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Analysis of The Capacity of Indonesian School Organizations and Communities Learning Center (CLC) in Sabah, Malaysia

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ABSTRACT

This study analyzes the capacity of Indonesian School Organizations and Community Learning Centers (CLC) in Sabah, Malaysia, to provide education for Indonesian migrant children. The research aims to examine institutional challenges, management differences, and stakeholder involvement in supporting education access. Using a qualitative descriptive method, data were collected through interviews, observations, and document analysis. The findings reveal that while both Indonesian Schools (SIKK) and CLCs play crucial roles in migrant education, they face significant challenges, including limited resources, regulatory constraints, and lack of coordination between institutions. SIKK benefits from direct government support, whereas CLCs rely heavily on community and private sector involvement. The study highlights the need for stronger institutional capacity, improved teacher training, and enhanced collaboration between Indonesia and Malaysia. Strengthening policy frameworks and increasing cross-border educational cooperation are essential to ensuring sustainable and inclusive education for Indonesian migrant children. This research provides valuable insights for policymakers, educators, and stakeholders seeking to improve educational access and quality in migrant communities.

INTRODUCTION

This research is crucial as it addresses the educational challenges faced by Indonesian migrant children in Sabah, Malaysia, who often have limited access to formal schooling. By analyzing the capacity of Indonesian School Organizations and Community Learning Centers (CLC), the study provides insights into institutional limitations, resource constraints, and policy gaps that affect the quality and sustainability of education for this marginalized group. Understanding these challenges is essential for improving educational access, enhancing institutional collaboration, and formulating effective policies to support migrant children's learning needs. Furthermore, the findings can contribute to strengthening cross-border educational cooperation between Indonesia and Malaysia, ensuring that every Indonesian child, regardless of their location, receives quality education and equal opportunities for a better future.

The bibliometric analysis reveals key research gaps and novelties in the field of education, particularly in governance, digital transformation, and economic impacts. The gaps identified include the limited exploration of policy implementation strategies in enhancing teacher performance and organizational commitment, despite strong connections in governance-related clusters. Additionally, while ICT and digital infrastructure are widely discussed in Islamic education and distance learning, there is insufficient research on their practical application in school management and teacher training. Moreover, although the economic impact of education is evident in discussions on human capital and competitive advantage, specific policy interventions to optimize this impact remain underexplored. The novel contributions of this network visualization highlight the growing role of digital education in Islamic and boarding school systems, suggesting a shift toward technology-driven learning environments. Additionally, the integration of public-private partnerships and open innovation in education governance is an emerging area, showcasing how collaborative efforts between government institutions and educational organizations can enhance learning quality. Future research should bridge these gaps by focusing on evidence-based policy strategies, digital pedagogy innovations, and governance frameworks that support sustainable educational development.

International insight from the study on the capacity of Indonesian school organizations and Community Learning Centers (CLC) in Sabah, Malaysia, provides significant international insights into education infrastructure, governance, and global competitiveness. The research highlights major disparities in educational infrastructure between Sekolah

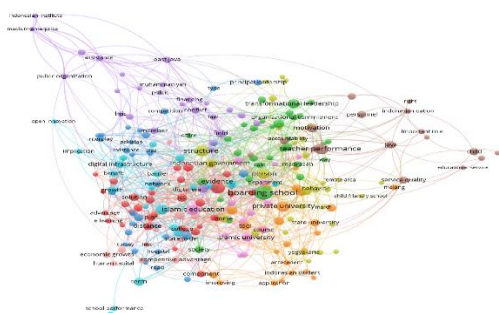


Figure 1. Bibliometric Analysis of the VOSviewer Network Visualization

Indonesia Kota Kinabalu (SIKK) and CLCs, revealing gaps in access to quality education for Indonesian migrant workers' children in Malaysia, which contrasts with global education infrastructure standards. Indonesia's Human Development Index (HDI) ranking of 75.02 in 2024 places it 114th globally, significantly behind neighboring countries such as Singapore (11th) and Malaysia (62nd), reflecting broader challenges in global educational competitiveness and alignment with SDG 4 on quality education. Additionally, the study underscores the reliance on public-private partnerships (PPPs), as Field CLCs benefit from corporate support. At the same time, Non-field CLCs struggle with funding and resources, mirroring global trends in education financing. Moreover, Indonesia's digital transformation efforts face significant setbacks, as many CLCs lack stable internet, IT infrastructure, and teacher training, exacerbating the digital divide and limiting modern learning opportunities. The absence of a formal bilateral infrastructure agreement between Indonesia and Malaysia further highlights the need for strategic international policy planning to ensure sustainable education services for Indonesian students abroad. Addressing these gaps through stronger public-private collaborations, investment in infrastructure, and digital education policies will be crucial for Indonesia to enhance its educational competitiveness on the global stage while ensuring equitable learning opportunities for its citizens overseas.

The problems clearly of this study identify several critical issues concerning the capacity of Indonesian school organizations and Community Learning Centers (CLC) in Sabah, Malaysia, particularly regarding infrastructure, governance, and access to quality education for Indonesian migrant workers' children. One of the major problems is the significant disparity in infrastructure between Sekolah Indonesia Kota Kinabalu (SIKK) and CLCs, where SIKK benefits from better facilities while CLCs suffer from inadequate classrooms, poor sanitation, and a lack of digital infrastructure, resulting in inconsistencies in educational quality and learning environments. Furthermore, many Indonesian children in Malaysia struggle to access formal education due to Malaysian policies restricting schooling options for foreign workers' families, leaving CLCs as the only alternative despite their administrative and funding challenges. The lack of government support and formal bilateral agreements between Indonesia and Malaysia further exacerbates the issue, making CLC infrastructure development highly dependent on local initiatives and corporate social responsibility (CSR) programs from palm oil companies, leading to unequal resource distribution. Additionally, the digital divide remains a significant obstacle, as many CLCs lack stable internet, IT infrastructure, and teacher training in digital literacy, limiting access to technology-driven education and distance learning opportunities. Another major issue is the inconsistency in public-private partnerships (PPPs), where Field CLCs receive corporate support, but Non-field CLCs struggle with funding and sustainability, creating further inequalities in education access. Without stronger bilateral agreements, systematic infrastructure improvements, teacher training, digital transformation, and more robust public-private collaborations, these problems will persist, severely limiting educational opportunities for thousands of Indonesian children abroad.

Many studies on 9-year basic education have been conducted, with various focuses. Among them are studies on the

role of the education office (Saputra, 2017), education policy (Sukmana, 2014), early childhood education (M. Arifin, 2016), and evaluation of education management in madrasahs (Sukardji, 2001). For example, research (Saputra, 2017) states that the role of the Pekanbaru City Education Office in overcoming school dropouts at the elementary school level in 2012-2015 has not been implemented properly. Suppose the government wants to free Indonesia from school education costs. In that case, if the government subsidizes the Education Unit Operational Assistance (BOSP) for education with a larger amount, no school will collect funds from students/parents. Meanwhile (Sukmana, 2014) states that the government must financially optimize financial management to meet urgent needs and actively tabulate students who have not received an education or do not want to attend school. View (M. Arifin, 2016) will need early childhood education provisions before entering elementary education. Additionally, recent studies have examined migrant education policies and digital transformation in education, such as Wijaya et al., (2024) on educational accessibility for migrant children, Sukari & Nurachman (2024) on the role of education policy in increasing access for ASEAN migrants, and Osmani & Tartari (2024) on the impact of digitalization on migrant education management. Moreover, Steven et al., (2024) explore international policy-based education management, and Fadil et al., (2023) analyze the role of educational technology infrastructure in supporting migrant communities. These recent studies provide a more comprehensive view of contemporary educational challenges and reinforce the research gap in migrant education policy and management.

