

Professional Development Priorities for Competency-Based Assessment Personnel in Malaysia's Skills Certification System: A Policy and Standards Analysis

Muslihah Binti Saman, Mohd Fahmi Bin Adnan

Department of Advanced Technical and Vocational Education and Training, Faculty of Educational Sciences and Technology, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia

*Corresponding Author Email: muslihah@graduate.utm.my

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Abstract

Competency-based assessment in technical and vocational education and training depends on personnel who can design appropriate assessment tasks, judge evidence, verify assessment quality, and maintain current occupational competence. This study identifies professional-development priorities for personnel involved in assessment and verification within Malaysia's Skills Certification System (SPKM) and Sistem Latihan Program Bertauliah (SLaPB). A qualitative policy and standards analysis was conducted using the READ approach. Eight authoritative sources issued or maintained by Malaysian TVET authorities were purposively selected, with one supplementary attachment set. Forty-one clause- or section-level evidence units were extracted, descriptively coded, and compared across sources. Four priorities were identified: competency-based assessment design and evidence judgement; verification and assessment quality assurance; formal role preparation and verified professional competence; and continuous professional enhancement with industrial currency. Cross-document synthesis further identified a staged role-readiness architecture comprising entry eligibility and induction, role-specific assessment and verification practice, continuing professional and industrial currency, and periodic renewal of professional recognition. The findings provide a policy-grounded basis for professional-development planning in SPKM/SLaPB while remaining distinct from an empirically validated competency framework.

Keywords: TVET, Competency-Based Assessment, Professional Development, Assessment Personnel, Malaysian Skills Certification System

Introduction

Competency-based assessment is central to technical and vocational education and training (TVET) because certification depends on whether performance and knowledge are judged against defined occupational standards. The quality of that judgement does not reside in an assessment instrument alone. It also depends on the people who interpret standards,

construct assessment tasks, judge evidence, verify decisions, maintain records, and apply quality controls. In teacher-assessment research, assessment competence has therefore been treated as a combination of knowledge, judgement, practice, and professional responsibility rather than a narrow ability to administer tests (Brookhart, 2011; Looney, Cumming, van der Kleij, & Harris, 2018; Xu & Brown, 2016).

This issue is especially important in skills-certification systems where assessment decisions have formal occupational consequences. In Malaysia, the Code of Practice for TVET Programme Accreditation (COPTPA) positions assessment as a quality-assurance mechanism and requires assessment to be valid, reliable, current, fair, and aligned with learning outcomes and competency standards (Malaysian Qualifications Agency & Jabatan Pembangunan Kemahiran [MQA & JPK], 2020, pp. 35–37). The national policy context also calls for a more coordinated TVET quality-assurance system and stronger industry responsiveness (Sekretariat Majlis TVET Negara, 2024, pp. 18, 42). Within the Malaysian Skills Certification System, these expectations are operationalised through roles such as Pegawai Penilai (PP; assessor), Pegawai Pengesah Dalaman (PPD; internal verifier), Pegawai Pengesah Luaran (PPL; external verifier), and the broader category of Personel Penilaian dan Verifikasi (PPV; assessment and verification personnel).

Existing research addresses different layers of this problem but does not yet resolve the role-specific requirements of competency assessment and verification. Abdul Rahman, Mokhtar, and Ali (2022), using interviews followed by Fuzzy Delphi consensus with 19 experts, identified ten elements of self-initiated professional development for Malaysian vocational-college TVET teachers, with industrial attachment ranked highest. Their study establishes broad priorities for teacher-initiated professional learning in Malaysian TVET, but its analytical focus is the vocational teacher rather than the formal requirements attached to personnel who assess and verify competency decisions. Diao, Han, Zhou, and Wang (2024) advance the discussion from professional-development activities to a developmental architecture of TVET teacher competence. Their framework comprises six competency constructs and four developmental stages for in-service TVET teachers and practitioners. This provides a broad account of progressive TVET competence, but the framework is not structured around differentiated assessor, internal-verifier, and external-verifier responsibilities within a regulated skills-certification system.

