testing and certification

Although the interviewed TVET institutions form skills testing committees (mainly consisting of instructors, course coordinators, and their principals) to schedule and monitor final assessments, they have not established robust testing implementation plans and follow-up mechanisms to assure the quality of skills testing and certification. They attribute it to limited funding and the insufficient number of capable staff.

Likewise, they have not established feedback mechanisms to collect input from students and employers to analyze the shortcomings and challenges of testing approaches. The reports focus solely on test results which exclude gaps or opportunities for improvement.

To improve the institutional capacities in M&E skills testing and certification

- TVET institutions should systematically collect and analyze information pertaining to skills testing and certification outcomes and their impact. This helps take corrective measures to improve performance and contribute to enhancing the image of skills testing, upscaling the system, ensuring the effective participation of all stakeholders and, thus, potentially allocating more resources by governments and employers

- Assessment committees must develop a clearly defined skills testing implementation plan which should be shared with applicants and assessor alike beforehand

- TVET institutions should collect feedback from applicants and assessors, analyze, identify possible flaws, and communicate them to test developers so they are reflected in TIBs.

▶ Inclusion of skill testing and certification

TVET institutions are aware of including students with disabilities in their training programs and take measures to enhance their participation in training and assessment. They also have a proficient level of coordination with non-governmental institutions working with persons with disabilities (PWD) to provide them with suitable arrangements. Nonetheless, reviewing the numbers of students with disabilities or learning difficulties at these TVET institutions indicates that the majority do not make adequate provisions, as a results, further organizational and institutional arrangements are needed. TVET institutions pointed at their distinct need for capacity building on meeting the needs of illiterate trainees.

To improve the inclusion of skill testing and certification

- It is recommended that measures taken for students with disabilities resemble those adopted in companies when recruiting PWD to ensure that the work environment meets their specific needs

- Introducing modular-based training courses, assessment, and certification is essential to encourage PWD towards certification in a skill of their interest and toward their long-term interest in skills development

- Strategies for accommodating trainees with disabilities or learning difficulties during testing must be structured so they are treated fairly without compromising the content/skill they are expected to know or demonstrate. Proper accommodations should be discussed directly with relevant authorities responsible for PWD in Lebanon

- Capacity building activities on methods of including illiterate trainees should be considered.

▶ Assessment and RPL

Lebanon has yet to establish a system for RPL. TVET institutions recommend initiating RPL but key mechanisms need to be in place before launching such a system such as provision of a regulatory framework, building the institutional and organizational capacities and tools, improving the credibility of certificates, and spreading awareness for such a system – which are all ultimately applied for both Lebanese and non-Lebanese.

To upscale existing skills testing and certification to recognize experiential learning

- The capacities of the existing skills testing and certification system should be improved as a prerequisite for launching systems of occupational licenses and RPL

- A national body or institution should be mandated as a responsible body for managing RPL. It could be a national independent institution for QA and skills testing, national TVET council, sector skills councils, or any other unit in which employers could have a significant role

- The RPL body should develop strategies on raising awareness, communication, coordination, and collaboration for RPL, in addition to involving employer and worker organizations and other key stakeholders and actors in the design of such strategies

- It should build a functioning system of guidance and counseling which targets various and vulnerable groups as potential applicants to assess their qualifications, assist in collecting evidence, and support in test preparation

- It should establish a system for direct recognition of formal qualifications from outside Lebanon.

1.
Introduction

Within the context of the "PROSPECTS" partnership, funded by the Kingdom of Netherlands, the International Labour Organization (ILO) conducted a study to review the existing skill testing and certification systems of formal and non-formal TVET programs offered by public, private, and NGO institutions under the DGTVET and relevant ministries (see Annex A for a brief on the TVET institutions in Lebanon). This study aims to identify the strengths and weaknesses of existing summative skill testing and their associated certification processes. It also proposes recommendations for a quality-assured testing and certification approach for the TVET system in Lebanon.

More specifically, skill testing and certification is the process of gathering information to determine a person's level of competency (knowledge, skills, and attitudes) according to specific criteria (as would be expected at a real workplace environment) for a particular qualification. An occupational qualification or certificate is an official (legal) expression of a worker's professional capabilities, recognized at international, national, or sectoral levels. The certificate may be in the form of an academic or a professional qualification, or part of a qualification which may take the form of a license that entitles its holder to practice the given profession in the labour market.

2.
Scope of work and research

This assignment addresses the regulations, procedures, methods, tools, and practices of summative assessments in skill testing and certification of formal and non-formal TVET programs conducted by public and private TVET institutions. The main research questions (RQ) of this review are:

RQ1:
To what extent are practitioners, chambers, and employer and worker organizations involved in skill testing and certification?

RQ2:
To what extent are institutional capacities, resources, and conditions available to support outcome-based skill testing and certification?

RQ3:
To what extent do the existing skill testing and certification promote the inclusion and equity of disadvantaged groups?

RQ4:
To what extent do the existing skill testing and certification promote the recognition of prior learning (RPL)?

To answer these questions, a detailed and probing questionnaire was developed as the basis for data collection (see Annex B).

3.
Reseach methodology

The data for this research was collected through:

▶ **Literature and desk review** to explore the current and best practices in skill testing and certification in Lebanon, the region, and worldwide. A brief and a list of documents of the main literature references are included in Annex C.

▶ **Key informant interviews** – 17 qualitative online interviews were conducted with 23 officials in 16 institutions and organizations (two interviews with the MoA) to help understand the existing skill testing and certification system. Annex D provides the details of interviewed institutions which include:

- Four public TVET institutions: DGTVET, MoA, NEO, and NCVT

- Five employer and worker organizations: CCIA-B, CCIA-Z, ALI, CGTL, and FENASOL

- Seven TVET private institutions or NGOs: Safadi, Makhzoumi, AVSI, LOST, RMF, MS, and CIS

The collected data was analyzed to answer the main research questions and provided recommendations for:

- Improving the involvement of employer and worker organizations in skill testing and certification

- Enhancing the inclusion of skill testing and certification

- Upscaling the skill testing and certification system for RPL

- Improving the institutional capacities in skill testing and certification processes, mainly:

○ Skill testing and certification initiation and planning, such as establishing institutional frameworks, developing rules and guidelines, building staff capacities, and providing adequate funding

○ Skill testing design such as design theory (knowledge) tests, design practice tests, assessing life skills,

and promoting competency-based training (CBT) and assessment

○ Conducting skill tests, such as selecting assessment strategies, selecting test venues, and managing processes to appeal and retake tests

○ Developing certification, such as promoting modular-based qualifications, matching occupational standards and qualifications, and improving certificate signaling

○ Monitoring and evaluating skill testing and certification, such as developing skill testing implementation plans, collecting feedback on tests, analyzing and reporting processes and test results.

4.
Main findings

▶ 4.1. Involvement of employers and workers in skill testing and certification

(**Answering Research Question #1**: To what extent are practitioners, chambers, and employer and worker organizations involved in skill testing and certification?)

Insufficient involvement of employer and worker organizations in skill testing and certification

Employers are not sufficiently involved in planning, designing, and implementing the processes of skill testing. When employer and worker organizations participate in TVET with public TVET institutions, their participation mainly remains at the policy level (through boards of directors) or is limited to proposing curricula updates (at the advisory committee level) without direct participation in the design and implementation of skill testing and certification. These boards or committees normally have members from the relevant employer organizations and the CGTL, but employers are not included in the assessment/examination committees. NCVT indicated that in the past ALI took part in designing skill testing.

Moreover, private TVET institutions seldom involve employer and worker organizations in skill testing and certification and see that the labour market is already represented in the training and testing material through the instructors who are, in reality, practitioners (i.e. barbers, plumbers, accountants). However, a few private TVET institutions work with employers to define needed skills and skills testing through conducting focus groups. The RMF indicated that they only engage with the local labour market of informal and unregistered businesses (rather than chambers or employer organizations) that receive their trainees. Recently, few private TVET institutions – in addition to the MoA – started implementing on-the-job training (OJT) programs by signing agreements with private companies. These contracts are based on the OJT

templates designed by the ILO and the UNICEF which include parts pertaining to the participation of employers/ craftspeople in assessing trainees at workplaces.

None of the interviewed employer and worker organizations have established systematic collaboration with TVET organizations except for the CCIA-Z which had collaboration in work-based learning (WBL) as part of short-term TVET programs through its effort with the MoA and UNDP/DGTVET. Moreover, none of the employer organizations and private sectors in Lebanon have established skill testing centers that are operated by the private sector/employer organizations at a sectorial or national level.

However, some employers – such as the Federation of Chambers of Commerce, Industry and Agriculture in Lebanon – are extensively engaged in skill testing and certification processes (examples presented in Annex E.1). In 2013, the Federation collaborated with DGTVET to elaborate new occupational profiles for the professions of cooks and car mechatronics. In 2018 and 2019, representatives of agricultural workers and employers partnered with the MoA in the process of Developing a Curriculum (DACUM) chart and competency standards in five skill areas/occupations. The DGTVET recently collaborated with the private sector on two training agreements within the bakery and industry sectors. DGTVET emphasized that private sector and employer partnerships are mostly on short-term

training courses, rather than formal training programs. It is worth noting that the DGTVET manages over 170 specializations which makes collaboration with the labour market challenging.

Regulations for the engagement of employers and workers in skill testing and certification
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Except for the ministerial decision 31/2000 concerned with establishing advisory committees, the public ministries and TVET institutions – both public and private – have not stipulated any instructions or regulations that ensure the involvement of employer and worker organizations in skill testing and certification. The ministerial decision 31/2000 enforces that every public TVET institute or school must establish an advisory council composed of its director/ principal, a representative from the administrative body, a representative from its teaching body, and three to nine representatives of production and service economic sectors relevant to the offered provision. Yet these committees are not operational in the majority of TVET schools. The MoA is developing a legal framework to ensure the participation of the private sector in implementing agricultural vocational training.

The various roles of employers, including their responsibilities in skill testing and certification, are explicitly stated in the UNICEF-ILO template of OJT, which is operational at some NGOs/TVET providers. According to the template, the formative assessment is performed through a self-assessment form which is

confirmed by the master craftsperson/trainer and validated by the instructor. The summative test is developed based on the curriculum learning objectives that includes both practical and theoretical tests administered by the trainer or other representative from the TVET school. Employers, instructors, and other competent parties may be involved as assessors.

Reasons for the inadequate involvement of employer and worker organizations in skill testing and certification

The rationale behind inadequate participation could be attributed to the lack of a systematic framework for involvement and other challenges. Public TVET institutions indicated that employer and worker organizations are interested in taking part in TVET. Still, a systematic method of participation is required to govern and highlight the benefits to the private sector (e.g., through incentives and tax exemptions) and encourage small and micro enterprises to participate. According to private TVET institutions, the following are the main challenges facing the effective involvement of employer organizations: i) some sectors are dominated by small and micro family businesses with which building partnerships related to skill testing and certification is difficult; ii) companies lack the capacity to design and implement skill tests; iii) chambers mostly work with trades, importers, and exporters rather than organizations involved in training and education; iv) employer

organizations are mostly preoccupied and overwhelmed with their businesses; v) employers have a negative impression toward TVET (particularly the vocational training of vulnerable people); vi) employer organizations only participate in partnership activities by donors and see it as a benefit for them; vii) employer organizations need to be more interested in trainings; viii) it is difficult to provide training spaces for employers (especially micro and small), particularly after the COVID-19 pandemic and during lockdown periods, despite TVET providers securing stipends and transportation for the trainees; ix) TVET institutions, and particularly the DGTVET, should initiate engagement with the private sector and, lastly x) the inflexibility of the formal training and assessment system does not allow for effective participation.

Employer organizations view that TVET has not gained the confidence of the private sector in the skills the system is producing. The CCIA-B believes the inadequate employer involvement in TVET does not revolve around their lack of enthusiasm, but in a participation framework which makes it mandatory. The Chamber also indicated that it has never been approached by TVET institutions, public or private, to enact a process, scheme, or a board for employer participation, nor has been asked about the required skills in the labour market. The CCIA-B's engagement in TVET is only through advisory committees or participation in surveys. Annually, including this year with the European Training Foundation, the CCIA-B conducts a mapping survey of the needs of

enterprises for skills and occupations, but TVET institutions never seek to benefit from the outcomes of these surveys. The CCIA-B indicated that without the involvement of employers there are promising and emerging sectors that TVET institutions will remain unaware of. For example, the Chamber is currently collaborating with Barcelona Port to facilitate the renovation of Beirut's Port by providing vocational training in port logistics which is currently unavailable in Lebanon's TVET system.

ALI sees that the current skills testing and assessment are based on grades instead of particular skills; hence, these types of certificates have little value for the employers for evaluating the skills of potential workers. Thereby, ALI proposes a model for TVET and skill testing similar to the one applied in Switzerland whereby apprenticeship (and not internships) programs are implemented starting from the Technical Baccalaureate (BT) track onward (see Annex E.2 for the main features of ALI's suggested model).

Expected support from employers and workers in skill testing and certification

However, employer and worker organizations see that they could still support TVET skill testing and certification through several means. Employer organizations mentioned that they could support through: reaching out to member companies, assessing TVET institutions based on the companies' feedback, improving the image of TVET, raising awareness, providing legitimacy and recognition from the private sector, playing the role of a "moderator" by grouping qualified practitioners from certain sectors, and establishing liaison offices for chambers across Lebanon to support TVET. Worker organizations stated that they could advocate to promote TVET, support in developing programs through their relationships with stakeholders, participate in recruiting trainees, and provide feedback from workers.

▶ 4.2. Frameworks for skill testing and certification

(**Answering Research Question #2:** To what extent are institutional capacities, resources, and conditions available to support outcome-based skill testing and certification?

Rules, instructions, and guidelines for skill testing and certification

Both public and private TVET institutions lack robust foundations of skill testing policy, rules, instructions, or guidelines. Even though public TVET institutions have general rules and regulations pertaining to training, most of them do not have any specifically related to skill testing and certification. Some public institutions have skill testing and certification rules i) in a form of decrees subject to annual change, ii) part of internal rules of procedures, iii) included in vocational training contracts, and/or iv) embedded within curricula. Meanwhile private TVET providers do not have any rules or regulations for skill testing but some of them have corresponding instructions within documents (such as curricula and course drafts, training program regulations, etc.), and part of other related records (including strategies, terms of reference, and program descriptions).

The majority of the interviewed TVET institutions do not have detailed standard operating procedures or guidelines for skill testing and certification. When such guidelines do exist they are followed as a matter of course and are not in writing.

QA framework for skill testing and certification

TVET lacks a national framework for QA and accreditation; most of the TVET institutions have not developed QA mechanisms for their own training programs nor for skill testing and certification. The absence of a QA framework at interviewed public TVET institutions is mainly driven by the lack of a national QAA system which normally provides the framework in quality standards for testing and certification. The DGTVET is unable to perform QA as the shortage in staff hinders the required field work and visits to training schools and centers. The General Educational Inspectorate at the DGTVET is understaffed with only five education inspectors for more than 162 public TVET providers. Depending on their workload, the inspectors conduct about one visit per school a year; in addition, the work of education inspectors is limited to ensuring the regularity of administrative work within technical institutes and schools and reviewing complaints. The DGTVET indicated that they are unable to monitor training in certain private TVET providers because private providers do not coordinate with the DGTVET to develop these programs.

On the other hand, some private TVET institutions have QA mechanisms that are mostly concerned with the overall training programs. For example, Makhzoumi Institute has tools for QA of curricula and course delivery, in addition to student satisfaction surveys and toolkits for teacher assessments. Makhzoumi also conducts activities for planning and monitoring the training courses, and collects feedback on a term (mid-year) basis where daily attendance and reasons behind student dropouts is recorded and reviewed. In regards to developing or updating curricula at Makhzoumi, external experts are contracted or identified internally to identify the needed skills, followed by developing and piloting the curriculum. The instructors participate in designing and preparing lessons which coordinators then validate. Each specialization has a coordinator to ensure the quality of training while a course could have more than one instructor. At CIS College, an internal auditing committee is assigned to follow up on all training programs. The RMF is working to create a QA department where each project has its own QA officer. AVSI has a coordinator who oversees training quality as well as a process M&E officer (i.e., indicators). Safadi recently recruited a QA officer for the training programs whose duty is to conduct visits to training institutes implementing the programs.

Criteria of skill testing and certification in course accreditation

Accreditation and licensing processes for TVET institutes and programs usually do not include skill testing and certification requirements. Again, this is mainly driven by the lack of a national QAA system, which normally provides the framework in quality standards for testing and certification. The DGTVET is responsible for the development of educational curricula, textbooks, training methods, official examinations, and issuing diplomas and certificates for formal training programs. Furthermore, it supervises licensing of TVET schools/centers and introduces new specializations to them with the approval of the Council of Ministers but the concerned ministerial decrees can take as long as three to four years. They usually do not have any skill testing and certification requirements as well.

Despite their relative independence, private TVET institutions need the DGTVET's approval before they can provide TVET services. Non-formal TVET providers must be based at a school certified by the government and officially registered at the DGTVET, and providers must submit the specializations, instructors, and course outlines to the DGTVET. Nonetheless there are no requirements related to skill testing and certification in this process. Accreditation for the RMF training programs is only for formal training programs (i.e. Technical Baccalaureate (BT) and Technical license (LT)) which are conducted at formal/governmental vocational institutes.

Safadi stated that the accreditation process of licensing the "Safadi Training Institute" by the DGTVET has not started yet as the needed requirements are not indicated.

For agricultural training programs implemented by the MoA or jointly with NGOs, the MoA develops the curricula, implements the program, conducts the assessments, and signs the certificates. AVSI indicated that they do not have a role in BT agricultural training courses except supporting the MoA in linkages with the private sector in internships. On the other hand, AVSI indicated the absence of structures or arrangements for agricultural training in terms of number of training hours, curricula, certification, etc. The MoA stated that some NGOs run agricultural training programs on their own, without consulting or requesting the MoA to issue or sign certificates. Consequently, the MoA has been working on a concept note to develop a framework to regulate the agricultural vocational trainings implemented by NGOs (to be expected by end of 2021).

For accelerated training programs implemented by NEO or the NCVT jointly with NGOs, they ensure that the number of training hours and the ratio of theory and practice meet the standard of an agreed template. Otherwise, further requirements in skill testing are not available in such an agreement except that NEO/NCVT ask for copies of final tests per semester for comparison. Makhzoumi stated that their training agreements with NEO or the NCVT to conduct accelerated vocational training programs do not include skill testing and certification criteria or standards to be met, only student attendance and final grades are considered. MS indicated that for their accelerated training with NEO, the latter should be provided with the curricula in advance and could discuss skill test items with the instructors including selecting some questions. Safadi pointed that the curricula are to be shared with the NCVT, with whom the training programs are jointly conducted with, for feedback however comments are not provided and the criteria for approving curricula is not clear whilst on the day of testin, the Ministry of Labour (MoL) representatives attend to confirm if the test was conducted.

▶ 4.3. Capacities of human resources in skill testing and certification

(**Answering research question #2:** To what extent are institutional capacities, resources, and conditions available to support outcome-based skill testing and certification?)

Staff of skill testing and certification

The lack of technical capacities of skill test developers, assessors, administrative and IT staff is one of the most significant challenges facing the TVET institutions, particularly governmental TVET institutions. This capacity deficit prevents the DGTVET to effectively supervise skill testing in both public and private TVET schools/centers. Only twelve – instead of the needed forty – administrative staff members are recruited in its examination department to attend to its tasks. In addition to their teaching and training load, about one hundred instructors are also needed to assure the quality of skill testing and certification. The staff required for official exams at the DGTVET consists of instructors who develop the tests, those who supervise them, and others who correct them. The staff further requires administrative staff for assignments including preparing tests, managing student registration, issuing results, and data entry (to fill the shortage in the administrative cadre). It indicated that their significant shortage in staff is solely the responsibility of the government to address.

The same issue confronts the MoA. The AEES has only two main staff members assigned to agricultural TVET: the Director of Education and Extension Services, and the Head of the Education and Training Department, in addition to a part-time technical assistant. This small team attends to all matters related to agricultural TVET, including skill testing and certification with little ad-hoc support from agriculture engineers in other departments of the MoA. The school principal, administrative staff, and instructors form the staff at the agricultural schools, with most instructors approaching retirement age, are overburdened with regular duties, work part-time, and lack logistical support. Instructors are hired on a temporary basis, meaning their services can be terminated at anytime and negatively impact the plans and activities of the MoA. A functional review, undertaken jointly by the ILO and the MoA in 2018-2019, recommended a new structure for agricultural TVET, including a division for skill testing and certification; nevertheless, no action has been taken, and the structure remains inactive to date.

Even though NEO's position in skill testing and certification is solely supervisory and without technical responsibilities as it hires external test developers and assessors, NEO still faces a shortage in human resources to supervise the tests. In this regard, a proposal to provide NEO with the required staff was forwarded to the MoL with no response. The entire staff at the NCVT consists of only eight people, including the teachers, the principal, and a representative from the MoL.

The human resources available for skill testing and certification in the private TVET institutions primarily consist of instructors (both theory and practical instructors), training course coordinators, and the school principal. Some private TVET institutions have the following additional staff:

▶ **Table 1.** Additional staff at private TVET institutions

Private TVET Institutions	Additional Staff for Skill Testing and Certification
CIS	Internal auditor
MS	Social workers
RMF	QA officer
AVSI	Technical officers **

** Four technical officers to assist instructors with the design and implementation of skill testing and monitoring test results. They are agricultural engineers with pedagogical capabilities

Capacity building activities in skill testing and certification

The lack of adequate staff at the public TVET institutions is combined with the absence of capacity building activities for the existing staff at these institutions. Most of the professional staff members involved in skill testing lack the ability to design, build, and incorporate best practices in skill testing. They lack the necessary skills to perform occupational analyses, build occupational profiles, and introduce innovative theoretical knowledge test items and assessment strategies. Furthermore, they are not equipped with the expertise to identify objective assessment criteria, match the occupational standards with the qualification standards, and assess skills acquired by informal methods.

Although the DGTVET does not have any form of training and capacity building for its employees, it normally defines the capacity needs of the existing skill testing and certification staff by reviewing student test results in official exams and identifying the deficiencies of those test items, such as low grades in certain specializations, governorates, and other areas. The shortage of staff at the DGTVET hinders further research necessary to determine the factors behind low grades.

The AEES at the MoA conducts capacity-building activities for their staff and supports the instructors in developing quality skill tests. Principals of schools perform assessments of their personnel and instructors. When the evaluations are poor, the MoA is unable to terminate the contracts of the corresponding instructors due to the lengthy bureaucratic procedure which requires the Council of Ministers to hire a replacement. Although the agriculture TVET instructors have been employed since 2014, building sustainable capacities remains a challenge for the reasons stated previously (i.e. instructors are overburdened, recruited on a temporary basis). Capacity-building programs for NEO employees are not available. A recruiting examination is used for selecting instructors at the NCVT. In the absence of a budget for the needed capacity building, some of them are compelled to pay for test design training offered by a third party.

At private TVET institutions, instructor capacities are assessed by the school director/principal and the course coordinator. At Makhzoumi, students also evaluate their instructors, and the instructors evaluate the needs for training/capacity building. These elements are planned in a report. Accordingly, the TVET center coordinator or external organizations/NGOs offer the instructors training or upskilling in basic skills. At Safadi, feedback is also provided by OJT employers, students, and master craftspeople.