The studies above show that the problem of 9-year basic education can no longer be called a simple problem. Studies on basic education in the context of policy have indeed been widely studied. The issue of education is one of the contemporary international issues that is contained in one of the goals of the 17 Sustainable Development Goals (SDGs), namely goal four "Ensuring Inclusive and Equitable Quality of Education and Increasing Lifelong Learning Opportunities for All".

Education is one of the benchmarks of the Human Development Index in addition to health and income. Educational services in Indonesia are divided into 3 major parts, namely primary education, secondary education, and higher education (Ihsan, 2005). All of these levels are to build all Indonesian people. The implementation of basic education should be more of a concern for the government because it acts as a foundation. This is stated in the 1945 Constitution Article 31 paragraphs 1 and 2, which states that every citizen has the right to education, every citizen is obliged to attend basic education, and the government is obliged to pay for it.

When viewed from the Human Development Index (HDI), Indonesia continues to show an increase from year to year. In 2024, Indonesia's HDI will reach 75.02, an increase of 0.63 points (0.85%) compared to the previous year of 74.39 (BPS RI, 2024). However, when compared to other countries in Southeast Asia, Indonesia's position is still in the middle. According to data from the United Nations Development Programme (UNDP), the HDI rankings of several countries in Southeast Asia are as follows:

Table 1. HDI Ranking in Southeast Asia

Country	World Rankings	HDI
Singapore	11	0,938

Country	World Rankings	HDI
Brunei Darussalam	47	0,838
Malaysia	62	0,810
Thailand	79	0,777
Indonesia	114	0,750

Source: Good News from Indonesia

This ranking shows that although Indonesia's HDI continues to increase, there is still room for improvement to be on par with neighboring countries that have higher HDI. Of the 191 countries measured, Indonesia ranks 114th. Although there is an increase in Indonesia's human development index from year to year. Here is Indonesia's HDI data from 2015 to 2024:

Table 2. HDI Ranking in Southeast Asia

Year	HDI
2015	69,55
2016	70,18
2017	70,81
2018	71,39
2019	71,92
2020	72,81
2021	73,16
2022	72,91
2023	74,39
2024	75,02

Source: Central Bureau of Statistics of the Republic of Indonesia, 2024

It can be seen from Table 2 that Indonesia's HDI has increased from year to year. Until 2024, Indonesia's HDI has reached 75.02. This shows progress. However, it is not yet optimal. Steps to increase Indonesia's HDI in education include providing equal and expanding access. Equal distribution and expansion of access to education in the development of the Indonesian human index are directed at efforts to expand the capacity of educational units and provide equal opportunities for all students from various groups in society who are different both in terms of social, economic, gender, location of residence and level of intellectual ability and physical condition. Research from (Najmee et al., 2024; Makhoba et al., 2024; Osmani & Tartari, 2024; Nazri et al., 2019; Grant, 2024; Sadiç & Bavlı, 2023; Mohseni et al., 2024) Discuss the importance of providing facilities and infrastructure to increase access and quality of education.

The 2025-2045 Indonesian Education Roadmap aims to accelerate 13 years of compulsory education, including equitable access, to boost the Human Development Index and enhance global competitiveness. This competitiveness reflects the education system's ability to produce skilled, innovative graduates who meet job market and technological demands. Education is vital in developing superior human resources at local, national, and international levels. For comparison, Singapore, despite limited natural resources, leads ASEAN in competitiveness, while Indonesia ranks 27th globally in 2024.



Figure 2. HDI Ranking in Southeast Asia

Figure 2 provides an overview of Indonesia's competitiveness ranking at 27th place among the countries measured. Indonesia's opportunities to increase competitiveness are wide open. In addition, Indonesia's overall performance can also be described from the graph below:

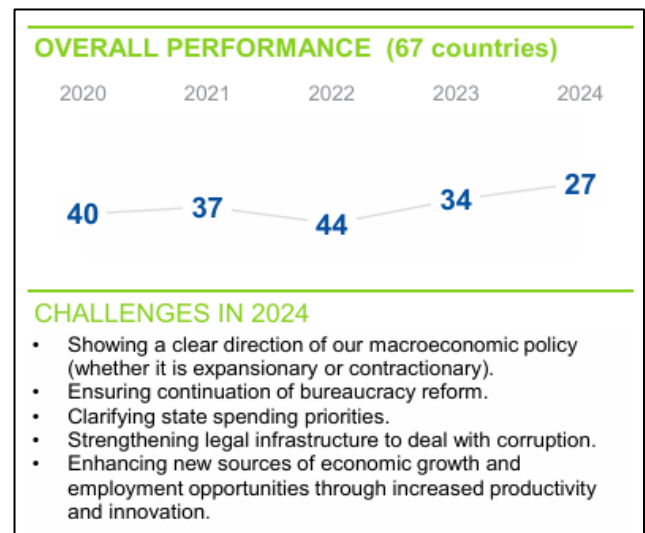


Figure 3. Indonesia's Overall Performance

In the measurement carried out, there is also a division of Indonesia's competitive level seen from economic performance, efficient government, efficient business, and infrastructure as illustrated in the graph below. Indonesia's competitive level, when measured further in the education infrastructure section, is ranked 57 out of 67 countries measured.



Figure 4. Distribution of Indonesia's Competitive Level

The sub-factors that support the grouping of infrastructure measured in the field of education support the ranking. The field of educational infrastructure plays an important role in calculating Indonesia's level of competitiveness in the field of infrastructure. It can be seen in the graph below.

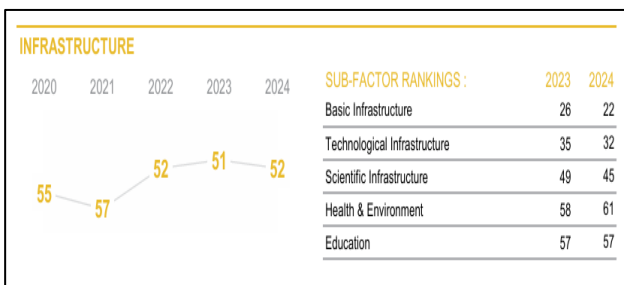


Figure 5. Indonesia's Competitiveness in the Infrastructure Sector

Departing from this picture, all school-age children, regardless of their background, must receive basic education services, including school-age children who are abroad. It is an undeniable fact that not a few school-age Indonesian citizens who live and live abroad must get the same educational services as school-age children in the country. The same educational services mean that adequate infrastructure is available, provided with qualified managers and educators, given school management training for its management, and the same opportunity to develop the curriculum, there is no difference between schools and the personnel provided for schools in the country.

Until 2024, there are 13 Indonesian Schools Abroad (SILN) that are still active and operating, with varying conditions and typologies. By referring to the Joint Decree of the Minister of Foreign Affairs of the Republic of Indonesia and the Minister of Education and Culture of the Republic of Indonesia Number 191/81/01 and Number 951/U/198 of 1981, which was renewed the second joint regulation Number 7 of 2015 and Number 1 of 2015 concerning the management and implementation of Indonesian education abroad.

