A Conceptual Elaboration of Digital Assessment and Feedback within MyDigCompTVET: Authentic Evidence, Professional Judgement and Occupational Performance

Mohd Hatta Md Hani[1]*, Muhamad Hanif Jofri [1], Fikri Aulia[2], Zawawi Mohamad[3], Noor Zuraidin Mohd Safar[4], Muhammad Shahrir Mohamed Shafieek[5], Affero Ismail[6]

[1] ICT as Enablers (iCAN) Focus Group, Department of Information Technology, Centre of Diploma Studies, Universiti Tun Hussein Onn Malaysia, Pagoh, Johor, Malaysia

[2]Department of Educational Technology, Faculty of Education, Universitas Negeri Malang, Indonesia

[3]Non-Destructive Testing (NDT) Technology, Mechanical Department, ADTEC JTM Campus Jerantut, Pahang, Malaysia

[4]Department of Information Security and Web Technology, Faculty of Computer Science and Information Technology, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

[5]Labtech International (M) Sdn Bhd, No. 16, 2nd Floor, Jalan Tengku Ampuan Zabedah D9/D, 40100 Shah Alam, Selangor, Malaysia

[6]Faculty of Technical and Vocational Education, Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

***Corresponding Author**

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ABSTRACT

Digital assessment in technical and vocational education and training (TVET) requires educators to determine whether digitally mediated evidence supports defensible judgements about occupational competence. Online quizzes, electronic portfolios, recorded demonstrations, and simulation outputs provide different forms of evidence, each with limitations concerning what learners can perform independently in practical settings. This conceptual paper elaborates digital assessment competence within MyDigCompTVET through three interrelated concerns: authentic evidence, professional judgement, and occupational performance. It develops an interpretation informed by digital educator competence, authentic assessment, assessment validity, evaluative judgement, and feedback scholarship. Digital assessment competence is understood as the educator's capacity to design occupationally aligned assessment tasks, select and corroborate evidence, interpret performance against explicit criteria, and provide feedback that guides subsequent improvement. Particular attention is given to learner authorship, procedural visibility, safety, assessment fairness, and the conditions under which digital evidence requires complementary direct observation. The paper argues that the credibility of digital assessment depends on the relationship between the evidence collected and the competence claimed. Its contribution is a contextual elaboration of the Digital Assessment and Feedback element within MyDigCompTVET, with implications for educator development, assessment design, and moderation in Malaysian TVET. The proposed responsibilities and relationships require subsequent empirical examination across occupational disciplines and assessment settings.

Keywords: MyDigCompTVET; digital assessment competence; authentic evidence; professional judgement; occupational performance; TVET educators; feedback literacy

1. INTRODUCTION

Assessment in technical and vocational education and training (TVET) involves making judgements about learners' capacity to undertake occupational tasks. Depending on the discipline, these judgements may concern procedural accuracy, the quality of a completed product, diagnostic reasoning, safe working practices, or the ability to respond to changing task conditions. Digital technologies offer ways to collect and organise evidence through online tests, electronic portfolios, recorded demonstrations, digital work products, and simulation records. However, the availability of a digital record does not resolve what that record establishes about the learner's competence. Educators must determine which aspects of performance are visible, which remain uncertain, and whether additional evidence is required.

Established scholarship provides useful foundations for examining these decisions. The European Framework for the Digital Competence of Educators, DigCompEdu, addresses assessment through strategies, evidence analysis, and feedback and planning (Redecker, 2017). Authentic assessment scholarship places professional practice at the centre of assessment design, including consideration of the task, context, outcomes, and criteria (Gulikers et al., 2004). These perspectives support an examination of how digital assessment can remain connected to occupational expectations. For TVET educators, a further task is to translate these principles into decisions about the evidential value of particular digital records and the conditions under which they support a judgement of competence.

Consider a learner who submits a video demonstrating equipment maintenance. The recording may show the sequence of operations and the condition of the completed work. Yet its value depends on whether it captures critical safety checks, reveals the learner's reasoning, and makes the extent of assistance apparent. A completed digital product presents a related challenge: its quality may be observable while the process through which it was produced remains unclear. These illustrative situations raise questions about both the occupational relevance of an assessment and the credibility of the evidence it generates. An educator may need to combine the submission with questioning, process records, or direct observation before reaching a defensible decision.

Professional judgement is therefore central to the proposed account of digital assessment competence. Educators need to interpret evidence against explicit criteria, recognise its limitations, and explain the basis of their decisions. They also need to support learners in recognising quality and using feedback to improve subsequent performance. Tai et al. (2018) describe evaluative judgement as the capability to make decisions about the quality of one's own work and that of others. Although their discussion focuses on learners' development, it offers a complementary perspective for considering how TVET assessment can help learners understand occupational standards and evaluate their own work.