Chen, Sihes, and Chen (2025) move closer to the present assessment focus by demonstrating how policy texts and theoretical perspectives can be synthesised into an assessment-competency framework. Their analysis traces three stages of policy development and proposes a three-dimensional, fourteen-element framework for primary school English teachers in China. This provides an important policy-grounded comparator, but its analytical object remains teacher assessment competence in a primary-education context rather than a skills-certification architecture in which assessment judgement, internal verification, and external verification are assigned to differentiated roles. Chen et al. also acknowledge that the structural validity and practical effectiveness of their proposed framework remain to be established through subsequent empirical research.

Taken together, these studies clarify general TVET professional development, progressive TVET teacher competence, and policy-derived assessment competence, yet a more specific

question remains unresolved across them: how should professional-development priorities be derived when competency assessment operates through differentiated assessment and verification roles and is governed by multiple regulatory and operational sources? In the verified SPKM/SLaPB corpus, the relevant requirements are distributed across accreditation standards, personnel-certification guidance, implementation and verification documents, assessment-question development guidance, and current system infrastructure; no single source contains the complete role-readiness picture. The present study addresses this problem through a cross-document policy and standards analysis of eight authoritative sources. Rather than proposing another generic TVET teacher competency framework, it integrates distributed formal requirements to identify professional-development priorities specific to competency assessment and verification and examines the developmental pattern linking entry preparation, role enactment, continuing occupational and professional currency, and maintenance of professional recognition. In this way, the study extends prior work from teacher-centred professional-development and competency descriptions towards a role-differentiated account of professional readiness within Malaysia's skills-certification assurance system.

Accordingly, this study analyses current and foundational Malaysian policy, standards, and operational sources to identify professional-development priorities for assessment and verification personnel within the SPKM/SLaPB context. It addresses three research questions: (1) What professional competencies and role requirements are explicitly supported by the verified policy and standards corpus? (2) How can these requirements be organised into professional-development priorities for competency-based assessment personnel? and (3) What cross-document pattern emerges regarding the preparation and continuing maintenance of professional readiness for these roles? The study does not measure current personnel competence or claim to create an officially endorsed national competency framework. Its contribution is a source-traceable policy-to-practice synthesis that can guide PD planning and subsequent empirical validation.

Literature Review

Assessment Competence as Professional Practice

Assessment competence has long been described as more than technical knowledge of tests. Brookhart (2011) argued that contemporary assessment competence includes the ability to connect assessment with standards, formative purposes, interpretation, communication, and accountability. Xu and Brown (2016) similarly reconceptualised teacher assessment literacy as a dynamic practice shaped by knowledge, conceptions, institutional context, and professional identity. Looney et al. (2018) extended this position by emphasising teachers' identity as assessors, drawing attention to the professional judgement and responsibility embedded in assessment work.

These perspectives are relevant to TVET but do not automatically transfer to competency-based skills certification. TVET assessment must capture knowledge, performance, and occupationally relevant evidence while remaining aligned with intended competencies. In Malaysia, Yusop, Rasul, Yasin, and Hashim (2023) found that TVET classroom assessment requires explicit domains and indicators and highlighted the importance of assessment concepts, assessment approaches, and mastery-level judgement. Their work reinforces the

need for assessment personnel to understand not only what is assessed but how evidence is designed, collected, judged, and linked to intended vocational outcomes.

Recent policy-oriented research on assessment competence provides a useful comparison. Chen et al. (2025) analysed policy evolution and theoretical foundations to propose a localised assessment-competency framework for primary English teachers in China. The study demonstrates that policy documents can provide a legitimate basis for identifying professional competence priorities. Nevertheless, assessment personnel in SPKM/SLaPB operate in a different governance environment: assessment is distributed across PP, PPD, and PPL roles, and competency decisions are subject to formal evidence, verification, and certification controls.

Professional Development in TVET

TVET professional development is shaped by a dual expectation: educators and assessors must retain educational competence while remaining current with occupational practice. Diao et al. (2024) frame TVET teachers as educators, vocational practitioners, digital citizens, and lifelong learners, and propose progressive competency development rather than a static list of skills. Their framework is useful because it treats professional competence as something that should be developed and maintained over time. Xin, Tang, and Mou (2024) similarly show that TVET digital competence can be structured, assessed, and used to identify differentiated development needs rather than assuming uniform readiness among practitioners.