One of them is through the establishment of the Kota Kinabalu Indonesian School (SIKK). Commitment to provide educational services for school-age Indonesian citizens (WNI) children in Sabah, Malaysia. This is shown through the agreement between the President of the Republic of Indonesia and the Prime Minister of Malaysia, the Vice President of the Republic of Indonesia with the Deputy Prime Minister of Malaysia, and the Minister of National Education of the Republic of Indonesia with the Minister of Education of

Malaysia on July 6-8, 2008, regarding the establishment permit of SIKK.

An interesting statement is from the organization of Indonesian Schools Abroad in Kota Kinabalu, Sabah Malaysia. This school has branches or *Community Learning Centers (CLC)* spread across Sabah and Sarawak. Since its establishment in 2008 until now, SIKK has graduated 5,785 elementary school students, 5,574 junior high school students, and 321 high school students, and will graduate 47 vocational school students. In addition, the equality education program has approved 11,718 students in package A, 797 students in package B, and 664 students in package C. The total number of Indonesian children in Sabah and Sarawak who have been served and graduated is 24,859 students, while the number of students who are still actively studying at SIKK and CLC in Sabah and Sarawak is 20,299 students. (Source: Sekolah Indonesia Kota Kinabalu). Serving children from Indonesian Workers (TKI) who are in Sabah are school-age children. Data of students participating in the latest package equivalency program who attend CLC school is in the following table:

Table 3. Number of Students for Package A, Package B, and Package C Programs from 2009 to 2022

No.	Year	Number of Examinees				Number of Failures				Number of Graduates				
		Package A	Package B	Package C	Sum	Package A	Package B	Package C	Sum	Package A	Package B	Package C	Sum	
1.	2009	49	0	0	0	49	44	0	0	44	5	0	0	5
2.		29	0	0	29	16	0	0	16	13	0	0	13	
3.	2010	194	0	0	194	69	0	0	69	125	0	0	125	
4.		510	0	0	510	145	0	0	145	365	0	0	365	
5.	2011	864	12	13	889	293	5	9	307	571	7	4	582	
6.		576	0	0	576	173	0	0	173	403	0	0	403	
7.	2012	1119	0	0	1119	316	0	0	316	803	0	0	803	
8.		502	0	0	502	140	0	0	140	362	0	0	362	
9.	2013	891	10	12	913	158	4	2	164	733	6	10	749	
10.		549	24	21	594	147	5	10	162	402	19	11	432	
11.	2014	906	17	0	923	244	0	0	244	662	17	0	679	
12.	2015	1284	90	78	1452	148	0	8	156	1136	90	70	1296	
13.	2016	1392	87	54	1533	125	20	1	146	1267	67	53	1387	
14.	2017	1741	0	0	1741	147	0	0	147	1594	0	0	1594	
15.	2018	1105	251	217	1573	163	36	30	229	942	215	187	1344	
16.	2019	1297	181	173	1651	222	61	36	319	1075	120	137	1332	
17.	2020	1354	271	203	1828	94	15	11	120	1260	256	192	1708	
18.	2021	099	129	183	1011	56	15	13	84	643	114	170	927	
19.	2022	716	72	45	833	177	38	14	229	539	34	31	604	
TOTAL		15777	1144	999	17920	2877	199	134	3210	12900	945	865	14710	
Total Equality Education Services for Indonesian Children in Sabah-Sarawak 2009-2022														
14710														

Source: Consulate General of the Republic of Indonesia, 2022

The children who go to school are the descendants of Indonesian workers who are trying to find opportunities in neighboring countries. In Sabah, their existence is often considered a marginalized group. As foreigners, they do not have the same rights as children who are Malaysian citizens. One of them is the right to education, which is difficult for them to get because the Malaysian government cannot provide educational facilities for Indonesian children. This is due to the Malaysian government's policy which states that only workers with a certain nominal amount are entitled to receive education services, incomplete official documents, and various other obstacles. As a result, tens of thousands of Indonesian children in Sabah still face difficulties in accessing education. In this context, Sekolah Indonesia Kota Kinabalu (SIKK) and CLC play an important role in providing educational services for the children of Indonesian workers in Sabah. With the establishment of SIKK, these children can now enjoy the same educational rights as other Indonesian children.

The above description is the current situation in the SIKK organization. The management of the SIKK organization is no longer intended for only one existing school but accommodates all existing school branches. SIKK Sabah, Malaysia is required to be able to provide services and develop access to compulsory education for 9-year-olds for all school-age children in Sabah and Sarawak. SIKK acts not only as a school but also as a government

organization. If we compare it with Indonesia, it can be said that this school is an education office at the Regency/City level. From the description above, the author is interested in conducting this research, considering that it has a very high urgency of usefulness and there has been no research that reveals the governance of 9-year basic education in the infrastructure of educational units. SIKK and CLC Infrastructure Data:

Table 4. Number of Students for Package A, Package B, and Package C Programs from 2009 to 2022

Condition	Number of Classrooms	Number of Teacher Rooms	Number of Library Space	Number of Toilets/Toilets	Number of Goods Storage Warehouses	Number of Computer Spaces
Good	502	142	66	406	91	31
Broken	76	8	5	53	12	1
No status	0	19	74	2	48	103
Total	578	169	145	461	151	135

Source: SIKK Data in 2024

School building facilities and Community Learning Center (CLC) as a support for the dynamics and activities of the teaching and learning process. The development of education in areas that are administratively and juridically not part of the territory of the Unitary State of the Republic of Indonesia certainly requires extra efforts, and careful and detailed preparations, including in terms of location selection by paying attention to geopolitical and geostrategic aspects, to the readiness of supporting infrastructure to financing. What is currently the center of attention is related to the readiness of the provision and arrangement of building infrastructure. Infrastructure is one of the important role holders in the development of education in the region. The development of education in Sabah and Sarawak has attracted the good spirit of the government to continue to intensively carry out infrastructure development as an educational infrastructure, infrastructure development is of course a shared responsibility between the Government of Indonesia, the Government of Malaysia, the private sector and Indonesian citizens in Malaysia. In this case, it requires collaborative cooperation in building infrastructure as a strategy for structuring educational infrastructure in East Malaysia.

This research focuses on the Capacity Strategy for Structuring Educational Infrastructure in Sabah and Serawak, which in its implementation is of course the role of the Government in collaborating collaboratively with the Indonesian government and the Malaysian government, especially in the early stages related to preparing school infrastructure to support the development of education for the children of Indonesian migrant workers. Of course, this is in line with the needs of the community where they ask that development be a priority and a supporter of access in providing educational services.

The problem *statement* of this study is how the infrastructure capacity of SIKK and CLC education services is. Capacity in structuring and infrastructure development for education development in Malaysia (Sabah and Serawak) of various related stakeholders. So the research question of this study is how to increase the infrastructure capacity of Kota Kinabalu Indonesian School and CLC. The main purpose of this study is to describe the strategy for increasing the capacity of Kota Kinabalu

Indonesian School Infrastructure and CLC. In addition, the benefit of this research is that it is expected to solve problems in the form of increasing infrastructure capacity with a collaboration model between the government and the government, as well as the government and the private sector as well as with the community in arranging and preparing infrastructure to support SIKK and CLC infrastructure. The results of this research are also expected to solve problems, especially related to basic infrastructure facilities in preparing for educational development in SIKK and CLC.