Within MyDigCompTVET, the Digital Assessment and Feedback element provides a starting point for elaborating these responsibilities. The framework development and conceptual accounts establish its relevance to digital teaching in Malaysian TVET (Hani, Ismail, Aulia, et al., 2026; Hani, Ismail, Fajarianto, Romli, & Samad, 2026). This paper proposes that assessment competence should be understood in terms of the relationship among authentic evidence, professional judgement, and occupational performance. Authentic evidence concerns the relevance and credibility of the material available for assessment. Professional judgement concerns how educators interpret and corroborate that material. Occupational performance concerns the capability that the assessment decision seeks to establish. Their relationship raises a practical question: does the available evidence justify the particular claim being made about the learner?

Accordingly, this conceptual paper aims to elaborate digital assessment competence within MyDigCompTVET for Malaysian TVET educators. It examines the design of occupationally aligned digital assessment, the interpretation and corroboration of performance evidence, and the use of feedback to guide improvement. It also considers the conditions under which digitally mediated evidence needs complementary direct observation, particularly when safety, independence, or physical execution is central to the assessed task. The intended contribution is an account of educator responsibilities that can inform professional development and generate propositions for subsequent empirical investigation.

2. LITERATURE AND CONCEPTUAL FOUNDATIONS

2.1 Digital Assessment as an Educator Competence

Digital assessment competence concerns the educational decisions through which technologies are used to generate, interpret, and act upon evidence of learning. DigCompEdu provides an established foundation by distinguishing assessment strategies, analysing evidence, and feedback and planning (Redecker, 2017). These capabilities extend assessment beyond administering online tests or recording marks. They require educators to select appropriate assessment approaches, interpret the resulting evidence, and use it to inform subsequent teaching and learning.

Recent developments in generative artificial intelligence reinforce the importance of these decisions. Crompton and Burke's (2026) systematic review of 72 empirical studies identified process orientation, authenticity, and oral or dialogical approaches as prominent assessment design responses. Their review also documented applications of generative AI across assessment creation, practice, grading, learning transparency, and feedback. These findings suggest that digital assessment competence increasingly involves deciding which aspects of learning must become visible and how different sources of evidence should contribute to an assessment decision. The review concerns higher education broadly; its implications for occupational assessment therefore require contextual interpretation.

For TVET, this paper proposes that the relevant interpretation begins with the occupational capability being assessed. Educators need to determine whether a task concerns technical knowledge, procedural execution, diagnostic reasoning, product quality, safe working practices, or a combination of these outcomes. Different digital records provide access to different aspects of performance. A quiz can reveal knowledge of a maintenance sequence, while an annotated recording may reveal how the sequence was executed. Neither form of evidence should be assigned a broader meaning than its content and assessment conditions can support.

2.2 Authentic Assessment and the Credibility of Digital Evidence

Authentic assessment offers a foundation for connecting educational tasks with professional practice. Gulikers et al. (2004) conceptualised authenticity through five dimensions: the assessment task, physical context, social context, assessment result or form, and assessment criteria. Their framework directs attention to the relationship between assessment design and the demands of practice. More recently, Vlachopoulos and Makri (2024) synthesised research on authentic assessment in higher education, identifying connections between approaches such as projects, problems, case studies, and simulations and the development of capabilities including critical thinking, problem-solving, teamwork, and communication.

For the present conceptual elaboration, occupational authenticity and evidence authenticity need to be distinguished. Occupational authenticity concerns whether the assessment represents relevant work practices and standards. Evidence authenticity concerns whether the submitted material can credibly be attributed to the learner and whether the conditions of its production are sufficiently understood. A workplace-like task may have strong occupational relevance while leaving uncertainty about who completed it or how much assistance was provided. Conversely, an individually completed online test may establish authorship under controlled conditions while providing limited evidence of practical execution.

This distinction is particularly useful when interpreting recorded demonstrations, electronic portfolios, digital products, and simulation outputs. A recording may omit an unsafe preparation stage; a portfolio may contain strong products without showing the learner's contribution; and a simulation score may depend on prompts that would be unavailable during independent performance. These are illustrative assessment problems rather than findings from a new empirical study. They indicate why educators may need to combine digital submissions with questioning, process documentation, repeated demonstrations, or direct observation.

Accordingly, this paper treats authentic digital evidence as material whose occupational relevance, learner attribution, and production conditions can be examined. Credibility depends on the relationship among these characteristics and the intended assessment claim. Increasing the number of uploaded artefacts alone does not resolve uncertainty about competence.

2.3 Assessment Validity and Claims About Occupational Performance

Assessment validity provides a further foundation for examining what digital evidence can establish. Kane's (2013) argument-based approach requires that the interpretations and uses of assessment scores be supported by explicit inferences, assumptions, and evidence. Applied to this paper, the implication is that educators should articulate how an observed digital performance supports a particular conclusion about occupational capability.

For example, successful completion of a simulated fault-diagnosis task may support a claim about recognising faults within the represented system. A broader claim that the learner can diagnose unfamiliar faults independently in a workshop requires additional justification. Relevant differences may include physical equipment, incomplete information, time pressure, assistance, and the consequences of error. The proposed assessment competence therefore includes recognising the limits of extrapolation from the assessed task to the occupational setting.