In the Malaysian context, Abdul Rahman et al. (2022) used expert consensus to identify ten elements of self-initiated professional development for vocational-college TVET teachers, with industrial attachment ranked as the leading element. Wahab, Ali, and Ahmad (2024) further identified skill enhancement, professional identity, continuing education, community support, and mentoring as recurring components of development for novice TVET teachers. These studies show that PD in TVET is not confined to formal courses; it also depends on occupational exposure, professional support, and opportunities to keep knowledge and practice current.

Recent studies reinforce this direction. Samsuri, Adnan, and Zainol (2025) reported that professional development and structured industry collaboration were important to the work fulfilment and teaching effectiveness of Malaysian vocational welding educators. Yan and Jamaludin (2025) likewise identified industry engagement, training content, policy foundation, and career pathways as important dimensions in vocational teacher development. What remains less explicit in this literature is how PD should be configured for assessment and verification personnel whose decisions must satisfy formal standards, documented evidence requirements, and quality-assurance procedures.

Policy and Standards as a Basis for Professional-Development Priorities

Policy and standards documents are not merely background references in regulated education systems. They specify authorised roles, minimum requirements, procedural responsibilities, quality expectations, and conditions of recognition. Document analysis is therefore appropriate when the research question concerns what a system formally requires rather than what practitioners report experiencing. Bowen (2009) describes document analysis as a systematic procedure for reviewing and evaluating documents, while Dalglish,

Khalid, and McMahon (2020) offer the READ approach (Ready materials, Extract data, Analyse data, and Distil findings) as a transparent process for policy-document analysis.

Policy-document analysis has also been used to examine policy evolution and alignment with educational principles (Yu, Hamsan, Singh, & Ye, 2024). In the present study, the same broad methodological logic is applied to a narrower regulatory and professional question: what current Malaysian TVET standards and operational guides imply for the development of personnel who assess and verify competence.

Research Methodology

Research Design

The study employed qualitative document analysis operationalised as a policy and standards analysis. Official policies, standards, operational guidelines, and current system information were treated as primary research data. The analytic procedure followed the READ approach of Dalglish et al. (2020) and was also informed by Bowen's (2009) principles for systematic document analysis. This design was selected because the study sought to identify formal role requirements and their professional-development implications, not to measure practitioners' perceptions or competence levels.

The analysis followed a source-traceability rule. A statement could be retained as study evidence only when it could be traced to an identified source and a specific page, clause, section, or stable official webpage element. Peer-reviewed literature was used to frame and interpret the findings but was not part of the primary analytical corpus.

Document Corpus and Eligibility

Candidate sources were identified from authorities responsible for TVET quality assurance, national skills certification, and the current SPKM/SLaPB implementation environment. Four inclusion criteria were applied. A source had to: (a) be issued or maintained by an authoritative Malaysian TVET or quality-assurance body; (b) contain requirements or system directions relevant to competency assessment, verification, personnel competence, role preparation, or professional development; (c) be current or foundational to the present quality-assurance architecture; and (d) be available in sufficient full text, attachments, or stable official webpage form to permit traceable extraction.

Source identification and version checking were completed on 19 August 2026. Screening was restricted to official portals of the Malaysian Qualifications Agency (MQA), Jabatan Pembangunan Kemahiran (JPK/DSD), MySPIKE, and the national TVET portal. Starting from COPTPA and current SLaPB, personnel, and verification pages, linked implementation guidance and documents listed for accompanying use were screened against the four eligibility criteria. The candidate register contained 11 source records: eight were retained as analytical sources, two were retained as supporting or redundant notices only, and one superseded guide was excluded from current findings. The official attachment set accompanying the 2024 SLaPB implementation guide was retained as supplementary evidence and was not counted as a separate analytical document.

Sources were excluded from current findings when they were superseded, purely administrative, duplicative, or outside the defined SPKM/SLaPB assessment-personnel scope.