Organizational Concept

Organizations according to Miles (2012), “as deliberate arrangement and conscious coordination of people to achieve a common goal or set of goals”. Furthermore, Miles added that: “organizations have distinct purpose and deliberate structure, and they accomplish specific goals through the work and behavior of people. An organization is not a random group of people who come together by chance, rather it is a consciously and formally established entity that is designed to accomplish certain goals that its members would be unable to reach by themselves. It is a managed system designed and operated to achieve a mission, vision, strategies, and goals”.

Miles' statement above shows that an organization is a work procedure (arrangement) that is deliberately made consciously to coordinate people to achieve a common goal or a predetermined goal. In the next statement, Miles explained that the arrangement of the work procedure is made in a structure that is designed and the people in it are not people whose identities are unclear (random) but are consciously arranged formally in an entity (container) and the container is designed to achieve a clear goal, which cannot be done alone, but must be done together. Another definition, an organization is a consciously coordinated social entity with a relatively identifiable boundary, which works continuously to achieve a common goal or a group of goals (Robbins, 2013).

Consciously coordinated contains the meaning of management. An organization has relatively identifiable limitations. Boundaries can change over a period of time and are not always clear, but a real boundary must exist in order for us to distinguish between members and non-members. Eventually, the organization exists to achieve something. Something is a goal, which is usually not achievable by individuals who work alone or, if possible, more efficiently through group efforts.

Capacity Concept

Millen (2004) defines capacity as “... the ability of individuals, organizations, or systems to perform appropriate functions effectively, efficiently and sustainability”. Capacity is defined as capacity as the ability of individuals, organizations, or systems to carry out functions as they should be effectively, efficiently, and continuously.

Meanwhile, Morgan in Milen (2006) formulates the definition of capacity as the ability, skills, understanding, attitudes, values, relationships, behaviors, motivations, resources, and conditions that enable every individual, organization, network/sector, and broader system to carry out their functions and achieve the development goals that have been set over time. Furthermore, Milen (2001) sees capacity building as a special task, because the special task is related to factors in a certain organization or system at a certain time.

GZT (2005) explains capacity as related to the ability of organizations to carry out their functions effectively and efficiently. Capacity is dynamic and adaptive to the environment, *'capacity usually refers to the abilities of individuals or organizations to perform a function and to achieve stated objectives effectively and efficiently'*. Capacity is more than just technical competence, or just the availability of funds, or the availability of adequate material resources. The concept of capacity includes how sources (inputs) are optimized and used to produce the expected outputs, benefits, and impacts. According to McPhee and Bare (2001), capacity building or institutional capacity is the ability of individuals, organizations, and systems to carry out functions to achieve their missions and goals effectively and efficiently. According to De Vita et al. (2001) *'the institutional capacity of non-profit organizations, which can also be applied in the case of government organizations, institutional capacity includes five factors, namely vision and mission, leadership, resources, networks/partnerships, and services and products'*.

The resources in the institutional capacity referred to by De Vita et al. are certainly not limited to human resources, but may also include financing resources and other resources. Referring to this institutional capacity, McKinsey (2001) said *'Capacity is one of those words that means all things to all people, and nonprofits have approached and interpreted capacity building in many different ways. As a starting point, therefore, the team developed a 'Capacity Framework' to provide a common vision and vocabulary for nonprofit capacity'*.

How the institutional capacity framework is identified, McKinsey (2001) gives the following description: *'the Capacity Framework, defines nonprofit capacity in a pyramid of seven essential elements: three higher-level elements – aspirations, strategy, and organizational skills – three foundational elements – systems and infrastructure, human resources, and organizational structure – and a cultural element which serves to connect all the others. The team defined these elements as follows:*

- a. Aspirations: an organization's mission, vision, and overarching goals that collectively articulate its common sense of purpose and direction;
- b. Strategy: the coherent set of actions and programs aimed at fulfilling the organization's overarching goals;
- c. Organizational skills *'the sum of the organization's capabilities, including such things (among others) as performance measurement, planning, resources management, and external relationship building;*
- d. Human resource: the collective capabilities, experiences, potential, and commitment of the organization's board, management team, staff, and volunteers;
- e. Systems and infrastructure: the organization's planning decision-making, knowledge management, and administrative systems, as well as the physical and technological assets that support the organization;
- f. Organizational structure: the combination of governance, organizational design, inter-functional coordination, and individual job descriptions that shape the organization's legal and management structure;
- g. Culture: the connective tissue that binds together the organization, including shared values and practices, behavior norms, and most importantly, the organization's orientation towards performance."

According to McKinsey (2001) by combining all the different elements of an organizational capacity in a single, coherent diagram, the capacity framework pyramid emphasizes the importance of examining each element both individually and concerning other elements, as well as in the context of the

elements. This emphasis reflects an important finding from research that many organizations tend to think that capacity building is limited to "technical assistance" or improving the effectiveness of functions at the bottom of the pyramid, such as human resources or organizational structure. Therefore, paying attention to the importance of *aspirations, strategy, and organizational skills* is very important in assessing an institutional capacity, especially the institutional capacity that provides public services.

Capacity Building Concept

Eade (1997) explained that *'capacity building is often used simply to mean enabling institutions to be more effective in implementing development projects'*. Katty Sensions in Haryanto (2014) explained that *'capacity building is usually understood to mean helping governments, communities, and individuals to develop the skills and expertise needed to achieve their goals'*. Capacity building according to Brown (2001:25) is a process that can improve the ability of a person, an organization, or a system to achieve the desired goals. Meanwhile, Morison (2001:42) sees *capacity building* as a process to carry out something or a series of movements, multilevel changes in individuals, groups, organizations, and systems to strengthen the ability of individuals and organizations to adapt to changes in the existing environment. This means that the stages of capacity building can be carried out at the individual, organizational, and system levels. At the individual level, capacity building is carried out in the aspects of individual knowledge, skills, competencies, and ethics. At the institutional level, capacity building can be carried out in the aspects of resources, administration, organizational structure, and decision-making systems. At the system level, capacity building can be carried out by supporting laws and regulations. Morison's definition shows that capacity building includes both internal and external aspects. The internal aspect referred to here focuses on developing the organization's capacity to achieve its vision, mission, and goals. The external aspect is the development of the organization through the activities of institutions related to the internal aspect.

Millen (2012) sees *capacity building* as a special task because the task is related to factors in a certain organization or system at a certain time. Another definition of capacity building is also put forward by Sensions in Haryono (2012) which provides the definition: *'capacity building is usually understood to mean helping government, communities, and individuals to develop the skills and expertise needed to achieve their goals. Capacity building programs often designed to strengthen participant's abilities to evaluate their policy choices and implement decisions effectively may include education and training, institutional and legal reforms as well as scientific, technological and financial assistance'*. Meanwhile, Rosalyn in Haryono (2012:40) said that capacity building is defined as a combination of capabilities and actions to strengthen the organization's ability to achieve the vision and sustain the organization itself. The result of capacity building is to improve the overall health and effectiveness of the organization, which then results in results and impact.

Capacity development has dimensions, focuses, and types of activities. The dimensions, focus, and types of activities according to Grindle (1997) and Bappenas (2007) are (1) the dimension of human resource development, with a focus: on professional personnel and technical abilities as well as types of

activities such as training, hands-on practice, working climate conditions, and recruitment, (2) the dimension of strengthening the organization, with a focus: management to improve the success of roles and functions, as well as types of activities such as incentive systems, personnel equipment, leadership, organizational culture, communication, managerial structure, and (3) institutional reform, with a focus: institutional and system and macrostructure, with types of activities: economic and political rules of the game, changes in policies and regulations, and constitutional reform. In line with that, Grindle (1997:1-28) stated that if *capacity building* is a series of strategies aimed at increasing efficiency, effectiveness, and responsiveness, then capacity building must focus on the dimensions: (1) human resource development, (2) organizational strengthening, and (3) institutional reform.