Some private TVET institutions and NGOs, like AVSI, conduct capacity building activities for their staff but not regularly or systematically. Makhzoumi provides training to instructors in teaching strategies at the beginning, middle, and end of the training course. Apave performed a Training of Trainers for instructors at Safadi but without testing to ensure if what was learned was put into practice. Since CIS is reliant on part-time employees regular capacity-building programs are unavailable because they are not sustainable (training is provided only for new beginner instructors). One of the most significant challenges at the MS is the scarcity of instructors with educational backgrounds as most of the instructors are non-pedagogical professionals who work on a part-time basis, hence, they are unable to attend trainings and dedicate their time unless MS pays them (the last training was in 2005). The RMF considers its instructors, who come from vocational training schools, as competent.

In terms of skills testing and certification capacities at employer organizations, the CCIA-B does not have any procedures, and the chamber hires outside trainers and experts for its training sessions. The CCIA-Z, on the other hand, has the experience and has been working with many organizations to build staff capacities. According to ALI, many companies have the potential to conduct assessment and certification (as most

employers do when hiring a new employee), but training, teaching, and learning is a domain in which employers are rarely involved, and as a result, they lack the competencies to design curricula, conduct training programs, deliver training, or apply learning strategies, among other things. ALI does not accept the fact that if instructors are practitioners then they have the necessary skills of the training programs. If TVET providers want to improve the system's maturity, ALI is convinced they can collaborate with management/foremen/engineers rather than practitioners. They need to approach higher-level (i.e. AA+ level) companies instead of relying on practitioners who are unable to perform the task efficiently. Aside from what international organizations provide, worker organizations do not offer any capacity building for their members but some of them are already TVET instructors.

Database and network of professionals in skill testing and certification

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Both public and private TVET institutions have not established databases for capacities in skill testing and certification across Lebanon. A national network for exchanging knowledge and experiences in skill testing and certification among professionals has not been formed. Communication is always reliant on collaboration with NGOs, colleges and program instructors. When an institute requires instructors, they announce it within the private sector (i.e. practitioners) as well as other public and private TVET institutions. Moreover, the DGTVET has not established accreditation mechanisms or processes for accrediting or registering skill tests developers and assessors across Lebanon.
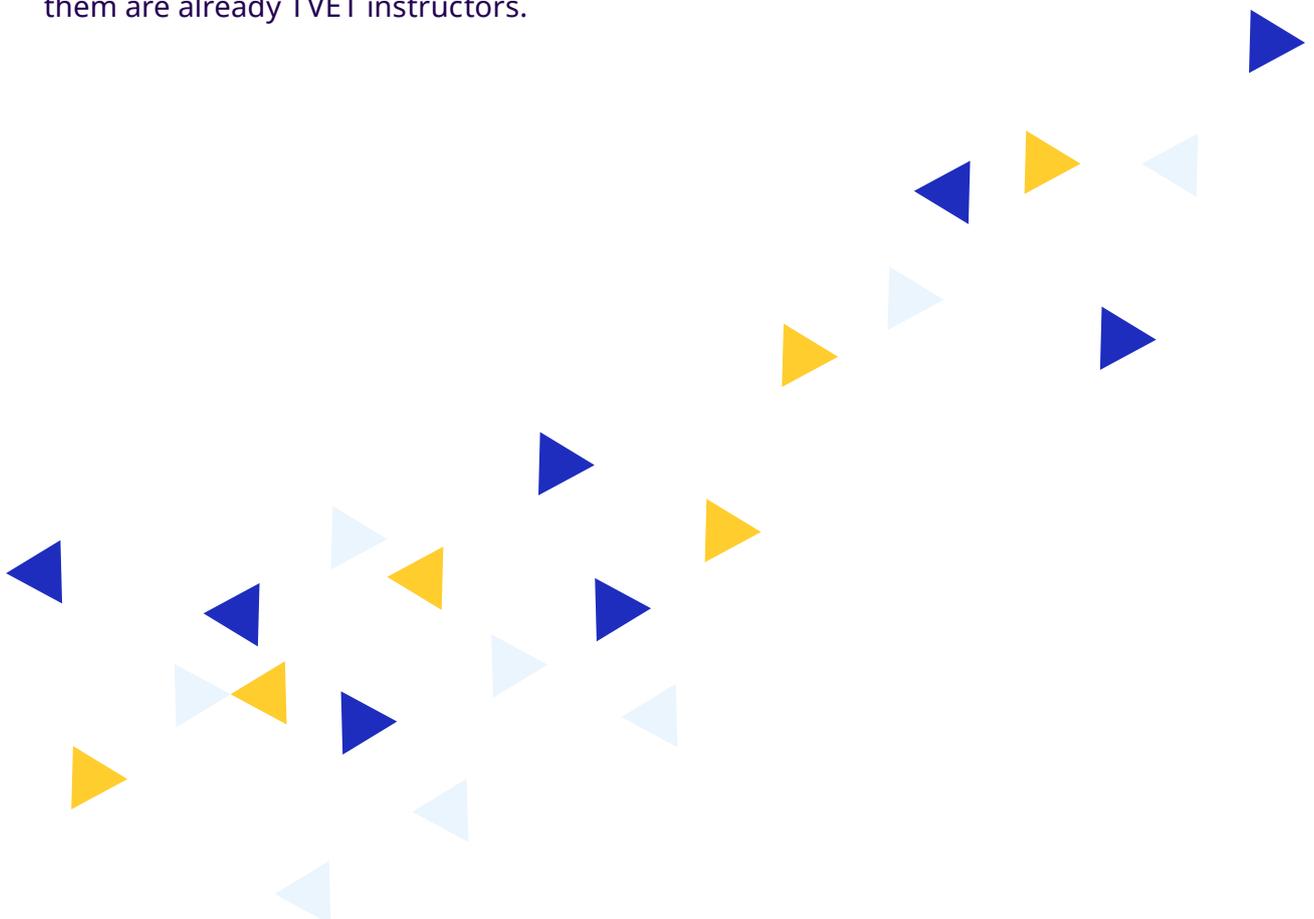
▶ 4.4. Funding skills testing and certification

(**Answering Research Question #2:** To what extent are institutional capacities, resources, and conditions available to support outcome-based skills testing and certification?)

Financial resources for skills testing and certification

TVET institutions suffer from a shortage in financial resources needed to implement skills testing. The budget of most public TVET institutions comes from the general ministerial budget (MEHE, MoA, and MoL), while that of private TVET programs comes from national donors, NEO, international donors – mainly UNICEF – and student tuition fees. The current currency fluctuations impacted the DGTVET's purchases of tools and facility rehabilitation as most expenses are paid in hard currency (USD). The NCVT has been experiencing a severe funding shortfall, which could force them to cancel certain training courses or close the center. NCVT only offers five training courses due to financial constraints. ALI was a supporter of NCVT funding in 1997 but was later suspended.

▶ **Table 2.** Funding sources of TVET institutions

TVET Institution	Main Source of Budget	Other Sources of Budget
DGTVET	MEHE general budget	Exam fees paid by the students (50,000 to 85,000 L.L. per student)
MoA (programs implemented by MoA)	MoA general budget	Student fees in the agriculture schools
MoA (programs implemented jointly with NGOs)	Completely funded by these organizations, including the costs of tests	
NEO	MoL	
NCVT	MoL (only 350 million L.L. per year)	
AVSI	UNICEF	Other donors
CIS	Student tuition fees	
LOST	UNICEF	Other donors
Makhzoumi	National donor	NEO UNICEF and other donors Student tuition fees (10% of the budget)
MS	UNICEF	NEO Other donors
RMF	National donor	UNICEF Other donors
Safadi	National donor	UNICEF Other donors
NGO training program with NEO**	NEO (600,000- 750,000 L.L. per trainee)	Trainee fees (300,000 L.L. per trainee)

**NGO also pay 300,000 L.L. per trainee (total cost of the training program per trainee is 1.2 million L.L.)

Cost sharing with employers in skills testing and certification

Employer organizations do not usually contribute funding to TVET institution programs including for skills testing. In addition to the lack of cost-sharing arrangements, the same reasons for these organizations' lack of participation in TVET in general apply here as well. The MoA has been establishing cost-sharing mechanisms as part of its regulatory framework. Employer organizations are hesitant to engage in any TVET cost-sharing mechanism, but they would if it benefits the specific skills of their workers. According to ALI, such a scheme should be self-sufficient, meaning that the apprentices should pay for their own testing and certification. Such an approach urges an apprentice to be serious and apply for the test when ready, as opposed to making multiple payments to retake the tests several times. An apprentice should have remunerations/increase in wages from the employer over the full period of the apprenticeship program to be able to pay for testing and certification.

However employer organizations indicated that they could only support TVET activities in-kind or by providing the needed meeting rooms, facilities and administrative staff. The CCIA-Z stated donors fund training programs and the chamber contributes 15% of funds in addition to covering the fees of the instructors, technical expertise and resources. On the other hand, worker organizations are unable to contribute to TVET funding due to the lack of financial resources.

Cost estimations for skills testing and certification

TVET providers do not create a separate cost estimate for skills testing and certification. The expenses are implicitly embedded in the cost of the training program as a whole and vary from one assessment to another based on, for instance, the specializations, donor requests and assessment strategies. The expenses of skills testing and certification mainly include the cost of consumables and raw materials, tools and equipment, instructors, transportation, refreshments, tool kits, stipends and the third-party assessor (if any). Expenses of official exams at the DGTVET include the costs of: test preparation items, editors and legal translators, correctors (paid as a lump-sum per test corrected, and each test is corrected by two correctors), instructors supervising tests (paid on a daily basis), preparation (overtime) tasks, data entry and issuing test results, in addition to the fees of the fifteen members of the higher assessors committee. Recently the DGTVET contracted a company with a small budget (3 million L.L.) to administer the official exams (including distribution of students, data entry, and issuing exam results) to ensure that test results are final once they are issued.
The annual budget for vocational schools at the MoA has budget lines for equipment, raw materials, and others. The cost of a practice test varies depending on the real-life scenarios that must be developed for the test. For example, setting a full kitchen for a skills test for a cook versus setting filled areas for bee cells for a skills test for a beekeeper require different expenses.

At AVSI, the cost of skills tests constitutes 5% to 6% of the total cost of the program. At Safadi, skills tests are supervised by a third external party which costs between 75,000 to 375,000 L.L per trainee. At the NCVT, the instructors are paid on an hourly basis according to their qualification. The principal and the MoL representative supervise the test free of charge. The table below gives an overview of costs at the NCVT.

▶ **Table 3.** Overview of skill testing and certification costs at the NCVT

Cost Item	Cost per Unit	Total Cost
Instructors	2 million L.L. per instructor (per 100 hours for university graduates)	12 million L.L. annually per instructor
Trainee	300,000 L.L. per trainee	20 million L.L. per course
Training & consumable material	150,000 L.L. per trainee	2.25 million L.L. per course (in addition to cost of stationary)

*Costs are indicated at the exchange rate of 1507 L.L. / USD prior to October 2019

▶ 4.5. Designing of skills tests

(**Answering research question #2**: To what extent are institutional capacities, resources, and conditions available to support outcome-based skills testing and certification?)

Competency-based assessment

In Lebanon, the competency-based approach to training and assessment is yet to be institutionalized in TVET. Institutions have not systematically adopted a competency-based approach with clear occupational standards, even for new curricula. While competencies have been clearly identified, the skills testing methodology has remained traditional and lacks the reference to applied knowledge in testing and skills. In early 2020, the DGTVET launched a substantial project, with the support of UNICEF, to update curricula and assessments based on competency. Competency elements, knowledge, skills, attitudes, performance standards, the scope and methods of assessment are included in each curriculum, inclusive of skills testing. Curriculum developers are being trained to build CBT curricula which requires time, coupled with the current financial situation, these two factors hinder TVET management to update curricula, in addition to the high number of instructors needing capacity building and the need for equipment and facilities which are either unavailable or do not replicate real-life scenarios.

The MoA developed new competency-based (CB) curricula and trained instructors in skills testing. The impact of the new curricula and instructor training has yet to be analyzed due to political and economic instability, the COVID-19 pandemic, and because the final assessment of 3rd year students is still not due. The interviewed private TVET institutions do not apply CB assessment although many of them were exposed to CB training or experience with international organizations, such as the ILO, UNICEF and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). The RMF pointed at the difficulty of implementing CB trainings thus an up-to-date field training is required to assist in the design and implementation of training programs in addition to the necessary required financial resources. It is worth noting that international organizations use a variety of CB implementation modalities with some variance in their execution which may affect adopting the appropriate model by TVET providers. The DGTVET pointed that the international organizations should coordinate their efforts since none of the interviewed employer organizations actively participate in designing CB assessment. The CCIA-Z initiated a CB training program with the AMIDEAST without producing comprehensive outcomes.

Occupational analysis

While some TVET institutions in Lebanon are beginning to use the occupational analysis approach to develop training programs, curricula and assessments, very few training programs and skills tests have been established using the occupational analysis approach. In 2013, the Chambers of Commerce, Industry and Agriculture in Lebanon collaborated with the GIZ and the DGTVET to elaborate new occupational profiles for the professions of cooks and car mechatronics. During 2018 and 2019, with the support of the ILO and the Food and Agricultural Organization (FAO), the MoA developed occupational profiles and competency standards for five agricultural occupations using the DACUM approach (in poultry, dairy, hydroponic, agricultural machinery, and irrigation). Nonetheless, the development of curricula and testing at the DGTVET and the MoA is still not based on occupational analysis. At the MoA, the end products (i.e. curricula) are validated by practitioners.

The capacity building activities provided by the ILO-UNICEF projects are the only exposure private TVET institutions have had with occupational analysis or the DACUM approach. These institutions cited several reasons for not using this approach as some believe they lack experience in implementing DACUM and they need more capacity building

in this area. Other reasons were attributed to the limited time available to prepare and design training programs which prevents them from using the DACUM model and interacting with employers and practitioners. Other TVET institutions indicated that they benefit from practitioners input in a less formal way through conducting focus groups with the private sector for identifying needed skills, labour market requirements, and the learning outcomes for training courses. However, private TVET institutions stated that the DACUM approach was not widely used in the past, however, upon collaborating with the ILO-UNICEF they have become more aware of it concepts and importance.

Skills test banks

The TVET institutions do not have operational test banks. The DGTVET still uses the skills tests established some years ago. The interviewed DGTVET officials believe those tests are unreliable, vague or poor in quality. The criteria for reviewing and screening the collected test items (which are not in writing) are broad and limited to making sure they are relevant to the curriculum and cover the necessary skills, language and translation. In 2019, the DGTVET started a process to create a test bank asking each instructor to provide three tests for every specialty but it was suspended due to the socio-political escalations in Lebanon. Nevertheless, the DGTVET continuously invests in improving skills test criteria which in the last few years were exposed to over four rounds of improvement

until it was interrupted by the COVID-19 pandemic. The DGTVET views achieving progress in skills testing is unlikely without improving entire training programs through building capacities in occupational analysis, DACUM and training at workplaces etc. Enhancing training and testing could start in short-term courses of private TVET providers and later be replicated in official formal exams.

The MoA does not have a skills test bank for updated CBT curricula since the 3rd year final assessment is still not due. The MoA has been developing model skills tests and classifying test items by difficulty. However the previous non-CBT curricula at MoA had a test bank and model answer for each test item. For final assessments instructors prepare their test items (questions) individually and submit them to the AEES where the education and training staff screen and filter them, and the Administration discusses the validity of the tests and the needed modifications with instructors.

The criteria used by the MoA to screen test items are shown in Annex E.3. At NEO, there are neither operational test banks nor teams to produce the tests. At the NCVT, skill tests are mostly entrusted to the instructors who are assisted by the head of theory training to review them.

Systematic test banks are not available at the interviewed private TVET providers. Updating test items are conducted by the instructors (who are also practitioners) and coordinators without clear, robust and documented criteria. These institutions acknowledge that the current gaps in skills testing need to be improved as the current skills tests do not meet the desired standards or requirements. The following table shows how private TVET institutions prepare their skills test items.

▶ **Table 4.** Methods for preparing skills test items at private TVET institutions

Name of institution	Method of preparing skills test items
AVSI	Technical officers work with the instructor on pre-tests and post-tests; they also update them based on the lessons covered. Each occupation/curriculum has its tests which are adapted when developing the program.
CIS	Instructors along with the coordinator, auditor and director define the skills of the test.
Makhzoumi	An examination unit ensures that the same test takes place at all vocational centers. The test bank contains test items (questions) from all specializations without cross-referencing skills within the common occupations. Coordinators check the specifications of the skills test.
MS	Assessment criteria are set within the curricula developed with TVET providers. Although curricula present all relevant aspects, they have become outdated and not inclusive of all occupations.
RMF	A special committee from the RMF develops the curricula of short and intermediate courses. The institutes which train youth follow these curricula and the assessment is developed and conducted by that vocational institute.
Safadi and LOST	Similar to other institutions, they rely on instructors and coordinators to develop the tests.

Theory skills tests

Official theory exams are disorganized, repetitive, and mostly focused on recalling facts and concepts. According to the interviewed DGTVET officials, theory test items primarily assess theoretical knowledge rather than skills. Although their complexity varies by specialty (for example, scientific specialization test items are mostly problem-solving), lower levels mostly focus on repeating acquired concepts. This past academic year, multiple-choice skills test items were piloted but not all students were familiar with this approach or studied accordingly.

Theory skills tests at the MoA vary depending on the instructors who develop them. They may involve either evaluating analytical and planning skills or giving the trainee a specific agricultural scenario to study (like identifying causes of animal symptoms). Test items include true-false questions, matching exercises, and multiple-choice questions (constituting one-third of test grades) in addition to definitions, analysis-based

essays, and completion items. Before 2017, examinees were asked to answer six out of eight essay-based theory test items. Instructors began incorporating new standards in skills tests because of the reform towards CBT curricula and the enhancement in developing test items. NEO is not involved in the design of theory or practical tests as these are completed by instructors without a standardized template. In addition to the essay, multiple-choice, and true-false skill test items at the NCVT, theory tests can involve executing drawings.
Private TVET providers follow the theory skills tests conducted by the DGTVET and the MoA for formal training programs (BT and Technique Superieur (TS) among others). Theory tests for short-term courses are mostly written tests and include mainly closed-ended, multiple-choice and true-false questions. At Makhzoumi and the MS, for example, theory tests could also include open-ended questions (essay, case studies, and situations).

The CCIA-Z indicated that their instructors are trained in designing and conducting skills tests. The final theoretical assessment is an online multiple-choice test while practical skills are evaluated through the course of the training program by mentors who visit each training course four to five times.

According to worker organizations they do not have a role in designing skill tests except for their role in the advisory committees/board of directors at NEO, the NCVT, and the MoA to which their role is mainly to advise on the training programs in general and not specifically on the design of skills tests. Prior to the Civil War, the trade unions designed skills testing through their own vocational school. At FENASOL theory and practical tests are designed and conducted by its instructors.

Practical skills tests

Practical tests are developed without clear objectively verifiable performance criteria or unified standard template or elements. Practical tests at the DGTVET are developed by the chairs and vice-chairs of the assessment committees. These tests are conducted for certain specializations while others – such as administrative, accounting, and IT specializations – are mostly theory-based tests. In some specializations (e.g. general maintenance) achievement books (formative assessment) are used to track students at workplaces. In non-CBT programs at the MoA, instructors are asked to implement certain exercises in the final practical test; otherwise, the instructor could replace these exercises with oral or written questions. TVET providers have not established a unified standard template for practical tests to ensure including its crucial elements which revolve around clear objectively verifiable performance criteria and adequate qualifiers for the process and product-based assessments.

Assessing life skills

Life skills are mainly assessed in theory tests. Some TVET institutions also assess them in the practice tests and/or as part of the formative assessment:

- At the DGTVET, life skills are assessed by open-ended questions in theory tests and as part of the performance steps of the practical test (e.g. safety and hygiene, or identification and preparation of ingredients etc.)

- The MoA has never assessed life skills in its skills testing within non-CBT programs. In the new CBT programs, life skills are mostly assessed as part of the practical tests (e.g. using situational-based questions to assess team/group work

- Makhzoumi assesses life skills in formative assessments in various forms

- MS assesses life skills in theory tests, interviews, self-assessment forms, and group and teamwork exercises (as is the case for the specialization of cooking)

- AVSI and the MS pointed at the difficulty of implementing an effective modality in assessing life skills and that capacity building in this area is required.

Grade-based assessment

Evaluating student performance in final assessments is based on grades rather than competence. The passing grade for graduating from TVET programs at public TVET institutions is 10 out of 20 which allows trainees to continue their technical education. Students who want to pursue their education at the university level would require 13 points out of 20 (equivalent to the general secondary education – baccalaureate). The trainee's final grades and level are included in the certificates issued by NEO and the NCVT. NEO certificates, for example, have the following grading system:

▶ **Table 5.** NEO certificates grading system

Grade (out of 20)	Level
18 (highest given grade)	Excellent
16-17	Very Good
14-15	Good
12-13	Fair
10-11	Average
Less than 10	No certificate

Public schools administer summative assessments twice a year (once every semester) whereas instructors conduct continuous formative assessments during the training program. The following table shows the grade distribution among formative and summative assessments.

▶ **Table 6.** Grade distribution among formative and summative assessments

Assessment	Allotted Total Grade	Grade Distribution
Formative assessment	50%	30% partial (continuous) tests 20% practice test
Final summative assessment	50%	20% technology (theory) test 30% practical exercise

Even though private TVET providers are not required to follow the same examination and grade distribution system like public schools, most of them do follow the same format. Private TVET institutions use a grade-based system which has different passing grades from one institution to another.

▶ **Table 7.** Passing grades in different private TVET institutions

NGO/TVET Institution	Passing Grade
Makzoumi	Varies according to the specialization
CIS	60%
RMF	75%
Others	50%

▶ 4.6. Conducting skills tests

(**Answering Research Question #2:** To what extent are institutional capacities, resources, and conditions available to support outcome-based skills testing and certification?)

Official exams

Students in formal TVET programs at public and private TVET institutes/schools have to sit for public formal examinations to obtain official certificates (qualifications). The Examination Department in the Administration of Monitoring and Examinations at the DGTVET monitors the public and private school exams which are scheduled for all students simultaneously during their last year of education. Trainees attending the accelerated programs at private TVET institutions sit for exams conducted by these institutions. In that regard, the DGTVET must ensure the quality of the processes, procedures, and outcomes of theses final assessments. However, as previously mentioned, this is a challenging task because the majority of private TVET providers have insufficient staff and lack a QA system (at the DGTVET and on a national level) and internal QA frameworks.

The DGTVET assigns assessment committees each formed by a chair, vice-chair, and the instructors (in both public and private TVET providers) for the final examinations. Each chair and vice-chair ask the instructors to provide two or three exam models prior to the tests. The committee then chooses the test questions, checks the language, translates the questions to make them available in Arabic, French, and English, prints out the samples, and finally double-checks them for errors.