This concern connects with the MyDigCompTVET conceptual account developed by Hani, Ismail, Aulia, et al. (2026), which examines tensions among digitalisation and occupational authenticity, innovation and physical safety, and individual capability and institutional readiness. Their analysis establishes the need to consider when digital representations are educationally appropriate and when physical performance remains indispensable. The present paper extends that reasoning to assessment by asking what evidence is required for a judgement of competence to become defensible.

The AR and VR elaborations provide more specific foundations. Hani, Ismail, Samad, et al. (2026) identify assessment with planned reduction of assistance as a proposed dimension of AR pedagogical competence. This raises an assessment question about whether successful performance depends on continuing digital guidance. Hani, Ismail, Fajarianto, Romli, Samad, and Yazed (2026) similarly position assessment and transfer among the capabilities needed for educational VR use. Together, these conceptual contributions support the examination of the conditions under which technology-supported performance can justify a claim about independent occupational performance. They do not themselves establish that such transfer has occurred.

2.4 Professional Judgement, Evaluative Judgement, and Feedback

Professional judgement refers here to the educator's reasoned interpretation of evidence against relevant assessment criteria and occupational expectations. It includes deciding whether the available evidence is sufficient, recognising contradictory or incomplete information, and explaining why a conclusion is warranted. This proposed definition places responsibility on educators to examine both the quality of performance and the conditions under which it becomes visible.

Learner evaluative judgement is a related but distinct construct. Tai et al. (2018) describe it as the capability to make decisions about the quality of one's own work and that of others. Their account positions assessment activities as opportunities to develop learners' understanding of quality. For TVET, this suggests a complementary educational purpose: learners should increasingly recognise whether their own processes and products meet occupational expectations. Educator assessment decisions and learner self-evaluation remain distinct responsibilities, although assessment design can connect them.

Bearman et al. (2024) extend evaluative judgement to generative AI, distinguishing judgements about AI outputs, AI processes, and the use of AI, and assessing students' evaluative judgements. Their argument supports maintaining human responsibility for interpreting quality. Walton et al. (2026) provide complementary empirical evidence from 26 interviews with university students. Their analysis identified varied judgement practices, including critical engagement with AI limitations, insufficient scrutiny of generated material, and uncertainty about AI's contribution relative to students' own knowledge. These findings concern university assessment rather than TVET specifically, but they strengthen the rationale for making assistance and learner contribution visible in digitally mediated assessment.

Feedback connects these judgements with subsequent improvement. Carless and Boud (2018) conceptualise feedback literacy through appreciating feedback, making judgements, managing affect, and taking action. For

the present paper, the implication is that delivering a digital comment does not complete the feedback process. Assessment design should provide opportunities for learners to interpret the information, revise their work, and demonstrate improvement. A proposed TVET application is to connect feedback on a recorded procedure with a subsequent demonstration in which the learner addresses the identified weakness.

2.5 Positioning the Elaboration within MyDigCompTVET

The proposed elaboration builds on several distinct contributions within the authors' research programme. The HATTA study by Md Hani et al. (2025) investigated digital competence and educator satisfaction using evidence of user acceptability and linear regression. Its relevance lies in recognising educator experience and acceptance as considerations in digital transformation. However, satisfaction and acceptance do not establish the validity of learner assessment decisions; the present paper addresses that separate conceptual responsibility.

Hani, Ismail, Fajarianto, Romli, and Samad (2026) subsequently reported the qualitative development of MyDigCompTVET through literature synthesis and interviews with 12 experts. This work provides an empirical foundation for the broader framework. The conceptual interpretation by Hani, Ismail, Aulia, et al. (2026) explains its contextual concerns, while the AR and VR papers elaborate educator capabilities associated with particular technologies (Hani, Ismail, Samad, et al., 2026; Hani, Ismail, Fajarianto, Romli, Samad, & Yazed, 2026). The present paper develops the assessment responsibilities that extend across these technologies, including decisions about evidence selection, corroboration, assistance, and independent performance.

Institutional conditions also require consideration. Mohamad et al. (2026), in their conceptual CIPP-based model for professional NDT certification, examine how certification requirements can be translated into institutional implementation. Their contribution is relevant because occupational assessment takes place within arrangements for resources, processes, standards, and evaluation. Drawing on this institutional perspective, the present paper proposes that educator competence should be supported by moderation procedures, appropriate assessment environments, and arrangements for the preservation and review of evidence. These are proposed implications rather than empirically tested outcomes of the NDT model.

Table 1 summarises the literature foundations informing the proposed elaboration. The final column makes the present paper's interpretation explicit rather than directly attributing the proposed practices to each cited source.