Version control was particularly important. The June 2026 PPV guide explicitly cancels the earlier personnel-certification guide, so the 2018 version was retained only in the audit history and was not used for current requirements (JPK, 2026b, p. 15). Similarly, the 2024 assessment-question guide cancels the 2020 edition and became the active source for assessment-question development requirements (JPK, 2024b, p. 105). The verified analytical corpus is summarised in Table 1.

Table 1

Verified analytical corpus

ID	Source	Authority / Version	Primary Analytical Contribution
D01	Code of Practice for TVET Programme Accreditation (COPTPA), 2nd ed.	MQA & JPK, 2020	Assessment quality, competency-based assessment, staff development
D02	MySPIKE v2 official platform information	JPK, current 2026	PPV, continuous professional development (CPD), and current digital SPKM infrastructure
D03	Dasar TVET Negara 2030	Sekretariat Majlis TVET Negara, 2024	National coordination, quality assurance, industry responsiveness
D04	Panduan Pentauliah Program SLaPB Berasaskan COPTPA	JPK, effective 1 July 2025	PP/PPD requirements; Pengurus Pusat Bertauliah (PPB) responsibilities; induction; industrial attachment
D05	Panduan dan Syarat Permohonan Perakuan PPV SPKM	JPK, revised June 2026	PPV eligibility, experience, induction, computer literacy, renewal
D06	Panduan Tugas PPL SLaPB Berasaskan Kod Amalan Pentauliah Program Kemahiran (KAPPK)/COPTPA	JPK, effective 1 July 2023	External-verification duties, evidence checks, ethics
D07	Panduan Pelaksanaan dan Penilaian SLaPB Berasaskan COPTPA, Edisi II	JPK, updated 4 April 2024	Assessment implementation, RPK, portfolio, MySPIKE, PPL verification
D08	Panduan Pembangunan Soalan Penilaian Latihan Kemahiran, Edisi 2024	JPK, effective 9 September 2024	Assessment-question design, JSU, validity, reliability, sufficiency, and validation

Note. D07 was retained together with its official supplementary attachment set, which contains operational forms such as Rekod Penilaian Kredit (RPK), portfolio, Core Ability, industrial-training, and final-project materials. The attachment set was not counted as a separate analytical document.

Data Extraction and Analysis

The READ procedure was implemented in four stages. First, the materials were readied by building a source register that recorded document identity, issuing authority, version or effective date, official URL, local archive name, and file-level audit information. Second,

evidence was extracted at the smallest practical traceable unit. Each retained unit recorded its source, page or section, a close paraphrase of the requirement, an initial descriptive code, and its possible relationship to the research questions.

Third, descriptive codes were compared across documents. Coding initially remained close to the function of the sources and covered competency-based assessment practice, assessment-question and blueprint development, verification and quality assurance, role preparation and recognised competence, continuous professional development, industrial currency, and renewal of professional recognition. The current corpus produced 41 retained evidence units. Fourth, the coded evidence was distilled into professional-development priorities through cross-document comparison. A synthesis category was retained only when more than one source supported the interpretation or when a single current source stated a direct role requirement with clear professional-development implications.

To minimise a priori category imposition, coding was derived from the current document corpus rather than from an external thematic framework. The final findings were then checked against a cross-document matrix showing which sources supported each priority.

Rigour, Version Control, and Claim Boundaries

Rigour was pursued through source authority, version control, traceability, and conservative claim wording. Official sources were prioritised over secondary reproductions. Current requirements were taken from current or currently referenced documents, and superseded guidance was excluded from current claims. Archived copies, source URLs, access dates, page locations, and version metadata were retained so that each analytical source could be identified later.

Direct requirements were distinguished from interpretation. For example, the documents support claims that induction, occupational experience, question validation, industrial attachment, and renewal are formal elements of the system. They do not establish that current personnel are deficient in these areas or that any particular training programme is effective. The analysis was conducted by one analyst, so inter-coder reliability is not reported. Instead, transparency is supported through a retained codebook, evidence-extraction matrix, source register, cross-document matrix, and findings log.

