

Lifelong Learning In Sarawak: Creating Equal Opportunities For Future Ready Workforce  
(Pembelajaran Sepanjang Hayat Di Sarawak: Mewujudkan Peluang Sama Rata Untuk Tenaga Kerja Bersedia Masa Depan)

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ABSTRACT

In a rapidly evolving digital age, lifelong learning has become essential for workforce adaptability and long-term employability. However, in many sub-national regions, gaps remain between policy intentions and actual outcomes experienced by workers. This study examines lifelong learning in Sarawak, Malaysia, by conceptualising it as a policy to community bridge rather than a collection of isolated initiatives. A qualitative document analysis was conducted using key policy documents, including the Post COVID-19 Development Strategy 2030 (PCDS 2030), supported by institutional reports and public data sources. The analysis traces how lifelong learning policies are translated across four interconnected levels, state policy, institutional actors, community delivery platforms, and individual learners. The findings reveal that while Sarawak has established a strong policy framework and achieved high levels of digital infrastructure coverage, significant weaknesses persist at the institutional level. In particular, only 1.76% of educators currently meet advanced digital competency benchmarks, creating a critical bottleneck in the effective delivery of lifelong learning programmes. This institutional capacity gap limits the impact of community-based learning initiatives, especially in rural areas. The study highlights that building a future ready workforce requires not only investment in digital infrastructure but also sustained development of human capacity within intermediary institutions. Without this balance, the policy to community bridge remains incomplete.

Keywords: Lifelong Learning, Workforce Development, Policy Implementation, Digital Competency, Sarawak

ABSTRAK

Dalam era digital yang berkembang pesat, pembelajaran sepanjang hayat telah menjadi aspek penting bagi kebolehsuaian tenaga kerja dan kebolehpasaran jangka panjang. Walau bagaimanapun, di kebanyakan wilayah sub nasional, jurang masih wujud antara matlamat dasar dengan hasil sebenar yang dialami oleh para pekerja. Kajian ini meneliti pembelajaran sepanjang hayat di Sarawak, Malaysia, dengan mengkonseptualisasikannya sebagai jambatan penghubung antara dasar dengan komuniti, dan bukannya sekadar koleksi inisiatif yang terasing. Satu analisis dokumen kualitatif telah dijalankan menggunakan dokumen dasar utama, termasuk Strategi Pembangunan Pasca COVID-19 2030 (PCDS 2030), dengan sokongan laporan institusi dan sumber data awam. Analisis ini menjejaki bagaimana dasar pembelajaran sepanjang hayat diterjemahkan merentasi empat tahap yang saling berkaitan, dasar negeri, aktor institusi, platform penyampaian komuniti, dan pelajar individu. Dapatan kajian mendedahkan bahawa walaupun Sarawak telah menetapkan kerangka dasar yang kukuh dan mencapai tahap liputan infrastruktur digital yang tinggi, kelemahan ketara masih berterusan di peringkat institusi. Secara khusus, hanya 1.76% pendidik pada masa ini memenuhi tanda aras kompetensi digital tahap tinggi, sekali gus mewujudkan halangan kritikal dalam penyampaian program pembelajaran sepanjang hayat yang berkesan. Jurang kapasiti institusi ini mengehadkan impak inisiatif pembelajaran berasaskan komuniti, terutamanya di kawasan luar bandar. Kajian ini menekankan bahawa pembinaan tenaga kerja yang bersedia untuk masa hadapan bukan sahaja memerlukan pelaburan dalam infrastruktur digital, malah pembangunan kapasiti manusia yang mampan dalam institusi perantara. Tanpa keseimbangan ini, jambatan penghubung antara dasar dengan komuniti akan kekal tidak lengkap.

Kata Kunci: Pembelajaran Sepanjang Hayat, Pembangunan Tenaga Kerja, Pelaksanaan Dasar, Kompetensi Digital, Sarawak

## INTRODUCTION

Lifelong learning is no longer just a luxury of the elite, it has become a foundational requirement for any workforce trying to keep pace with a digital age that moves faster than most educational systems can react. As the global economy pivots toward knowledge heavy and technology intensive roles, individuals face increasing pressure to continuously update their skills. This challenge is particularly acute for sub national regions like Sarawak, where a complex geography and deep-rooted development gaps mean that digital inclusion is often more of an aspiration than a daily reality for those living outside the main cities. The Sarawak state government has recognized this urgency by anchoring lifelong learning within the Post COVID-19 Development Strategy 2030 (PCDS 2030), aiming for a 30% skilled workforce by the turn of the decade.