Table 1. Literature foundations informing digital assessment competence within MyDigCompTVET

Literature foundation	Key sources	Contribution	Proposed TVET implication
Digital educator competence	Redecker (2017)	Assessment strategies, evidence analysis, and feedback	Select formats, interpret evidence, and plan subsequent learning
Authentic assessment	Gulikers et al. (2004); Vlachopoulos & Makri (2024)	Relationship between assessment and professional practice	Represent relevant occupational demands in tasks and criteria
Assessment validity	Kane (2013)	Evidence supporting interpretations and uses	Define the claim and identify when further evidence is needed
Evaluative judgement and feedback	Tai et al. (2018); Carless & Boud (2018)	Understanding quality and acting on feedback	Help learners interpret standards and improve performance
Generative AI and assessment	Bearman et al. (2024); Walton et al. (2026); Crompton & Burke (2026)	Judgement, production processes, and learner contribution	Specify assistance and examine learners' own understanding

MyDigCompTVET foundations	Md Hani et al. (2025); Hani, Ismail, Aulia, et al. (2026); Hani, Ismail, Fajarianto, Romli, and Samad (2026)	Digital competence and contextual interpretation	Relate assessment decisions to occupational expectations
AR and VR elaborations	Hani, Ismail, Samad, et al. (2026); Hani, Ismail, Fajarianto, Romli, Samad, and Yazed (2026)	Assistance, simulation validity, and transfer	Distinguish supported completion from independent capability
Institutional implementation	Mohamad et al. (2026)	CIPP perspective on institutional implementation	Connect curriculum purposes, resources, moderation processes, and review of assessment outcomes

Note. The final column presents this paper's conceptual interpretations, not findings established by every cited study.

2.6 An Integrated Conceptual Position

The preceding literature supports three connected concerns for elaborating digital assessment competence within MyDigCompTVET. Authentic evidence concerns the relevance, attribution, and credibility of the material collected. Professional judgement concerns how educators interpret and corroborate that material against explicit expectations. Occupational performance concerns the capability that the assessment decision seeks to establish.

On this basis, digital assessment competence is proposed as the educator's capacity to design occupationally aligned assessment tasks, obtain and critically interpret credible digital evidence, justify decisions about learner competence, and organise feedback that supports subsequent improvement. Its exercise requires attention to the conditions of performance, the assistance available, and the limits of the resulting assessment claim.

Figure 1 integrates these perspectives into a proposed assessment process. Occupational tasks and standards inform assessment design, while educators examine the credibility and sufficiency of the resulting evidence. Where the evidence does not adequately support the intended claim, further evidence or direct observation is required. Feedback connects the assessment decision with further practice and improvement.

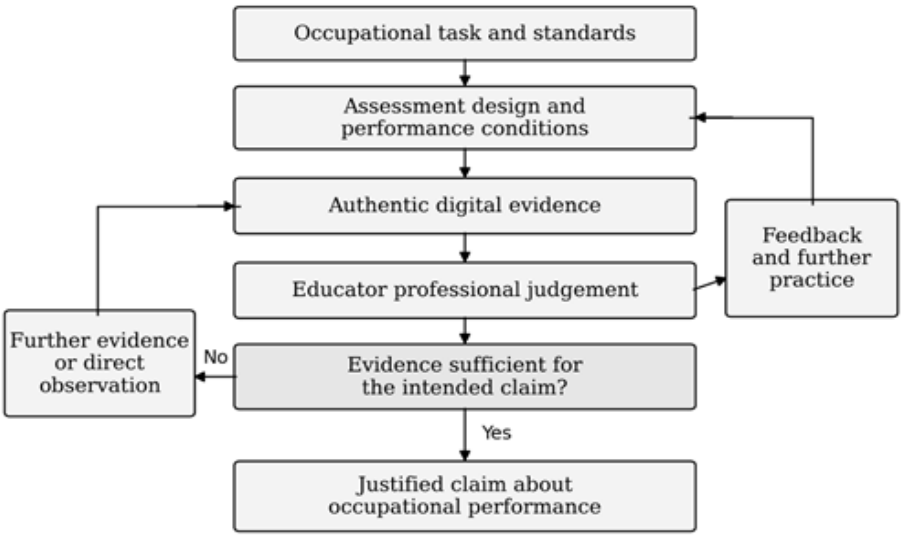

Figure 1. Proposed relationship among authentic evidence, professional judgement, and claims about occupational performance

Note. Author-developed conceptual synthesis informed by Table 1. The relationships are proposed for subsequent empirical examination.

3. CONCEPTUAL ELABORATION AND SCOPE

3.1 Nature of the Contribution

The contribution developed here is a literature-informed conceptual elaboration of an element of an existing framework. The selected sources provide complementary perspectives on educator digital competence, authentic assessment, validity, evaluative judgement, feedback, and MyDigCompTVET. Their role is to support a reasoned interpretation of assessment responsibilities rather than estimate intervention effects or establish the prevalence of particular practices. No new interviews, survey analysis, expert consensus exercise, or intervention findings are reported.

The conceptual reasoning connects three questions. First, what makes digitally represented performance credible and relevant to an occupational task? Second, how should educators interpret that evidence and identify its limitations? Third, what claim about occupational capability can the resulting judgement support? The proposed responsibilities follow from considering these questions together. The cases used throughout are illustrative scenarios, not observations collected from participants.

3.2 Construct Boundaries

The focal construct concerns educator assessment capability. It is related to but distinct from confidence in an assessment platform, willingness to adopt technology, learner attainment, and institutional readiness. These factors may influence assessment practice but do not, individually, demonstrate that an educator can obtain and interpret sufficient evidence to support a defensible competence decision.

