



RESEARCH ARTICLE

## Education and Development in ASEAN's Greater Mekong Subregion

Aukkapong Sukkamart<sup>1</sup>, Paitoon Pimdee<sup>2</sup>, Jaruwan Ployduangrat<sup>3\*</sup>, Jakkapong Prongprommarat<sup>4</sup>

<sup>1,2,3</sup> School of Industrial Education and Technology (SIET), King Mongkut's Institute of Technology Ladkrabang (KMITL), Bangkok, Thailand, 1 Chalong Krung 1 Alley, Lat Krabang, Bangkok, Thailand

<sup>4</sup> Nakhon Ratchasima Provincial Administration Organization (PAO), Thailand

ARTICLE INFO	ABSTRACT
Received: Jul 14, 2024	The objectives of this study were to analyze and synthesize educational strategies and their development approaches within the context of the ASEAN community's Greater Mekong Subregion (GMS) members of Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam, as well as the PRC (People's Republic of China) southern province of Yunnan. Moreover, the study sought to assess the appropriateness of development approaches based on these educational strategies. This mixed-method research used both qualitative and quantitative research methods. The data sources included documents related to educational policies and strategies, as well as administrators involved in educational management in each of the six GMS members surveyed. The research tools consisted of content analysis forms and opinion questionnaires, with an index of item-objective congruence (IOC) ranging from 0.80 to 1.00 and a reliability coefficient of 0.82. Data were analyzed using educational strategy content analysis by calculating the mean and standard deviation to assess the level of appropriateness and feasibility of the development approaches. This study makes a significant contribution to the literature by providing a comprehensive analysis and synthesis of educational strategies and their development approaches within the context of the ASEAN community's Greater Mekong Subregion (GMS) members. The study offers valuable insights into the appropriateness and feasibility of these strategies and approaches. The findings not only validate the 22 educational strategies and 86 development approaches as highly appropriate and feasible but also serve as a valuable resource for policymakers, educators, and researchers, facilitating informed decision-making and fostering effective educational development initiatives.
Accepted: Sep 23, 2024	
<b>Keywords</b> ASEAN community Education strategy Education management Greater Mekong Subregion Thailand	
<b>*Corresponding Author:</b> jaruwan.pl@kmitl.ac.th	

## INTRODUCTION

Education is considered one of the crucial pillars of the ASEAN Socio-Cultural Community (ASCC) in developing human resources to support the ASEAN Community building (Saengrith et al., 2020). The importance of education in driving the ASEAN Community is clearly outlined in the Cha-am Hua Hin Declaration Roadmap for an ASEAN Community (2009-2015). This roadmap emphasizes enhancing educational cooperation to achieve a people-oriented, people-centered ASEAN Community, which improves the quality of life of its people and promotes regional sustainable development. Education is identified as one of the key areas to respond to community building and sustainable regional development (Crocco, 2021).

In 2020, ASEAN leaders endorsed the ASEAN Community Vision 2025, which sets the direction for educational cooperation to focus on improving educational quality, promoting lifelong learning, and developing 21st-century skills for the workforce (Crocco et al., 2021). This vision underscores the

need for harmonizing educational standards, increasing regional student and faculty mobility through exchanges and joint programs, as well as establishing centers of excellence to facilitate expertise sharing (Symaco & Tee, 2019).

For Thailand, the Ministry of Education has set a proactive international role by strengthening relations and expanding cooperation with ASEAN member states and countries in the Asian region under various cooperation frameworks, especially in education. Efforts are being made to embed 21st-century competencies like critical thinking, problem-solving, digital literacy, and multilingual proficiency into curricula across all levels (Manakul et al., 2021; Pimdee & Pipitgool, 2023). Fostering ASEAN awareness through integrating regional studies and firsthand cultural experiences is also a priority to cultivate a sense of regional identity and shared values (Theppavaramethi, 2020).

This aligns with the educational reform agenda of ASEAN countries, including expanding educational opportunities, improving educational quality, utilizing infrastructure and information technology for facilitation, and quality education management to build a genuine ASEAN Community (Tkachenko et al., 2022). Strengthening industry-academia partnerships, work-based learning, and aligning education with emerging industry 4.0 trends are also areas of focus. Moreover, educational initiatives must build resilience by incorporating sustainability concepts, climate change awareness, disaster risk reduction, and promoting STEM for innovative solutions (Crocco & Tkachenko, 2022).

Researching the current situation, contexts, changing circumstances, and strategic trends of education in the dynamics of the 21st century towards the ASEAN Community among countries in the Greater Mekong Subregion will provide Thailand with multi-contextual and multi-cultural perspectives from ministry officials, school administrators, and relevant literature. This research is crucial in creating a profound understanding of the educational contexts of countries in this region, leading to the development of Thailand's educational strategies to keep up with changes. Establishing lifelong learning pathways through recognition of prior learning, skills upgrading programs, and leveraging educational technologies are key considerations (Ranarendra, 2022).

Regional data sharing, collaborative research, and structured policy dialogues across ASEAN will support evidence-based educational development. With strategic partnerships, sufficient resources, and political will, Thailand can achieve security, prosperity, sufficiency, and sustainability in education for Thailand 4.0, while advancing towards the ASEAN Community with full potential as a regional leader (Lee, 2022).

### **Research Objectives**

- 1) To analyze and synthesize educational strategies in the context of 21st-century dynamics aimed at fostering the development of an ASEAN community among Greater Mekong Subregion members.
- 2) To study the opinions of educational administrators on the appropriateness and feasibility of development guidelines based on the educational strategies designed for the 21<sup>st</sup> century.