GTZ (*Deutsche Gesellschaft für Technische Zusammenarbeit*) in Milen (2006:22) describes that in the process of capacity building three levels must be the focus of analysis and the process of change in an organization. The three levels are (a) system/policy level, (b) organization/institution level, and (c) individual/human resources level.

Infrastructure Development

In general, infrastructure development is one of the important parts of realizing national development which influences the movement of economic growth and the welfare of the community. Development is a process of change in which the concept of development includes the entire system, one of which is infrastructure. As stated by Ginanjar Kartasmita quoted by Nurman (2017) in his book entitled *Regional Development Strategy*, development is a process of change for the better through planned efforts. As a process, development is carried out not instantly, several processes apply as planned. Seers as quoted by Sahaya Anggara and Sumantri (2016:20) stated that in building there is a consideration of values, which means that a development should not conflict with the values that develop in the community.

Similarly, according to Riggs (2016) in building, there is a favorable orientation value. So from the existence of some of these definitions, it can be understood that development, apart from being a process towards better change, can also provide welfare for the local community by prioritizing the values that develop in the community. There are main development ideas put forward by Sondang P. Siagian in his book entitled *Development Administration*, including:

- a. Development is a process: it means that development runs according to stages, based on periods, and costs to produce goals that are by what is expected from the implementation of the development;
- b. Development is carried out consciously: where development is carried out not only as sporadic and incidental because it cannot be categorized into development;
- c. Development is carried out in a planned manner: what is meant is that there is short-term, medium-term, and long-term planning, which aims to determine decisions in the present for the future;
- d. Development leads to modernity: what is meant is a newer and better way of life than before, but it does not mean a way of life that is identical to the Western lifestyle but rather a way of maintaining one's identity with noble values.

Development of a forum for national development: this serves to strengthen the foundation of Indonesia, from the existence of this forum it is hoped that it can produce welfare for the nation. In a process towards better changes that are implemented in development, of course, there are goals and objectives to be achieved, in this regard, Sahya Anggara and Sumantri (2016) have detailed the goals of development as follows:

- a. Creating a prosperous society in all aspects of life;
- b. In development, there is no time limit for achievement, this aims to ensure that every development is carried out sustainably in line with the concept of developing welfare values for the community.

Based on development goals, development is carried out by all components of society by their potential. In addition, the stages of formulation, implementation, and evaluation can provide maximum benefits, the supervision carried out also aims to prevent leakage from all stages of development. The core values that are used as a conceptual basis and practical guidelines for understanding development, as stated by Goulet quoted by Nurman (2017) in his book entitled *Regional Development Strategy*, there are three basic components as follows:

- a. Adequacy (*Sustenance*): the sufficiency in question is the ability of a society to be able to meet not only basic needs but also represent all things that are basic human needs physically such as clothing, food, board, education, health, and security;
- b. Identity (*Self-esteem*): as a component that contains elements universally the identity in question, namely the encouragement from oneself to move forward, and appreciate so that one feels appropriate and worthy in doing something sustainably;
- c. Freedom (*freedom*): In development, the word freedom is broadly interpreted, namely the ability to stand autonomously and democratically. This component of freedom covers various lives such as freedom of political participation, legal certainty, and equality in taking advantage of available potentials and opportunities.

Based on the existence of three basic components in development, it can be concluded that the purpose of development is to increase the availability and expansion of the distribution of various kinds of human needs, then to increase living standards which include the addition of job provision, improvement of the quality of education, which can improve the welfare of the community.

Infrastructure

In the Great Dictionary of the Indonesian Language, infrastructure can be interpreted as facilities and infrastructure. Grigg in Koedatie (2012) defines infrastructure as facilities or basic structures, equipment, and installations that are also built that are needed for the functioning of social systems and economic systems of society, while Friscmann (2012) defines infrastructure as a system of physical resources created by humans for public consumption. Stone and Koedatie (2012) define infrastructure as physical facilities that are then developed or needed by public agencies to carry out government functions such as water supply, electric power, waste disposal, transportation, and other services for economic and social purposes.

In addition, according to the World Bank, infrastructure is a general term for various activities referred to as "Social Overhead Capital" by development economists such as Paul Rosenstein, which means capital goods that are important means for the needs of the community and are indirectly beneficial in efforts to increase production. In its report, the World Bank divides Infrastructure into three, namely:

- a. Economic infrastructure, which is the physical infrastructure needed to support economic activities, includes *public utilities* such as power, telecommunications, water, and gas, then *public work* which are in the form of roads, dams, and transportation such as roads, ports, airports, and so on;
- b. Social infrastructure includes education health and housing;
- c. Administrative infrastructure, which includes law enforcement and administrative control and coordination.

Based on what has been explained related to the definition of infrastructure according to experts, it can be concluded that infrastructure is a facility, facilities, and infrastructure provided by the government as a form of function of the government as well as an effort to meet the needs of the community. Infrastructure has become one of the main focuses of the Indonesian government today. In 2006 the government introduced a policy related to infrastructure improvement through the Decree of the Minister of Finance Number 38/PMK.01/2006 the government thinks that good infrastructure will support economic growth and higher economic performance, besides that any project related to infrastructure can reduce the unemployment rate.

Infrastructure is a critical component of economic development, encompassing the physical systems and structures that facilitate the functioning of a society. According to [Kessides, \(1996\)](#), infrastructure includes long-lived engineered structures, equipment, and facilities that provide essential services used in economic production and by households. These assets span various sectors, including transportation, energy, water, and telecommunications. Investments in infrastructure are expected to produce significant gains in economic output, as they enhance productivity and efficiency across multiple industries. A study by [Aschauer \(1989\)](#) found that public expenditure on infrastructure has a positive and statistically significant effect on economic performance, particularly in developing economies. Furthermore, [Roller & Waverman \(2001\)](#) demonstrated a causal relationship between telecommunications infrastructure investment and aggregate output in 21 OECD countries over a 20-year period. In summary, robust infrastructure is indispensable for sustainable economic growth, as it underpins essential services and fosters an environment conducive to development.

Research Thinking Framework

Research [Lusthaus, C., et., \(2002\)](#) revealed that the emphasis of investors on development organizations/agencies is focused on developing organizational capacity in solving the development problems they face. The experiences of these organizations show that facilitating change at the organizational level is more difficult both conceptually and practically than simply implementing a simple project. The basic understanding of ([Lusthaus, C., et., 2002](#)) in building organizational capacity is how to develop the context of the organization. They found that eight things are interrelated in terms of achieving organizational goals. Because the concept built by Lusthaus is based on the

"contexts" resources owned by the organization, the aspects put forward are also resources owned by the organization "Organizational capacity" entails eight interrelated areas that underlie an organization's performance. These are strategic leadership, organizational structure, human resources, financial management, infrastructure, program and service management, process management, and inter-organizational linkage ([Lusthaus, C., et., 2002](#)). In this study to see the capacity of the existing SIKK and CLC infrastructure.