Independent performance is also task dependent. Some occupational capabilities require appropriate use of documentation, colleagues, or digital tools. Others require execution without particular forms of assistance. The intended assessment claim determines which conditions must be specified. Digital evidence may therefore establish competent resource use in one assessment while being insufficient to establish unaided execution in another.

3.3 Proposed Assessment Responsibilities

The elaboration identifies connected responsibilities for assessment planning, evidence interpretation, and learning. Educators specify the intended capability and relevant conditions; design a task that makes essential performance visible; examine attribution and assistance; interpret the evidence against criteria; obtain targeted corroboration where uncertainty remains; and organise feedback with opportunities for action. These responsibilities describe a proposed professional practice rather than a validated scale or an exhaustive checklist.

The sufficiency of evidence is judged in relation to the claim being made. Questioning may address uncertainty about reasoning, whereas direct demonstration may be needed where physical execution remains unobserved. An educator should therefore explain both the decision reached and the limits of its application. The following discussion examines the implications of this position for MyDigCompTVET and TVET practice.

4. DISCUSSION

4.1 Digital Assessment Competence as Responsibility for Evidence and Decisions

This paper proposes that digital assessment competence within MyDigCompTVET entails responsibility for the relationship between assessment evidence and the claimed occupational capability. Educators must determine what evidence to collect, how to interpret it, and whether its limitations require further assessment. This interpretation elaborates the Digital Assessment and Feedback element by specifying the professional decisions involved when learner performance is represented through digital technologies.

DigCompEdu connects digital assessment with assessment strategies, evidence analysis, and feedback and planning (Redecker, 2017). The contribution proposed here is to interpret these responsibilities in relation to occupational tasks, performance conditions, and expectations of independence. In TVET, an assessment decision may concern procedural execution, diagnostic reasoning, product quality, or responses to changing task conditions. Educators therefore need to consider which aspects of the intended capability a particular assessment format can reveal.

This focus also clarifies the relationship with the earlier HATTA study. Md Hani et al. (2025) examined digital competence in relation to educator satisfaction and user acceptability. Such evidence contributes to understanding educators' engagement with digital transformation. The present elaboration addresses the justification of assessment decisions made through digital technologies. An assessment system may be convenient and acceptable while providing incomplete evidence for a particular occupational judgement. Educator development should consequently address the interpretation of evidence as well as effective system use.

4.2 Authenticity Requires Attention to Tasks and Evidence Production

Authentic assessment scholarship connects assessment design with professional practice, including the task, context, outcomes, and assessment criteria (Gulikers et al., 2004). Vlachopoulos and Makri (2024) further identify relationships between authentic assessment approaches and capabilities relevant to professional activity. Building on these foundations, the present paper distinguishes occupational authenticity from evidence authenticity.

Occupational authenticity concerns whether an assessment represents relevant work practices and expectations. Evidence authenticity concerns whether the material can be credibly attributed to the learner and whether the conditions of its production are sufficiently well understood. These concerns overlap, but neither guarantees the other. A workplace-like task may leave uncertainty about learners' contributions, while an individually completed online test may provide limited evidence of practical application.

For example, a maintenance video may show a technically acceptable result while omitting preparation, safety checks, or assistance received during the procedure. An electronic portfolio may demonstrate product quality without revealing the learner's diagnostic reasoning. These illustrative situations suggest that assessment design should make the aspects of performance relevant to the intended judgement sufficiently visible.

Generative AI adds another consideration. Bearman et al. (2024) emphasise the importance of human judgement when evaluating AI outputs and processes, while Walton et al. (2026) demonstrate variation in how students judge their use of AI during assessment. For the proposed TVET interpretation, educators should specify permitted assistance and establish how learners will demonstrate their own understanding and contribution.

The aim is to obtain evidence relevant to the intended capability. Where occupational practice requires appropriate use of digital reference materials, collaboration, or AI tools, those resources may legitimately remain available. Where the assessment concerns independent recall or unaided execution, the assessment conditions must support that particular claim.

4.3 Professional Judgement Connects Evidence with Occupational Claims

Kane's (2013) argument-based approach to validity provides a foundation for examining whether assessment evidence supports its intended interpretation and use. Applied here, an educator should be able to explain how the observed performance supports a specific claim about occupational capability.

Successful completion of a simulated diagnostic task, for example, may demonstrate the selection of appropriate actions within the represented conditions. Whether it also supports a claim about practical execution depends on the relationship between those conditions and the occupational task. Physical handling, sensory information, equipment variability, or time constraints may require additional evidence. Direct

observation is therefore proposed where an essential aspect of the assessed capability remains insufficiently represented.

This interpretation connects with the earlier MyDigCompTVET AR and VR elaborations. The AR paper identifies assessment with planned reduction of assistance, while the VR paper addresses assessment and skill transfer (Hani, Ismail, Samad, et al., 2026; Hani, Ismail, Fajarianto, Romli, Samad, & Yazed, 2026). The present paper brings these concerns into a broader account of how educators judge the evidential value of technology-supported performance.

