Competency-Based Learning for Future-Ready Governance: Functional and Behavioural Skills in Sarawak Local Councils

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Abstract

The purpose of this study is to examine workforce competencies within Sarawak's local councils and to explore how competency assessment can serve as an educational tool for Human Resource Development (HRD). Guided by Human Capital Theory, Strategic HRD, and Adult Learning principles, a mixed-methods design was employed combining survey data from 208 officers with four focus-group discussions and twelve semi-structured interviews.

The principal results revealed a clear competency duality: behavioural competencies such as teamwork, cultural sensitivity, and communication scored higher (mean = 77.1%) than functional competencies (mean = 65.8%), where gaps were most pronounced in digital governance, crisis management, sustainability, and innovation. Qualitative findings elaborated on this disparity, identifying three recurring themes uneven digital and strategic proficiency, systemic barriers to continuous learning, and cautious optimism regarding future readiness and adaptability.

The study concludes that integrating competency-based learning (CBL) within HRD frameworks is vital to cultivating a digitally literate, ethical, and future-ready workforce. Embedding CBL into HRD policy aligned with Malaysia's *Twelfth Plan (2021–2025)*, *Sarawak's PCDS 2030*, and OECD's *Future-Ready Workforce* recommendations can transform local councils into learning organisations capable of sustaining innovation and effective governance.

Keywords: adult and lifelong learning, competency-based learning, governance education, human resource development, workforce readiness

1. Introduction

Local governments are pivotal in delivering high-impact public services and advancing the Sustainable Development Goals (SDGs). As the interface between state institutions and citizens, their effectiveness determines both urban and rural progress (Government of Malaysia, 2021). In Malaysia, particularly Sarawak, local councils oversee infrastructure, community welfare, environmental management, and regulatory enforcement. To meet the challenges of rapid urbanisation and digital transformation, councils must cultivate a workforce grounded in continuous learning.

Competency-based learning provides a dual focus on:

- Functional expertise – technical capacities such as strategic planning, crisis management, financial management, and sustainability.

- Behavioural capabilities – adaptability, collaboration, leadership, ethical judgement, innovation, and digital literacy (Boyatzis, 2008; OECD, 2023).

This study aligns with Human Capital Theory (Becker, 1993), Strategic HRD (Swanson & Holton, 2001), and Adult

Learning Theory (Kolb, 1984; Knowles et al., 2015), positioning workforce competencies as investments in organisational learning and development.

Despite supportive national policies, few empirical studies have assessed both functional and behavioural competencies within Malaysian local government systems. This research addresses that gap using a mixed-methods design contextualised to Sarawak's governance ecosystem, contributing to the HRD literature by positioning competency assessment as an educational framework for developing learning-oriented councils.

2. Literature Review

2.1 Competency in Public Sector Governance

Competency frameworks clarify the mix of knowledge, skills, and attitudes required for effective governance. They also act as *curricula* that link learning needs to training strategies, allowing councils to embed lifelong learning into institutional practice (IAEA, n.d.; OECD, 2023).

2.2 Functional and Behavioural Competencies

Functional competencies include technical capacities such as financial management and infrastructure planning (Choi et al., 2025). Behavioural competencies—leadership, teamwork, adaptability, and ethics—develop through experiential and relational learning (Boyatzis, 2008; Kolb, 1984). Integrating both dimensions ensures councils can sustain governance quality and innovation (Rahman & Ali, 2021).

2.3 Methodological and Contextual Considerations

Developing competency frameworks demands both rigour and contextual sensitivity. Kakemam et al. (2023) propose a four-step model (scoping, knowledge capture, framework design, and application), mirroring curriculum design in education. In Sarawak, initiatives such as the PSC Strategic Plan 2023–2025 and PCDS 2030 have embedded learning-oriented governance strategies, reflecting the growing recognition of local government as a lifelong learning environment (BERNAMA, 2025; Sarawak Skills, 2025).

2.4 Theoretical Synthesis

Competency assessment serves as both an evaluative and educational tool across three theoretical perspectives:

- Human Capital Theory (Becker, 1993): Competencies are investments that enhance productivity.
- Strategic HRD (Swanson & Holton, 2001): Competency frameworks align training with institutional strategy.
- Adult Learning (Kolb, 1984; Knowles et al., 2015): Reflection and experience reinforce adaptive, lifelong learning.