Assessment strategies

Both theory and practical tests are the majority of skills testing at public TVET institutions, particularly for the BT track in addition to project-based assessments in some specializations. "Accredited Specializations for Formal Exams" is a set of instructions which the DGTVET issued in 2012, identifying assessment methods and grade distribution (see Annex E.4). Some specializations in the TS and LT tracks are assessed through practical tests and a project only. However in certain specializations students must complete a project, as well as pass both a written theory test and a practical test. The above-mentioned DGTVET instructions include a list of question/assessment strategies, with a reference code for each, including practical tests, oral questions, discussion of a study, a presentation, implementation of projects, production of drawings, submission of training reports, and preparation of lesson plans etc.

In the first and second BT years, the MoA conducts theoretical and practical skills tests, but the AEES conducts only theoretical tests for the final year assessment while semester skills tests include theory and practical. Students also prepare and present a final year project to a committee composed of the head of the training division, the school principal, and the instructor. For training courses on electronics at the NCVT, an individual project is assessed by the instructor, in addition to theory and practical tests. At NEO, some programs (such as sewing) require product-based assessments while others may have theory tests administered orally.

For the final summative assessments of their accelerated short-term courses, the majority of the interviewed private TVET institutions schedule both theory and practical tests. Other assessment methods are mainly used for formative assessment. The instructors define the criteria and the assessment methods.

▶ **Table 8.** Assessment strategies used in private TVET institutions final assessments

Private TVET institutions	Assessment Strategies Used in Final Assessments
AVSI	Skills tests (theory and practical)
CIS	- Skills tests (theory and practical) - Project-based assessment (as is the case in IT specializations) - Simulation-based strategy (as is the case for specializations in nurseries and food services)
LOST	Skills tests (theory and practical)
Makhzoumi	- Written and oral tests - Projects could be a supplement strategy, not a substitute to skill tests - Rubrics in formative assessment
MS	- Written tests - Oral tests (considers the examinee's characteristics as such theory tests could be oral for those who are illiterate) - Practical tests with exercises performed individually or in groups (e.g. cooking) and peer review
RMF	- Skills tests (theory and practical) - A final assessment session conducted at the end of OJT while the coach conducts a formative assessment at the workplace
Safadi	- Skill tests (theory and practical) - Case studies

Venue of skill testing

Final exams are mostly conducted at the TVET schools/centers and not at real workplaces. Recently, the MoA started piloting OJT for certain competencies and conducting formative assessment through site visits to assess student performance at workplaces. At NEO, tests for specific programs (e.g. auto repair) can take place at real workplaces in certain remote areas.

Appeal process

Although not all TVET institutions have a structured appeal process, most of them have informal procedures. At the DGTVET, test correction is reviewed by two committee instructors and the chair whose evaluation is final. Students can file an appeal by drafting a document but the committee can only verify that the final grades are reported correctly. At the MoA, students can appeal their test results which would be reviewed by the test committee.

Trainees at private TVET providers can verbally appeal test results via informal communication with their instructors. Makhzoumi and CIS stated that students can submit a written complaint, using a specific form and following a standard procedure, and that the outcome of the complaint would be communicated orally.

Feedback on the performance in skills testing

Applicants of skills testing are not provided with feedback on the gaps in their performance except for their grades. In the existing grade-based assessment, and without competency-based assessment and clear objectively verifiable criteria, it would be difficult to efficiently identify an applicant's performance and competency gaps. Some countries make provision for skills upgrading programs so that applicants can upgrade their existing skills and/or acquire new types of skills to meet prescribed standards. This is a significant challenge because TVET institutions cannot offer tailored programs to meet the training needs of applicants. Furthermore, the capacity of TVET institutions is already stretched as they are unable to accept and train the current number of trainees. Consequently they are hesitant to create and deliver such tailored short-term programs. The trainees receive feedback on their performance at the NCVT via monthly evaluation reports. Prior to the structured DGTVET official exams, the students in formal training programs at LOST sit for internal assessments and are informed of their gaps. Students in short-term courses, on the other hand, are only given their grades.

Employers and workers participation in test implementation

Employer and worker organizations do not have a significant role in skills testing implementation. ALI has not participated in any skills testing, the CCIA-B only supports in finding opportunities for OJT in apprenticeships, while the CCIA-Z ensures that the tests are conducted at real workplaces. The same applies to the worker organizations, but FENASOL mentioned several support areas which it, as well as worker organizations like the CGTL, could provide. They include:

- Re-operation of vocational schools at trade unions to offer training programs in the customary and new occupations and skills (in agriculture, clothes, cooking, hospitality, shoemaking, and construction to name a few). Other TVET providers should fund these schools

- Outreach, awareness, and recruitment of trainees

- Build a network with members that are willing to volunteer

- Encourage people to participate in TVET through FENASOL's presence in communities, the media, and the children of FENASOL members (FENASOL was chosen to organize the domestic servant market and their first syndicate was formed in 2015).

▶ 4.7. The certification process

(**Answering Research Question #2**: To what extent are institutional capacities, resources, and conditions available to support outcome-based skills testing and certification?)

Certification rules and regulations

Separate rules and regulations for skills testing and certification have not been developed by public TVET institutions. When established, they become part of the overall training rules and regulations of a program. The NCVT stated that they have separate instructions for awarding certificates, while the MoA pointed that they had certain procedures in the previous non-CBT scheme. Some private TVET institutions, such as the MS and Makhzoumi, said they have internal rules on skills testing and certification, and guidelines for awarding certificates including attendance and grades.

Certificates

TVET institutions provide trainees who pass skills tests and achieve other requirements with certificates which could be in a form of a letter of completion, attendance, or participation. Official diplomas and certificates are provided by the public TVET institutions (DGTVET, MoA, NCVT, and NEO). Students in private TVET institutions are certified upon successful completion of the course from the institution authenticated by the public TVET institutions. However, common criteria are not adopted by these providers, making it difficult to ensure QA mechanisms for the accelerated vocational training. These certificates mainly include information like student name, age, specialization/training courses, course duration, TVET institution logo, and signature. Others could include additional demographic data (such as date and place of birth, residency number), grades for each course, date and place of issuing the certificate, the start/end date of the training, and level (such as good, or very good). Students do not receive a list of competencies while some private TVET providers offer it upon request. In some programs at LOST (e.g. electrician), a graduate receives a booklet containing the competencies together with the certificate which FENASOL considers important. Alternatively, ALI considers, besides skill level, the certification as the most relevant element that offers information on skills and qualifications.

Some private TVET institutions offer certificates that are provided by a third-party/external assessor (company or institute) as is the case with Safadi having the Industrial Research Institute award the "Welder Qualification Test Certificate" to the Safadi's graduates in the occupation/specialization of a welder (see Annex E.5 for information included in this certificate).

TVET in Lebanon has yet to establish a system for granting certificates serving as occupational licenses which are legally required for workers to practice a specific occupation or perform certain restricted work-related tasks. Occupational licenses in Lebanon are normally issued by professional societies in their respective sectors, such as in nursing, engineering, and medicine, but the DGTVET or TVET institutions are not involved in issuing such licenses.

Matching occupational and qualification standards

TVET certification systems in Lebanon have not established a link or a match between the occupational and the qualification standard. Formal diplomas/certificates are linked to educational qualification (e.g. BT track). However, a link has yet to be developed between an educational or occupational qualification and the certificates of short-term training courses associated with skill levels defined by employer, national/international institutes or companies operating in certain occupation(s) (e.g. Microsoft or the Industrial Research Institute). The CCIA-Z stated that its certificates indicate skill level however are not linked to a national skill/occupational level.

In 2019, the MEHE Minster issued the ministerial decision No. 347 for the adoption of the TVET qualification framework and its charts and descriptors. The framework consists of six learning levels within an eight-level general qualification framework. The practice of vocational training (short-term courses) comes in Levels 1 to 3, the BP certificate in Level 3, the BT certificate and secondary vocational certificate (dual system) in Level 4, the TS and Meister certificates in Level 5, and the LT certificate in Level 6. The adopted chart consists of seven columns, describing each learning level of the required knowledge, skills, competencies, life and digital skills, and languages. Since the TVET qualification framework and its descriptors were adopted by the MEHE only in mid-2019, it is expected that future certificates indicate the learning level based on this qualification framework.

Modular-based certification

The TVET certification system is not modular based. The student/trainee should complete the entire formal TVET program or short-term course to receive the certificate. That is, certificates for certain training module(s) or part of the qualification are not awarded. There are modular-based certifications in the short-term courses provided by private TVET institutions (information technology and computing, or hairdressing at Makhzoumi for example). Since modularization is based on an outcome-based system in

which individuals are certified for every completed module, introducing modules in the absence of CBT is a challenge. In the late 1980s, advanced efforts were made attempting to adopt the modular system in secondary vocational and technical education with the support of UNESCO. Curricula were prepared and teachers were trained. However, the security situation at the time prevented any formal transition into CBT. In 2017-2018, ProVET piloted a modular system to be implemented in the construction sector. At the DGTVET, provisions for modularization have been made at the BT level for the beauty care program where students were given the opportunity to receive a certification upon completing each year which allows the students the flexibility to either complete all three years or directly enter the labour market with a certificate after completing one or two years. Except for BT in beauty care, the DGTVET does not have any provisions for modularization. Together with FAO, AVSI conducted a training on specific skillsets/areas such as growing apples or olives. The training program consists of two modules of 40 training hours each: one on pre-harvest and the other on post-harvest. Participants have the chance to train and be certified for either one module only (e.g. pre-harvest) or for the entire training program.

Signatures of certificates

Formal TVET certificates are only signed by the concerned public TVET institution(s), i.e. DGTVET, MoA, NEO, and the NCVT. Signatures by private TVET providers, employer/worker organizations, private sector, or other bodies are not included. For non-formal short-term/accelerated training courses approved by public TVET institutions, the associated public TVET institutions and NGOs/private TVET institutions sign the certificates. Other names, logos, the stamp of another third-party partners (such as municipalities, UN agencies, the company who developed the curriculum, and employers for internship programs) could follow without a signature from these other partners. Short-term courses which have not been approved by the DGTVET or other public institutions do not contain their signatures.

▶ **Table 9.** TVET institutions and certificate signatures

TVET Institution	Certificate Signatures
DGTVET	Only the DGTVET signs on formal TVET certificates. The DGTVET and the NGO/TVET provider sign the certificates of non-formal short-term/accelerated training courses approved by the DGTVET.
MoA	The agricultural BT certificates are only signed by the MoA; the same applies to certificates of short-term courses implemented by the MoA. Certificates of short-term courses implemented jointly by the MoA and other partners/NGOs are signed by both parties.
NEO	NEO certificates could be endorsed by the Ministry of Foreign Affairs according to the needs of graduates.
NCVT	NCVT certificates are signed by its Chair/Board of Directors and the MoL Secretary-General. They could also be endorsed by the MoL/the head of the vocational training department and from the Ministry of Foreign Affairs and Emigrants (for graduates needing to study or work aborad).

The CCIA-Z indicated that the certificates awarded to the graduates in the training courses conducted by the chamber are signed by the CCIA-Z, MoA, and WFP. FENASOL mentioned that, in the past, the trade unions issued certificates signed by the union and the MEHE through their vocational schools.

Graduation ceremonies

Graduation ceremonies are almost never held at public TVET institutions. The MoA hosted graduation ceremonies in 2010 and 2014 for BT, and three others for short-term courses. Ceremonies can be held for NEO-supervised TVET programs. They often take place at certain private TVET providers (Makhzoumi, AVSI, CIS, and LOST) and typically only a small number of employers join these events.

Meanwhile, FENASOL (like the CCIA-B only attends university graduations) is not invited to TVET graduation ceremonies because the government collaborates with the CGTL rather than FENASOL.

Certificate registry system

Almost all TVET institutions have a registry system for certificates. Several also have a registry for grades, some have serial numbers for certificates, and others have certificates or the registry system in soft and hard copies. Institutions keep these registries for future requests by graduates. Since 2010, the MoA has been providing hard copies of letters of completion/certificates and has been planning to make them available to graduates as soft copies.

These registry systems are inaccessible by employers who are interested in the qualifications of graduates or workers. Employer organizations indicated that they are more interested in the outcomes and the skills TVET graduates have gained rather than the certificates or qualifications awarded to them. The CCIA-B stated that the private sector does not have confidence in TVET provision and their certificates, hence, enterprises develop their own training programs within their premises.

According to ALI, industries examine the actual process that leads to such certificates and whether the companies granting those certificates are reputable in the corresponding sector. Therefore the issue lies in questioning the testing and certification process of the training company, not the certificate itself.

▶ 4.8. M&E process for skills testing and certification

(**Answering Research Question #2:** To what extent are institutional capacities, resources, and conditions available to support outcome-based skills testing and certification?)

Monitoring and follow-up mechanisms

Limited human resources and financial capacities hinder public TVET institutions to establish systematic monitoring and follow-up mechanisms to assure the quality of skills testing and certification. The DGTVET's Department of Monitoring and Educational Studies, which is part of the Administration of Monitoring and Examinations, reviews applications for new private TVET school licenses and dispatches education supervisors to oversee educational provision. Its education supervisor visits the schools regularly based on an annual schedule and drafts individual school reports which are forwarded to central administration. The supervision process is inclusive of meetings with the principal, the instructors, and the students to discuss instructional implementations, teaching practices, theoretical and practical lessons, tests, and test outcomes. Private schools are expected to share an annual report detailing general operations and outlining pending needs after they are accredited by the DGTVET. In addition, schools write their own qualitative and subjective self-evaluation of their pedagogical processes and include them in their annual reports. However, due to a lack of educational supervisors (only two oversee all private TVET providers). This function has been limited to responding to complaints and ensuring the regularity of administrative work in TVET institutes.

Test implementation plan

Most of the TVET providers do not have a written, operational and well-defined test implementation plan. Elements of the test implementation plan are part of the MoA regulating procedures for the final-year exams. At Makhzoumi, test implantation plans include test dates and correction methods, and AVSI has a similar plan that includes a time frame, group division, and assessors. Safadi indicated that their instructors develop a preparatory plan with the working team (see Annex E.6 for its main elements).

Skills testing committees

All TVET institutions form skills testing committees, mainly consisting of instructors, course coordinators, and TVET institute principals to conduct and monitor final assessments. The DGTVET's examination committees oversee the official examinations for formal and non-formal TVET programs and manage the entire process by identifying test items and applicants, managing applicant registration, conducting and supervising the exams, correcting exam sheets, and entering and issuing test results. Membership, roles and responsibilities of assessment committees at NEO and the NCVT are shown in the following table.

▶ **Table 10.** Membership, roles and responsibilities of assessment committees at NEO and the NCVT

TVET Institutions	Membership of the Assessment Committees	Roles and Responsibilities of the Assessment Committees
NEO	- Committee chair (the specialization coordinator/focal point from NEO) - Administrative staff from NEO (their number depends on the number of specializations and the capacity of NEO cadre) - NGO coordinator - Instructor of the specialization	- Monitoring the presence of trainees at the test. - Agreeing with instructors on practical test items. - Monitoring trainees during the test. - Providing comments and directions. - Only the instructors and committee members attend the tests. - Mutual agreements on accelerated vocational training by NEO and NGOs include assessment records to be handled by NEO.
NCVT	- Instructor - MOL representative (the board of directors' secretary) - Chief of theory lessons - DGTVET representative (if any)	As per the Training Agreement template of the NCVT, its role is to: ● Supervise final assessments ● Endorse final results ● Sign certificates. The roles of the NGOs: Preparing the final assessment results on two copies, one at the NCVT and the other at the NGO after endorsement by the NCVT

As mentioned, the assessment committees at private TVET institutions include instructors, course coordinators, and TVET school principals; other staff members – technical officers for practice tests (AVSI), social workers (MS), and QA officer (RMF) – could also be part of the skills test committees.

The CCIA-B believes that representatives from enterprises should supervise skills tests, not the Chambers. ALI and worker organizations have not participated in supervising skills testing before.

Feedback mechanisms

None of the interviewed TVET institutions have established feedback mechanisms to collect input from students and employers in skills testing to analyze shortcomings and challenges of testing. Some of them collect feedback from students orally, and through questionnaires and focus group discussions. However, these instruments typically lack clear sections about skills testing and certification standards. The interviewed institutions have neither an operational system to identify employers and other stakeholders who are interested or disinterested in skills testing and certification nor feedback mechanisms to determine their perspectives and make revisions accordingly. The CCIA-Z has surveys prepared by the chamber to be filled by employers and by trainees.

Most of the interviewed TVET institutions do not videotape skills tests (particularly practical tests) to thoroughly review the test results for potential improvements. Videotaping skills tests is a standard practice at NEO's training courses and MS videotapes applicant tests occasionally whereas Makhzoumi has applied it in Akkar after the COVID-19 pandemic and Safadi only once with the ILO.

Reporting skills testing and certification

Reporting skills testing and certification focuses solely on test results which include student names and grades, and without any mention of flaws or opportunities for improvements. Some test reports might also include rate of success, attendance, dropouts, comments, and improvements. At the DGTVET, they include the name of the TVET center, the specialization (occupation), grades of each student, and the date of the report. At NEO, the assessment committee prepares minutes for each test, including the report of the final exams. At the NCVT, its principal shares weekly reports and final grades with the Board of Directors. The MS includes skill acquisition, participation and engagement rate, compliance with the disciplines of the skills test results, and the instructor's view. As shown in Annex E.7, the summary report of the test results at Safadi contains several noteworthy elements.

4.9. Inclusion of skills testing and certification

(**Answering Research Question #3:** To what extent do the existing skills testing and certification promote the inclusion and equity of disadvantaged groups?)

Percentages of students with disabilities in TVET

Evidently all TVET institutions are aware of the inclusion of students with disabilities in their training programs and provide some degree of arrangements to enhance their participation in training and assessment. However, the majority of public TVET institutions do not make adequate provisions for person(s) with disabilities (PWD). In Lebanon, the right of PWD to education is reiterated in Law 220/2000 and in education national strategies such as the National Education Strategy (2007) and the National Strategic Framework for TVET (2018-2022). The National Educational Plan for Persons with Disabilities (2012) also promotes the integration of PWD in regular schools and classes. Decree No. 9533 (17 December 2012) stipulates that examination centers should be equipped to host students with various disabilities. However, examining the number or percentage of students with disabilities enrolled in

TVET institutions reveals that further effort as well as organizational and institutional arrangements are needed in this area. For example, the findings of the study conducted by Save the Children concluded that the NCVT is not suitable to receive PWD trainees and does not have a budget to implement the needed arrangements. Students with learning difficulties only enroll in short-term courses but not in formal training programs which require a minimum level of literacy and numeracy.

Table 11. Rate of students with disabilities in TVET training programs

Institution	Rate of Students with Disabilities at Training Programs
AVSI	3%
CIS	5%
LOST	2%
Makhzoumi	1-2%
RMF	10-15%
MoA	1%
NEO	Low – N\A
NCVT	2 trainees

Arrangements for inclusion

Providing special arrangements to the students with disabilities or learning difficulties are not fully related to skills testing specifically but includes other areas related to the entire training program. The interviewed TVET institutions provided several examples for adapting assessment procedures, circumstances, tools, and materials to ensure meeting the needs of students with disabilities or learning difficulties. Some of these arrangements are at the program level and some are dedicated in skills testing. While Annex E.8 includes the major adjustments of the training program as a whole, the following are the main ones pertaining to skills testing and certification:

- The DGTVET securing a special center for students with disabilities to take skills tests

- Improving the accessibility to test venues

- Providing arrangements within the test venue, e.g. the height of tables is adjusted for their use

- Making arrangements on the day of the test, e.g. providing the students with assistants to write their answers, increasing test durations, placing them in a separate room with refreshments, sitting only for the practice test, using a braille version, bigger paper, font and images for printing, providing separate classes and test criteria for students with mental disabilities, offering sign language interpreters, and replacing the end-of-year project with oral questions.

According to the interviewed TVET institutions, having assistants is the key arrangement for skills training and certification for trainees with learning difficulties. The DGTVET, MoA, and Makhzoumi offer an instructor to students with Dyslexia and learning difficulties to read and/or write on their behalf in exams. Annex E.9 contains additional provisions for trainees with learning disabilities for the entire training program.

Challenges for inclusion

The main challenges which the TVET institutions face in providing arrangements to students with disabilities or learning difficulties are also not fully related specifically to skills testing but rather related to the entire training program. The interviewed TVET institutions mentioned the following challenges for the provision of special accommodations to PWD students:

- Some students may not be tolerant of students with disabilities

- Difficulty persuading students and/or parents in a particular specialty

- Some trainees are not serious enough to take the exam which necessitates further outreach efforts

- Inaccessibility to places and venues

- Lack of infrastructure particularly for severe disabilities

- Lack of financial resources for inclusion arrangements

- Unavailability of relevant support staff

- Some employers are hesitant to allow PWD into OJT programs

- Difficulty to include PWD in OJT programs due to a lack of a suitable work environment

- No support from the government

- Lack of comprehensive policy for inclusion by the Ministry of Social Affairs (MoSA)

- Lebanon has not ratified the rights of PWD.

Some TVET institutions indicated that they do not have any challenges as the ratio of their PWD is low. Others indicated that their challenges are limited to persons with physical (rather than mental) disabilities however their main difficulty revolves around illiterate students. As such, they are looking to the ILO, UNICEF, or other organizations to train staff on the tactics of fulfilling the needs of illiterate trainees. Some other TVET providers indicated that they do not admit students with learning difficulties into most specializations unless the nature of the course is purely practical.

Coordination on inclusion

TVET institutions frequently coordinate with non-governmental institutions working with PWD to provide suitable arrangements. The interviewed TVET institutions emphasized the advantages of this collaboration, especially when students with disabilities are referred by organizations which facilitates a better understanding of these students' circumstances. Others, on the other hand, explained that the arrangements are made by the TVET institutions without consulting with PWD organizations. Some claimed to be more advanced in their expertise and efforts than public authorities in matters related to disabilities.

Employer organizations stated that they could promote the inclusion of students with disabilities by raising awareness, outreaching, supporting, and facilitating their access to workplaces and training locations, as well as making other arrangements at workplaces (e.g. enabling students with wheelchairs to work while sitting). Inclusion of PWD at ALI corresponds with the ability levels required in the occupation rather than expecting them to perform a task they are unable to do. Consequently, ALI does not believe that the industry sector has an issue and, therefore, does not believe efforts are necessary to enhance the inclusion of PWD or illiterate students. It explained that they had attempted to contact organizations concerned with PWD to recruit an employee to work in the factories but to no avail. Worker organizations indicated that they could support the inclusion of students with disabilities by advocating for PWD rights, updating laws and regulations, supporting relevant organizations, and forwarding invitations of international organization TVET events to PWD organizations.

▶ 4.10. Recognition of prior learning

(**Answering Research Question #4**: To what extent do the existing skills testing and certification promote the recognition of prior learning?)

Establishing RPL

TVET in Lebanon has yet to establish a system for RPL. None of the interviewed TVET institutions had any experience with RPL or assessing prior learning. They stated that they do not have the authority to certify experiential learning because the proper mechanisms for it are not available. Only after completing a formal or non-formal training program is a certificate awarded. TVET institutions support in establishing a system for RPL but suggest the following in order to do so:

● A national decision

● A regulatory framework for such a system

● Improving the institutional and organizational capacities and tools on skills testing and certification

● Regulating the economic sectors in which RPL will be initiated

● Improving the certificate signaling, credibility, and demand by the labour market

● Spreading awareness for such a system.