Additional evidence should address a specific uncertainty. Questioning may clarify reasoning; a further demonstration may reveal physical execution; and another task may help establish consistency under changed conditions. Multiple evidence sources are useful when they resolve meaningful gaps. Their number alone does not establish the strength of an assessment decision.

An illustrative automotive diagnostics assessment shows how targeted corroboration could operate. A learner submits a video in which a vehicle fault is apparently resolved, but the recording begins after the initial tests and does not show whether diagnostic prompts were provided. The educator cannot yet determine whether the learner selected and interpreted the tests independently or followed another person's instructions. The uncertainty concerns the diagnostic process and learner contribution, rather than the appearance of the completed repair.

To address that uncertainty, the educator asks the learner to explain the test sequence and the reasons for rejecting an alternative diagnosis, then observes a short demonstration involving a different but comparable fault under specified conditions. The questioning examines reasoning, while observation provides evidence of test execution and the level of assistance required. The educator compares the combined evidence with the relevant criteria and records a judgement limited to the diagnostic capability and conditions demonstrated; unresolved criteria require further evidence. This scenario illustrates the proposed reasoning process and is not an empirical case or evidence that these procedures necessarily establish competence across all vehicle systems.

Professional judgement also needs to be open to review. Recording the criteria applied, evidence considered, and reasons for the decision provides a basis for moderation. These practices are proposed implications of the conceptual account rather than demonstrated outcomes of the present paper.

4.4 Feedback Should Connect Assessment with Subsequent Performance

Digital assessment competence includes using assessment information to support subsequent learning. Tai et al. (2018) position evaluative judgement as learners' capability to judge the quality of their own work and that of others. Carless and Boud (2018) similarly emphasise learners' capacities to understand feedback and act upon it. These perspectives support a connection between assessment decisions, learners' understanding of quality, and opportunities for improvement.

Within the present elaboration, feedback should identify a relevant performance issue and connect it with an opportunity for action. A timestamped comment on a recorded procedure could draw attention to a missed checking stage. Its educational value would depend on whether the learner understands the issue and can address it in subsequent practice. Delivering a digital comment does not, by itself, demonstrate improvement.

Educators also need to distinguish the supports available during learning from those permitted during an assessment of independent capability. Prompts and automated feedback may be valuable during practice. Their continued availability during assessment changes the interpretation of the resulting evidence where the intended claim concerns unaided performance.

This distinction should remain sensitive to occupational practice. Competent workers frequently use documentation, digital tools, and colleagues' expertise. Assessment conditions should therefore reflect the intended capability and the justified use of resources within that practice. These decisions also determine how

feedback-supported practice can lead to a later demonstration that makes the learner's progress visible under the intended assessment conditions.

4.5 Contribution to MyDigCompTVET

The proposed contribution is an assessment-focused elaboration of MyDigCompTVET. The framework development paper provides its broader empirical foundation, while the conceptual paper explains the relevance of occupational authenticity, safety, and institutional readiness (Hani, Ismail, Aulia, et al., 2026; Hani, Ismail, Fajarianto, Romli, & Samad, 2026). The present paper specifies responsibilities involved in designing assessment, interpreting digital evidence, and justifying occupational competence claims.

Although located initially within Digital Assessment and Feedback, these responsibilities draw across the framework. Digital Knowledge supports understanding evidence and its limitations. Digital Skills support task design, collection, analysis, and feedback. Professional Development and Lifelong Learning support continuing review of assessment practice. Digital Ethics and Readiness inform decisions about attribution, privacy, fairness, and assistance. Technology Integration in TVET concerns the suitability of assessment environments for the capabilities being assessed.

These connections constitute a proposed conceptual mapping. They do not establish new domains or demonstrate additional statistical relationships within MyDigCompTVET. Table 2 summarises how the three central concerns contribute to the elaboration.

Table 2. Conceptual contribution of the proposed digital assessment elaboration

Central concern	Question guiding educator judgement	Proposed contribution
Authentic evidence	Is the evidence relevant, attributable to the learner, and interpretable under known conditions?	Clarifies the credibility of digitally represented performance
Professional judgement	Does the available evidence support the decision, or is further evidence required?	Makes interpretation, corroboration, and justification explicit
Occupational performance	What capability, under which conditions, can reasonably be claimed?	Defines the scope and limits of the assessment inference
Relationship among the concerns	How do evidence characteristics and educator decisions support a defensible claim?	Connects digital assessment with occupational expectations

Note. Author-developed conceptual synthesis. The concerns and relationships require empirical examination.

4.6 Integrating Feedback, Learner Action, and Moderation

Taken together, the discussion positions feedback literacy, evaluative judgement, and learner action as connected parts of digital assessment. Feedback literacy enables learners to interpret assessment information and identify a feasible response, while evaluative judgement helps them compare their work with relevant standards (Carless & Boud, 2018; Tai et al., 2018). Learner action becomes visible through revision, an explanation of changed decisions, or a further practical demonstration. Educators then examine that subsequent performance rather than assuming that feedback receipt or learner agreement establishes improvement.