3. Method

3.1 Research Design

This study employed a mixed-methods research design to capture both the breadth and depth of competency assessment in Sarawak local councils. A convergent parallel design (Creswell & Plano Clark, 2018) was adopted, where quantitative and qualitative data were collected concurrently, analyzed separately, and then integrated to provide comprehensive insights. The quantitative strand focused on measuring competency levels across functional and behavioral domains, while the qualitative strand explored contextual factors influencing competency gaps and readiness.

3.2 Population and Sampling

The population comprised officers serving in local councils across Sarawak, including urban and rural councils. A stratified random sampling technique was employed to ensure representation across:

- Council categories (city, municipal, district, and rural district councils),
- Officer grades (41 to 54), and
- Departments (administration, engineering, health, and finance).

A total of 240 officers participated in the study: 208 completed survey questionnaires (quantitative phase), and 32 took part in focus group discussions and semi-structured interviews (qualitative phase). The sample size exceeded the minimum requirement calculated using Krejcie and Morgan's (1970) formula for populations over 1,000, ensuring

adequate statistical power.

3.3 Research Instrument

Table 1. Competency Domains Assessed in Sarawak Councils

Category	Competency Domains	Description / Example
Functional Competencies	Customer Focus	Ability to deliver services that meet or exceed citizen expectations, emphasizing responsiveness and service quality.
	Organizational Understanding	Knowledge of council structures, policies, and procedures to ensure alignment of tasks with institutional goals.
	Stakeholder Management	Capacity to build and maintain effective relationships with internal and external stakeholders.
	Change Management	Skills in guiding, managing, and adapting to organizational change processes.
	Coaching and Mentoring	Ability to guide, support, and develop junior officers and colleagues.
	Strategic and Performance Management & Enhancement	Competence in setting goals, monitoring performance, and improving organizational outcomes.
	Knowledge Management and Sharing	Ability to capture, organize, and disseminate institutional knowledge across teams.
	Crisis Management	Skills to respond effectively to emergencies and unexpected events.
	Disaster Management	Capacity to plan, prepare, and coordinate responses to natural or man-made disasters.
	Human Resource Management & Development	Competence in managing, motivating, and developing the workforce.
	State and Sustainability Agenda	Alignment of operations with Sarawak's sustainable development and policy agendas.
Behavioral Competencies	Cultural Sensitivity	Awareness and respect for diverse cultural backgrounds within councils and communities.
	Communication at the Workplace	Clarity, effectiveness, and professionalism in oral and written communication.
	Creativity and Innovation	Capacity to generate new ideas and apply innovative solutions in governance.
	Adaptability	Ability to adjust effectively to new challenges, technologies, and work contexts.
	Leadership	Skills to inspire, guide, and influence others towards shared goals.
	Problem Solving & Decision Making	Analytical ability to identify issues, evaluate options, and make sound decisions.
	Social Competency	Building collaborative relationships and fostering teamwork.
	Emotional Competency	Self-awareness, empathy, and emotional regulation in professional settings.
	Integrity	Upholding ethical standards, honesty, and accountability in service delivery.

The survey instrument was adapted from international competency frameworks such as the OECD Public Employment and Management Framework (OECD, 2020; OECD, 2023), the IAEA Competency Framework (IAEA, n.d.), and contextualized through preliminary consultations with Sarawak Public Service officials to ensure local relevance.

The instrument was structured into three sections:

- Section A: Demographic Profile – This section collected background information on respondents, including age, gender, grade (41–54), department, and council type (city, municipal, district, rural district).

- Section B: Functional Competencies – This section measured the technical and role-specific capacities of officers. Based on the Sarawak councils' competency framework, eleven functional competency domains were assessed.

- Section C: Behavioral Competencies – This section examined interpersonal and values-driven skills essential for effective governance. Nine behavioral competency domains.

All items were measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), allowing respondents to self-assess competency levels. The questionnaire underwent expert validation by academic specialists and senior Sarawak Public Service officials, followed by pilot testing with 30 council officers. Reliability analysis demonstrated strong internal consistency (Cronbach's $\alpha = 0.89$ for functional competencies; $\alpha = 0.91$ for behavioral competencies), confirming the robustness of the instrument.