FENASOL explained that they support the inclusion of RPL in any modifications in the Labour Law. Employer organizations view RPL as a costly process. However, ALI pointed that they could be a partner in any RPL system and believes that, in principle, no one should practice without certification; it is the government's job to defend this credential in the market since customers do not distinguish between people who have it and those who do not. ALI recognizes that the "no training, no certificate" system prevails but that certain provisions are required to meet the needs of workers who acquire experience informally. They should sit for the same test as those who receive training which strengthens the workforce by distinguishing professionals with insufficient qualifications apart and encourages them to build their skills to pass the exam.

RPL body

The DGTVET suggests that they should be the responsible body for RPL with the possibility to benefit from others' capacities under its umbrella. Some of the interviewed institutions suggest that the DGTVET be the RPL responsible body, however others suggest a collaboration between the DGTVET and ALI, while the rest suggest forming a national committee/council. For Agriculture, AVSI proposes that the AEES at the MoA lead such a system while the private sector supports conforming to instructions, conducting skills testing, and raising awareness in the areas of their work.

ALI sees that the certification body in the RPL system should be the same of that under formal certification though a new certification body should be established for RPL. The priority is to improve the skills testing and certification of the existing formal system, build its capacities, then proceed to work on RPL. Employer and worker organizations agreed that the RPL scheme should apply to both Lebanese and migrants because job conditions and requirements are the predominant factors and not nationality.

5.
Recommendations

▶ 5.1. Greater engagement of employer and worker organizations

Addressing key factors of employer participation in skills testing and certification

Public TVET institutions need to address the key factors driving the likelihood of employer participation in skills testing and certification. In general, the effective participation of stakeholders, especially employer and worker organizations in education and training systems is essential to ensuring that the training matches the needs of the labour market. It is critical to secure the active participation of employers and workers in the different processes of skills testing and certification including planning, design, implementation, and M&E processes. However, successful employer involvement in training and evaluation is challenging particularly in a predominately informal economy where forming partnerships with informal sector businesses is a challenge in itself.

Public TVET institutions should establish mechanisms to support the engagement of employer and worker organizations particularly small and micro enterprises. The envisioned mechanisms for engagement of the labour market in TVET and skills testing should address the following key factors:

● Employer interest in worker qualifications

● Their a wareness and trust in the quality of the skills testing and certification system

● Their costs and benefits from skills testing and certification

● Their concern about a potential correlation between the certificates and worker demands for promotions and higher wages

● The established link between skills and productivity.

Building capacities for greater engagement

To enhance effective participation in skills testing and certification, the capacities of public TVET institutions must be built so they raise awareness, build trust and confidence, and introduce capacity building activities to employer and worker organizations. Public TVET institutions need to target employers, their craftspeople, and employer and worker organizations involved in the process to raise awareness and build their capacities in skills testing and certification. Equally important, simple confidence-building activities are essential to demonstrate the added value of collaboration. The role of employers, and employer and worker organizations must be defined; additionally, the scope of partnership and the institutional framework should be determined for the delivery of skills testing and certification processes. A model which recognizes interests and capabilities is required to establish meaningful cooperation. Annex E.10 includes further recommendations to support TVET institutions in increasing the opportunity for master craftspeople in small and micro enterprises to be involved in skills testing and certification.

Regulatory and governance frameworks

The regulatory and governance frameworks of TVET institutions should ensure and determine the participation of employers, practitioners, craftspeople, and employer and worker organizations at the different levels of TVET and skills testing and certification. Their active involvement is strongly linked to regulatory and governance frameworks in addition to the cost-sharing mechanisms of the TVET bodies and institutions:

- Regulatory frameworks should ensure and determine participation at the policy, management, programming, operational, and technical levels

- TVET governance frameworks need to ensure the membership of employer and worker organizations in TVET bodies such as higher councils in TVET and employment, boards of trustees, and boards of directors at TVET institutes

- Rules and regulations of TVET institutions should ensure the membership and active participation of employer and worker organizations in advisory, curricula, and examination committees of training programs. Also these regulations should secure – in coordination with employer organizations – the participation of sector representative expert workers, specialists, and managers in the occupational competency analysis, competency-standard development, and competency analysis workshops

- Guidelines and instructions for TVET institutions must ensure the hands-on participation of competent expert practitioners in the teams/committees developing training program profiles, study guides and activities, observation and summative assessment grids, and instructional material

- TVET institutions and providers should have mechanisms to ensure that these rules and instructions translate to active participation by workers and employers.

Support of employer and worker organizations

Employer and worker organizations need to support skills testing and certification through their respective TVET sectors and institutions. Employer organizations should demonstrate active participation early on: from the design stage, promotion of human resource policies, participation in developing occupational profiles and competency standards, financing processes, providing real-life workplace situations for conducting skills testing, providing equipment needed for testing and the assessors to implement them. Chambers should establish liaison offices in different regions of Lebanon to support TVET while worker organizations can demonstrate their support of the process of skill testing through:

- Activating skills testing and certification systems and mechanisms

- Protecting the interests of their constituents

- Having representation in relevant bodies, such as sector skills councils, sectoral councils for qualifications etc

- Providing inputs concerning policy and regulatory issues, national policy and strategy, skills standards, qualifications, certification, occupational licenses, and RPL

- Working on collective agreements, involving provisions for apprenticeship programs, training some members to become 'activists' who then provide information and guidance to workers.

One of the fundamental issues affecting the participation of worker organizations in skills testing and certification is the level of technical competence which, in advanced economies, they address by recruiting professional advisors competent in technical aspects.

National Sector Skills Council (NSSC)

The recommendation of the NSF for TVET to establish sector skills councils should be implemented. The NSSC is a permanent employer-led tripartite body which promotes skills development in given economic sector(s). Such bodies may be statutory (established and recognized under laws or regulations) or voluntary, established at the initiative of industry sectors or regional communities, and preferably recognized by legislation, which gives legitimacy to its work and affirms its mandate. NSSCs are platforms of cooperation in which various types of stakeholders are involved. The envisioned councils in Lebanon should ideally

involve employers and representatives of employer organizations, line government entities, and representatives of worker organizations, as well as other social partners involved in the respective sector. Employers will have the majority members in the NSSC. The number of employer members is determined after consultations with stakeholders in the sector - possibly based on the size and the characteristics of the sector. It is important that participating institutions are relevant to the given sector and social partners or business associations have real links to companies. Attempts should be made to create a balance among the various stakeholders to ensure that the council can serve representativeness of the sector. One of the responsibilities of the sector skills councils should be to manage and supervise skills testing and certification processes in the related sectors/occupations. A sector council might also establish its own center for developing and conducting skills testing in the targeted fields/occupations. However, the range of functions for the sector councils ultimately depends on the availability of funding sources. That is, the source and size of resourcing influences the mandate and the activities of a sector council.

Third-party assessment

Public and private TVET institutions need to establish a system which supports the participation of employers as third-party assessment bodies to conduct final assessments of trainees in the targeted occupations and sectors. In the absence of sector skill councils, chambers and employer organizations should support the third-party assessment processes and assume the role of a moderator, linking the TVET institutions with the companies/employers which could conduct the final assessments. The employer organizations could work jointly with TVET institutions to establish the criteria of selecting third-party assessors or companies based on the targeted occupations and skill/proficiency levels required for these occupations. Accordingly the TVET institutions and employer organizations should analyze the practices and experiences of engaging private skills testing institutions as a third-party assessor.

Feedback mechanisms

TVET institutions, particularly the DGTVET and the MoA, should establish feedback mechanisms to receive inputs of employers, workers, and other stakeholders to improve skills testing and certification. These mechanisms should identify the relevant stakeholders who are interested or disinterested in skills testing and certification as well as the reasons for their disinterest. Their feedback at all stages of skills testing and certification should be gathered to revise skills testing and certification criteria, enhance assessment processes, expand coverage, and increase credibility and reliability.

► 5.2. Improving the institutional capacities in skills testing and certification

Improving the institutional capacities on initiation & planning process in skills testing and certification

Institutional framework

Public TVET institutions need to have a clearly defined institutional framework for planning, management, design, and implementation of skills testing and certification. When planning systems for assessing skills and granting certificates, the DGTVET, the MoA, and other governmental institutions responsible for TVET in Lebanon need to comprehensively analyze the ability of the current institutional capacities to effectively apply professional skills testing and certification. They should analyze their capacity constraints, provide additional resources, strengthen existing capacities, employ additional professionals, use information and communication technology (ICT) to implement and monitor skills testing and certification systems, provide TVET institutions with resources for developing tools, and build the capacity of skills testing professionals. As previously mentioned, the effective involvement of social partners in TVET institutions remains essential.

Skills testing and certification staff

TVET public institutions, particularly the DGTVET and the MoA, need to ensure the availability of competent technical and administrative staff for skills testing and certification. The insufficient qualified technical and administrative staff in skills testing and certification constitutes a barrier for implementing and expanding its scope. Many TVET institutions lack resources as well as capacity to implement its processes and develop assessment tools. Therefore they need to assess and determine the required number and profiles of the range of professionals (counselors, facilitators, assessors, skills testing developers, certifiers, professionals dealing with appeals, administrators, IT and data entry operators etc.). Given this, TVET institutions then should design and establish training programs for building capacities, knowledge, and competencies of potential skills testing and certification professionals according to their training needs. Tools, case studies, and guides should also be developed to assist them in performing their tasks efficiently.

Accrediting skills testing and certification professionals

The DGTVET and the MoA should create a mechanism for accrediting/registering skills testing and certification professionals particularly test developers and assessors. TVET institutions need to coordinate or contract skills testing developers from TVET providers and the private sector to develop/update test items. They should also identify a pool of professional assessors to conduct each assessment, confirm the needed competencies based on evidence submitted and/or observed, and verify that learning is compatible with the standards. Moreover, the DGTVET and the MoA should create an accreditation criteria and a database about the mentioned professionals' field of expertise (developers, assessors, moderators, and councilors) and their experience to make sure that they are competent both in their occupation and the assessment processes (see Annex E.11 for suggested criteria).

A national network of skills testing and certification professionals should be formed to facilitate the exchange of knowledge and experiences among the technical personnel in different occupations. The DGTVET could also establish mechanisms for licensing and accrediting skills testing centers which could be formed and operated by the public or private sector or members of sector skills councils.

QA framework

To ensure the credibility and consistency of skills testing and certification, a QA framework and mechanisms for skills testing and certification need to be specified. Public TVET institutions, particularly the DGTVET and the MoL, need to jointly establish a national QA framework for TVET addressing skills testing and certification procedures. Internal QA mechanisms should be established at each public and private TVET provider based on the national QA framework for TVET. The QA mechanisms should ensure, among others, establishing common standards, the availability of competent practitioners, collaborating with employer and worker organizations and other relevant stakeholders, in addition to, M&E frameworks, independent auditing of the entire skills testing and certification process, and dissemination of results (see Annex E.12 for a proposed QA mechanism).
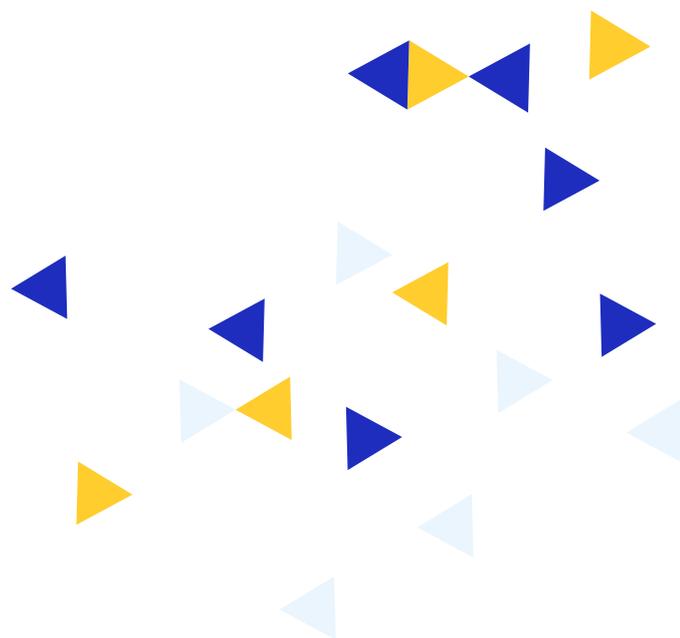
Financing framework

TVET institutions along with employer and worker organizations need to establish a financing framework with clearly defined cost-sharing mechanisms which take into consideration the benefits of skills testing and certifications for all partners. The costs of skills testing and certification depends on the methodology adopted, the level and type of qualification, and the extent of the support needed by applicants. It also depends on the availability of pre-existing competency standards and assessment tools in the targeted occupations and the aspects for which institutions are responsible in skills testing (if any). The costs will be lower if existing institutions share the responsibility for skills testing. Most countries follow this approach but some underestimate cost implications and complexity and thus are faced with implementation constraints.

Costs of skills testing and certification

A financing framework should consider the importance of including all costs for reliable and valid testing and the need to expand implementation. Skills testing and certification are costly exercises which should rely on all available sources of funding for its various stages. As a result, TVET institutions should develop a costing exercise focused primarily on skills testing and certification and should consider the importance of including all costs to reach a reliable, valid, and broad-based testing - including the costs of engaging practitioners, designing assessment tools, test developers and/or assessors (see Annex E.13 for the various costs that should be included).
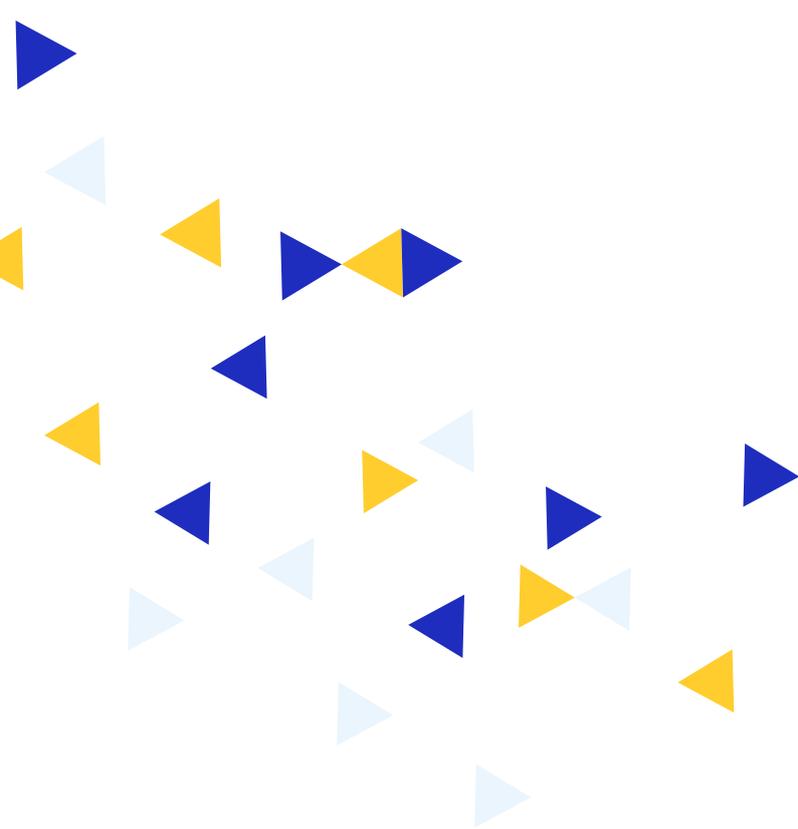
Competency-based assessment

Assessment committees should design and apply competency-based assessment associated with clear learning outcomes to facilitate skills testing and certification. There is an on-going need to pursue developing competency-based approaches while maintaining the reliability, simplicity, time and cost-efficiency of the assessment within a context where learning is acquired and the individual characteristics of the applicant is considered. To be fair, the same assessment tools and methodologies must be used for formal, informal, and non-formal learning, if possible. Innovative training programs should be organized by international organizations for TVET institutions as a form of support in the actual design and implementation of CBT, curricula, training and assessment.

Occupational profiles and standards

TVET institutions should build their competency-based assessments on occupational profiles and competency standards. Occupational profiles form the basis of competency-based test items since they define the expected competence of a worker. DACUM is an efficient methodology for occupational profiling while existing occupational profiles can be used as a reference to arrive at the skill level targeted for assessment. TVET institutions could

check the quality of those profiles, revise, and screen them (see Annex E.14 for recommended criteria). If they are not available or are too unrealistic, DACUM analysis workshops should be conducted to create new occupational profiles. When developing final assessments, assessment committees must identify which of the profile competencies will be tested and share them with the applicants in advance.

Test Items Bank (TIB)

The DGTVET and the MoA should establish or develop competency-based TIBs to serve as storage banks for all test items. A TIB is supposed to contain several items for the same tasks, competencies, or learning outcomes so that successive tests can address the core contents repeatedly while related items differ in wording, style, or level of complexity and difficulty. A TIB can also be managed jointly by the same profession. The DGTVET and the MoA need to designate teams of test item developers to ensure the quality of items added to the TIB and create new items, adapt ones from other countries/regions, and regularly remove outdated ones. Such a team should include at least three practitioners of the respective occupation to verify that:

- Test items cover the entire occupational profile

- Practical performance sequences are suitable for assessment

- Practical performance tests are of high quality.

Annex E.15 provides further details about the criteria for developing or verifying TIBs.

Assessment specification tables

Test developers need to prepare assessment specification tables to identify relevant test items, and the weight and grade distribution of these items (if the grade-based assessment is still in use) for each of the learning outcomes and their cognitive complexity level (assessment domains). Annex E.16 suggests a form for a test specification table and explains its level of complexity.

Theory test items

Theory test items need to include innovative and objective skills testing items to measure the capabilities at various levels of complexity as per a test specification table. In addition to lower and intermediate complexity levels (remembering, understanding, and applying) used by most TVET providers, theory skill tests should make room for testing advanced complexity levels with an emphasis on higher critical thinking skills needed for the labour market, such as problem-solving, troubleshooting, faulty components and processes, defect-cause links, symptoms and remedies. Test developers should also ensure that life and workplace core skills are assessed in theory skill tests.

Test developers need to substitute open-ended long essays, short answers, completion, and true-false test items with more innovative and objective test items,

such as high-level matching, cause-effect, and work sequences. Considering the customary low literacy levels of trainees in short-term accelerated training courses, essay items are not recommended here. Annex E.17 provides recommendations for selecting the types of test items for theory skill tests based on the complexity levels in a test specification table.

Practical skills testing

Assessors and test developers need to establish objectively verifiable assessment criteria for practical tests. Test item developers should design a unified standard template for the assessment sheet of the final practical test which contains the crucial elements for a valid and objective test (see Annex E.18 for the main elements to be included). Assessors should ensure that the practical test is conducted based on objectively verifiable assessment criteria, both process-based and product-based, with adequate qualifiers, all of which facilitate shifting from a grade-based subjective assessment to competency-based assessment.

Test developers should pilot a draft skills test, consider a target group sample consisting of graduates of vocational training programs or workers, and analyze pre-test results for the purpose of defining areas of strength and weaknesses to amend the draft test and improve its validity before finalizing it. They should review the test items to reflect technological advancements, new materials on the market, change in customer taste, and new standards for regulating a trade, like environmental standards.

Assessment strategies

Assessment committees should ensure selecting the best strategies for assessing the trainees. The selection of assessment strategies is driven by the nature of the knowledge, skills, and attributes to be assessed and the evidence required to demonstrate them. Depending on the aim, the target group and the competencies to be assessed, it is recommended that instructors and assessors evaluate the performance of each applicant using a mixed-method approach of direct observation and evaluation of the applicant's performance, products, services, outcomes, assignments, projects, or other forms of skills testing, evaluation of the applicant's portfolio, and/or conducting criteria-based interviews. Annex E.19 provides guidelines for selecting assessment strategies based on the occupation skill level, in addition to suggestions for improving the relevance of skills testing. Regardless of the selected methods/strategies of assessment, instructors and assessors should ensure that they are valid, objective, accessible, in addition to other criteria which must be present in the assessment strategies (see annex E.20 for more details).

Assessment evidence matrix

After choosing the assessment method(s), assessors are advised to prepare an assessment evidence matrix to ensure that the collected evidence covers all competencies to be tested.

These matrices should include the competencies targeted in the test and the corresponding activities for each competency or group of competencies. Then the suitable assessment strategy (or strategies) is defined for each competency and activity (see Annex E.21 for a suggested template for an evidence matrix).

Test venue and duration

It is recommended that TVET institutions conduct final assessments at actual workplaces to enhance the participation of employers and master craftspeople while improving the reliability and authenticity of the assessment. Assessment committees need to specify the venue where the final assessment will be conducted based on the trade/occupation, the specific context in which the occupation is operating, and the stakeholders involved. The skills test could take place in an educational institute (e.g. training center), or in an environment which simulates the actual workplace (such as training facilities/centers which are used for assessment, if any), or at an actual workplace selected by master craftspeople (e.g. construction sites). Theory tests could also be carried out at the premises of NGOs. Regardless of the location, assessment committees must ensure that skills testing is conducted within a workplace environment to best simulate real-life work situations and the availability of the conditions needed for the selected location/venue of the final assessment (see Annex E.22).

Assessment committees should determine the duration of the assessment based on the occupation, and whether to schedule assessments simultaneously at all test venues to enable using the same test items and compare results.

Appeal process

To enhance transparency and confidence in the certification, TVET institutions – especially the DGTVET – should provide mechanisms for test applicants to appeal assessment results and retake skills tests. TVET institutions need to prescribe an appeal process so that applicants can ask for a review of the decision(s) made at any stage of the skills testing and certification process. Assessment committees should manage a set process to retake a test and appeal results (see Annex E.23 for provided guidelines).

Few international agencies perform "moderation" of assessment results before declaring them and awarding certificates. In a grade-based assessment, for instance, if an applicant's practical test scores are slightly below the cut-score while the theory test scores are acceptable to the committee, it could suggest that this applicant be considered successful. Some TVET institutions have a similar practice but should consider the feasibility of a formal "moderation" method with consistent written instructions.