Findings and Discussion

Competency-Based Assessment Design and Evidence Judgement

The first priority concerns the ability to translate occupational standards into defensible assessment tasks and decisions. COPTPA defines competency-based assessment in terms of collecting performance and knowledge evidence against occupational or industry standards before a judgement of competence is made, and it requires assessment to remain aligned with learning outcomes and competency levels (MQA & JPK, 2020, pp. 35–37). Current JPK guidance makes this responsibility more specific. PP is required to explain assessment requirements based on the National Occupational Skills Standard (NOSS), conduct assessment reliably, transparently, and validly, guide trainees in preparing competency-evidence records, and monitor performance development (JPK, 2025, p. 28). PPL must understand NOSS requirements before verification and verify portfolios, evidence, and final assessment components (JPK, 2023, pp. 9–16).

The 2024 assessment-question guide adds a major professional-development dimension that is not visible in generic teacher-assessment literature. It states that the guide is intended to increase the knowledge and skills of accreditation personnel, especially assessors, in constructing quality Soalan Penilaian Latihan Kemahiran (SPLK) (JPK, 2024b, p. i). SPLK development must be based on the relevant Standard/NOSS and Competency Unit (CU), and the prescribed workflow moves from programme and CU selection through question-number determination, development of the Jadual Spesifikasi Ujian (JSU; test specification table), question construction, validation, and storage (JPK, 2024b, pp. 14–16).

JSU capability is particularly important because the guide requires a JSU for each CU and links it to learning outcomes, Work Activities (WA), question categories, difficulty levels, competency dimensions, assessment duration, and question distribution. The guide explicitly states that JSU supports systematic assessment and helps secure validity, reliability, and sufficiency (JPK, 2024b, pp. 26–27). This moves the professional-development priority beyond 'knowing assessment' toward assessment blueprinting, task construction, and evidence alignment.

This finding is consistent with broader assessment-competence scholarship, which emphasises the connection between standards, assessment design, interpretation, and professional judgement (Brookhart, 2011; Xu & Brown, 2016). It also extends Malaysian TVET assessment research. Yusop et al. (2023) identify assessment concepts, approaches, and mastery as important components of TVET classroom assessment; the present policy analysis shows how current skills-certification guidance further embeds blueprinting, Standard/NOSS alignment, and formal competency evidence within the assessor's professional role. Professional development for SPKM/SLaPB assessment personnel should therefore include standards interpretation, JSU construction, knowledge and performance question design, evidence sufficiency, and judgement calibration.

Verification and Assessment Quality Assurance

The second priority concerns verification and quality assurance around assessment decisions. COPTPA requires assessment practices to address validity, reliability, integrity, currency, and fairness (MQA & JPK, 2020, pp. 35–37). The 2025 accreditation guide operationalises internal quality assurance through the PPD role: PPD is responsible for controlling and monitoring the quality-assurance system for training and internal assessment and for ensuring that assessment is implemented uniformly in accordance with NOSS and JPK requirements (JPK, 2025, pp. 27–28).

External verification extends these controls. The PPL guide positions PPL as an important role in ensuring quality implementation of SPKM and requires verification of portfolios, assessment evidence, marks, trainee eligibility, facilities, and final assessment outcomes (JPK, 2023, pp. 8–10). Before and during verification, PPL checks the personnel structure and recognition status, assessment questions, records of previous improvement actions, and the correspondence among RPK, competency evidence, and MySPIKE records (JPK, 2023, pp. 13–15). The 2024 SLaPB implementation guide reinforces this traceability by requiring recorded assessment outcomes in MySPIKE to correspond with actual evidence; where portfolio and MySPIKE marks conflict, the verification decision is based on the portfolio evidence (JPK, 2024a, pp. 59–60).

Quality assurance also applies to the assessment instrument itself. The SPLK guide requires developed questions to satisfy nine characteristics covering standard alignment, specification, opportunity, competency/content accuracy, clarity, importance, fairness, and appropriate difficulty. Questions must be reviewed and formally validated before use, with recorded decisions of accepted, accepted with amendment, or rejected; rejected questions must be replaced (JPK, 2024b, pp. 5–6, 103–104). This shows that professional development should include not only how to administer assessment but how to recognise and control instrument quality.