For instance, [Rossi et al., \(2024\)](#) examined capacity building in non-profit sports clubs, identifying infrastructure and process capacity as critical components that encompass the facilities and processes essential for program delivery. Their research highlights the importance of adequate infrastructure in supporting organizational functions and achieving strategic objectives. Similarly, [Hasenfeld, Y., & Garrow \(2012\)](#) investigated the relationship between organizational capacity and performance in non-profit human service organizations. They found that infrastructure, including technological resources and administrative systems, plays a pivotal role in enhancing service delivery and organizational effectiveness. This study underscores the significance of robust infrastructure in facilitating efficient operations and service provision. Furthermore, [Nur & Nara \(2025\)](#) explored capacity building in non-profit organizations, highlighting the role of collaborative networks and resource sharing in enhancing organizational capacity. They argue that partnerships and inter-organizational linkages contribute significantly to capacity development by providing access to additional resources, knowledge, and support systems. Collectively, these studies reinforce the notion that organizational capacity is a multifaceted construct involving various interrelated components, including infrastructure, human resources, management processes, and external linkages. Addressing these areas comprehensively is crucial for organizations aiming to enhance their capacity to effectively tackle development challenges ([Smith, J. A., & Lee, 2024](#)).

METHOD

According to [Cresswell \(1994\)](#) "qualitative research is interpretative research. As such, the biases, values and judgment of the researcher become stated explicitly in the research report. Such openness is useful and positive". This study uses a qualitative approach by describing the analysis of the capacity of SIKK and CLC in Sabah Malaysia. This approach was chosen to provide a broader understanding of infrastructure management in SIKK and CLC. The use of a descriptive approach so that it can systematically and factually describe the capacity completely. This qualitative method was chosen because it fits the purpose of this study, namely, to describe and explore the understanding of infrastructure capacity management. This model can provide flexibility for researchers to describe the nuances and complexities of behavior and decisions taken by management towards infrastructure in this institution. This qualitative method can also support research in observing and analyzing existing problems, both from policies and socio-economic conditions and influencing the practice of existing infrastructure management. Including the opportunity to collect more data in terms of strategies and challenges in managing existing infrastructure. The researcher used purposive sampling to select informants with relevant knowledge about the capacity of facilities and infrastructure at the Indonesian School in Kota

Kinabalu (SIKK) and CLC in basic education management. Informants included stakeholders from the Indonesian government, the Indonesian Consulate in Kota Kinabalu, school administrators, and CLC staff. Data collection was supported by library sources, including journals and books on organizational capacity. Data analysis followed a coding process based on themes such as infrastructure management strategies, challenges, and opportunities. The analysis involved categorizing, clarifying, and triangulating the data to ensure accuracy and reliability. The conclusions were drawn from a systematic review of the data and qualitative interpretations, presented inductively.

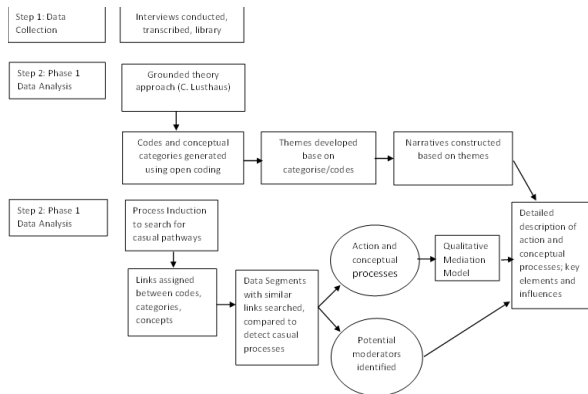


Figure 5. Qualitative Research Process: A Step-by-Step Analytical Framework

The image above explains that Step 1: interviews, conducted, transcribed; Step 2: phase 1 data analysis, grounded theory approach, codes and conceptual categories generated open coding, themes developed based on categories/codes, and narratives constructed based on themes; Step 3: phase 2 data analysis, process induction to search for casual pathways, links assigned between codes, categories, concepts, data segments with similar links searched, compared to detect casual processes, action and conceptual processes identified, potential moderators identified, qualitative mediation model drawn; Final result: detailed description of action and conceptual processes; key elements and influences (Detailed description of action and conceptual processes; key elements and influences).

RESULTS AND DISCUSSION

According to Sukirno (2006), defines that facilities are everything that is directly used in carrying out an activity or activity. Examples are stationary, computers, vehicles, machines, or other devices that help directly in completing work. Its characteristics are more specific and are directly used by individuals in carrying out tasks. Infrastructure is a supporting facility that allows facilities to function optimally. For example, buildings, roads, electricity, internet networks, or other supporting systems. With characteristics that are more general and not directly used in activities, but are very important to support facilities to run well. As part of organizational capacity, it is necessary to consider the availability of facilities and infrastructure that support or do not the running of an organization. Systems and infrastructure can be interpreted as a series of input-process-output-feedback units between organizational elements that are patterned on the use of organizational facilities and infrastructure.

On March 30, 2021, President Joko Widodo signed Government Regulation (PP) Number 57 of 2021 concerning National Education Standards. Article 25 of the regulation

outlines standards for facilities and infrastructure in educational units, including minimum criteria for tools and equipment, basic facilities, and principles like supporting effective learning, ensuring safety and accessibility, and promoting environmental sustainability. These standards must be tailored to each educational level and type. The real conditions of infrastructure at the Indonesian School of Kota Kinabalu (SIKK) and Community Learning Centers (CLC) in Sabah should be compared with these regulations. The infrastructure data (facilities and infrastructure) in 2024 obtained the following data:

Table 5. SIKK and CLC Infrastructure Data

Condition	Number of Classrooms	Number of Teacher Rooms	Number of Libraries	Number of Toilets	Number of Storage Rooms	Number of Computer Rooms
Good	502	142	66	406	91	31
Damaged	76	8	5	53	12	1
No Status	0	19	74	2	48	103
Total	578	169	145	461	151	135

Source: SIKK Data 2024

Table 5 shows varying conditions of infrastructure in SIKK and CLC, with some in good condition, others damaged, and some unclear. The state of these facilities is crucial for the effective management of basic education in Sabah. Key factors to consider include infrastructure availability, strategic management, supporting services (e.g., water, electricity), transportation, communication, maintenance, and human resources. Additionally, technological infrastructure, systems, and training to adapt to developments should also be addressed. In terms of the impact of performance related to basic education services in Sabah, CLC informants said: "It is important in terms of supporting the performance of CLC management. Because learning activities are supported by existing infrastructure. There are CLCs in the fields and non-fields. Including SIKK also requires infrastructure". This statement is in line with information from the Tawau Liaison Coordinator (KP) informant: "The facilities and infrastructure here play an important role in managing learning. Especially for Indonesian students from Indonesian workers to get a decent education in a foreign country, Malaysia. There are indeed two types of CLCs, namely CLC fields (palm oil companies) and non-fields. Fields means located and managed by palm oil mills (companies) and non-fields by the Indonesian community independently (rented to landlords) (interview date: 18 Desember 2024, R)".