Feedback on performance

Applicants of skills tests should receive feedback on the gaps in their performance and not only be provided their grades alone. If the applicant is deemed not yet competent and/or wants to gain additional skills in other units of competency, he/she should have the opportunity to do so through regular procedures of institutional or workplace training and assessment. In this case, a counselor/facilitator should provide the applicant with the available information and support. TVET institutes lift obstructions at training facilities and infrastructure by providing skills training on weekends and evenings, thereby maximizing the usage of existing infrastructure and lowering training costs. Flexible mechanisms like distance learning, e-learning, portfolio presentations, and case studies may also be provided.
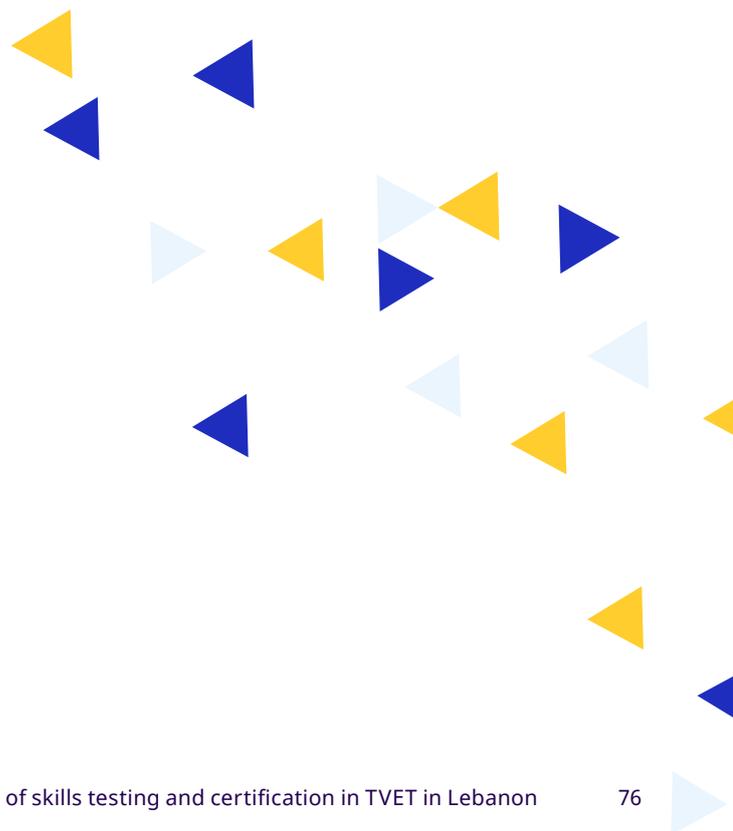
Matching the occupational standards and the qualification standards

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Skills testing should be conducted according to established qualifications criteria which ensure a close correlation between the occupational standards and the qualification standards. Skills testing certificates should provide the exact qualification which the applicants attained as per a national TVET qualification framework, as well as the list of competencies achieved as per a national or sectoral occupational standard. However, this could present difficulties in their compatibility if the two classes of standards are controlled and designed by different organizations (normally, occupational standards are decided by the labour market, while the qualification standards are designed by educational institutions). Therefore, a solid partnership between these organizations helps limiting mismatch. This correlation between standards could be easier when the training and assessments are developed based on the national or sectoral competency standard to ensure, from the start, that the learning outcomes of training programs of a specified level, as per the qualification framework, are directly extracted from the competencies of the occupational standard.

Another challenge in matching the two classes of standards is when the competencies required for a given occupation differs in the formal and informal sectors. In addition, these competencies change frequently due to several factors, such as technological progress, requiring TVET institutions with employer organizations to periodically revise the occupational standard in the targeted sectors. The scope of the competency standard should take into consideration the coverage of the major categories of occupation or specialty, and a mix of small and large enterprise representatives in the development panels of the occupational competency standards.

Modular-based occupational qualifications

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The certification process should promote modular-based occupational qualifications with clearly defined standards and learning outcomes. The certification process needs to be conducted as per the national rules and regulations; it should also be structured in the most credible and transparent way possible if the labour market and educational institutions are to value the knowledge, skills, and competencies of certificate holders. Testing and certifying skills of individuals with compatible qualifications have been gaining momentum and is now offered in some countries. Once a CBT system is in place, introducing a modular system further enables students to accumulate credits from specific tested units of competence which are independently recognized in the labour market; together, these credits can lead to a vocational qualification. One

of the advantages of a modular system includes the flexibility for students to learn skills of interest to them, thus, generally increasing the attractiveness of the TVET system and reducing dropout rates. Modules also allow TVET providers to be more responsive to labour market trends and offer those modules most in demand.

As mentioned above, the standards for full or modular-type (part) qualifications – according to which test applicants are assessed – should closely match the occupational standards used in the labour market. If the full qualification covers a broad range of skills, the modules may be designed to serve three distinct purposes: i) a module (or a combination thereof) must match the standards of the associated occupation, ii) there must be horizontal and vertical linkages between modules, and iii) the modules should generally come together to cover the standards of the full qualification.

The TVET qualification framework issued by the MEHE ministerial decision in 2019 is a positive step towards the modular-based qualification. However, further work is still needed to define policies for the registration of technical and vocational qualification framework (TVQF) criteria and the credit point convention system, along with the QA and the assessment of TVQF qualifications, the award of TVQF qualifications, lifelong learning and RPL, and recognition of foreign qualifications. The skills testing systems for migrant workers is further complicated by the challenges associated with recognizing foreign qualifications and experience. In such a case, linkages between national qualifications and

mutual recognition can be strengthened through the synchronization of national and regional qualifications frameworks.

Signatures of certificates
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Public TVET institutions need to sign the certificates along with related craftspeople, and employer and worker organizations. This increases the accountability and visibility of the certification process, broadens future participation of employers and workers in assessing skills, and enhances the value of the certificates in the labour market. TVET institutions should organize public graduation ceremonies – unless they entail high costs for the graduate – and ensure the involvement of related craftspeople, employer and worker organizations, and respected community representatives.

Occupational licenses
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Governmental ministries responsible for TVET need to initiate a dialogue with worker and employer organizations on the feasibility of establishing a system for granting occupational licenses based on the certification process. These licenses should be restricted to occupations where there is a demonstrated public need to limit certain jobs to those who have the required competencies. Line ministries should provide a registry of these licenses accessible by employers to verify that the job applicant is properly licensed.

Collecting feedback

TVET institutions need to systematically collect and analyze information about skills testing and certification outcomes and impact. M&E is important for tracking the implementation, outcomes, and impact of skills testing and certification. They enable taking corrective measures for improving performance thereafter. The gathered information can also contribute to enhancing the image of skills testing, upscaling the system, ensuring the effective participation of all stakeholders, and enhancing the potential allocation of more resources by governments and employers. TVET institutions must seek the input of relevant stakeholders at all its stages to improve assessment procedures, broaden its coverage, and increase its credibility. Similarly, assessment committees should request applicants and assessors for their perspective to help identify possible flaws and communicate them with test developers so they are reflected in TIBs.

Skills testing implementation plan

Assessment committees should develop a clearly defined skills testing implementation plan. They should prepare a well-defined skills assessment implementation plan based on test tools and share it with applicants beforehand. They must ensure that arrangements are made before, during, and after testing (see Annex E.24, which also includes the main elements expected to be incorporated in a skills assessment implementation plan).

Reporting on skills testing and certification

It is recommended that assessment committees analyze and report assessment results. Assessors should report the results to determine whether an applicant is competent according to the units of competency applied for. Then they should compile the results and forward them to the assessment committee which seeks the approval of the TVET institution and communicates the results to applicants. A soft copy of the results must then be kept confidential and the assessment committees should be able to provide data/reports on the:

- Number of applicants, dropouts, and trainees who passed the tests

- Applicant perceptions of all skills testing and certification stages such as support and facilitation, assessment procedures, adaptation of needs, assessment content, and appeal procedures

- Progress in the career of trainees who successfully passed tests

- Employer perceptions of improvements in performance at work

- Stakeholder feedback on why they are interested/disinterested in skills testing and certification.

It is recommended that the assessors videotape the performance of consenting applicants during practical test for learning purposes.

5.3. Improving the inclusion of skills testing and certification

Inclusion of different groups

Skills training should be an opportunity to promote a less segmented and a more inclusive labour market thus allowing learners to compete together. An inclusive skills testing system promotes social inclusion of marginalized groups, refugees, disadvantaged people, and PWD. However, in some areas, women may find it easier to be tested separately by female assessors through mobile training units, or any method of distance assessment for learners in remote areas, or alternatively, transportation costs can be covered. Priority should be given to a greater outreach for assessment and requests for separate testing within specific contexts. The used language in skills testing can be adapted in line with the practices in the world of work, while the test subjects and items must not include content which applicants with specific social or cultural backgrounds could find shocking or offensive.

Inclusion of students with disabilities or learning difficulties

TVET institutions should make additional effort to adapt the skills testing and certification process, procedures, circumstances, tools, and materials to ensure that they meet the needs of students with disabilities or learning difficulties. It enhances their participation in testing to obtain occupational certificates. The required changes must follow the measures which companies adopt for recruiting PWD to ensure that the work environment meets their specific needs.

In addition to the existing adjustments mentioned by the interviewed institutions, Annex E.25 shows additional arrangements which could be provided for improving the inclusion of the trainees with disabilities or learning difficulties in skills testing and certification. Most importantly, venues must be more accessible to trainees with disabilities. The lack of modular-based certification also poses a barrier. Introducing such training courses for testing and certification encourages PWD to participate in TVET and become certified in a skill of interest.
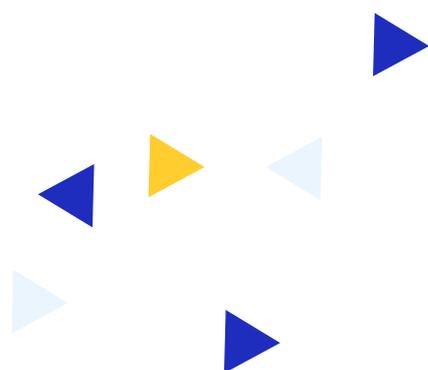
Coordination of arrangements

Strategies for accommodating trainees with disabilities or learning difficulties during testing must be structured so that they are treated fairly without compromising the content or skill they are expected to know or demonstrate. Accommodations should be discussed directly with the authorities responsible for PWD in Lebanon, emphasizing that these adjustments are not a question of "preferential treatment" but a reasonable accommodation to ensure that tests are inclusive. For each test, policies and procedures should clearly state that justified accommodation for a particular trainee was determined, approved, and provided. Changes to the testing process may come across as a violation of the integrity of the assessment, therefore, all trainees must comply with the required standard when certification is required but accommodations are often possible within the system. PWD, with or without accommodation, should be evaluated by the same content standards as other trainees. Testing their knowledge or skills may require: environmental and performance adjustments, format modifications, or flexibility in the pace of the assessment. What a trainee produces is judged by standards such as quality, quantity, speed, accuracy, or additional factors demanded from all trainees. Within this framework, the trainers/assessors should make further adjustments as needed.
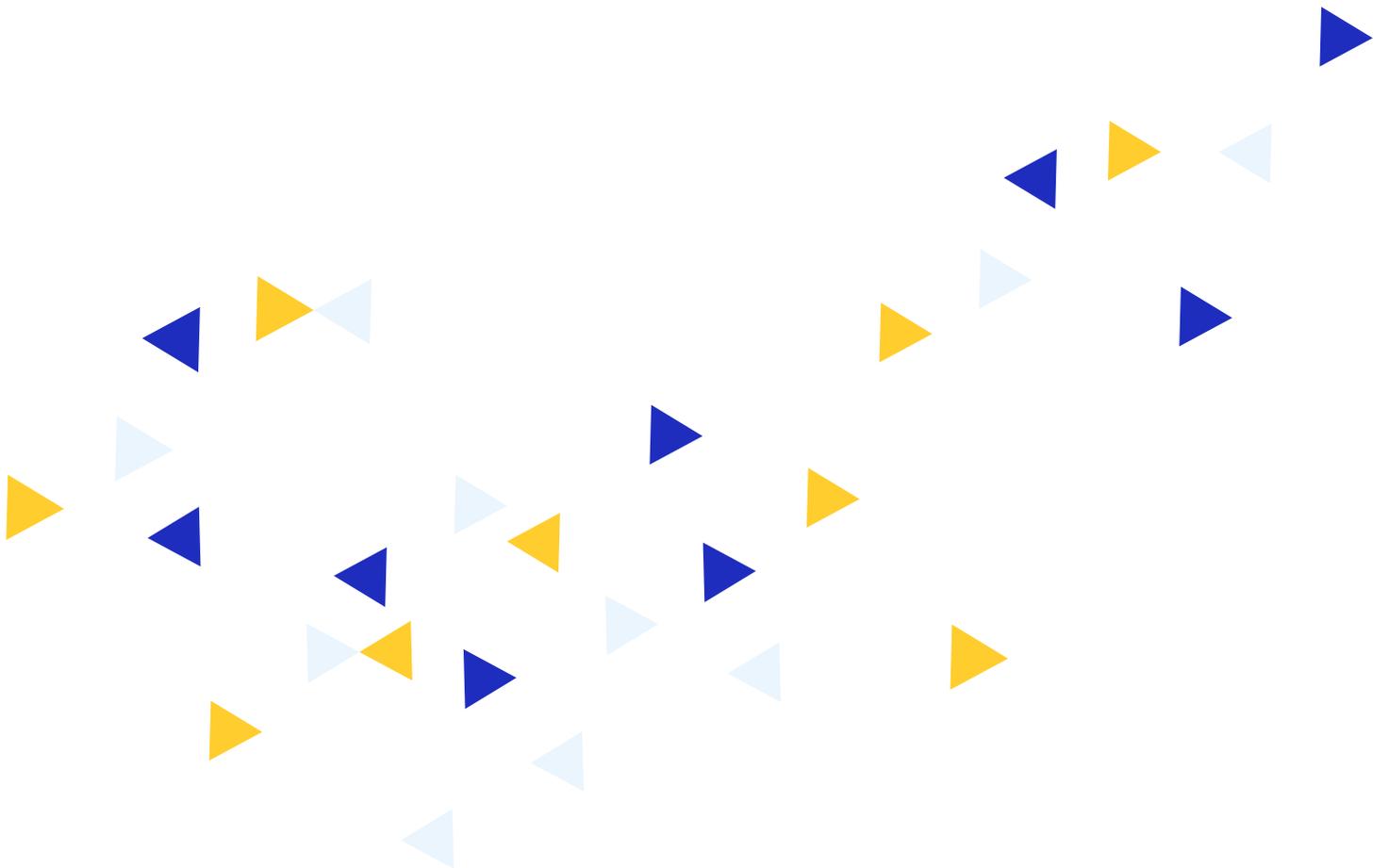
5.4. Promoting RPL in TVET in Lebanon

Upscaling the existing skills testing and certification

The existing skills testing and certification systems must be refined to promote RPL and past work experience. In the absence of recognized qualifications, many face serious disadvantages in obtaining decent jobs and accessing continued education, despite possibly having the necessary knowledge and skills. The RPL process can help them acquire a formal qualification which matches their competence and, hence contribute to improving their employability, mobility, lifelong learning, social inclusion, and self-esteem. However, the existing skills testing and certification system requires various improvements to support the recognition of experiential learning.

Some of the recommendations mentioned in the previous sections are prerequisites to promote RPL. For example, in the absence of any CBT system and occupational standards, it is not currently possible to recognize prior informal and non-formal learning in Lebanon. Moreover, the RPL system must ensure that adequate capacities and resources are allocated so that relevant stakeholders acknowledge them and prioritize their development and implementation. Even countries with an adequate recognition system expressed their inability to rapidly scale up their systems due to a lack of competent staff and/or facilities. It needs professionals to perform key functions, including the development of assessment tools, counseling and facilitation, testing and certification, QA, audit and appeals, and managing the system and processes. The key staff required for skills testing, RPL, and a certification system mainly include: i) skills test developers who review and screen occupational profiles, as well as design, review, develop, and update skills test items and TIBs, ii) skills test assessors who are responsible for selecting assessment strategies, developing test implementation plans, preparing test venues, conducting skills tests, evaluating and reporting test results, and iii) councilors/facilitators to coordinate skills testing activities such as facilitating and supporting applications and verifications. Skills testing committees who oversee the planning and implementation of skills testing are necessary as well.

Mandating RPL body

A national body or institution should be mandated as a responsible body for managing the entire RPL process. Skills testing, certification, and RPL systems work best when they are an integral part of the education and training system. Hence, the DGTVET could undertake such an initiative since the DGTVET-MEHE are also the responsible body for the NQF for TVET. Meanwhile, the employers could contribute through their collaboration with the DGTVET. Further possibilities of allocating responsible entities for RPL are elaborated as follows:

- **An institution/body for TVET QA**, including accreditation, skills testing, certification, qualifications, and RPL. It could be related to a line ministry (like the MEHE or MoL) or can operate as an autonomous entity. Such a commission/institution is established in countries like Jordan

- **A national skills development organization** which may also be called the body, council, board, or commission. Arab countries like Saudi Arabia, Jordan, and the UAE, to name a few, have adopted such an arrangement

- **Sector skills councils** could be assigned to be the responsible body for recognizing non-formal and informal learning across their mandated sectors and awarding the certifications as per the NQF of TVET. They may be either statutory (established and recognized under laws or regulations) or voluntary (established at the initiative of industry sectors or regional communities).

Initiating RPL

To initiate RPL in Lebanon, its responsible body must first assess the demand of RPL and identify the strategic occupational sectors for piloting. To decide whether/when it is best to offer RPL, its responsible body must ensure:

- Competence of employers and master craftspeople who train the range of skills targeted for the assessment

- Efficiency of employers and master craftspeople willing to participate in preparatory meetings and implementation of the assessment, and/or assign this task to qualified staff members to represent the business/enterprise

- Presence of employer organizations in the occupations/skills targeted for assessment to which they are sufficiently representative to establish their own assessments

- Demonstrated interest of employer organizations, businesses, and craftspeople as part of the preliminary meeting for initiating RPL

- Availability of skills assessments for the same targeted occupation/range of skills conducted by other entities including the government

- Availability of relevant material and documents, including DACUM/occupational profiles, to estimate the necessary amount of work to prepare and conduct assessments.

The assessment committees should then define:

- Who will be assessed (an apprentice/trainee, a master craftsperson or categories of workers)

- Skill levels covered by the assessment as per the NQF and the occupation classifications (ISCO-08, ASCO 2008 or other)

- Educational background of the average applicant

- Languages which the applicants speak (to select the appropriate methods of assessment: oral, written, use of language)

- Work-related tasks which the applicants should be able to perform

- Essential technical and non-technical skills needed (to select and design test items)

- Minimum standards for high quality work in the market (for identification of assessment criteria).

RPL responsible body must then sign agreements with the relevant employer organizations in the targeted occupations to design and conduct skill testing under the supervision of the RPL body; the latter should ensure that assessment panels/committees established by the concerned employer organization according to the agreements are composed mainly by members of the employers' representatives and practitioner craftspeople (see annex E.26 for recommended membership and criteria for an assessment panel).

The RPL responsible body might need to establish new institutions and/or skill testing centers or units within existing TVET institutes, providing them with the needed ICT facilities to implement and monitor skill testing and certification.

RPL awareness-raising strategy

The RPL body needs to spread awareness and develop communication, coordination, and collaboration strategy for RPL. The low awareness of RPL systems is the major challenge to further understand it. An effective and well-targeted awareness strategy helps create awareness of RPL its systems, their potential benefits, and builds positive attitudes towards it. It may be a while until RPL systems are accepted by the relevant stakeholders. The majority is unaware of skills testing systems, processes, methodologies, requirements, opportunities, and potential benefits. They are uninformed that RPL systems are accepted by employers and higher education institutions for employment purposes and for admission to further education and training programs respectively.

Skills testing fees may be a barrier for financially underprivileged people who would weigh the incurred cost in return for the social and economic benefit of obtaining an occupational certificate. If job prospects and start-up business opportunities are weak, employees and graduates may not be in favor of skills testing which they consider too expensive. The same applies to skilled craftspeople who have to see the cost and benefit of taking the test.

The RPL body needs to involve employer and worker organizations, other key stakeholders and those involved in the design of the awareness strategy as a way towards effective collaboration for raising RPL awareness among target groups while ensuring the active involvement of experienced and respected master craftspeople in the process.

The RPL body should undertake publicity and awareness building on different platforms and disseminate information on skills testing and certification through a wide range of mediums and techniques to increase outreach and guide potential applicants through its process. Platforms include websites, webpages, social networking, brochures, and the media (such as radio, television, print media, etc.[1]). The RPL body should also provide techniques for raising awareness among illiterate potential applicants with strong practical competencies (targeted based on assessment needs) on skills testing and certification (via mobile phones and SMS communication).

RPL guidance and counseling

The RPL responsible body should create a functioning system of guidance and counseling which targets different groups, including vulnerable groups, for potential applicants on pre-assessment of qualifications, assistance in collecting evidence, and preparation for assessment. While maintaining the quality and accuracy of the assessment, the RPL body and assessors must provide correct information about the entire process and direct the applicants. This process involves the screening of applicants, submission of applications, initial assessment, identifying gaps, final assessment, and granting certificates upon completion.

For these purposes, the RPL responsible body might need to assign counselors/facilitators (preferably from public employment centers) at the different levels of the RPL body and the TVET providers to coordinate all skills testing activities including facilitating and supporting applications and verifications (see Annex E.27 for their roles and responsibilities in the RPL guidance and counseling process). The RPL body should also provide counselors/facilitators with the information pertaining to the skills testing process, eligibility, levels of competency, and evidence building (assessment portfolio).

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1 Other methods include key messages, flyers in (relevant) languages, national conferences and workshops for stakeholders, deadline reminders, information sessions at workplaces and educational institutions, job fairs, exhibitions, roadshows, job networks, and training advertisements

It is recommended that the RPL body develops a self-assessment form, checklist, and a short online self-evaluation tool to take the applicants through the various steps of skills testing and certification, building knowledge about the process and matching their skills, and experience with a qualification (part or full). Annex E.28 shows recommended features that the RPL body.

Assessment committees must decide if tests are restricted to workers or apprentices of occupations, or open to other tradespeople as well. If not restricted, assessment committees should consider if the consent of master craftspeople is required to register an apprentice after which the testing schedules are based on the target group. Further details on the process of registration to skills testing and certification are found in Annex E.30.

RPL performance portfolio

The RPL body must develop a robust QA system which enables portfolio-based performance assessment as a key assessment strategy and enhances RPL. However, the portfolio assessment methodology can be exceptionally difficult in terms of evidence gathering and completing documentation, especially for individuals in the informal sector and for those with limited formal education, or others lacking writing skills for written tests. Assessment evidence may still be quite academic and terminological for many potential applicants. Therefore counselors/

facilitators should assist and facilitate their preparation of the skills testing application and portfolio (Annex E.29 explains the contents of an assessment portfolio and offers guidance for counselors/facilitators).

Recognition of foreign qualifications

The RPL responsible body needs to establish a system for recognition of formal qualifications from outside of Lebanon which regulates the labour market, reduces the pressure on skills testing systems, and reduces its costs. The RPL body should check whether professional or technical qualifications obtained from abroad is equivalent to that in Lebanon. This evaluation is made based on formal criteria related to competencies/learning outcomes and the training duration for issuing an equivalent certificate which allows the employers to identify the true competencies of the workers they seek to hire. If professional or technical qualifications obtained from abroad is equivalent to that of Lebanon's, applicants are asked to sit for a final assessment. If differences are identified in regulated occupations, they must complete the compensatory measures stipulated by the RPL body (an adaptation period at a worksite) and a skills test. For non-regulated occupations, applicants undergo appropriate training to compensate for the missing skills before sitting for the skill test.

6.
Conclusion

Skills testing and certification have the potential to improve employability, mobility, lifelong learning, social inclusion, and self-esteem. Other key drivers for developing and improving skills testing and certification systems in Lebanon include:

- Creating a competent workforce that can meet the challenges of the labour market and enhance skill-based employment and promotions

- Providing access to higher education, allowing alternative learning (workplace, non-formal, and informal learning) and modular methods, and accelerating the acquisition of qualifications

- Improving skills and knowledge to meet occupational and labour market standards

- Regulating occupational activities based on approved standards, codifying employment policies of wages, and providing decision-makers with databases and statistics on the labour market

- Improving the quality and the content of training programs, identifying the needs of trainers and trainees, and securing the quality of career guidance and counseling.