The PPL role additionally carries explicit ethical expectations. PPL is required to demonstrate integrity and professionalism, maintain confidentiality, and perform duties transparently, fairly, and without personal interest (JPK, 2023, p. 35). This is important because assessment quality is partly a professional-governance issue. Looney et al. (2018) argue that teachers' assessment identity includes responsibility for judgement; in SPKM/SLaPB that responsibility is distributed across assessors and verifiers and is formalised through evidence checks, instrument validation, and ethical controls. Professional development should therefore include internal and external verification practice, question-quality review, evidence-record consistency, confidentiality, integrity, fairness, and coordinated decision making among PP, PPD, and PPL.

Formal Role Preparation and Verified Professional Competence

The third priority concerns readiness before and at entry into assessment and verification roles. Current accreditation guidance requires formal recognition of accreditation personnel before trainee registration and specifies induction and role-related qualification requirements for PPB, PPD, and PP (JPK, 2025, pp. 26–29). These are not optional development activities; they form part of the formal conditions under which assessment roles are recognised within the system.

The June 2026 PPV guide provides the clearest current example. For PPL-SLaPB, applicants must meet age and qualification conditions, possess at least seven years of recent full-time occupational experience in the relevant programme, and successfully complete both PP-PPD-PPB induction and PPL induction (JPK, 2026b, p. 8). The same guide defines PPV as personnel who are knowledgeable, skilled, and experienced and indicates that PPV should have computer literacy aligned with current needs (JPK, 2026b, pp. 4–6). PPL induction is also explicitly connected with understanding duties, responsibilities, and work ethics (JPK, 2026b, p. 4).

The assessment-question guide adds another aspect of readiness by requiring question-development panels to comprise personnel experienced in the relevant field based on Standard/NOSS (JPK, 2024b, p. 14). Taken together, these documents indicate that appointment to assessment and verification work should be supported by a combination of occupational experience, role induction, relevant qualifications, system literacy, and demonstrated role recognition.

This finding complements TVET competency scholarship. Diao et al. (2024) argue that TVET professional competence should recognise multiple roles and developmental stages rather than rely on a static list of attributes. Xin et al. (2024) similarly demonstrate the value of

defining and assessing differentiated competence needs. In the SPKM/SLaPB context, however, the present findings show that part of professional readiness is already embedded in formal role requirements. The implication is not to create a competing certification scheme, but to organise PD so that entry preparation explicitly maps to the requirements already governing assessment and verification work.

Continuous Professional Enhancement and Industrial Currency

The fourth priority concerns maintaining competence after initial appointment. COPTPA requires staff-development arrangements that include induction and continuous professional enhancement and specifies cumulative industrial attachment of one month every two years for in-service teaching staff (MQA & JPK, 2020, p. 54). The 2025 JPK accreditation guide converts this into an operational responsibility by requiring PPB to plan and implement industrial attachment for PP for a cumulative one month in every two-year period (JPK, 2025, p. 27).

This requirement is consistent with Malaysian empirical evidence. Abdul Rahman et al. (2022) found industrial attachment to be the highest-ranked element among ten expert-agreed components of self-initiated professional development for Malaysian vocational-college TVET teachers. Wahab et al. (2024) also identify continuing education and skill enhancement as recurring needs for novice TVET teachers, while Samsuri et al. (2025) show that professional development and industry collaboration are important to the work experiences of Malaysian vocational educators. The convergence between current standards and empirical research supports industrial currency as a substantive professional-development priority rather than an administrative add-on.

Continuing readiness is also visible in the recognition cycle. The current PPV guide requires participation in a renewal assessment and provides a six-year approval period for PPV recognition; recognition ends if it is not renewed (JPK, 2026b, pp. 13–14). MySPIKE provides a current CPD platform for assessment and verification personnel within the SPKM ecosystem (JPK, 2026a). Together, these requirements suggest that professional development is recurrent rather than one-off: induction establishes initial readiness, while industrial exposure, CPD, updating, and renewal maintain the currency of professional recognition.

This finding also aligns with the wider vocational-development literature. Diao et al. (2024) emphasise continuing self-development and a developmental trajectory, and Yan and Jamaludin (2025) identify industry engagement as a key dimension of vocational teacher development. For competency-based assessment personnel, the rationale is particularly direct: judgements made against occupational standards should remain connected to contemporary workplace practice and current system requirements.