The statement aligns with the view that infrastructure, including facilities and technology, is crucial for organizational success (Lutschhaus, 2002). For Sekolah Indonesia Kota Kinabalu (SIKK) and Community Learning Centers (CLC), success depends on the quality and quantity of available infrastructure. The Indonesian government fully supports SIKK's infrastructure, while CLC infrastructure is categorized into two types: field CLCs, supported by companies (mainly in oil palm plantations), and non-field CLCs, independently established by the Indonesian community, which bear operational costs. As of 2024, over 40 non-field CLCs exist, with some supported by CSR initiatives. These differences reflect varying management patterns based on resources and locations. Thus, despite having different management patterns, both field and non-field CLCs play an important role in supporting access to education for Indonesian children in Sabah. Adequate infrastructure is the main key to improving the quality of education, both through

company support and community initiatives. This diversity shows a collective effort to address the challenges of education in the Sabah region. Field CLCs were established by palm oil companies, both managed by private companies and Malaysian state-owned companies. Based on information from one of the informants of the FGV Sahabat Guru CLC in Tawau, it was stated that: "They set standards for school buildings according to the company, for example, there must be 8 toilets. In our CLC, it is very comfortable for teaching and learning activities". In addition, the company, through the field manager, also provides various infrastructure needs (facilities and infrastructure) in the CLCs located in their area. The same informant added that the provision of this infrastructure was carried out to meet the demands of internal and external audits from palm oil companies. This is in line with the obligation of palm oil companies to ensure that the palm oil produced meets the standards set by Malaysian palm oil buyers. One such standard is the RSPO (Roundtable Sustainable Palm Oil), which is designed to ensure that palm oil production complies with international standards. Part of this requirement includes providing adequate facilities and infrastructure for palm oil plantation workers and their children.

Apart from that, in terms of the strategy for fulfilling infrastructure for an organization, an organization is absolutely a priority (Strang, 2018). The vision and mission of an organization regarding the management of organizational infrastructure are depicted in research (de la cruz and Gault, 2014). Furthermore, the existence of a vision and mission regarding the dilemma, problems, and implementation of infrastructure fulfillment is further studied by Prayudi, et al. (2023). The provision of CLC facilities and infrastructure should be designed through a strategy that is integrated into the vision and mission of the organization so that each field and non-field CLC can meet uniform infrastructure standards. In addition, the increase in the number of students in field and non-field CLCs requires expanding access to CLCs to accommodate the growing educational needs. The Liaison Coordinator informant said "Until now, we as managers and management of CLCs. Have never published the feasibility, propriety, and breadth of space or CLC schools do not exist. CLC FGV is only based on ideal leadership. The CLC FGV company may be realized. We dare to create a concept for CLC. Referring to the procedures for making schools. "The replacement of the company's leadership, now Datuk Yahya helps and cares and provides educational services". Another informant from CLC Bingkor added "There are still far from standards for infrastructure. "Currently we are still struggling with CLC permits, especially non-farm CLCs (interview date: 18 Desember 2024, AS)".

Interviews reveal opportunities for both the Indonesian and Malaysian governments to address CLC infrastructure issues for plantation and non-plantation areas. Currently, infrastructure development is not part of the bilateral agreement, presenting both a challenge and an opportunity for Indonesia. The shared reliance on Indonesian plantation workers and the need for educational facilities for their children are key to fostering cooperation. Developing a strategic infrastructure plan is crucial for ensuring decent education for workers' children, and Indonesia holds a strong bargaining position due to the significant number of its workers in Malaysia. Next is the capacity of supporting facilities. The availability of classes or study rooms is the main thing in the learning process, but other supporting facilities play an equally important role. For example,

the availability of water infrastructure, research Gibberd (2024) states that it is necessary to design a rainwater collection system in schools to meet this water need. For the availability of water, based on the available information, several non-field CLCs were found whose water supply comes from rainwater and requires adequate design. In addition, other studies Pu et al. (2022) describe the importance of water and sanitation in schools, and this requires cooperation between institutions. However, the condition of toilets from the data obtained at CLC varies greatly; some have good toilet facilities, but some only fulfill the obligation to provide them without paying attention to their quality. From research Arikunto (1999) water and electricity influence supporting facilities so that optimal teaching and learning activities must be available in every educational unit including in field and non-field CLCs. Almost all sources said that in SIKK and every field and non-field CLC, these supporting facilities are available, both water and electricity. CLC Bingkor said "Regarding non-field CLCs starting from buildings, electricity and water are rented by the community. Some are covered by the Directorate of Elementary Schools and student parent contributions (interview date: 18 Desember 2024, S)". For field CLCs, electricity and water have been met by existing companies or companies. No less essential is electricity, research Daki, El Hannani, and Ouahmane (2020) there is a need to project electricity needs in educational institutions. However, it was found that in some CLCs, electricity supply is not available for 24 hours. Instead, electricity needs are met using generators that are only operated when needed.

The infrastructure at Sekolah Indonesia Kota Kinabalu (SIKK) is adequate, but Community Learning Centers (CLC) face challenges in meeting similar standards. Special efforts are required to improve CLC infrastructure, including the establishment of minimum standards and standard operating procedures (SOPs) for better educational services. However, achieving these standards is difficult due to the overseas location of SIKK and CLC. Currently, infrastructure standards and SOPs are not prioritized, with the focus mainly on student graduation and licensing. Establishing and implementing infrastructure standards and SOPs is crucial for improving CLC management and service quality (Cassway, Burch, and Dean, 2022). Transportation is crucial for student access to school or CLC. For CLC Ladang, transportation is provided free of charge, with vans or Hilux vehicles used for students. However, in non-ladang CLCs, transportation is managed by the community, with costs borne by parents, ranging from 40 to 70 ringgit per month. SIKK students also rely on community self-help for transportation. To ensure equal treatment, transportation facilities need improvement for both SIKK and CLCs, prioritizing sustainability and safety for continued educational services (Pitso, Shpeshang, and Oladele, 2017).

On the other hand, attention also needs to be paid to data on the number of students and the costs associated with the use of transportation that they rely on for travel to and from SIKK and CLC. This data is not only important for students but also for teachers and educators. This information needs to be collected, processed, analyzed and presented comprehensively. The goal is to be a reference in mapping transportation services for the SIKK and CLC communities at an early stage. In addition, this transportation data can be used to support the formulation of transportation-related policies (Mohseni et al., 2024). Reliable and trustworthy data is very important for SIKK and CLC. With

good data management, this capacity can provide benefits to all stakeholders, helping to determine strategic steps to improve transportation solutions in the future. In addition to facilities, technology is one of the important elements of an organization, in addition to social structure, people, goals, and the environment. As stated by [Héroux & Fortin \(2013\)](#) that to run the government today and in the future cannot avoid the use of information technology. In line with the utilization of information technology to make public organizations more accountable for their programs and activities ([Telabah et al., 2018](#)). To improve the capacity of SIKK and CLCs in Sabah, information technology support is essential. Both SIKK and CLCs, including field and non-field types, have received computer assistance from the Ministry of Education and related agencies. For example, CLCs have received computers and other ICT equipment, with non-farm CLCs also receiving laptops for data management. However, challenges such as space and security requirements persist, and not all CLCs have sufficient technology to support their needs.

Information technology owned by SIKK and CLC must be utilized properly to improve educational services. This can be done by increasing the capacity for utilization and use. Training to develop the ability to use information technology needs to be continued ([Sujatmoko, 2020](#)). SIKK and CLC have made this effort. In improving the ability to utilize technology in SIKK and CLC from the CLC FGV informant *"Our tutors hold several trainings on office skills, in 2024 we will try to introduce AI (artificial intelligence). Every school in our country can learn about technological advances. This year I am collaborating with 5 universities, one of which is the University of Malaysia Sabah in terms of training. Including universities in Indonesia including Malang State University, Open University, UHAMKA, and UPI. There is also training on libraries carried out with Malang State University including the Open University (interview date: 18 Desember 2024, F)"*.