Lifelong learning has been widely recognised as a key driver of workforce adaptability in an increasingly digital and knowledge-based economy. According to UNESCO (2015), lifelong learning enables individuals to continuously update their skills and knowledge, allowing them to remain relevant in changing labour markets. The World Economic Forum (2020) further highlights that rapid technological change has accelerated the demand for reskilling and upskilling, particularly in digital competencies. In developing and sub national regions, studies have shown that without targeted lifelong learning initiatives, existing economic and social inequalities are likely to widen (UNESCO Institute for Lifelong Learning, 2020).

To address these regional challenges, the objectives of this study are:

- i. To evaluate the alignment between Sarawak's strategic policies and institutional delivery mechanisms.
- ii. To identify specific human capacity gaps, particularly educator digital readiness, within the lifelong learning ecosystem.
- iii. To assess the effectiveness of community-based platforms in bridging the "final mile" for rural and underserved learners.

This study examines lifelong learning in Sarawak by conceptualising it as a "policy to community bridge" rather than a collection of isolated initiatives. This bridge must hold up across four interconnected levels, state policy, institutional actors (universities and agencies), community delivery platforms (such as Digital Community Centres), and individual learners. The coherence of this entire system determines success,

if the bridge breaks at any point, the policy never reaches the person it was meant to help. Previous studies suggest that policy commitment and infrastructure investment alone do not guarantee positive learning outcomes, access does not automatically translate into meaningful learning participation (UNESCO, 2015).

A critical limitation emerges at the institutional level, particularly regarding educator readiness. Research indicates that institutional capacity is a critical determinant of programme effectiveness (WEF, 2020). By investigating the reality of the 1.76% educator digital skill gap in Sarawak, this study exposes structural weaknesses that must be addressed to ensure policy intentions translate into meaningful workforce development.

## METHODOLOGY

A qualitative document review was selected for this study as the primary objective was to examine the "gears" of the workforce transformation system rather than to conduct statistical measurement. This approach allows for a focused analysis of policy directions, institutional actions, and the mechanics of community delivery within the Sarawak context. When examining sub national workforce transformation, interpretative analysis of strategic documents provides deeper insights into implementation challenges that quantitative data alone might obscure.

Data for this analysis was collected from a diverse range of primary and secondary sources to ensure a comprehensive perspective. The analysis drew primarily upon key government policy documents, including the Post COVID-19 Development Strategy 2030 (PCDS 2030) and the Sarawak Digital Economy Strategy. These were supplemented by institutional reports, such as University Malaysia Sarawak (UNIMAS) annual reports, and verified public data sources.

To ensure evidentiary rigour and validity, specific quantitative indicators, such as the 1.76% educator digital skills gap, were traced back to the primary authority, the State Education Department. Triangulation between official strategic plans and public implementation reports allowed for the identification of gaps between policy intentions and ground level realities.

The analysis followed a thematic approach, organizing findings into three critical areas, high level policy mandates, the machinery of institutional delivery (universities and training centres), and barriers to rural participation. This structure aligns directly with the

"Policy to Community Bridge" model, tracing the flow of strategic objectives from the state level, through institutional intermediaries, to community platforms and individual learners. As a sub national case study, this methodology is designed to identify patterns and systemic relationships within Sarawak's unique lifelong learning ecosystem.

### MAIN FINDING

The findings are structured around three core pillars that illustrate the current functioning of lifelong learning in Sarawak. Through the analysis of policy documents, institutional programs, and verified data, a clear if somewhat uneven picture of implementation emerges.