3.4 Data Collection Procedures

Data collection was conducted in two sequential phases to ensure both quantitative and qualitative insights were captured:

3.4.1 Quantitative Phase (Survey Administration)

- The validated questionnaire was distributed to officers across 10 selected local councils in Sarawak, covering urban (city, municipal) and rural (district, rural district) councils.

- Surveys were administered using a hybrid approach: hardcopy forms were distributed through council HR divisions, while electronic versions (via Google Forms) were circulated for officers with access to digital platforms.

- Respondents were given two weeks to complete the survey, with reminders issued at weekly intervals to improve response rates.

- Participation was voluntary, and informed consent was obtained. Officers were assured of confidentiality and anonymity, with responses coded by ID numbers only.

3.4.2 Qualitative Phase (Focus Groups and Interviews)

- To complement survey findings, four focus group discussions (FGDs) and 12 semi-structured interviews were conducted with senior officers and council executives.

- FGDs consisted of 6–8 participants each, representing diverse divisions (administration, engineering, public health, and finance).

- The discussions explored officers' perspectives on competency gaps, barriers to skill development, and perceptions of readiness for future governance challenges.

- Interviews with senior management provided additional strategic insights into competency application at leadership levels.

- All sessions were audio-recorded with permission, transcribed verbatim, and anonymized for analysis.

3.4.3 Ethical and Administrative Approvals

- Ethical clearance was secured from the Universiti Malaysia Sarawak (UNIMAS) Human Research Ethics Committee.

- Formal approval to conduct the study within councils was obtained from the Sarawak Ministry of Public Health, Housing and Local Government (MPHLG).

- Officers were provided with information sheets detailing study objectives, procedures, and their right to withdraw at any time without penalty.

This structured procedure ensured the collection of reliable, valid, and ethically sound data while maximizing participation across a diverse sample of Sarawak council officers.

4. Results

4.1 Functional Competencies

Analysis of the survey data (N = 208) revealed varied proficiency levels across the 11 functional competency domains. The overall mean score for functional competencies was 65.8%, reflecting moderate proficiency with clear areas requiring improvement.

- The highest-performing domains were:
    - *Organizational Understanding* (M = 78.7)
    - *Stakeholder Management* (M = 69.8)
    - *Customer Focus* (M = 68.3)
- The lowest-performing domains were:
    - *Disaster Management* (M = 53.4)
    - *Crisis Management* (M = 56.6)
    - *State and Sustainability Agenda* (M = 56.8)

These findings indicate that while officers have strong knowledge of organizational structures and stakeholder relations, their competencies in resilience, crisis response, and sustainability remain limited.

4.2 Behavioral Competencies

The average score for behavioral competencies was higher at 77.1%, suggesting that council officers generally demonstrate stronger values-based and interpersonal skills compared to functional skills.

- The highest-performing domains were:
    - *Cultural Sensitivity* (M = 83.8)
    - *Social Competency* (M = 81.1)
    - *Communication at the Workplace* (M = 80.9)
- The lowest-performing domains were:
    - *Creativity and Innovation* (M = 67.2)
    - *Integrity* (M = 68.7)
    - *Leadership* (M = 73.0)

This suggests that while officers excel in communication, teamwork, and respect for cultural diversity, there are weaknesses in leadership, ethical resilience, and innovation capacity.

4.3 Qualitative Findings

Table 2. Summary of Themes and Subthemes from FGDs and Interviews

Theme	Subthemes	Key Insights
1. Competency Gaps in Digital and Strategic Domains	a. Limited digital governance literacy b. Uneven technical proficiency across divisions c. Insufficient data-drivendecision-making	Officers demonstrate strong bel competencies but lack advanced dig analytical skills essential for governance.
2. Barriers to Continuous Skill Development	a. Ad-hoc and fragmented training programmes b. Budget and resource constraints c. Weak leadership advocacy for learning	Structural barriers and limited leadership commitment hinder sustained professional growth and HRD alignment.
3. Readiness for Future Governance Challenges	a. Adaptive organisational culture b. Need for strategic leadership pipeline c. Focus on ethical and sustainable governance	Despite constraints, councils exhibit adaptability and collaborative capacity that can underpin future-ready transformation.