Improving skills assessment, testing, certification, and RPL systems is part of the reform of the TVET system. Issues on the TVET reform agenda, which are not only specific to skills testing and certification, include: engagement of employer and worker organizations, individual employers, private enterprises and businesses, master craftspeople and practitioner experts, and skilled workers in: skills testing and certification; promoting the integration of its processes, procedures, tools, and conditions; and establishing cost-sharing mechanisms and financial frameworks.

Improving skills testing and certification systems in Lebanon requires developing its building blocks which mainly include: legal and regulatory frameworks, building institutional capacities, engaging stakeholders and social partners (particularly employers, master craftspeople, employer and worker organizations), provision of needed financial support, ensuring the inclusion of skills testing and certification, and QA provisions, and monitoring and evaluation frameworks. The ability of the system to recognize and certify formal, non-formal, and informal learning is also crucial.

▶ **Figure 1** Building blocks towards improving skills testing and certification systems

It is recommended to implement the recommendations of this report in short, medium, and long-term phases as follows (see Annex E.31 for a detailed matrix):

- **Improving institutional capacities in the short-term:** TVET institutions should address the gaps in their institutional capacities for designing, conducting, monitoring, and evaluating skills testing as per the mentioned recommendations. Additional involvement from practitioners is required in occupational profiling and in developing and assessing tests. Short-training courses could be upgraded to serve a modular-based approach while a third-party assessor methodology could be piloted in selected training programs

- **Piloting sector skill councils in the medium-term:** TVET institutions, particularly the DGTVET, must demonstrate flexibility in structuring formal training programs to include modular-based curricula, testing, and certification in collaboration with the industry and the employers. Such an initiative enables a trainee to train in both schools and workplaces alternatively. TVET centers of excellence could be piloted. Establishing skill councils in some critical economic sectors should be a priority

- **Promoting RPL in the long-term:** When sector skill councils become well-established, the recommendations for upscaling a skills testing and certification system into the RPL system could be implemented. TVET in Lebanon requires a holistic reform process which demands structured effort targeted towards the building blocks of the TVET system for more inclusive, labour-market relevant and quality TVET.

Annex

▶ Annex A. Brief on TVET institutions and providers in Lebanon

In general, the DGTVE at the MEHE administers TVET in Lebanon. Although technical education is centralized at the DGVTE, the MoA also provides technical education; vocational education and training is provided by other institutions, including the MoSA, the NCVT, the NEO, local and international NGOs and the private sector.

The NEO is a public institution with financial and administrative autonomy under the MoL. It is primarily responsible for employment-related policy making, as well as job matching and placement through its employment offices. The NEO supports NGOs to provide accelerated vocational training (VT) programs across the country.

The NCVT is responsible for accelerated VT programs which normally are three to nine months long and they award certificates to their students upon completion. It is run by an independent board of directors, leading its strategic planning and supervising implementation.

The MoSA offers short informal VT courses through NGOs or its affiliate social development centers; it also awards graduates its own certification upon successful completion.

The MoA is responsible for the management of agricultural technical schools through its Extension and Agricultural Education division within the General Directorate of Agriculture. Students at these technical schools choose between BT in agriculture and accelerated VT programs.

Unlike public providers, private TVET providers are independent, both in terms of their funding and management. Some of them are operated by NGOs, whereas others operate for profit.

Lebanon still follows the traditional TVET system based on academic school year. The Department of Curriculum and Education Techniques in the Technical Department of the DGTVE is responsible for the preparation and development of educational curricula in technical and vocational education. It specifies books and teaching aids and determines the methods of teaching. It also supervises TVET providers to ensure conformity of curricula. Moreover, the DGTVET organizes public TVET official examinations, issues diplomas and certificates, and coordinates with line ministries and other bodies which provide different types of TVET. It develops model questions for official examinations and provides them to the Examinations Committee at the DGTVET as well. It announces the dates of official examinations, supervises and corrects them, and issues certificates. It also administers the second round of official examinations for students who do not pass the first round.
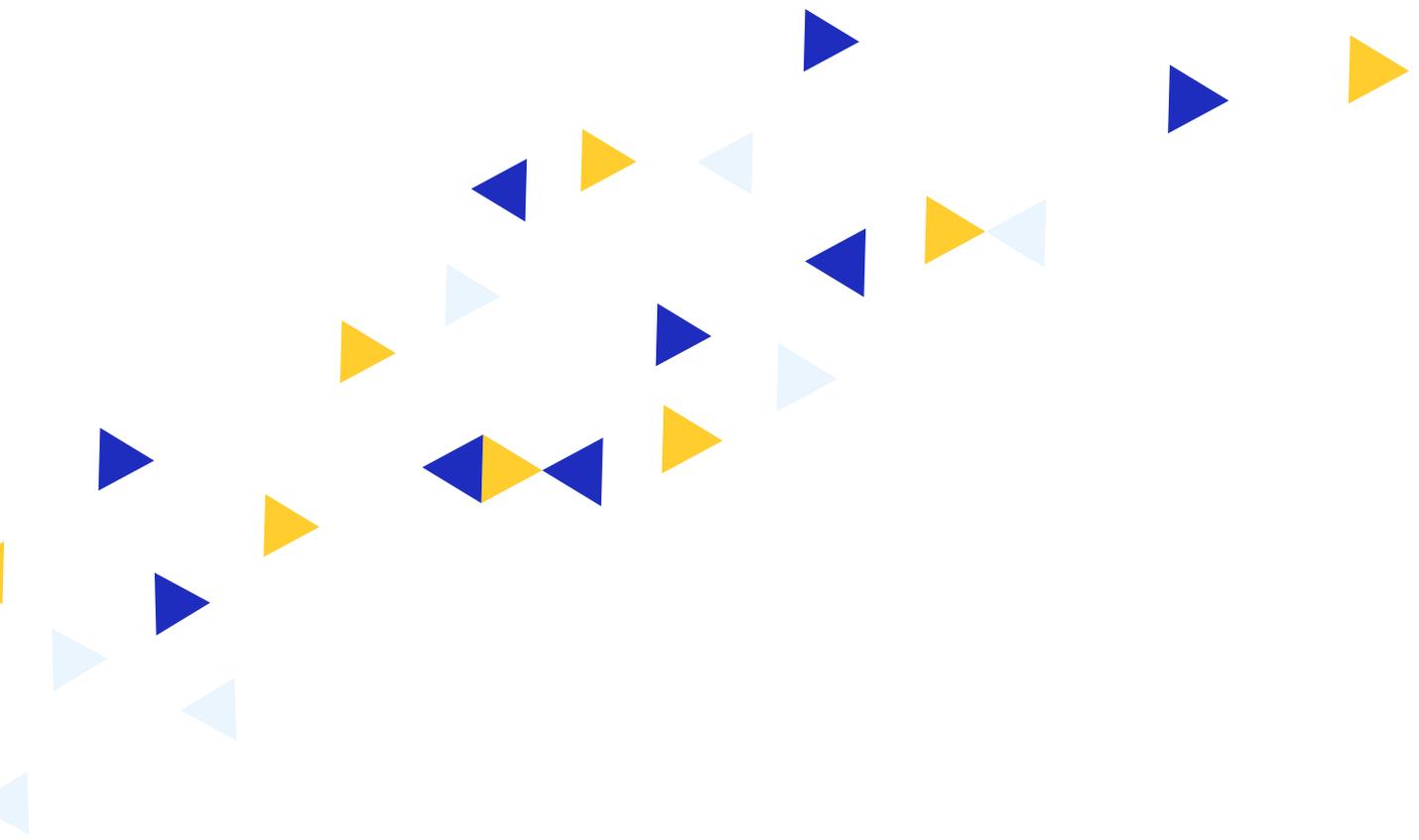
▶ Annex B. Research tools/interview guiding questions

Interview questions for the DGTVET and other TVET institutions and providers

Question code	Question
Q1.A	Could you describe how the DGTVET manages, designs, and conducts skills tests?
Q1.B	- Are there enough non-profit organizations, trade and business owners, and master craftspeople willing to participate in skills testing in the corresponding occupations? - Does the DGTVET have instructions/regulations ensuring and determining the involvement of employer and worker organizations in skill testing and certification?
Q1.C	- Are there centers for skills testing and assessment, whether in the TVET sector or the private sector? - Are the employer and worker organization involved/willing to establish such centers?
Q1.D	Does the DGTVET identify those stakeholders who are interested or disinterested in skills testing and certification to know their reasons?
Q1.E	Does the DGTVET have feedback mechanisms to receive the input of relevant stakeholders to ensure revision of standards used for skills testing and certification?
Q2.A	Does the DGTVET have policies and regulations for skills testing and certification?
Q2.B	Does the DGTVET have guidelines and/or standard operational procedures for designing and implementing skills testing and certification?
Q2.C	Does the DGTVET have QA framework and/or mechanisms for skills testing and certification?
Q2.D	Are skills testing and certification parts of the accreditation procedures followed by the DGTVET to accredit the TVET provider programs?
Q3.A	Is the necessary funding available to cover the cost of skill testing, either by the DGTVET or in partnership with non-profit organizations, the private sector, and organizations?
Q3.B	Are employer and worker organizations willing to co-share the cost of skills testing and certification?
Q3.C	What do the expenses of skills testing and certification include? (e.g. costs of test rooms/venues, equipment and materials, test fees, and assessor fees and training)
Q4.A	Does the DGTVET have the technical cadre required to design and implement skills testing? (such as councilors, facilitators, assessors, test developers, assessment committees, and administrative staff)
Q4.B	How does the DGTVET assess the available institutional capabilities to implement skills testing?

Q4.C	Does the DGTVET regularly implement capacity-building activities and training to upgrade the competence of the technical cadre working on skills testing?
Q4.D	Does the DGTVET have mechanisms for accrediting and registering assessors and test developers?
Q5.A	Does the DGTVET have a database for technical personnel working on skills tests across Lebanon?
Q5.B	Does the DGTVET have a network for knowledge and experience exchange among the technical personnel in different occupations?
Q6.A	Are skills tests built on occupational profiles?
Q6.B	Do assessment committees check the quality of existing occupational profiles/DACUM charts, and revise and screen them? What criteria are used for it?
Q6.C	If occupational profiles are not available or if the existing ones are unrealistic, does the DGTVET conduct occupational/DACUM analysis workshops to develop new occupational profiles?
Q7.A	Does the DGTVET have a TIBs?
Q7.B	Does the DGTVET formulate teams of skill test developers to regularly review and update skills testing items at test banks? How?
Q7.C	Can TIBs be managed and used jointly for the same/similar occupations?
Q7.D	How do test developers ensure that these items are comprehensive, valid, and representative, and enable using them for successive skills tests?
Q8.A	How does the assessment committee ensure that test items are valid, reliable, objective, authentic, fair, efficient, current, comprehensive/sufficient, and inclusive?
Q8.B	How does the DGTVET ensure that skills testing items are complete, valid, and representative, and contain several items for the same task so that successive tests address core contents repeatedly?
Q8.C	Does the DGTVET designate teams of test item developers to ensure the quality of items?
Q8.D	Does the DGTVET develop skills test specification tables to facilitate developing skills testing items?
Q9.A	How does the DGTVET develop the tools for theoretical knowledge and practical skills testing?
Q9.B	What are the items which a practical test sheet contains? (Does it contain performance elements/steps, performance assessment criteria with adequate qualifiers, oral supportive questions, or interviews?)

Q9.C	- Are theoretical knowledge tests linked to the learning outcomes? - (Do they cover different complexity levels? Are they based on a specification table? - Do they use objective test items, such as matching, cause-effect, and work sequence items? Do they avoid using items which are less objective, such as essays, or rather true-false questions?)
Q9.D	Do skills test items contain generic/transversal skills in additions to technical skills?
Q10.A	Do assessment committees design and apply modular and competence-based standards built on learning outcomes to facilitate skills testing?
Q10.B	Is the evaluation/grading system outcome-based or grade-based?
Q10.C	- How has the grading system been functioning? - What are the thresholds for success in both theory and practical tests?
Q11.A	What are the assessment strategies used in the existing skills testing? (observation/process-based, observation/product-based, observation/simulation, interviews)
Q11.B	How are these assessment strategies selected to be applied in final assessments? (What are the used criteria for selecting these strategies? Are they according to the aim, the target group (BT year), or the competencies to be assessed?)
Q11.C	Do assessment committees prepare evidence matrices before the test? (Do they develop assessment evidence matrices which link assessment activities/tasks with the selected assessment strategies?)
Q12.A	How can skills test procedures, conditions, and tools be adapted to fulfill the needs of vulnerable and marginalized groups?
Q12.B	How does the assessment committee adapt the assessment procedures, circumstances, tools, and materials to ensure that they meet the needs of applicants with disabilities? (testing venues accessible by wheelchairs, using oral and written language, pace of the tests, height of the tables, and applicants allowed time to prepare)
Q12.C	Do assessment committees ensure that the topic of these accommodations is discussed directly with authorities responsible for PWD in Lebanon?
Q12.D	What are the challenges facing the DGTVET in introducing such accommodations?
Q13.A	Do assessment committees prepare assessment implementation plans for skills tests?
Q13.B	What do these plans include?
Q13.C	How do skills test committees ensure that the tests are implemented according to these assessment plans?
Q13.D	When developing final assessments, do assessment committees identify which of the profile competencies will be assessed and make them known to applicants before scheduling the final assessment?
Q14.A	How do assessment committees determine the venue where the final assessment will take place? (Is it based on the trade/occupation, the specific context in which the occupation is operated, or the stakeholders' involvement?)

Q14.B	What conditions should the location/venue have? (accessibility, occupational health and safety, administrative support?)
Q14.C	How do committees ensure that tests will be conducted within a workplace environment to best simulate real-life work situations?
Q15.A	Does the DGTVET prescribe an appeal process so that applicants can appeal the decision(s) of the skills testing and certification process?
Q15.B	Does the DGTVET formulate appeals committees for reviewing and taking decisions regarding appeals and taking skill tests again?
Q15.C	- Do assessment committees manage requests to retake the test and appeal the results as part of a set process at the DGTVET? - What are the skill test appeals and instructions and mechanisms for retaking tests?
Q15.D	Does the DGTVET provide the applicants who do not pass the test with feedback on their performance and guide them through the next steps?
Q16.A	- Does the DGTVET have certification rules, regulations, and conditions? - Does the DGTVET issue occupational certificates to the applicants who pass the test according to the rules and regulations?
Q16.B	Does the DGTVET match the occupational and qualification standards to determine the qualifications and certification which could be granted under skills testing?
Q16.C	Does the DGTVET define qualifications awarded through skill testing which match the qualification standards? (all or part of formal education and training/qualification standards? In other words, for existing systems, does the DGTVET assess whether qualifications awarded through skills testing refer to the same or equivalent standards as those of formal education and training?
Q17.A	Does the DGTVET follow a system for issuing occupational licenses which clarifies the conditions and occupations included under this system?
Q17.B	What skills do certificates state? (exact qualification attained by the applicant, list the competencies they have mastered?)
Q17.C	Does the DGTVET establish a registry system for occupational certificates?
Q17.D	- Does the DGTVET sign the certificate along with related employer and worker organization/craftspeople? - Does the DGTVET organize graduation ceremonies (unless they require a high budget) for applicants who pass the test?
Q18.A	How does the DGTVET check the presence of the elements and the documents necessary for the design and implementation of skills testing, especially occupational analysis charts and skills testing elements?
Q18.B	Does the DGTVET formulate committees to oversee planning and implementation of skills testing? What is the nature of membership of such committees?
Q18.C	How do these committees plan and implement the tests?

Q18.D	How many assessors per the number of applicants monitor the test?
Q19.A	Do assessment committees collects feedback from applicants and assessors to carefully analyze them and identify possible flaws?
Q19.B	Do the assessment committees communicate these flaws to test items developers so they are reflected in the TIB?
Q19.C	Do assessors videotape the performance of consenting applicants in practical tests for learning purposes?
Q20.A	- Does the DGTVET prepare reports of test results? - What do such reports include? - Does the DGTVET confidentially maintain test results for a while after and form a committee to erase them?
Q20.B	Does the DGTVET keep reports on the number of applicants, dropouts, and graduates?
Q20.C	- Does the DGTVET conduct surveys to collect the perceptions of applicants on all skills testing and certification stages? (such as supporting, facilitation, adaptation needs, assessment portfolio, appeal procedures) - Does the DGTVET inquire about the perceptions of applicants who passed the assessment on matters like progress in their career, improvements in performance, self-esteem, remunerations, and access to further education and training?
Q20.D	Does the DGTVET conduct surveys to collect the perceptions of employers regarding improvements in performance at work?
Q21.A	Does the DGTVET apply a strategy for building awareness in skills testing and certification within the community and among relevant stakeholders?
Q21.B	Does the DGTVET employ awareness and media tools, establish electronic platforms, and organize conferences and workshops on awareness of skills testing and certification?
Q22.A	Does the DGTVET establish a system for guidance and counselling on RPL particularly for vulnerable and marginalized groups?
Q22.B	Does the DGTVET have councilors and facilitators for awareness activities, supporting applicants in all their stages of skills testing and certification?
Q22.C	Does the DGTVET have assessment templates and self-assessment forms which guide applicants in the steps of skills testing?
Q22.D	Does the DGTVET employ mechanisms to identify target groups for skills testing, sufficient number of master craftspeople working in the corresponding occupation targeted for skills testing, skill level, educational backgrounds, conditions for applying for skills testing, job tasks to be assessed, and the required performance standards?

Interview questions for the chambers, and the employer and worker organizations

Question code	Question
Q1.A	Did the Chamber participate in any skills testing and certification? With Whom?
Q1.B	What were the exact roles of the Chamber in these tests and certifications?
Q1.C	If the Chambers are not involved in any skills testing, are they willing to participate in the skills testing of the targeted occupations conducted by the DGTVET, line ministries, and other TVET providers?
Q1.D	Where should the role of the Chamber be in such partnerships/involvement?
Q2.A	Are you aware of any centers for skills testing managed or operated by employer and/or worker organizations or the private sector?
Q2.B	If there are not any skills test centers operated by employer and/or worker organizations or the private sector, is the Chamber willing to establish/participate in building such centers?
Q2.C	What sort of support do you expect the Chamber to offer such centers?
Q3.A	Is the Chamber willing to co-share the cost of skills testing and certification?
Q3.B	What cost-sharing mechanism/criteria do you suggest be enhanced for a win-win situation of cost-sharing?
Q3.C	What challenges do you expect the Chamber to face in such cost co-sharing?
Q3.D	What are the benefits of the Chamber if it becomes part of this cost-sharing? What support do you expect the Chamber to receive?
Q4.A	Does the Chamber have the technical staff required to design and implement skills testing? (such as counselors, facilitators, assessors, test developers, assessment committees, and supervisory and administrative staff)
Q4.B	Does the Chamber have capacity-building activities and training for upgrading the competence of the technical staff working on skills testing?
Q4.C	Does the Chamber have mechanisms for accrediting and registering assessors and test developers?
Q4.D	Does the Chamber have a database for technical personnel working on skills tests?
Q5.A	- Has the Chamber participated in DACUM/occupational analysis and competence standard workshops? - How do you assess your participation?

Q5.B	Does the Chamber have TIBs for certain occupations?
	How does the Chamber ensure that skills test items in test banks are comprehensive, valid, and representative, and enable their use for successive skills tests?
Q5.C	Has the Chamber participated in designing theoretical and/or practical tests?
	How do you evaluate this experience?
	Do you see that the Chamber has the capacities to develop skills tests?
Q5.D	Is the Chamber aware of modular and competence- and standard-based assessment?
	Has the Chamber participated/managed competency-based assessments?
Q6.A	How do you see the role of the Chamber in conducting skills tests?
Q6.B	How could the Chamber support making sure that tests take place in a workplace environment to best simulate real-life work situations?
	Does the Chamber support conducting skills tests in real-life work situations?
Q6.C	Is the Chamber aware of the assessment strategies used in existing skills testing? (i.e., observation/process-based, observation/product-based, observation/simulation, interviews)
Q6.D	According to which criteria are these assessment strategies selected to be applied in the final assessments? (depending on the aim, the target group (BT year), the competencies to be assessed?)
Q7.A	According to the Chamber, how can skills testing procedures, conditions, and tools be adapted to meet the needs of PWD and other vulnerable and marginalized groups?
Q7.B	Does the Chamber have strong relations with the authorities responsible for PWD in Lebanon?
Q7.C	How does the Chamber see its contributing role to strengthen the inclusion of skills testing and certification in Lebanon to meet the needs of PWD and other vulnerable and marginalized groups?
Q8.A	What would the Chamber want to see in skills testing certificates? In other words, what should occupational certificates contain? (such as the exact qualification obtained by the trainee, a list of mastered competencies)
Q8.B	Does the Chamber prefer to have a national or a sectoral registration system for the occupational certificates? How can it increase signaling occupational certificates?
Q8.C	Does the Chamber (or is it required to) sign the occupational certificates issued by TVET providers?
Q8.D	Does the Chamber participate in graduation ceremonies for trainees who pass skills tests of the TVET programs?

Q9.A	Which role should the Chamber play in supervising and monitoring skills testing and certification?
Q9.B	What sort of contributions and support can the Chamber provide in monitoring and evaluating skills testing and certification?
Q9.C	Is the Chamber willing to participate or conduct studies and surveys about employer opinions and perceptions on skills testing and certification?
Q10.A	Is the Chamber willing to participate in establishing a national or a sectoral system for recognition of RPL? *(Recognition of Prior Learning (RPL) refers to the recognition of the experiences and skills acquired by people outside the educational system, such as experience gained in the labour market without enrolling in educational/training programs, or training and working in the informal sector. The RPL system exposes them to skills testing to award them occupational certificates.)*
Q10.B	What support can the Chamber provide to enhance the RPL system? (awareness, guidance, facilitation, design tests, conducting tests)
Q10.C	Does the Chamber have the competent staff (consultants, facilitators, assessors) to support such a RPL system?
Q10.D	Does the Chamber prefer to apply the RPL system to only Lebanese workers or to immigrants and refugees as well?

▶ Annex C. Brief on the literature review

There are several publications related to skill testing and certification. They range from addressing their main building blocks to detailed stages, practices, case studies, competency-based assessment and certification, prior learning assessment and recognition. The ILO "Manual on Skills Testing and Certification" provides the minimum requirements for their processes in Jordan. It addresses the two main stages: the design and the implementation, in addition to the certification process and the issues related to skill testing governance, funding, and inclusion. It explains in some detail the assessment strategies and tools, as well as the development method of skill tests (both knowledge and practice tests). The ILO publication "Assessing Skills in the Informal Economy: A Resource Guide for Small Industry and Community Organizations" is a prime resource for skill testing in informal learning conducted by small industries and community organizations. This guide is based on nine case studies from Africa, Asia, and Latin America, providing solid foundations on initiating, building awareness, designing, and organizing the skill testing and certification system, as well as financing and linking it with formal qualification systems. It also addresses relevant issues, such as stakeholder involvement, constraints, and success stories.