For Malaysian TVET, the primary implication is that educator professional development should bring evidence interpretation, feedback design, and justification of assessment decisions into the same learning activity. Curriculum moderation should examine whether the task, rubric, permitted assistance, and opportunities for further demonstration remain aligned with curriculum outcomes and occupational criteria. Moderation of sampled judgements can then reveal where assessors interpret evidence differently or where assessment design obscures the intended capability. The following implications translate this proposed connection between individual judgement and institutional support into assessment planning, educator development, and moderation practice.

5. IMPLICATIONS FOR TVET PRACTICE AND EDUCATOR DEVELOPMENT

5.1 Assessment Design and Evidence Collection

The proposed elaboration suggests that assessment planning should begin with the capability to be established. Educators would identify the occupational task, relevant criteria, and performance conditions before selecting digital collection methods. This sequence helps clarify whether the assessment requires evidence of knowledge, practical execution, reasoning, product quality, or a combination of outcomes.

Evidence collection should then make the necessary aspects of performance visible. A final digital product may be sufficient for some criteria, while other criteria may require process records, questioning, or observation. Educators should specify permitted assistance and explain how its use affects the assessment decision.

This approach is compatible with the process-oriented and dialogical assessment approaches identified by Crompton and Burke (2026). Its application to TVET nevertheless requires attention to discipline-specific tasks and practical conditions. For instance, an oral explanation may clarify diagnostic reasoning while leaving uncertainty about physical execution. The selected method should address the particular evidence required.

Table 3 translates these implications into proposed practices. The final column concerns evidence of the educator's assessment practice rather than evidence of learner competence.

Table 3. Proposed practices for digital assessment within MyDigCompTVET

Assessment responsibility	Proposed educator practice	Possible record of practice
Occupational alignment	Link the task and criteria to the capability being assessed	Brief specifying outcomes, criteria, and conditions
Evidence credibility	Examine learner contribution and production conditions	Attribution procedure and permitted assistance
Evidence sufficiency	Identify uncertainty and obtain relevant additional evidence	Rationale for questioning or further observation
Assessment decision	Explain how evidence supports the judgement	Record connecting evidence with criteria
Feedback and improvement	Enable interpretation of and action on feedback	Feedback linked to revision or subsequent demonstration
Accessibility	Address barriers introduced by the collection method	Alternative arrangements preserving the intended capability
Moderation	Review curriculum alignment and compare evidence interpretations with other assessors	Alignment checks, calibration notes, and reasons for agreed decisions
Evidence management	Apply arrangements for access, retention, and review	Institutional evidence-handling procedure

Note. Proposed practices for development and investigation; these are not validated competency indicators.

5.2 Educator Professional Development

Professional development could use assessment cases that require educators to examine evidence and justify decisions. Participants might receive the same completed product accompanied by different records of assistance, process quality, and learner explanation. Comparing their judgements would make assumptions about the evidence available for discussion.

Such activities could develop three connected capabilities: recognising what evidence reveals, identifying what remains uncertain, and selecting a proportionate response. Educators would practise explaining why a further observation is necessary in one case and unnecessary in another.

Feedback design should also form part of this development. Educators could examine how comments, exemplars, self-assessment, and opportunities for revision help learners recognise occupational expectations (Tai et al., 2018; Carless & Boud, 2018). A development activity could ask educators to interpret an incomplete video, design feedback that the learner can act upon, specify a subsequent demonstration, and justify the eventual decision using the additional evidence. This connects feedback literacy and evaluative judgement with observable learner action rather than treating feedback delivery as the endpoint of assessment.

The proposed capabilities may inform future professional development modules associated with MyDigCompTVET. However, assigning them to the framework's proficiency levels would require a separate development and validation process.

5.3 Institutional Support and Moderation

Institutional arrangements influence whether educators can implement credible digital assessment. Relevant support includes appropriate equipment, accessible platforms, time for reviewing evidence, shared assessment expectations, and opportunities for moderation. Building on the institutional implementation perspective of Mohamad et al. (2026), the Context, Input, Process, and Product (CIPP) framework offers a way to organise these supports. Its use here is a proposed application to digital assessment, rather than a validated extension of the earlier NDT certification model.

In this application, Context concerns the curriculum outcomes, occupational expectations, learner needs, and risks that define the purpose of assessment. Input concerns assessor preparation, equipment, accessible platforms, shared rubrics, and time for evidence review. Process concerns evidence collection, disclosure of assistance, assessor calibration, moderation, and procedures for reviewing contested decisions. Product concerns review of assessment outcomes and the quality of the decisions supported, including unresolved evidence gaps and indications that tasks or criteria need revision. Reviewing these dimensions together could help institutions distinguish an educator development need from a weakness in assessment resources, design, or policy.

Curriculum moderation would examine the alignment of learning outcomes, occupational criteria, tasks, rubrics, permitted assistance, and required evidence before assessment. Assessment moderation would then review sampled submissions and the reasons given for decisions, including cases requiring additional evidence. For the automotive scenario in Section 4.3, an agreed protocol could identify which diagnostic stages need to be visible, when questioning or observation is appropriate, and how the assessor records any remaining uncertainty. Such arrangements support shared interpretation while preserving responsibility for the judgement in the individual case.