The qualitative component of this study comprised four focus-group discussions (FGDs) and twelve semi-structured interviews involving senior officers and council executives across Sarawak's local councils. Each FGD included six to eight participants representing divisions such as administration, engineering, public health, and finance. Thematic analysis of verbatim transcripts yielded three overarching themes: (1) Competency Gaps in Digital and Strategic Domains, (2) Barriers to Continuous Skill Development, and (3) Readiness for Future Governance Challenges. These qualitative insights complemented and extended the quantitative findings.

Theme 1: Competency Gaps in Digital and Strategic Domains

Participants consistently reported uneven competency distribution across departments. While interpersonal and behavioural competencies such as teamwork, communication, and public engagement were identified as organisational strengths, significant weaknesses persisted in digital governance, data management, and strategic foresight.

"We can manage people and projects well, but when it comes to digital systems or data-driven planning, many officers are still learning by trial and error." *(Participant FGD2, Administration Division)*

Senior executives observed that the rapid pace of digitalisation had surpassed the councils' existing training systems, leaving many officers unprepared to apply new technologies effectively—especially in smaller councils with limited ICT infrastructure.

"The challenge is not just using digital tools—it's about understanding how data informs policy. Many officers still treat digitalisation as a technical issue, not a strategic one." *(Interviewee 4, Senior Director).*

Theme 2: Barriers to Continuous Skill Development

Across FGDs, participants emphasised multiple systemic barriers to professional learning, including infrequent training, constrained budgets, and minimal cross-departmental collaboration. A recurrent concern was the absence of a structured competency framework linking learning to career progression.

"Most training is ad hoc. We attend short workshops, but there's no structured plan that links the training to our competency development or promotion." *(Participant FGD3, Public Health Division).*

A further obstacle identified was the lack of leadership advocacy for lifelong learning. Officers perceived that managerial priorities focused on routine compliance and operational outputs, with limited attention to long-term skill development.

"Continuous learning requires support from the top. Without leadership commitment, officers see training as optional, not essential." *(Interviewee 7, Council Secretary).*

Theme 3: Readiness for Future Governance Challenges

Despite the competency and structural gaps identified, participants expressed cautious optimism about the councils' capacity to adapt to emerging governance demands, including sustainability initiatives and digital transformation. Officers cited cultural sensitivity, collaboration, and resilience as internal strengths supporting future readiness.

"We've always managed to adapt, even with limited resources. What we need now is a clearer direction and systematic guidance to prepare for future challenges." *(Participant FGD1, Engineering Division).*

Senior management respondents underscored the urgency of establishing strategic leadership pipelines and embedding competency-based succession planning to sustain reform momentum.

"Future governance will demand officers who can think systemically, anticipate risks, and lead with integrity in a digital environment." *(Interviewee 11, Deputy Council Director).*

The qualitative findings reinforce the survey results, illustrating a persistent competency duality: officers exhibit strong behavioural attributes but lag in functional areas critical to digital and strategic governance. Institutional barriers limited resources, fragmented learning systems, and inconsistent leadership support continue to impede competency enhancement. Nevertheless, the councils' adaptive culture, community orientation, and willingness to innovate form a solid foundation for the integration of competency-based learning as a pathway toward future-ready, ethical, and resilient local governance.

5. Discussion

The integration of quantitative and qualitative findings reveals a clear duality in the competency landscape of Sarawak's local councils. While behavioural competencies—notably teamwork, communication, and cultural

sensitivity—are consistently well-developed, functional competencies such as digital governance, data analytics, and strategic foresight remain under-emphasised. This dual pattern underscores the continuing tension between *people-centred* and *technology-centred* capacities within local governance.

5.1 Interpreting the Competency Duality

The quantitative results indicated that behavioural competencies (mean = 77.1%) exceeded functional competencies (mean = 65.8%), a finding echoed throughout the focus group and interview data. This pattern suggests that local councils have successfully cultivated interpersonal and relational skills aligned with Boyatzis' (2008) model of behavioural effectiveness, yet lag behind in technical mastery required for digital-era governance.

The qualitative evidence deepened this understanding by showing that officers' digital proficiency gaps were not simply skill deficits, but *structural limitations*—including fragmented training, uneven ICT access, and minimal strategic alignment. Such findings reinforce Strategic Human Resource Development (SHRD) theory, which posits that organisational learning must be systematically linked to long-term strategic goals (Garavan, 2007). In the absence of this linkage, individual learning remains episodic rather than transformative.