Cross-Document Synthesis: A Staged Role-Readiness Architecture

When the eight sources are read together, the requirements form a developmental sequence rather than four disconnected themes. The first stage is entry readiness, represented by eligibility, occupational experience, relevant qualifications, formal personnel recognition, and induction. The second stage is role enactment, represented by assessment design, JSU construction, evidence judgement, internal quality assurance, external verification, ethical conduct, and record consistency. The third stage is continuing currency, represented by CPD,

professional enhancement, and recurring industrial attachment. The fourth stage is maintenance of recognition, represented by periodic PPV renewal.

This staged architecture is an analytical synthesis, not an official JPK framework. Its value is that it makes the professional-development logic visible across documents that otherwise address different parts of the system. It also avoids treating induction as the whole of PD or treating occupational experience as permanently sufficient once a person has been appointed. The four professional-development priorities and their claim boundaries are summarised in Table 2; the resulting staged role-readiness architecture is presented in Table 3.

Table 2

Professional-development priorities derived from the verified corpus

Priority	Illustrative Requirements	Formal	Professional-Development Focus	Claim Boundary
Assessment design and evidence judgement	Standard/NOSS alignment; JSU; SPLK construction; performance/knowledge evidence; assessor guidance		Standards interpretation, blueprinting, assessment construction, evidence sufficiency, judgement calibration	Does not show that current personnel lack these capabilities
Verification and assessment quality assurance	PPD internal quality assurance; PPL verification; RPK/portfolio/MySPIKE consistency; nine SPLK criteria; ethics		Internal/external verification, question review, evidence-record checks, fairness, integrity, confidentiality	Does not measure current quality-assurance effectiveness
Formal role preparation and verified professional competence	Personnel recognition; induction; occupational experience; skills qualifications; computer literacy; experienced question developers		Entry preparation, role orientation, occupational eligibility, system literacy	Not a new certification scheme or validated competency scale
Continuous professional enhancement and industrial currency	Continuous enhancement; recurring industrial attachment; MySPIKE CPD; PPV renewal		Industry currency, updating, continuing learning, maintenance of recognition	No inference about participation rates or training impact

Table 3

Staged role-readiness architecture for SPKM/SLaPB assessment personnel

Stage	System Evidence	Development Emphasis	Indicative Personnel
Entry readiness	Eligibility, role recognition, induction, experience and qualification requirements	Understand role, standards, ethics, system expectations and baseline competence	PP, PPD, PPL/PPV
Role enactment	Assessment design, JSU/SPLK development, evidence judgement, internal/external verification	Apply assessment and quality-assurance requirements consistently in real assessment work	PP, PPD, PPL
Continuing currency	CPD, continuous professional enhancement, industrial attachment	Update occupational, assessment and system-related competence	PP/PPV and related TVET personnel
Maintenance of recognition	PPV renewal assessment and time-bounded recognition	Demonstrate continuing eligibility and current professional readiness	PPV/PPL

Implications for Professional Development

For TVET providers operating within SPKM/SLaPB, the four priorities can function as a diagnostic structure for reviewing existing staff-development plans. Entry-level development should confirm role eligibility and induction; assessment development should include Standard/NOSS interpretation, JSU, SPLK construction, and evidence judgement; verification development should address consistency, formal review, ethics, and evidence-record traceability; and continuing development should maintain occupational currency and responsiveness to system changes.

For JPK and system-level stakeholders, the findings suggest value in making the development pathway across PP, PPD, and PPL roles more visible. Current documents already contain many of the necessary requirements, but they are distributed across accreditation, personnel, implementation, verification, and assessment-question guidance. A mapped PD pathway could therefore be developed by aligning training content with existing requirements rather than introducing unrelated competency categories.

For institutions, the staged architecture can help separate induction from continuing development. A person who has completed induction may still require role-specific support in assessment blueprinting, question validation, verification practice, or industrial updating. Conversely, recurring industrial attachment should not substitute for assessment-quality development. A balanced PD portfolio should preserve both occupational currency and assessment-governance competence.