The ILO's recent publication "Competency-Based Training (CBT): An Introductory Manual for Practitioners" encompasses the minimum knowledge that practitioners should possess in delivering CBT for lower- to mid-level skilled occupations. Efforts have been made to ensure that the manual is relevant to Arab states. It addresses in detail the stages and requirements of developing competency-based training programs. A section is dedicated to developing competency-based assessment which tackles aspects like CBT approaches, methods, tools, and templates. In addition to this manual, different publications are available which discuss skill testing and certification stages, such as the editions of the resources on testing in vocational and technical training issued by the Department of Training and Workforce Development in Western Australia. Among the elaborated topics of these resources include testing strategies in CBT, designing assessment tools, inclusive practices, RPL, assessor competencies, validation, and evaluations.

RPL, prior learning assessment and recognition (PLAR) take remarkable interest in the literature. Several publications have been issued during the past decade, targeting the RPL/PLAR processes, requirements, building blocks, and QA. The ILO publication "Recognition of Prior Learning: Key Success Factors and the Building Blocks of an Effective System" paves the way to establish

RPL systems. It explains the concept of RPL and its key factors and benefits, processes (awareness and publicity, counseling and facilitation, assessment, and certifications), its QA mechanisms, and major barriers and building blocks to establish an RPL system. Other publications that form noteworthy references include the "Guidelines for Recognition of Prior Learning Assessment (RPLA) in Tanzania" and "How to Facilitate the Recognition of Skills of Migrant Workers: Guide for Employment Services Providers".

Various reports also discuss the inclusion of skill testing and certification as part of skill testing, RPL, and certification publications or as part of the inclusion of TVET and skill development. ILO's practical guide "Inclusion of People with Disabilities in Vocational Training" is one of the notable guide which addresses the inclusion of TVET and skill development. It is designed to provide practical guidelines for administrators and trainers in vocational training centers and skill development programs on how to include PWD who receive the support they need to succeed. It discusses basic concepts, planning, and the educational and social aspects of inclusion.

Quality skill testing and certification not only assess technical skills and competencies, but also life and core work skills as emphasized in various resources. A significant example is the SQA Accreditation's "Guide to Assessing Workplace Core Skills" which elaborates the concept, units and level of core work skills, the roles of assessors and applicants, planning and approaches to assessment, and methods of collecting evidence. UNICEF publication "Reimagining Life Skills and Citizenship Education in the Middle East and North Africa: Conceptual and Programmatic Framework" provides a set of twelve core life skills for the MENA region, identified using the four-dimensional learning model: 'Learning to Know' (Cognitive Dimension), 'Learning to Do' (Instrumental Dimension), 'Learning to Be' (Individual Dimension), and 'Learning to Live Together' (Social Dimension).

List of resources used for the literature review

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▶ Annex D. List of interviews

#	Organization	Name	Position
1	DGTVET	Joseph Younes Tony Rachid	Head/Examination Department Head/Vocational Training Department
2	MoA	Fatma Hilbawi Hayfaa Jaafar Sonia Abiad	Chief/Education and Extension Services Department Head/Education and Vocational Training Department Agriculture Engineer/Studies and Coordination Department
3	NEO	Elie Berberi	Head of Professional Orientation and Vocational Training Service
4	NCVT	Hassan Nasrallah	President/Principal
5	CCIA- Beirut	Rabih Sabra	Director General
6	CCIA- Zahle & Bekaa	Maria Rizkallah	Head of PR and Training Department
7	ALI	Paul Abi Nasr	CEO/Owner Textile factory
8	CGTL	Haider Hamadah	Principal/Technical and Vocational Training Center/Al-Gbairy
9	FENASOL	Castro abdallah	President
10	Safadi Foundation	Samar Boulos	General Manager
11	CIS College	Wael Mikdash	Vice President of Administrative Affairs
12	LOST	Tarek Chibli	Manager/Information and Management Unit
13	RMF	Hasna Moawad	Head of Education and Human Development Department
14	AVSI	Elissar Gamayel Samar Khalil	Deputy/Program Manager Coordinator/Livelihood Department
15	Mouvement Social	Tamam Mroue Iman Ajmi	Executive Director Principal/Borj Hammoud Vocational Training Center
16	Makhzoumi Foundation	Malak el Hout Noura Shaheen	Manager/Vocational Training Program Vocational Training Program Coordinator

▶ Annex E. Other details on findings and recommendations

E.1 Exemplary initiatives of employer engagement in skill testing and certification processes within the interviewed institutions

- Within the two BT specializations under the MoA – Animal and Plant Production – internship opportunities are provided for students at agribusinesses in different areas, specifically on the nursery and dairy topics. AVSI is in charge of connecting with the private sector, using their own network for placing students through an agreement which clearly states the training settings, objectives, and learning outcomes. In addition to the reports submitted by students, a team member from the agriculture school follows up with the private sector and conducts an evaluation towards the end of the training. According to the Ministry of Agriculture, this effort is implemented in agricultural TVET schools which have sufficient human resources, but those facing staff shortages are not monitored

- Through internship programs, the RMF started a dialogue between employers and job coaches about needed skills. A memorandum of understanding is signed with employers based on the ILO-UNICEF template. The RFM conducts a primary meeting with employers to describe the curricula and the possibility to admit trainees in their workplaces; then, a memorandum of understanding is signed identifying the skills, responsibilities, and the rights of both employer and trainee, and a safe training environment. The same applies to Safadi, where enterprises are also engaged in its training programs through OJT/on-site training internship according to the OJT template

- The CCIA-Z supports TVET short-term programs by choosing topics for the training program based on labour market evaluations, conducting vulnerability outreach assessments, selecting the trainees, and mentoring visits to workplaces where trainees exercise their OJT.

E.2. Main features suggested in the ALI model

- The proposed system should be modular based (students could choose the modules/certificates) to enable the private sector/factories to cope with the number of graduates/apprentices and place them at worksites (some specializations cannot be annually available)

- There is a need to establish sector skill councils within the industry sector-by-sector (the council does not need to operate within a legal framework). They identify the needed skillsets, both common in the sector and specific for each occupation. They also identify the number of workers needed in a certain

skill/specialization, ask the public provider to offer trainings on these indicated as well as life skills, and request that their curricula focus on practical skills rather than theoretical knowledge

- The ALI model suggests building a certification system based on a third-party certification body approach (a third party could be a leading company/factory for each classification/category of the industries). This system ensures that i) the tests are complementary to the needs of the sector needs and are not externally imposed, ii) best practices are exercised in the sector due to the involvement of its leading and proficient factories, and iii) the possible addition of external expertise in the future improve testing

- These trainings should be paid apprenticeships. In the first BT year when a student is only 15 years old (and legally prohibited to enter the labour market), they are trained in subjects on safety, soft skills, and the environment; they could be placed in factories during the second year

- The model proposes transforming vocational training institutes to excellence centers (each school trains specific occupations/specialties) and closing some of the largely excessive vocational schools since jobs are not available to as many graduates

- Upskilling the instructors at the DGTVET as the system cannot rely on practitioners in this context since they do not have teaching and testing skills; also, they are already preoccupied in their businesses and are not available for training

- It is recommended that training is alternately conducted between schools and factories, and does not strictly follow the regular curriculum. Theory and practice training are also provided to the apprentice at vocational schools. Thereby, it does not require companies to involve their staff in any skill-related training and testing. In other words, they are not required to train for being incapable to teach/train in the short-run; the role of factories is only employment for this transient stage

- The model identifies the companies which would be paid to conduct skill tests and whose issued certificates are accepted by other companies

- The DGTVET should make changes in the training schedule, accommodating the availability of companies to offer patterns of attendance alternating between schools and workplaces, and follow the same curricula and challenges.

E.3 The criteria used by the MoA for screening skill test items

- Do the test items cover the entire training content?

- What training did the participant receive?

- Is the test item related to core or non-core content?

- How much time is allocated for answering?

- Does the test item require memorizing or analysis?

- Is the test item clear?

- What is the difficulty level of the test item?

E.4 The DGTVET instructions in "Accredited Specializations for Formal Exams" issued in 2012 identifies the methods for assessments with grade distribution and should be as follows:

- Theory test: the instructions state the subject/modules to be tested, the test duration in hours, allotted grades, and the test question reference code for each subject. The total grade allotted for the theory test is 82

- Practice test: the instructions state the list of exercises/practical subjects and the grades for each subject. The total grade for the practice test is 18

- Project: at the end of the program, the student submits a project prepared during the academic year which is evaluated by the assessment committee. A successful project is mandatory to obtain the certificate; although its score is not calculated in the final grade, it appears separately in the issued statement/certificate.

E.5 Main information included in the certificates of Safadi's graduates who are tested and certified by the Industrial Research Institute as welders

- Profile information (such as name and date of birth) and the employer's name

- List of variables (performance elements), along with the codes of test items for each variable and approvals; the needed performance assessment criteria is identified for each variable

- Type of test (i.e., VT/RT/UT/BT) and performance appraisal (i.e., performed and accepted, not tested)

- Date of testing, validation (expiry) of the certificate, allocation, examiner, signature, and date

- Prolongation for approval by employer or coordinator for the following six months

- Prolongation for approval by the examiner or test body for the following six months.

E.6 Main elements of the preparatory plan for assessment developed by Safadi

- Evidence plan: includes competency title, code, description, assessment process/strategy (practice, oral, written), mastering criteria, comments, assessment grading (A, B, C)

- Assessment of competencies: includes characteristics of duties (tools, duration for finalizing assignments), tasks and activities for each action, description of tools and materials

- Assessment papers (list of assessment evidence): include the names of the trainee and the instructor, qualification, competency units, venue and date of assessment, instructions for mastering the competencies, tools, materials, equipment, description of tasks which the trainee should be able to complete as per the workplace requirements, assessment for each performance elements (yes/no), overall assessment (pass/fail). This is in addition to oral and written questions, including list of questions, a yes/no assessment for each question, and the assessment results (pass/fail), signed and dated by both the instructor and the trainee.

E.7 Main parts of the assessment summary report at Safadi

- Names of the trainee and the assessor, title of competency, and assessment venue

- Competency elements, activities, method of assessment (written, orally, application)

- Assessment result (pass/fail) for each element; certificate is awarded to only students who pass all the elements of competency

- Decision of issuing the certificate from the assessment committee, the additional needed documents, if retesting is necessary (and how), and verifying if the trainee's performance meets the required evidence/criteria (yes/no)

- Overall assessment result (pass/fail), and comments on performance weakness and improvement

- Dated signatures of the trainee, the assessors, and the assessment venue manager

- Summary of assessment results, including the names of the trainee and the assessor, dates, assessment results (pass/fail), the decision of issuing the certificate by the assigned committee, requesting additional documents, if retesting is necessary (and how), and the names and the dated signatures of those who supervised the assessment.

E.8 Main arrangements made by TVET institutions for further inclusion of students with disabilities in the training programs

- **Providing suitable guidance and counselling.** The DGTVET guides students with disabilities from the beginning of the specializations suitable to them. At the MoA, applicants with disabilities in short-term courses are oriented to select the specializations/occupations suitable for their conditions (like food kitchen or flower arrangements). At Makhzoumi, students take written then oral diagnostic tests at the recruitment stage to clarify their education and skill level. Afterwards, an education counselor guides them to the specializations that match their capabilities. At the RMF, the capacities of students with physical disabilities are evaluated. The MS also orients students with disabilities towards occupations which do not introduce them to barriers

- **Building staff capacities in dealing with students with disabilities.** Makhzoumi instructors and frontline team members are trained to deal with this group of students. In each community center, the MS has a social specialist for inclusion issues and a specialist who trains social specialists

- **Ensuring diversification of training courses for the needs of students with disabilities.** Makhzoumi students with impaired movement disabilities who use wheelchairs have a wide range of specializations suitable for them

- **Expanding outreach to students with disabilities.** The presence of the MS in areas with high concentration of vulnerable people for the past 30 years has facilitated its outreach and recruitment of trainees. It has worked to remove barriers by contacting families in an effort to persuade them to enroll their girls in vocational training

- **Translating the feedback of students with disabilities into actions.** The MS incorporates the needs of students with disabilities in restructuring training programs.

E.9 Arrangements made by the interviewed TVET institutions for further inclusion of trainees with learning difficulties in the training programs

- **Providing specific courses on literacy and numeracy.** The MoA, Makhzoumi, and the RMF provide courses in which students with learning difficulties can enroll

- **Career guidance and counseling.** At the NCVT, the applicants are evaluated prior to enrollment at the center. Those who face difficulties in numeracy and literacy are guided to courses which are more practical in nature. At Makhzoumi, students are assessed at the registration stage to ensure that they can pursue the training course. The RMF provides illiterate students with literacy and numeracy courses based on their needs (through a psychometric test)

- **Making arrangements through the learning process.** It includes selecting the learning strategies which match the styles and abilities of students as is the case at Makhzoumi, where the challenges of students with disabilities or learning difficulties during the training course is monitored and addressed in formative tests

- **Providing special arrangements.** It includes replacing the end-of-year project with oral questions at specific institutions

- **Providing pre-support.** The MS works with illiterate people before enrollment through illiteracy elimination programs, comprehensive literacy and numeracy programs, and language programs to teach English to students who need it in their occupation/specialization.

E.10 Tips to help TVET providers increase the opportunity for master craftspeople in small and micro enterprises to be involved in skill testing and certification

- Involving master craftspeople in the design and implementation of skill testing and certification activities. Skilled/experienced master craftspeople may become the key cadres in developing assessments and working as assessors

- Providing the opportunity for master craftspeople to serve on assessment committees in an area to demonstrate their capabilities and gain community recognition

- Providing the opportunity for master craftspeople to sign occupational certificates and diplomas

- Demonstrating the benefits of skill testing and certification to individuals, business owners, and society

- Demonstrating that skill testing indirectly affects the knowledge of master craftspeople as well: they must stay up-to-date with developments in the labour market and learn new materials

- Demonstrating the potential impact on the reputation of the master craftsperson; in other words, when the trainees perform well in exams, it demonstrates the proficiency of the master craftspeople and contributes to enhancing their reputation.

E.11 Suggested criteria for the accreditation of skill testing professionals to ensure that they are competent in both the occupation and the assessment processes

- Have the technical and pedagogical skills related to the occupation/skills targeted for assessment

- Have at least five consecutive years of recent experience in the corresponding occupation/skills

- Are familiar with different assessment methodologies

- Demonstrate professional judgment in assessing the value of experience vis-a-vis formal learning

- Do not have a personal interest in the skill testing outcomes (to guarantee impartiality and avoid conflicts of interest)

- Can inspire trust and create a proper psychological setting for the applicants

- Are committed to providing feedback on the equivalence between learning outcomes and assessment standards/references

- Behave according to a code of conduct

- Demonstrate core work skills (such as language proficiency in Arabic and computer skills)

- Physically capable and ready to implement the assessment

- Are trained in skill testing processes and knowledgeable about QA mechanisms.

E.12 Proposed processes, procedures, and QA mechanisms for skill testing and certification and RPL system in Lebanon for TVET.

| Initiating & Planning skill testing & certification | Designing skill testing | Building awarness and guidance | Implementing skill testing | Certification |
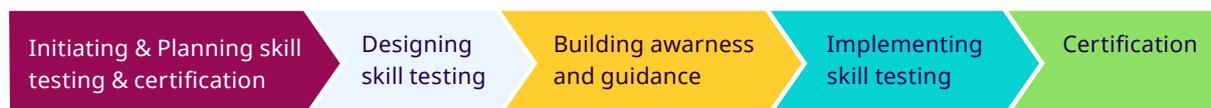
Proposed Skill Testing, Certification, and RPL System in Lebanon for TVET

A. Planning	A.1 Assess the needs for skill testing	A.2 Provide institutional requirements	A.3 Build institutional capacities	A.4 Establish assessment committees	A.5 Identify target groups and occupations
B. Designing	B.1 Identify competencies	B.2 Match occupational standards with qualification standards	B.3 Establish TIBs	B.4 Develop final practical skill tests	B.5 Develop knowledge test
C. Building awareness and guidance	C.1 Develop awareness strategy	C.2 Conduct awareness services and activities	C.3 Provide guidance and information to applicants	C.4 Assist applicants in preparing assessment portfolios	
D. Implementing	D.1 Facilitate applicant registration D.6 Conduct final assessments	D.2 Identify assessment location and duration	D.3 Screen applications	D.4 Select assessment strategies	D.5 Prepare assessment implementation plan
E. Certification	E.1 Issue certificates	E.2 Organize appeals and reassessment	E.3 Grant occupational licenses		

The following QA mechanisms could be proposed for the skill testing, certification, and RPL system in Lebanon.

Domain	QA Mechanisms
Planning skill testing and certification	- Conduct self-assessment to ensure the availability of: - Enough master craftspeople working in the occupation targeted for skill testing - Sufficient non-profit organizations, trade and business owners, and master craftspeople willing to participate in the skill testing of the occupation targeted for assessment - The elements and documents necessary for the design and implementation of skill testing, especially the occupational analysis charts and the skill testing elements for the given occupation - Centers for skill testing, whether in the TVET sector or the private sector - Provision of the necessary funding to cover the cost of skill testing, either by the government or in partnership with non-profit organizations, the private sector, and organizations - Assessment of the available institutional capabilities to implement skill testing - Provision of the technical cadre required to design and implement skill testing such as councilors, facilitators, assessors, test developers, assessment committees, and supervisory and administrative staff - Provision of mechanisms for accrediting and registering assessors and test developers - Establishment of databases for technical personnel working on skill tests - Implementation of capacity-building activities and training for upgrading the competencies of the technical cadre working on skill testing - Provision of a network to exchange of knowledge and experience among the technical personnel in different occupations - Development of guidelines for designing and implementing skill testing and certification - Formulation of committees to oversee its planning and implementation - Identification of the target groups for skill testing, skill level, educational backgrounds, conditions for applying for skill testing, job tasks to be assessed, and the required performance standards - Development and updating of standard operational procedures for skill testing and certification

Design assessment	• Ensuring the quality of the available charts of occupational analysis and reviewing them when needed • Conducting occupational analysis workshops when the quality charts of competencies are not available • Matching the occupational with the qualification standards to determine the certification which could be granted under skill testing • Establishing TIBs, ensuring that these items are comprehensive, valid, and representative, and can be used for successive skill tests • Formulating teams of skill test developers, working on regular reviewing and updating the items of the TIBs • Preparation of skill test specification tables and assessment evidence matrices for skill tests • Developing the tools for theoretical knowledge and practice skill tests
Building awareness & guidance for RPL	• Developing a strategy for building awareness in skill testing and certification within the community and among relevant stakeholders • Developing awareness and media tools, establishing electronic platforms, and organizing conferences/workshops to raise awareness about skill testing and certification • Establishing a system for guidance and counselling for vulnerable and marginalized groups • Provision of councilors and facilitators for awareness activities and supporting applicants in all stages of skill testing and certification • Designing assessment templates and self-assessment forms which guide applicants through the steps of the skill testing process • Supporting and assisting applicants through councilors and facilitators
Implementing skill testing	• Identifying the skill testing target groups, venue, data, and duration of the test • Screening applications and checking their relevance to applicants • Supporting applicants with final assessments, grading/evaluating system, date, venue, and duration of the final assessment • Selecting the final assessment strategies • Developing evidence matrices which link the activities/tasks with the selected assessment strategies • Adapting skill test procedures, conditions, and tools to fulfill the needs of PWD • Reviewing the skill test tool (sheet) to ensure the inclusion of all required test items • Preparing the skill testing implementation plan and conducting tests accordingly

Certification	• Establishing certification rules, regulations, and conditions • Setting skill test appeal, instructions and mechanisms to retake tests • Facilitating appeal procedures by helping applicants fill the applications and follow the given steps • Formulating appeal committees for reviewing the requests to appeal and retake skill testing • Issuing occupational certificates to applicants who pass the assessment according to the rules and regulations • Providing the applicants who do not pass the assessment with feedback on their performance and guiding them through the following steps • Organizing graduation ceremonies (unless they require a high budget) for applicants who pass the assessment • Setting a system for issuing occupational licenses which clarifies the conditions and occupations included under it • Establishing a registry system for occupational certificates
M&E skill testing and certification	Provision data on: • Number of applicants, dropouts, and participants who passed the tests • Perceptions of applicants on skill testing and certification stages, such as supporting and facilitation, adaptation of needs, portfolio assessment, and appeal procedures. • Perceptions of applicants who passed the assessment regarding, for example the progress in their career, improvements in performance, self-esteem, remunerations, and access to further education and training. • Perspective of employers about improvements in performance at work • The stakeholders who are interested or disinterested in skill testing and certification and why

E.13 Various costs of skill testing and certification

- Designing assessments may include the cost of developing assessment tools, conducting occupational analysis workshops, DACUM facilitator, and practitioners' participation

- Promoting and advertising to induce and raise awareness to participate in the skill testing, publication and distribution of the approved assessment criteria

- Training test developers and assessors (if the service is not provided voluntarily)

- Conducting assessments, including materials, location/site, fees and transportation of test developers, assessors, and assessment committee members

- Certification and graduation ceremonies (if any)

- Printing and distribution of tools for designing tests, printing and distribution of test sheets

- Collecting assessment evidence for portfolio-based assessment (if any)

- Remuneration of institutions where test developers work with partial or full engagement

- Meetings, workshops, and training sessions

- Using private sector institutions as testing centers or equipment from the private sector

- Additional costs if tests need to be adapted to PWD.

E.14 Recommended criteria for revising existing occupational profiles

- Task descriptions serve as a basis for assessment development

- Work tasks are comprehensive and in line with the assessment developers' own occupational experiences

- Duties and/or tasks are screened for consistency to fully familiarize assessment developers with the profile

- Tasks and work sequences labeled as practice-related tasks are separated from purely theoretical tasks and from those requiring social competency/life skills to establish an overview of the variety of items needed to cover the profile in the assessment

- The number of duties are reduced to align with the specific new occupational profile and add further tasks when needed in case some are missing.

5.15 Criteria for quality test bank items

- **Test items cover the entire occupational profile.** The assessment panel/committee decides which key contents of the occupation must be covered in every assessment and how frequently other parts of the profile will be addressed

- **Practice performance sequences are suitable for assessment.** Test item developers ensure that each test item is composed of a logical sequence of work steps and that similar tasks in several duties in DACUM charts are included in a single test item only

- **Practice performance assessments are of high quality.** Test items developers list the tasks and steps included in the chosen performance sequence, integrate transversal competencies and life skills, assign objectively verifiable performance criteria (process or product assessment criteria) for every task/step, and assign grades (if applicable) to each of them depending on the level of importance, frequency, criticality, risk, or difficulty.

E.16 Test specification tables

Suggested Form

Skill Test Specification Table

Occupation/specialization: ……………………………………………………   Skill Level: …………………………………………

Tasks/ Competency	Performance Outcomes	Proficiency Level	Complexity Level					
			Lower		Intermediate		Higher	
			Remember	Understand	Apply	Analyze	Evaluate	Create

Levels of complexity in the specification table include:

- **At the lower level**, isolated pieces of information (recalling and understanding facts)

- **At the intermediate level**, interlinked pieces of information (application of rules/ concepts – a minimum of two concepts is involved)

- **At the higher level**, interconnected information of special relevance/high order and critical thinking (higher levels of analysis, synthesis, evaluation, and creativity).

This approach to systematically determine a required level of proficiency for each task is to consider, on one hand, criteria such as its FREQUENCY of execution in a real-life work setting, its relative COMPLEXITY and CRITICALITY, and, on the other hand, the duration, structure, and the format of the training program.