5.2 Barriers to Competency Development

Across both datasets, barriers to professional growth emerged as a critical concern. Officers described a training ecosystem characterised by irregular programmes, limited budgets, and insufficient top-down advocacy for lifelong learning. This finding resonates with OECD (2023) recommendations on public sector capability development, which emphasise leadership commitment as a precondition for skill sustainability.

The absence of a competency-based HRD framework within local councils has also constrained structured learning pathways. Without formal mechanisms for assessing, recognising, and rewarding competency acquisition, staff development becomes reactive and fragmented. This supports Adult Learning Theory (Knowles et al., 2015), which stresses the importance of purposeful, experience-based learning supported by institutional recognition.

5.3 Readiness for Future Governance

Despite evident gaps, the qualitative narratives portrayed an encouraging picture of adaptive potential among officers. Participants emphasised resilience, cultural awareness, and collaborative spirit as organisational strengths that can be leveraged to accelerate digital transformation. This aligns with the concept of Learning Organisations (Senge, 1990), where adaptability and shared vision form the foundation of systemic change.

Senior officers also underscored the need for strategic leadership pipelines and competency-based succession planning, echoing global shifts toward evidence-based talent management (OECD, 2024; WEF, 2023). Such measures are essential to future-proof local governance against technological disruption and demographic change.

5.4 Integrating Quantitative and Qualitative Insights

Taken together, the two phases of the study confirm that the councils' strength lies in *behavioural capital*—interpersonal, ethical, and community-oriented competencies—while their weakness lies in *technical agility*. The qualitative findings contextualise this disparity, showing that it is rooted not in unwillingness to learn but in the absence of systemic HRD alignment. Thus, enhancing functional competencies requires structural reform rather than isolated training interventions.

The integration of digital technologies into competency-based learning emerges as both a strategic imperative and a transformative pathway for sustainable governance. When HRD is digitally enabled, competency frameworks can evolve from static reference tools into dynamic systems that track, assess, and reinforce learning outcomes in real time.

5.5 Implications for Practice and Policy

For policy-makers and administrators, these findings underscore the necessity of embedding digital HRD frameworks that combine functional, behavioural, and ethical dimensions. Specifically:

- Institutionalise Competency Frameworks – Develop council-wide frameworks aligned with Sarawak's *Post-COVID Development Strategy 2030 (PCDS 2030)* to standardise assessment and progression.

- Prioritise Leadership Advocacy – Mandate leadership involvement in digital transformation and HRD planning to sustain learning cultures.

- Strengthen Cross-Departmental Learning – Facilitate inter-divisional collaboration and peer mentoring to foster experiential learning.

- Integrate Digital Literacy – Embed data-driven decision-making and digital tools into all tiers of training and appraisal.

Collectively, these measures will reposition HRD not as a peripheral activity but as the core engine of institutional adaptability, ethical integrity, and public value creation.

6. Implications for Education and HRD

6.1 Educational Practice

Integrating competency-based learning (CBL) into local council officer training has significant implications for cultivating both technical proficiency and ethical professionalism. The study's findings suggest that while interpersonal and behavioural competencies are relatively well developed, functional competencies—particularly in leadership, crisis management, sustainability, and digital literacy—require more intentional and structured learning interventions.

A competency-based educational model offers a transformative pathway by aligning training outcomes with clearly defined learning standards derived from the council's operational and strategic priorities. This ensures that training is not merely attendance-based but performance-driven, with measurable indicators linked to real workplace applications. Such an approach bridges the traditional gap between theory and practice, enabling officers to internalise professional standards while responding adaptively to evolving governance challenges.

Application to Officer Training:

- Scenario-based Simulations: Embedding realistic case simulations reflecting local governance challenges—such as flood response coordination, infrastructure planning, or community engagement—enables officers to practise decision-making, communication, and ethical reasoning in risk-free environments. These simulations operationalise abstract competencies into practical action.

- Mentorship and Peer-Learning Models: Establishing structured mentoring programmes pairs novice officers with experienced practitioners, encouraging reflective practice, leadership modelling, and collaborative problem-solving. This approach mirrors experiential learning principles (Kolb, 1984) and supports the transfer of tacit institutional knowledge.