Another thing about information technology training was raised at the non-field CLC from the non-field CLC, Bingkor, who said *"For non-field CLC, it is also carried out independently with the Yogyakarta State University elementary school study program. 4 times online and there are also face-to-face meetings, the UNY team is present at the non-field CLC. For children, ICT learning is important because currently, PCs (personal computers) are available at the Pasir Putih CLC and TKB Asbon. So the ones there are more intensive for ICT learning. If there are laptops because they are available at my place, the children take turns or use cell phones to learn Word and Excel. To create designs, at our place, there is digital printing, there is making key chains, mugs, and screen printing t-shirts. Which will later be printed. This is for the use of information technology. It has been running since 2020. Although not classical. Moreover, the exam is online, the Computer-Based National Assessment (ANBK). Like it or not, we have to learn technology learning (interview date: 18 Desember 2024, M)"*. The program at SIKK is also like that *"SEAMEO Seamolec (South East Asia Ministry of Education Regional Open Learning Center) used to be used for distance learning for children in several CLCs. Now it is no longer there. This is during COVID. Because it is influenced by the decreasing number of mentor teachers (supervisor teachers). Open high schools used to be initiated by SEAMOLEC too. There is a learning management system (LMS) from SEAMOLEC but it is difficult for children to access. The modules are not yet comprehensive. Communication using WhatsApp is more effective. Only at the high school level is learning still ongoing. Elementary and junior high*

schools do not have distance learning anymore (interview date: 18 Desember 2024, SR)".

SIKK and CLC face challenges in optimizing technology to compensate for limited classroom resources. Many CLCs, like Tawau, have internet access, and both teachers and students utilize platforms like Aidan Chat GPT for learning. While technology aids the teaching process, especially in subjects like mathematics and science, resources are limited. CLCs also use PCs and laptops to enhance learning, with some planning to introduce broadcasting programs and teach students basic tech skills like computer use and maintenance. Despite these efforts, the use of information technology remains limited in certain areas ([Osmani & Tartari, 2024](#)). Technological changes are responded to more quickly than other new policies. Technological resources include all technological equipment, machinery, and systems such as libraries and other information systems, both hardware and software, which are important aspects of organizational function so that they can run well. This is as stated by Lusthaus: *"the technological resources of an organization encompass all of the equipment, machinery, and system (including the library, information systems hardware and software) that are essential for the organization to function properly (Lusthaus, C., et., 2002)"*. However, technological instruments are still the only equipment that is useful for improving services. One thing that will always be the most important aspect is inspiring ideas so that technological achievements can function according to the purpose of their creation. In the context of maintenance and care of facilities and infrastructure, good management is expected to control maintenance costs, extend the service life of facilities, and maintain the quality of organizational services, ([Vieira & Marques Cardoso, 2010](#)). This is in line with research by [Li & Chen \(2010\)](#) which emphasizes the importance of understanding the characteristics of the type of maintenance needed by facilities and infrastructure. About Sekolah Indonesia Kota Kinabalu (SIKK) and Community Learning Centers (CLC), adequate care and maintenance are essential to support the teaching and learning process optimally. By the opinion that each organization has its assets and the ability to appreciate existing infrastructure resources (Lutshaus, 2002). This means that the organization is not only responsible for providing facilities but also ensuring that their maintenance runs well. The organization is expected to be able to provide and maintain existing assets. Referring to the opinion ([Lusthaus, C., et. 2002](#)), the management of basic education facilities in Sabah, especially in CLC, is still far from optimal, especially in terms of the availability of classrooms.

The utilization of facilities at CLC is uneven due to challenges in meeting educational needs. SIKK and non-field CLC infrastructure maintenance relies on a combination of operational assistance and independent funding. Collaboration between the government and local communities is crucial for effective management and improvement of facilities. At CLC ladang, maintenance is handled by the local oil palm plantation manager, who regularly audits the infrastructure. It is suggested that both the Indonesian and Malaysian governments periodically monitor and evaluate the facilities to enhance education services in Sabah ([Makhoba et al., 2024](#)). The human resource capacity for managing infrastructure at CLC is primarily teachers, who handle planning, maintenance, and inventory despite not being experts in these areas. There is no designated infrastructure manager, and teachers also take on

duties like goods management. Challenges include a lack of proper systems for inventory deletion and no dedicated warehouse. Human resource quality and competence are crucial for effective infrastructure management to support the sustainability and quality of education services (Strang, 2018).

Additional description for CLC infrastructure in general, CLC FGV Sahabat said *"Equalization of existing facilities, at the level of policy makers between the Malaysian and Indonesian governments. G (government) to G (government) there should be a change in the WRO (Wealth Reales Order) of palm oil companies, there is no way there are adequate educational facilities and infrastructure in Malaysia for Indonesian children. WRO, Roundtable Sustainable Palm Oil (RSPO), and Malaysia Sustainable Palm Oil (MSPO)". A resource person from SIKK also said "There is no non-farm permit yet. Please, the infrastructure representative from the consulate has a guide to managing CLC, both field CLC and non-field CLC (interview date: 20 Desember 2024, SY)".* The infrastructure capacity of the SIKK and CLC organizations needs to be improved so that it can be in line with the development and objectives of education management in Sabah. Hurley (2023) stated in his research that he emphasized the capacity of a trusted organization so that the goals of the organization can be realized, including infrastructure capacity. The SIKK and CLC organizations in the collective infrastructure capacity of the organization should increase trust for stakeholders in SIKK and CLC. Collective change should be planned and read changes in the organizational situation to make the optimal SIKK and CLC capacity infrastructure management goals be realized. This is in line with what was reported by research (Kerber & Buono, 2005). In addition according to Rocha et al. (2023), SIKK and CLC as organizations require a good SIKK and CLC infrastructure management strategy and this refers to a comprehensive approach or plan designed to achieve organizational goals in the short and long term. Strategy is the main guide in decision-making and resource allocation to ensure that the organization can survive, thrive, and adapt to challenges and opportunities in the external and internal environment.

CONCLUSION

The study highlights the capacity and infrastructure challenges faced by Sekolah Indonesia Kota Kinabalu (SIKK) and Community Learning Centers (CLC) in Sabah, Malaysia, particularly in providing quality education for Indonesian migrant workers' children. While SIKK demonstrates strong organizational capacity, there remains a significant infrastructure gap, especially between SIKK and CLCs, with field-based CLCs (supported by Malaysian palm oil companies) having better facilities, while non-field CLCs (managed independently by the Indonesian community) struggle with funding constraints and lack of government support. A critical issue identified is the absence of standardized operational policies for infrastructure, which hinders the quality and sustainability of education. Additionally, the study emphasizes the urgent need for digital transformation, as many CLCs lack adequate IT infrastructure, digital learning tools, and teacher training. To address these challenges, the study introduces the concept of "synergy", advocating for stronger collaboration between governments, private companies, and communities to enhance infrastructure capacity. However, the study has several limitations, including the lack of an in-depth analysis of student

learning outcomes, the absence of a comparative study with other overseas schools, and a limited long-term evaluation of infrastructure development. Additionally, stakeholder perspectives from students and parents remain underexplored, and while the study identifies the digital divide, it does not fully analyze policy interventions for digital learning solutions. Future research should incorporate longitudinal data, expand comparative analyses, include diverse stakeholder perspectives, and explore technology-driven education solutions to ensure sustainable and high-quality education for Indonesian children abroad.

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