### Policy Commitment and Digital Access (The Strategic Foundation)

The analysis confirms a powerful mandate for lifelong learning at the highest levels of governance, backed by a sustained and heavy investment in the state's digital infrastructure. Under the Post COVID-19 Development Strategy 2030 (PCDS 2030), Sarawak has established a remarkably clear roadmap for human capital, specifically aiming to hit a 30% skilled workforce target through aggressive digital inclusion. While state level indicators show internet coverage reaching 92.6% of populated areas, this connectivity does not uniformly translate into a "fair shot" at learning. In remote regions, signal instability and a lack of access to digital devices create "hidden barriers". These community level constraints mean that even with a strong policy

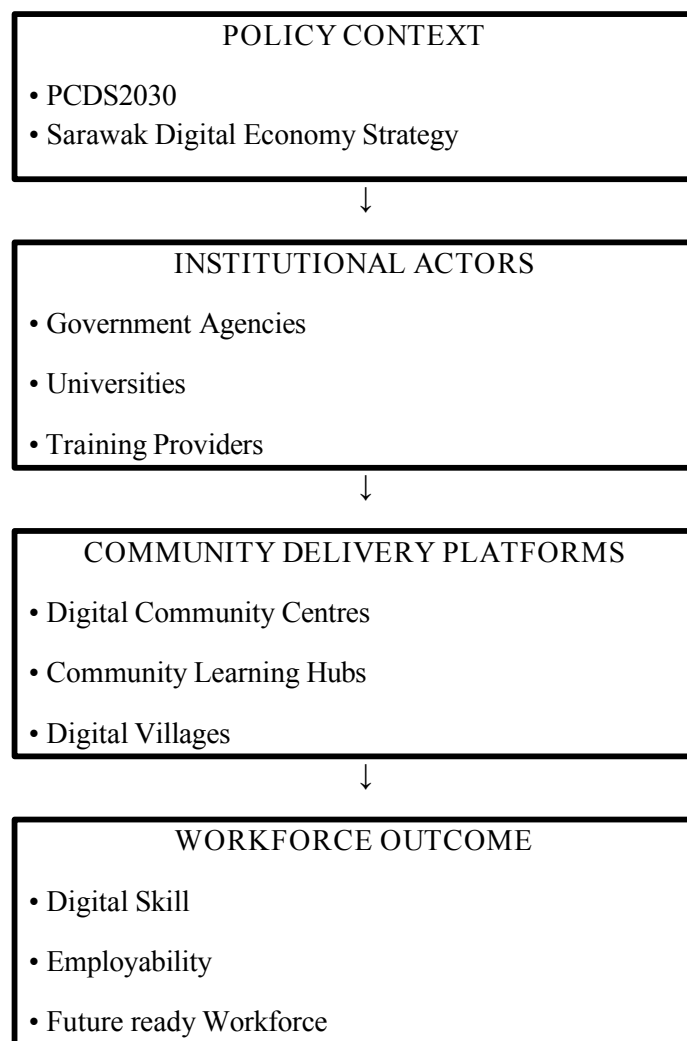


FIGURE 1. Lifelong Learning as a Policy to Community Bridge in Sarawak

in place, many individuals are still being left on the sidelines of the digital economy.

### Institutional Capacity and Educator Readiness

Higher learning institutions, particularly University Malaysia Sarawak (UNIMAS) through its ProCEL initiatives, act as the essential middleman. They take the government's big picture priorities and turn them into flexible, continuous learning models that help workers upskill or pivot to new roles. However, these institutional efforts are running into a wall of limited educator readiness. According to the Ministry of Education Malaysia (2023) competency benchmarks, only 1.76% of educators currently meet the benchmarks for advanced digital competencies. This represents a massive capacity gap, suggesting that while digital infrastructure development has progressed, the people meant to guide the learners are largely unprepared for the shift. This is not merely a minor issue, it is a fundamental structural constraint that limits how much these programs can grow or how effective they can be in the long run.

### Community Based Delivery and Uneven Outcomes

Digital Community Centres (DCCs) and local learning hubs serve as the "final mile" of this bridge, removing barriers of cost, distance, and digital fear for rural populations. By placing the learning directly within the community, these platforms make education feel accessible and relevant. Yet, the effectiveness of these hubs is incredibly inconsistent. Depending on location, the quality of the experience changes drastically based on local facilitator capacity and resource availability. Some centres struggle with a "rotating door" of programs that never quite stick, leading to a "luck of the draw" situation for the individual learner. This highlights a critical truth, for the bridge to hold, there must be a much tighter coordination between high level policy, institutions, and the ground level community reality.