- Leadership and Digital Readiness Modules: Customised training modules focusing on adaptive leadership, emotional intelligence, and digital transformation can enhance readiness for 21st-century governance. Embedding topics such as data ethics, cybersecurity awareness, and e-governance tools ensures officers remain agile in increasingly technology-mediated environments.

- Continuous Assessment and Feedback: Ongoing formative assessments—peer evaluations, reflective journals, and post-training debriefs—should be integrated to monitor skill application and reinforce learning retention. This iterative process transforms competency assessment into a continuous learning mechanism.

- Ethical and Cultural Competence Development: Since behavioural strengths underpin organisational credibility, ethics-based workshops and intercultural communication modules can cultivate inclusive, transparent, and citizen-centred service orientations.

- Educational Impact

Collectively, these strategies position competency-based learning as a pedagogical framework for lifelong professional growth within the public sector. By embedding structured, experiential, and reflective practices into HRD programmes, local councils can evolve into learning organisations—sustaining innovation, accountability, and service excellence in alignment with national goals such as Malaysia's *Twelfth Plan* and Sarawak's *Post-COVID-19 Development Strategy 2030 (PCDS 2030)*.

6.2 Educational Research

Future studies should adopt longitudinal and comparative approaches to measure the long-term effects of HRD interventions on competency growth.

The study highlights the importance of adopting evidence-based educational research in advancing competency-based learning (CBL) frameworks for local governance. While the current findings provide a descriptive overview of officers' functional and behavioural competencies, further research is required to empirically evaluate how CBL interventions transform workplace performance and institutional learning capacity over time.

Research Directions

- Longitudinal Studies on Competency Growth: Future research should employ longitudinal or quasi-experimental designs to measure the developmental trajectory of competencies before, during, and after structured interventions. Such studies would reveal how sustained exposure to scenario-based training, leadership coaching, and digital literacy programmes influences long-term behavioural and functional growth.

- Mixed-Methods Evaluations of Learning Impact: Building on this study's design, future investigations should expand mixed-methods approaches to include multi-stakeholder perspectives—from supervisors, HRD trainers, and policy directors—to triangulate perceptions of competency outcomes. This would strengthen validity by integrating organisational feedback with self-assessment data.

- Comparative Research Across Regions and Governance Levels: Given that the present study focuses on Sarawak, comparative analyses across other Malaysian states or ASEAN governance systems could uncover contextual variations in competency development. Such comparative research would contribute to regional HRD policy formulation and cross-institutional benchmarking.

- Integration of Technology in Competency Assessment: As public sector digital transformation accelerates, research should explore AI-assisted competency mapping and analytics tools to monitor workforce learning in real time. These systems can provide personalised learning recommendations, enhancing the adaptability of HRD frameworks in dynamic governance environments.

- Linking CBL to Organisational Learning Outcomes: Future research should examine the causal relationship between competency-based learning and organisational innovation, staff retention, and service quality. Quantitative modelling, such as structural equation modelling (SEM), can help identify mediating variables like motivation, leadership support, and digital infrastructure readiness.

By embedding rigorous educational research into HRD policy design, local governments can generate actionable evidence that informs curriculum planning, training investment, and evaluation metrics. This aligns with the principles of applied educational research, which aim to translate theoretical knowledge into measurable professional outcomes. Strengthening this link between research and practice will ensure that competency-based learning is not only pedagogically sound but also strategically aligned with governance excellence and the broader national vision under *PCDS 2030* and *MyDIGITAL Blueprint*.

6.3 Educational Policy

The findings of this study hold significant implications for educational policy and human resource governance, particularly regarding how learning and development are structured, evaluated, and institutionalised within local councils. The results reveal that Sarawak's local government officers demonstrate strong behavioural competencies but uneven functional proficiency. This competency duality underscores the need for systemic policy integration, where learning is embedded within organisational structures rather than treated as an isolated training event. Educational policy should therefore promote the institutionalisation of Competency-Based Learning (CBL) as a foundational component of Human Resource Development (HRD) frameworks. By embedding competency models into recruitment, performance appraisal, promotion, and succession planning, public organisations can transform skill development into an enduring element of governance culture. Periodic competency audits should also be mandated to ensure that learning outcomes remain aligned with evolving service demands and technological advancements.