E.17 Recommended tips for selecting test item types for the theory skill test according to the complexity levels of the test specification table:

- Cause-effect sequence items for either addressing intermediate or higher complexity level

- Work sequence items for addressing intermediate and/or higher complexity levels

- Matching items for addressing both intermediate and higher complexity levels

- Multiple-choice items for addressing intermediate complexity levels.

E.18 Main elements which should be included in a final practice test sheet

- **Generic information:** the occupation to be assessed (such as occupation name, code, competency or skill level), the applicant's contact information (name and telephone number), the assessment location, date and duration, and the name(s) of the assessor(s)

- **Instructions** for the assessors to determine the assessment environment, and gather and analyzing evidence; the applicants should also be given instructions to prepare for the assessment(s) and be informed of the content and method of analysis. Test developers ensure that these directions for are clear, time-specific, and show how answers should be presented

- **Performance elements/steps** include the skills to be assessed, the assessment methods, the main actions, products and/or services the applicant is required to produce or perform, and an assessment decision for each of the performance elements (competent/not competent). Test developers ensure that the performance steps are characterized by:

  ○ Specific and clear explanations

  ○ Descriptions of a motor activity, rather than a non-observable mental activity

○ Labelled sketches which are intended to illustrate explanatory details when articulating a performance description is not sufficiently clear

○ Annexed technical drawings (with performance-related specifications) to clarify the complexity of the performance or product

- **Performance criteria** describing the performance level an applicant is required to demonstrate. Test developers ensure using objectively verifiable criteria with specific qualifiers leading to a definite "fulfilled/not fulfilled" decision through specific qualifiers (e.g., an acceptable numerical discrepancy in performance accuracy which can relate to speed, applied safety standards, and the appearance of the end product). Test developers also avoid using pseudo qualifiers like "proper" or "sufficient and attend to the absence of safety hints, tool references and work rules which are excluded from the performance description (unnecessary help) and used for qualifiers instead

- **Oral supportive questions** addressed to the applicants to evaluate their knowledge of elements related to the assessment. Test developers ensure that these questions are not used alone, but in conjunction with other assessment methods, particularly direct observation; they use oral supportive questions to justify/analyze performance steps, and name parts or components

- **Resources** required for applicants to carry out assessment activities

- **Scenarios (added for simulation)** outlining for the applicant the required procedure(s) to be followed when performing a series of actions, activities, and operations

- **Oral or interview questions (added for the interview method)** assess the applicant's knowledge of the technical basis related of the assessment duties and tasks. Test developers use the interview method alone or in conjunction with other methods (e.g., direct observation, product- or project-based, or portfolio) for sufficiency of evidence. They use oral interview questions as clarification questions to test the applicants' knowledge of procedures and processes, to assess their underpinning knowledge, and as further probing or contingency questions

- **Expected contents of the portfolio (added for portfolio assessment method)** should be included in detail on the type of required evidence for the applicant to be considered competent.

E.19 Recommended tips to select assessment strategies and improve its relevance

Recommendations to assessors when selecting assessment strategies based on the occupational skill level

- Assessment in lower-level skilled occupations could rely more on direct observation and interviews

- Assessment in higher-level skilled occupations could use product- or project-based assessment methods and interviews

- When authentic work situations are unavailable, one could refer to simulation methods

- A portfolio-based assessment could also be employed as a stand-alone assessment method or as a supplementary assessment method used in conjunction with process-based or product-based assessment.

Recommendations to assessment committees and assessors to improve the relevance of skill testing

- Involving practitioners' expertise from the targeted occupations in selecting assessment strategies

- Pre-testing the assessment tools on a sample of applicants (assessors should pilot the test and determine to proceed accordingly)

- Testing the assessment procedures with technically relevant people (i.e., industry representatives)

- Assigning a team of two assessors to jointly do the final assessment/skill test

- Applying skills in unfamiliar ways like in real-life labour markets (i.e., examining a set of skills in a broad range and not as isolated skills)

- Using technical drawings as needed to examine the applicant's ability to read graphics as a common tool in business

- Checking the participant's behavior in real unusual conditions (like machine failure, lack of cooperation from colleagues, and product defect)

- Identifying the applicants with disabilities and including reasonable accommodations in the design and implementation of the assessment.

E.20 Main criteria of assessment strategies

- **Validity.** Ability to measure what the assessment is originally designed to measure; for example, test activities should relate directly to the duties and tasks in the occupational profiles for the applicant's tested occupation/job

- **Reliability.** Degree to which circumstances beyond the standard test environment do not affect test results; for example, the assessors should be given clear instructions to ensure consistent decision making over time and with different students

- **Objectivity.** The same results are provided by different assessors. Preparing model answers to theoretical tests or identifying clear performance criteria for practical test performance elements can help ensure objectivity

- **Authenticity.** Inclusion of work produced by the candidate for assessment; for example, in the portfolio assessment method, the assessor may ask the applicant to perform specific tasks mentioned in the portfolio under the assessor's direct observation

- **Accessibility.** Assessment of circumstances should provide equal access for all candidates and ensure that reasonable adjustments are made for candidates with disabilities without affecting the reliability of the assessment

- **Effectiveness.** Avoiding redundancy between various parts of the test and unnecessarily long assessment periods; for example, the skills related to changing vehicle oils could be clustered under one activity

- **Cost-efficiency.** Adopting cost-efficient assessment evidence and procedures; for example, simulators that are less costly than real equipment could be used

- **Currency.** The assessment of knowledge, skills, and attitudes which are relevant to the current labour market; for example, testing on carburetor systems where the car market has shifted to injection systems would not be considered current

- **Sufficiency.** The availability of sufficient assessment evidence for determining the competency of the candidate; for example, an interview assessment method and an observation method to test the applicant's soft skills such as self-confidence and analytical skills could be used.

E.21 Suggested template for an Evidence Matrix

Tasks/Competency	Actions Required by Test Applicant for Each Assessment Method		
	Direct Observation	Interview	End Product

E.22 Conditions which assessment committees need to ensure are available for the selected location/ venue of the final assessment

- Accessibility of toilets, rest areas, and car parking

- Availability of secure rooms where the assessors can safely make an independent decision without being pressured

- Availability of a safe and comfortable environment for applicants (well-lit, quiet, and ventilated rooms)

- Sufficient space, adequate furniture, and suitable teaching aids (like whiteboards)

- Qualified administrative support for theory assessments

- Technical facilities and equipment specified in the test documents for practical assessments

- Accreditation by the national standard setting institution (if any)

- Compliance with occupational safety and health standards.

E.23 Guidelines for setting a procedure to appeal and retake skill tests

- Applicants who are not satisfied with the result of the skill testing or are unable to attend it for valid reasons may file an appeal for a review within a pre-defined period (i.e., within thirty days after issuing results)

- When an appeal is accepted, the applicant should have the opportunity to retake the assessment within a specified period of time (i.e., between six months and one year)

- Appeal forms should be obtained from a counselor/facilitator or should be available to be downloaded from the TVET provider's website

- Applicants need to submit the duly completed appeal forms to the facilitator

- Applicants need to submit their appeal of the test results for a valid reason which are investigated by an independent committee formed by the TVET providers to decide whether the applicant should be assigned a different grade or approve the request to retake the test.

E.24 Skill testing implementation

The elements of skills assessment implementation plan include:

- The general assessment rules and specific instructions for applicants (i.e., how the applicant should prepare for the assessment, the item they are expected to produce, readings they should complete beforehand, how their portfolio should be compiled and what information to include)

- The duties and tasks/competencies which the assessment will cover

- The time, place, and circumstances (context) of the assessment

- The used methods of assessment and tools (i.e., how the assessment will be implemented and the fact that an assessor will be observing the process)

- The decision-making criteria for assessing which of the applicants are competent

- The list of assessors and members of the assessment committee.

Arrangements for conducting the skill testing as per the implementation plan

- The elements and documents necessary for the design and implementation of skill testing are available, especially the occupational analysis charts and the skill testing elements

- The information stated in the assessment document is accurate and in line with the chart of competencies for the targeted occupation

- The applicant assessment sheets contain general information (such as sector/occupation, skill level, name and contact number of the applicant, and date of assessment) and instructions for the applicants explaining the used assessment method, the process to appeal and retake the test, the evaluation form, among others

- The appropriate administrative staff has been assigned to oversee the assessment (like monitoring the skill test and checking the cameras)

- The equipment and tools required for the assessment are available beforehand and the environment reflects the conditions of a real-life workplace (particularly for simulation assessments)

- The assessment strategies are valid, reliable, objective, comprehensive, realistic, and current

- Applicants with disabilities are accommodated (including accessibility, assessment language, and aids) and the procedure to request specific accommodations is clarified

- Applicants have been notified of the assessment and the skills assessment implementation plan has been shared with them in advance

- Applicants have filled the assessment application forms (if any)

- Each applicant has her/his ID and is reminded prior to taking the assessment of the appeal process and the eligibility requirements to retake the assessment

- Each applicant fills the assessment reviews upon completing the skill test.

E.25 Additional arrangements which could be provided to improve the inclusion of trainees with disabilities or learning difficulties in skill testing and certification

- Change the location of testing, especially to minimize distractions for students with certain types of disabilities

- Provide more, less, or different lighting

- Change the height or the size of desks/chairs

- Allow prosthetic devices and low-tech aids, such as tape to hold the paper to a desk or vice for a workshop task

- Allow another person to turn the pages of the test

- Change print format (e.g., spacing, size, print, color)

- Allow the use of a reader

- Allow the use of a recorder

- Allow the use of cueing aids

- Allow the person to show how he/she can do something rather than record it in writing

- Allow the person to use a writer (someone else who writes for him/her) to record the answers, to use a recorder, calculator, communication device or a computer for answering, to have access to a specific tool he/she might need to complete a task related to an accommodation need, such as a guide for fabric on a sewing machine or a vice

- Allow changing the duration of the test

- Allow breaks while taking the test

- Allow taking the test over an extended period (e.g., two days)

- Provide prompts related to testing segments

- Ensure that the level of theory test items match the educational level of the applicants

- Provide the option of asking and answering the questions orally in case of semi-literate or illiterate applicants

- Provide the opportunity to answer in the native language

- Allow using graphs, dictation and videos, instead of written questions.

E.26 Recommended membership and criteria for an RPL assessment panels

Membership of assessment panels includes:

- One representative from the DGTVET (Chair)

- One representative from the employer organizations (if any) for the targeted occupation for assessment (Vice-Chair)

- Three craftspeople (trade experts) practicing in the targeted occupation (to serve as assessors)

- One representative from the TVET providers/center related to the targeted occupation

- At least three representatives from line ministries responsible for the occupation assessment, municipalities, partners, local NGOs, or representatives of training providers/centers.

Assessment Criteria of the panel members

- Demonstrated competency in the skills to be assessed and evidenced by local community recognition

- Commitment to the assessment process by demonstrating regular availability of qualified staff for meetings and assessments

- Personal integrity to ensure transparent and credible processes

- Mastery of language to rephrase text passages or formulate new test items

- Practitioners elected in the assessment panel must possess at least a five-year work experience as a master craftsperson.

The RPL responsible body must ensure that the membership in an assessment panel allows a degree of rotation. A master craftsperson cannot be part of the assessment panel if his/her own apprentices are among the applicants. At the first meeting for an assessment panel, the Chair and the panel members organize an orientation session for the new members. The agenda of the meeting revolves around the criteria and the procedures for skill testing, the rules and regulations of the assessment committee, the duration of serving on the panel, the criteria for selecting committee members and communicate them to the RPL body. Consequently, it ensures that the new master craftspeople selected as assessors complete a preparatory training at the concerned employer organizations.

E.27 Roles and responsibilities of the councilors/facilitators in the RPL guidance and counseling process

Counselors/facilitators need to provide the applicants with detailed necessary information and orientation, including answers to questions, and indicate the range of support services available throughout the process of being certified in one's skills and competencies. It is important that the answers are specific to the skill testing processes in the country, region, or sector which it is addressing. Such information could include: i) the learning outcomes/competency standards required by the qualification/occupation, ii) expenses and timeframe, iii) advantages of skill testing and certification, iv) a list of preferred TVET providers or skill testing centers where they can take the test, and v) general information to direct them.

Counselors/facilitators also assess applicants' compatibility with a specific qualification (full or part) and make an initial assessment about their eligibility compared with the conditions of the occupation. They must check if the applicants seeking certification: i) have the required minimum age and years of training/work experience in the relevant occupational area as per the rules and regulations, ii) self-evaluate their eligibility compared with the competency checklist of the given occupation, and iii) discuss (with the facilitator) the requirements before applying for the skill testing and certification. The facilitation process and the information provided to them should assist in determining whether to apply for a skill testing and specify the qualification and skill level to which they are applying.

E.28 Recommended features for the self-assessment questions of the RPL applicants

The RPL body should ensure that the self-assessment questions are based on the requirements of various professions in the country, and the features of the self-evaluation tool enable an applicant to: Examine the benefits, as well as the required cost and time of skill testing and certification

- Select the qualification which is most suited for one's area of expertise from a list of approved qualifications

- Identify one's skills from a list of competency groups and units of competency

- Compare one's skills with lists of qualifications to identify a potential match and determine its extent

- Identify the nature of evidence to be gathered and the types which are permissible

- View skill testing providers/centers (if any) to search for providers offering skill testing for their chosen qualifications either on specific websites or the Yellow Pages.

E.29 Assessment portfolio contents and preparation

Main content of the assessment portfolio

- A written paper outlining education and career goals

- Curriculum vitae/resume

- Documentation verifying the claimed qualifications, including formal statements (transcript) of results and certificates

- Learning outcomes and competency statements

- Chronological record of significant learning experiences

- Certificates of past learning achievements and details of attended formal trainings, seminars, conferences, and workshops which are relevant to the skill testing and certification application

- Sample of produced work, such as technical drawings or site plans created with workplace inductions

- Videos, photographs or DVDs of undertaken work

- Skill logbooks and other workplace training and performance records

- Specific details of work and/or participation in projects

- Visual presentations or written speeches

- Past competency-based assessments

- Performance appraisal reports

- Job specification/descriptions

- Certificates of participation, achievements, awards, or letters of recommendation, written testimonials from managers, owner, employers, or workers associations

- Obtained licenses

- Assignments, reports, and documentation from previous courses

- Memberships of relevant associations

- Published work, papers, manuals, or magazine/newspaper articles

- Any other valid, sufficient, authentic, and current evidence.

Tips for the counselors/facilitators to assist the applicants with their skill testing application and portfolio

- They direct applicants to use the online self-evaluation tool to match their skills, knowledge, and experience to a relevant qualification (full or part)

- They ask applicants to fill a self-assessment form to profile and identify skills for which they wish to be certified; if they are unsure of their skills and/or competencies, facilitators provide them with a more generic assessment checklist

- They provide the applicants with the application form and guide them through the complete skill testing

procedure, as well as the nature and collection of the required evidence

- They encourage and help applicants to collect evidence and prepare the required documents by the RPL body.

E.30 RPL applicant registration process of skill testing and certification

- The assessment committees determine the timing of the tests based on the target groups as follows:

- For apprentices, the skills test is scheduled at the end of the apprenticeship

- For the training of workers/master craftspeople, the test takes place after completing a process of upgrading skills

- Additional mid-term tests could be scheduled to better enable apprentices to self-evaluate their performance and give feedback to their master craftspeople.

Once an applicant completes the application form, assembles the evidence and prepares a portfolio, (if required), he/she submits the application files and the prescribed fee to the counselor/ facilitator who sends the application form to the assessor of the corresponding occupation. The latter screens the application and evidence to verify the applicant's compatibility with the selected occupation and modules. The assessor calls the applicant for an interview to confirm the legitimacy of the applicant's claim, explain the shortcomings and guide him/her to overcome them. This process may require collecting additional evidence or upgrading the applicant's knowledge and skills in certain areas before applying. When the assessor is favorable of the applicant's portfolio, knowledge, and experience, he/she is informed about relevant details like the nature of the final assessment, the grading system, and the time and place of the assessment.

E.31 Recommended action plans for skill testing and certification in Lebanon

Areas for Improvement	Short-run	Medium-run	Long-run
Involvement of employer and worker organizations	The DGTVET and the MoA initiate structured dialogue with employer and worker organizations to address the main factors directing the likelihood of employers' and workers' participation in skill testing and certification. They, along with other TVET institutions, establish clear rules and instructions ensuring and determining the participation of the employer and worker organizations in different levels of TVET and skill testing and certification. TVET institutions establish mechanisms to receive the feedback of employers, workers, and other stakeholders for improving skill testing and certifications.	Employer and worker organizations demonstrate active participation in skill testing and certification early from the design stage. The DGTVET and the MoA, along with employer and worker organizations, pilot sectoral skills councils in selected sectors. They create a system which supports the participation of enterprises/companies as third-party assessment bodies to conduct final assessments. They, along with employer and worker organizations, establish a financing framework with clearly defined cost-sharing for skill testing and certification.	Establishing national sectoral skills councils is expanded.
Institutional frameworks and capacities	TVET institutions establish a clearly defined institutional framework for skill testing and certification, ensuring the availability of adequate technical and administrative staff. They establish a skill testing and certification costing exercise.	The DGTVET and the MoA set a mechanism for accrediting and/or registering skill testing and certification professionals. They establish a database and a national network of professionals for skill testing and certification to exchange knowledge and experience. The DGTVET establishes mechanisms for licensing skill testing centers. The DGTVET, other governmental TVET institutions, and employer and worker organizations, establish a national QAA system. TVET institutions specify QA mechanisms for skill testing and certification based on the national QAA system.	

Design of skill testing	TVET institutions expand the use of competency-based assessments based on occupational competency profiles and learning outcomes. The DGTVET and the MoA establish or develop competency-based TIBs based on assessment specification tables. TVET institutions include innovative objective skill testing items in theory tests, such the high-level matching, cause-effect, and work sequences. They establish a unified template for practice tests which ensure including objectively verifiable assessment criteria and qualifiers, both process and product-based, for practice tests.	TVET institutions institutionalize competency-based assessment in their skill testing, assessment, and certification. They shift from grade-based assessment to competency-based assessment (competent/ not competent judgment).	
Conduct skill testing	TVET institutions use a mixed-method approach of assessment strategies based on an evidence matrix. They conduct final assessments at real workplaces and determine the test duration to conduct assessments at all branches simultaneously. TVET institutions, particularly the DTVET, provide mechanisms to appeal results and retake the test.	TVET institutions provide test applicants with feedback on their performance in the final assessments.	TVET institutions make provisions for programs so test applicants can reduce their skill gaps through the regular procedures of institutional or workplace training and assessment.

Certification	TVET institutions issue certificates, stating the exact qualification and the list of mastered competencies. Public TVET institutions, the corresponding craftspeople and employer and worker organizations sign the certificates. TVET institutions and employer organizations establish/revise the occupational standard in the targeted sectors. They facilitate issuing modular-based occupational qualifications according to part qualifications.	The DGTVET and the MoA establish a match between the occupational and the qualification standards.	The DGTVET and the MoA define policies for registration of qualifications, credit point convention system, RPL, and recognition of foreign qualifications.
M&E	TVET institutions develop clear plans for conducting skill testing and certification. They collect feedback from applicants and assessors to analyze them and identify possible flaws.	TVET institutions conduct M&E activities on skill testing and certifications as per the national QAA and internal QA mechanisms.	
Inclusion	TVET institutions structure strategies to accommodate PWD in skill testing and certification in coordination with the relevant authorities in Lebanon. They conduct capacity building activities targeting their instructors and staff on methods of integrating illiterate trainees in skill testing and certifications.		

RPL and Occupational License	Governmental ministries responsible for TVET initiate dialogues with worker and employer organizations on the feasibility of establishing a system for granting occupational licenses based on the certification process.	Governmental ministries responsible for TVET initiate dialogues with worker and employer organizations on the feasibility of establishing a RPL system.	A national institution or body is assigned to oversee RPL and occupational licenses, raise awareness, and focus on coordination strategies. It establishes a functioning system of guidance and counseling for RPL and for direct recognition of formal qualifications from outside of Lebanon.

Glossary for Main Concepts

Accreditation: is a quality assurance (QA) process which formally recognizes a training program as having met certain predetermined standards including, among others, the facilities and equipment, teaching and learning, and curricula. Accreditation of an education or training provider usually conducted by a (non-) governmental or private body which evaluates the quality of a given institution as a whole or that of a specific educational program. This process is usually concluded by awarding a status (yes/no decision), a recognition, and sometimes a license to operate within a time-limited validity.

Skill testing and certification: is a systematic process of gathering information, evaluating, and documenting an individual's or a group's level of competency (knowledge, skills, and attitudes) according to specific criteria for a particular qualification (as expected in a real-life workplace environment). Occupational qualification or certificate is a legal expression of a worker's professional capabilities recognized at international, national, or sectoral levels. It may be in the form of an academic or professional qualification, or part qualification (a professional certificate for a specific number of skills). It may, as well, take the form of a license which entitled its holder to practice a profession in the labour market.

Assessment evidence: is the information gathered during the assessment process which determines whether an individual or a group is competent. In CBT assessments, evidence is directly linked to the demonstration of competence and the ability of a trainee to perform to a certain standard.

Certification: is the process of issuing a certificate (awarding a qualification), formally attesting that a set of learning outcomes acquired by an individual have been assessed and validated by a competent body against a predefined standard.

Competency: is the demonstrated ability to apply knowledge, skills, and attitudes to successfully complete work activities according to a defined standard of performance, as expected in a real-life workplace environment. Competency-based training (CBT): is a structured training and assessment system which allows individuals to acquire skills and knowledge to perform work-related activities according to a specified standard.

Competency standards: are benchmarks to assess the knowledge, skills, and attitudes required by an individual to perform at a workplace; they are combined to form units of competencies.

DACUM: developing a curriculum is a quick and cost-effective method for occupational analysis which uses a focus group to facilitate a storyboarding process to conduct a thorough analysis of a given occupation.

Licensing: is the issuing of a "license to practice" the training; the aim of its process is to ensure that the provider has a clear plan and that all systems and resources are in place before the delivery of a training commences.

National qualifications framework: is a formal national structure for classifying qualifications by level, based on learning outcomes and descriptors.

On-the-job training (OJT): is the training undertaken at a workplace as part of a practical training provided by technical and vocational education and training (TVET) or other educational institutions.

Recognition of prior learning (RPL), or prior learning assessment and recognition (PLAR): is the process of identifying, assessing, and recognizing knowledge, skills, or attitudes acquired through an activity, including formal or informal work experience, unrecognized training, independent study, volunteer activities, and hobbies. RPL/PLAR is established according to a list of formal qualifications accredited at the NQF and may be applied towards academic credit, requirement of a training program, or for occupational certifications. It is irrespective of how individuals acquired the competency – the challenge is to solely determine whether they have it. Therefore, RPL or PLAR is a competency-based testing process disconnected from a training program to allow those who already have these competencies to be acknowledged through the process. It can improve the learners' self-confidence and facilitate the workers' transition into the formal economy.

TVET institutions (or providers): they include TVET schools, colleges, institutes, and centers, together with national, local, and sectoral bodies and councils for TVET.

Work/workplace-based learning (WBL): is the learning which occurs when workers, including apprentices, produce real goods and services.

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PROSPECTS

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