For future research, the priorities provide a defensible starting point for empirical validation. Interviews with PP, PPD, PPL, and programme managers could test whether the policy-derived priorities match perceived development needs. A subsequent instrument-development study could operationalise the categories into measurable indicators, but such

an instrument should be developed and validated separately rather than treating the current document synthesis as a ready-made scale.

Conceptual and Contextual Contribution

The study contributes to assessment-competence literature by shifting the unit of analysis from the teacher as a single assessor to a distributed assessment-governance system. In SPKM/SLaPB, competency assessment is enacted through differentiated roles: PP constructs and conducts assessment and guides evidence, PPD monitors internal quality, and PPL verifies evidence and final assessment externally. Professional competence is therefore relational and procedural as well as individual. This extends generic assessment-literacy perspectives by showing how role differentiation and formal verification shape what professional readiness means in a skills-certification context.

The study also contributes to TVET professional-development research by identifying a staged role-readiness architecture grounded in current regulatory and operational evidence. Existing TVET studies emphasise professional competencies, industry exposure, digital capability, mentoring, and continuing learning (Abdul Rahman et al., 2022; Diao et al., 2024; Wahab et al., 2024; Xin et al., 2024). The present synthesis links these broader development concerns to the specific sequence of entry recognition, assessment and verification practice, continuing currency, and renewal within Malaysia's skills-certification system.

Contextually, the study provides a current map of the requirements governing competency-based assessment personnel in the JPK/SPKM/SLaPB environment. This is intentionally narrower than claiming to represent every Malaysian TVET subsystem. COPTPA and the National TVET Policy provide broader national quality-assurance context, but the operational findings are grounded primarily in JPK's skills-certification and accredited-programme system. This bounded scope strengthens rather than weakens the contribution because the findings can be traced to the rules that govern the roles being discussed.

Limitations

First, document analysis identifies formal expectations; it cannot determine whether personnel currently possess the identified capabilities, whether requirements are implemented consistently, or whether existing training is effective. Survey, interview, observation, or competence-assessment data would be required to answer those questions. Second, the operational corpus is centred on JPK/SPKM/SLaPB. The findings should not be generalised automatically to every Malaysian TVET provider, accreditation route, or professional regime. COPTPA and the National TVET Policy were used to situate the analysis nationally, but role-level findings remain bounded to the skills-certification context.

Third, MySPIKE is a dynamic platform. Web-based system information is therefore time-bounded to the 2026 access point, while PDF-based requirements are controlled by edition and effective date. Any future revision that supersedes a locked source would require the relevant finding to be re-audited.

Fourth, the coding was conducted by a single analyst. The retained audit trail strengthens transparency and reproducibility but does not provide independent coder agreement. Future studies could extend the analysis through expert validation or multi-coder review.

Conclusion

This study analysed eight authoritative Malaysian policy, standards, operational, and system sources to identify professional-development priorities for personnel involved in competency-based assessment and verification within SPKM/SLaPB. Forty-one traceable evidence units supported four priorities: competency-based assessment design and evidence judgement; verification and assessment quality assurance; formal role preparation and verified professional competence; and continuous professional enhancement with industrial currency.

The cross-document analysis further showed that these requirements can be understood as a staged role-readiness architecture comprising entry eligibility and induction, role-specific assessment and verification practice, continuing professional and industrial currency, and periodic maintenance of professional recognition. The 2024 SPLK guide further strengthens this architecture by making assessment-question development, JSU capability, validity, reliability, sufficiency, and formal question validation explicit professional requirements rather than assumed background knowledge.

The proposed architecture is not an official JPK competency framework and has not been empirically validated as an instrument. Its contribution is more specific: it organises existing formal requirements into an auditable professional-development map. This provides a defensible basis for reviewing PD provision, aligning role preparation with current system expectations, and designing future empirical studies of competency-based assessment personnel in Malaysian TVET.

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Conflict of Interest

The authors declare no conflict of interest.

Author Contributions

Muslihah binti Saman contributed to the study conception, source identification, document audit, data extraction, coding, synthesis, and manuscript preparation. Mohd Fahmi bin Adnan contributed to the research design, methodological supervision, interpretation, and critical revision. Both authors reviewed and approved the manuscript.

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