At the national and state levels, policy alignment is crucial for coherence and impact. Malaysia's *Twelfth Malaysia Plan (2021–2025)* emphasises "Advancing Sustainability and Inclusivity" through human capital development, while Sarawak's *Post-COVID-19 Development Strategy (PCDS) 2030* calls for cultivating a "Competent and Digitally Empowered Workforce." Aligning local HRD policies with these frameworks will ensure that competency development directly contributes to broader transformation goals. Integration with the *MyDIGITAL Blueprint* and the *OECD (2024) Future-Ready Workforce* recommendations will further provide international benchmarks for nurturing ethical, agile, and digitally literate public servants—ensuring that local initiatives are globally competitive and future-oriented.

To achieve long-term sustainability, policy design must also embed lifelong learning mechanisms within the HRD ecosystem. Continuous professional development (CPD) credit systems, micro-credentialing, and modular learning pathways can democratise access to learning by enabling officers to acquire and update competencies progressively and flexibly. The integration of digital learning platforms, learning analytics, and e-portfolios will allow councils to monitor competency progression over time, fostering transparency, accountability, and inclusivity. These measures

transform learning into a continuous process rather than a one-time activity, aligning with the lifelong learning vision outlined in Malaysia's education and digital transformation policies.

Finally, effective educational policy should strengthen leadership and innovation capacity as key enablers of local governance transformation. Establishing leadership academies or partnerships with universities can provide structured curricula focusing on strategic foresight, ethical governance, and sustainable management. Such initiatives cultivate future-ready leaders capable of navigating complexity and driving innovation in the digital era. Equally important are evaluation and feedback mechanisms linking learning outcomes to organisational performance indicators and citizen satisfaction. Evidence derived from competency assessments and training evaluations should inform ongoing policy refinement, ensuring responsiveness to evolving governance challenges. Ultimately, embedding CBL into public-sector education policy represents a paradigm shift—from training as an event to learning as a culture—positioning Malaysia's civil service as a knowledge-driven, ethical, and innovation-oriented force for sustainable development.

7. Limitations and Future Research

Although the present study provides valuable insights into the functional and behavioural competencies of local government officers in Sarawak, several limitations must be acknowledged to contextualise its findings and guide future research.

7.1 Contextual and Geographic Limitation

This study was conducted exclusively among officers from Sarawak's local councils, which operate within a unique socio-administrative and cultural environment. Sarawak's semi-decentralised governance structure, diverse population, and regional policy priorities—such as the *Post-COVID-19 Development Strategy 2030 (PCDS 2030)*—differ from those in Peninsular Malaysia or other ASEAN jurisdictions. Consequently, the findings may not be fully generalisable to other contexts. Future research could expand the sample to include councils from other states or conduct comparative studies across Malaysia and neighbouring regions to identify shared and divergent competency trends.

7.2 Methodological Constraints

The study employed a cross-sectional design, providing a single-point snapshot of competency levels rather than capturing their evolution over time. While this design offers useful baseline insights, it limits the ability to establish causal relationships or track growth trajectories. Subsequent studies could adopt longitudinal or quasi-experimental designs to monitor competency development across different training phases, enabling more robust inferences regarding the long-term effects of competency-based interventions.

7.3 Reliance on Self-Assessment Data

A potential source of bias lies in the self-assessment method used to measure competencies. Participants may have overestimated or underestimated their abilities due to social desirability, institutional loyalty, or lack of self-awareness. Although triangulation through focus groups and semi-structured interviews helped validate perceptions, self-report bias remains an inherent limitation in survey-based research. To enhance objectivity, future research should incorporate multi-source assessments, including supervisor ratings, peer reviews, and objective performance indicators.

7.4 Limited Scope of Qualitative Data

While qualitative insights from focus groups and interviews enriched the analysis, the number of participants was relatively modest compared to the overall workforce. This limits the depth of thematic saturation. Expanding qualitative inquiry to include diverse stakeholders—such as senior administrators, training officers, and community representatives—would yield a more holistic understanding of how competencies are enacted and valued in practice.