## DISCUSSION

The analysis utilizes the "Policy to Community Bridge" lens to evaluate how effectively Sarawak's ecosystem translates government intentions into real world outcomes across the policy, institutional, community, and individual layers.

### Policy Alignment and Reskilling Demands

Sarawak has successfully established a robust policy foundation, with blueprints like the PCDS 2030 aligning government agencies, universities, and trainers toward a single, shared vision of human capital growth. However, the World Economic Forum (2020) emphasizes that rapid technological change has accelerated the global demand for reskilling and upskilling. In Sarawak, the 1.76% educator competency gap represents a systemic breakdown within the delivery ecosystem. It is impossible to ignore that when the people tasked with leading a technological revolution are themselves struggling with the tools, the entire potential of technology enabled learning is neutralized. This suggests that the state's heavy investment in policy and hardware is essentially "standing on one leg", without a parallel surge in institutional human capacity, the "intended outcomes" will remain out of reach.

### The "Uneven Bridge": Beyond Physical Access

The OECD (2019) defines "future ready" adult learning systems as those that go beyond physical access to ensure sustained, high quality skill development. While Sarawak's DCCs have addressed the physical problem of access, a deep tension remains between quantity and quality. Physical access to a computer lab or a high-speed signal is not the same thing as sustained skill development. If the facilitators at a local centre are undertrained, as indicated by the MOE (2023) indicators, the skill transfer remains shallow. As UNESCO (2015) argues, access does not automatically translate into meaningful learning participation, without high quality instruction and consistent institutional backing, that access is essentially a "bridge that leads nowhere".

### Systemic Coherence and Policy Impact

The primary hurdle for Sarawak's digital transformation is a lack of systemic coherence. The links between policy direction, institutional capacity, and community delivery are simply not strong enough. The weaknesses at the institutional level act as a filter that thins out the impact of the policy before it ever reaches the individual. The UNESCO Institute for Lifelong Learning (2020) warns that without targeted initiatives to fix these institutional gaps, existing economic and social inequalities will likely widen. For a workforce to be truly future ready, the investment in human brains

must be just as aggressive as the investment in fibre optic cables.

## CONCLUSION

This study examined lifelong learning in Sarawak by conceptualising it as a policy to community bridge linking government strategies to workforce outcomes. The analysis demonstrates that Sarawak has established a strong policy foundation through initiatives such as the Post COVID-19 Development Strategy 2030 and has made substantial investments in digital infrastructure. These efforts reflect a clear commitment to developing a future ready workforce.

However, the findings indicate that the effectiveness of lifelong learning initiatives is constrained by weaknesses at the institutional and community levels. In particular, the low proportion of educators with advanced digital competencies represents a significant institutional capacity gap. This limitation reduces the effectiveness of community-based learning platforms and contributes to uneven learning outcomes, especially between urban and rural areas. As a result, the policy to community bridge remains incomplete, with gaps that prevent policy intentions from fully translating into meaningful workforce development.

Overall, the study highlights that lifelong learning cannot be sustained through infrastructure development alone. A balanced approach that integrates strong policy direction, institutional capacity building, and consistent community level delivery is essential for achieving inclusive and effective lifelong learning outcomes.

Based on the findings, several key recommendations are proposed to strengthen the effectiveness of lifelong learning initiatives in Sarawak. Priority should be given to continuous professional development programmes that prioritise continuous digital upskilling for educators, as improving educator readiness is essential for strengthening institutional capacity and ensuring high quality learning delivery. In addition, universities and training institutions should play a more active role in supporting community-based learning centres by contributing to curriculum

development, providing facilitator training, and monitoring programme quality to ensure consistency and relevance. Stronger coordination across policy makers, educational institutions, and community platforms is also necessary to align policy objectives with institutional capabilities and local needs, thereby reducing uneven learning outcomes across regions. While expanding digital access remains important, greater emphasis should be placed on improving the quality and sustainability of learning experiences to ensure meaningful skill development and long-term workforce readiness.

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