Systemic policies should establish responsibilities for resolving assessor disagreement, reviewing borderline decisions, and communicating any requirement for further evidence to learners. Calibration using representative submissions could help assessors discuss differences before final decisions are made. The purpose is to make professional reasoning reviewable and supported, while allowing justified variation across occupational disciplines. Individual digital competence is exercised within this system; it cannot compensate indefinitely for unclear criteria, unavailable equipment, or the absence of a moderation route.

Institutions also need clear arrangements for digitally recorded performance, particularly where recordings include identifiable individuals or workplace information. Procedures should establish who can access evidence, how it is retained, and how it can be reviewed when an assessment decision is questioned.

Accessibility requires similar attention. Device quality, connectivity, and recording conditions can influence how effectively learners communicate their performance. Alternative arrangements should preserve the capability being assessed while addressing unnecessary barriers introduced by the collection method. The appropriate arrangement will depend on whether digital production skills are themselves part of the intended outcome.

6. LIMITATIONS AND FUTURE RESEARCH

6.1 Limitations of the Conceptual Elaboration

This paper develops a conceptual interpretation informed by selected scholarship and the existing MyDigCompTVET research programme. It does not report a systematic review or new empirical validation of the proposed assessment responsibilities. The literature supports the reasoning presented, but it cannot establish the effectiveness or completeness of the resulting elaboration.

Several foundational sources concern higher education broadly. Their application to TVET has therefore involved contextual interpretation. Evidence appropriate for software development, equipment maintenance, and other occupational disciplines may differ substantially. The roles of assistance, physical observation, and repeated performance cannot be specified uniformly across these settings.

Earlier MyDigCompTVET publications also provide various forms of support. Framework development, user acceptability research, and conceptual AR or VR elaborations do not collectively validate the specific practices proposed in this paper. The present contribution should therefore remain distinguishable from the empirical evidence supporting the broader framework.

Furthermore, the paper does not determine the additional workload, costs, or accessibility consequences of implementing its proposals. Obtaining more evidence may strengthen a particular decision while increasing demands on educators and learners. These practical consequences require investigation alongside assessment quality.

6.2 Priorities for Future Research

An initial research priority is to examine the clarity, relevance, and completeness of the proposed responsibilities through review by TVET educators, assessment specialists, and industry practitioners. Such work could identify discipline-specific requirements and refine observable practices before developing an instrument or training module.

A second priority is to investigate assessor decision-making. Case-based studies could examine how educators interpret digital products, recordings, process records, and learner explanations. Researchers could explore which uncertainties lead assessors to request further evidence and whether moderation changes the consistency or justification of their decisions.

Where feasible, studies could compare judgements based on digital evidence with subsequent performance under specified practical conditions. Such comparisons should carefully define the capability and context. Agreement between assessment methods would provide relevant evidence, but neither method should automatically be treated as an unquestionable representation of occupational competence.

Intervention studies could subsequently examine professional development activities based on the proposed elaboration. Outcomes might include the quality of assessment rationales, alignment between evidence and criteria, assessor agreement, and learners' use of feedback. Educator workload, learner accessibility, and evidence-management demands should be examined alongside these outcomes.

Finally, research should investigate assessment conditions in which AI, reference materials, or collaborative support are legitimate features of occupational practice. This would help distinguish capability demonstrated through appropriate resource use from performance that depends on assistance inconsistent with the intended claim of assessment.

7. CONCLUSION

This paper elaborates the Digital Assessment and Feedback element within MyDigCompTVET through the relationship among authentic evidence, professional judgement, and occupational performance. It proposes that

educators should design occupationally aligned tasks, examine learner contribution and performance conditions, and judge whether the available evidence supports the intended competence claim. The distinction between occupational authenticity and evidence authenticity explains why a workplace-like digital submission may still require targeted corroboration. The automotive diagnostics scenario illustrates how questioning and a comparable observed task can address specific uncertainties while keeping the resulting judgement within the scope of the evidence.

Feedback connects this judgement with further learning when learners can interpret it, evaluate their work against relevant criteria, and act through revision or subsequent demonstration. The educator then examines the resulting performance to determine what improvement is supported. For Malaysian TVET educator professional development, the implication is to integrate evidence interpretation, feedback design, assessment dialogue, and reasoned decisions within practical development activities. These activities should help educators explain both what an assessment establishes and what remains uncertain.

Curriculum moderation and institutional support provide the conditions in which these capabilities can be exercised consistently and reviewed. Shared alignment checks, appropriate resources, assessor calibration, evidence-handling policies, and routes for reviewing contested decisions connect individual competence with institutional responsibility. The proposed CIPP application organises these conditions through assessment purposes, inputs, processes, and outcome review. This contribution remains a conceptual elaboration of MyDigCompTVET: its proposed responsibilities and practices require empirical examination across occupational disciplines before they can be treated as validated indicators or evidence of improved assessment outcomes.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest regarding the publication of this paper.

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