7.5 Measurement and Instrumentation Limitations

The competency instrument, although adapted from established frameworks (OECD, IAEA), may not have fully captured the cultural nuances or operational realities of Sarawak's councils. Certain competency items—such as innovation or digital readiness—may vary in interpretation depending on organisational maturity or local context. Future research should refine and validate context-sensitive measurement tools using confirmatory factor analysis (CFA) and measurement invariance testing to ensure psychometric robustness across populations.

7.6 Policy and Organisational Dynamics

The study did not account for the influence of institutional culture, leadership style, or policy stability on competency development. These organisational dynamics often mediate the effectiveness of HRD programmes and learning transfer. Future research could adopt a multilevel design, linking individual competency data with organisational variables such as training budgets, leadership commitment, and policy implementation fidelity.

7.7 Future Research Directions

Building upon these limitations, future studies should:

- Implement longitudinal tracking to examine post-training competency progression and sustainability of learning outcomes.

- Conduct cross-regional comparisons across Malaysian states or within ASEAN to explore cultural and policy-related variations in competency development.

- Integrate technology-enabled assessment tools, such as AI-based learning analytics or e-portfolio systems, to capture real-time evidence of competency growth.

- Explore the interplay between behavioural and functional competencies, examining how emotional intelligence, leadership, and adaptability influence technical proficiency in public sector contexts.

- Assess the impact of competency-based learning policies on organisational innovation, employee engagement, and public trust in governance institutions.

Recognising these limitations does not diminish the study's value; rather, it underscores the complexity of researching public sector learning and competency frameworks. Addressing these constraints through broader, longitudinal, and technology-enhanced studies will advance the theoretical and practical understanding of how competency-based learning can transform governance into a dynamic, evidence-driven, and human-centred enterprise.

8. Conclusion

Sarawak's council officers demonstrate strong behavioural skills but need targeted interventions to enhance functional competencies. Embedding competency-based learning into HRD policy can transform councils into learning organisations that embody resilience, innovation, and ethical governance aligned with global and national frameworks.

This study contributes to the growing body of literature on competency-based learning (CBL) by empirically examining the interplay between functional and behavioural competencies among officers in Sarawak's local councils. The results reveal a distinct competency duality: while officers demonstrate strong interpersonal and behavioural attributes—particularly in teamwork, communication, and cultural sensitivity they exhibit comparatively weaker performance in functional domains such as crisis management, sustainability, leadership, and innovation. This imbalance underscores a persistent gap between relational learning strengths and structured technical development.

From a theoretical perspective, the findings reaffirm the importance of integrating Human Capital Theory, Strategic Human Resource Development (HRD), and Adult Learning Theory to explain how competencies evolve through both experiential and curriculum-driven learning. Behavioural competencies, nurtured through peer interaction and reflective practice, highlight the enduring relevance of Kolb's experiential learning cycle, whereas functional competencies call for deliberate educational design rooted in competency-based curriculum development.

Practically, this research demonstrates that competency assessment should be reframed as an educational tool—not merely a measurement exercise. Embedding assessment within learning design enables councils to identify workforce gaps and translate them into targeted interventions such as scenario-based simulations, mentoring programmes, and digital leadership modules. This transformative approach promotes a culture of continuous learning, ethical governance, and future-readiness within local authorities.

Policy-wise, the study emphasises the urgent need to institutionalise competency-based learning frameworks within Malaysia's public sector HRD policies. Aligning local training systems with national and international frameworks—such as the *Twelfth Malaysia Plan (2021–2025)*, *Sarawak's Post-COVID-19 Development Strategy (PCDS 2030)*, and the *OECD 2024 Future-Ready Workforce Report*—ensures a coherent, evidence-based approach to workforce development. Embedding lifelong learning, digital literacy, and ethical professionalism into local

governance education will help position Malaysia as a regional model for sustainable public sector transformation.

While the study is limited by its geographical focus and reliance on self-assessment data, its mixed-methods design and triangulated approach lend credibility to its insights. Future research should build upon this foundation through longitudinal, comparative, and technology-enhanced studies that explore how competency-based learning influences organisational innovation, employee motivation, and governance effectiveness.

In conclusion, competency-based learning represents not only an instructional paradigm but also a strategic governance reform instrument. By integrating functional and behavioural competencies into educational and policy design, local councils can evolve into learning organisations—capable of leading Malaysia's transformation toward an agile, inclusive, and future-ready public service.

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