## **GMS EDUCATIONAL STRATEGIES**

### **Greater Mekong Subregion (GMS) Educational Strategies**

The objectives of this study were to analyze and synthesize educational strategies and their development approaches within the context of the ASEAN community's Greater Mekong Subregion (GMS) members of Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam, as well as the PRC (People's Republic of China) southern province of Yunnan.

#### **Cambodian Educational Strategies**

Cambodia's educational strategy for the 21st entails three primary directives or policies (Ministry of Education, Youth and Sport, 2019). These include:

Ensuring equitable access to education services is a prime policy objective. It involves increasing the number of children and youth able to access all levels of education, with a strong emphasis on equality and reaching the most disadvantaged areas and groups. Providing opportunities for children to complete 12 years of quality education that develops good knowledge, reasoning skills, and abilities through technical vocational training and other methods is essential. Bringing schools closer to students' homes, providing sufficient operational budgets, deploying teachers, and building dormitories, especially for girls, are key strategies to achieve this goal.

Improving the quality and relevance of learning experiences is another critical policy area. The aim is to ensure all children and youth have access to relevant, high-quality learning experiences that allow them to participate effectively in the country's development. Upgrading learning quality by aligning it with the nation's economic and social goals, as well as local contexts, is a priority. Focusing on the quality of learners, parents, communities, teachers, and administrators, and measuring and evaluating their performance against established standards, is crucial. Enhancing education quality and efficiency through providing teaching equipment, libraries, labs, curriculum reform, increasing instructional hours, and offering scholarships to underprivileged children are important initiatives.

Furthermore, enhancing the efficiency of education leaders and officials at all levels is a significant policy objective. This involves delivering education services efficiently and flexibly through effective, professional management focused on maximizing outcomes. Enabling timely monitoring, reporting, and providing effective recommendations is essential. Measuring accountability and establishing mechanisms to adjust policies, strategies, and programs at national and local levels is imperative. Enabling state education institutions to efficiently respond to emerging needs at the school level is also a key aspect. Developing education institutions and building the capacity of education personnel through improving work processes, updating laws, and providing technical skills training to staff at all levels are vital components of this policy thrust.

### **Laos National Strategy for Education and Sports Sector Development**

In the 21st century, there is a notable shift towards a national strategy for education and sports development, as outlined in the Education and Sports Sector Development Plan, 2016-2020 by the Lao's Ministry of Education and Sports (2020). This national strategy encompasses various key components aimed at enhancing the overall management and effectiveness of the education sector (Noonan & Phommalangsy, 2020; Vongsaly, 2024).

Strategy 1: Improving and aligning planning and budgeting systems to ensure the effective utilization of resources.

Strategy 2: Enhancing education administration and management systems through the integration of Information and Communication Technology (ICT) to better suit the education and sports context.

Strategy 3: Enhancing management systems and optimizing the utilization of teachers and education staff at all levels.

Strategy 4: Strengthening inspection, monitoring, and evaluation systems, as well as quality assurance mechanisms within the education sector.

Strategy 5: Improving and fortifying the management and implementation of externally financed programs to maximize their impact.

Strategy 6: Conducting in-depth studies and research on issues related to education policies to inform decision-making processes.

Strategy 7: Enhancing the training system and upgrading the skills of education and sports administrators to foster professionalism.

Strategy 8: Strengthening education information dissemination channels to ensure effective communication and transparency.

By implementing these strategies, the education and sports sector in Lao PDR aims to enhance its overall efficiency, quality, and effectiveness, ultimately contributing to the holistic development of the nation.

### **Myanmar's Educational Strategy**

After decades of military rule, Myanmar's education system faced significant challenges. However, the 2010 and 2015 elections brought about a period of political and social liberalization, paving the way for educational reforms. In 2014, the National Education Law was adopted and subsequently amended in 2015. The National Education Strategic Plan 2016-2021 outlined three key strategies to revitalize the education system (Lall, 2023; Oo & Kawai, 2021).

These strategies were developed based on the Comprehensive Education Sector Review from 2012 to 2014, which aimed to provide a roadmap for system-wide education reforms. However, the development of a new strategic plan for 2021-2030 was delayed due to the global pandemic and ultimately abandoned following a military coup. Despite these challenges, the government's education strategies during this period included:

**Strengthening Policies, Regulations, and Education Systems** - This strategy aimed to empower decision-making within educational institutions, enabling school administrators, parent associations, and teachers to implement educational reforms that support students' learning outcomes.

**Building Strong Networks and Partnerships** - This strategy focused on developing mechanisms for networks and partnerships among educational service providers, including temples, private organizations, community-based schools, private schools, and government schools, to support fundamental educational reforms.

**Supporting and Communicating** - This strategy involved advocating for communication of foundational educational reform to raise awareness among various stakeholders about the importance and implications of basic education reform, fostering perspectives, understanding, and awareness of basic education reform goals.

Therefore, these strategies aim to enhance the overall efficiency and effectiveness of Myanmar's education system, ultimately contributing to the holistic development of the nation.

### **Southern China and Yunnan Province Educational Strategies**

China's 14th Five-Year Plan (2021–2025) and Vision 2035 outline the country's educational strategy, which aims to enhance the quality and accessibility of education. The key focus areas include promoting equality in basic public education, improving the adaptability of vocational education, and raising the standards of higher education and teaching staff (International Education, 2020).

The China Education Modernization 2035 Plan and the Implementation Plan for Accelerating Education Modernization (2018-2022) seek to modernize the education system by 2035. Key objectives include promoting Xi Jinping Thought, achieving high-quality education with Chinese characteristics, ensuring equal access to education, and building lifelong learning systems (Hong, 2017). Additionally, the plan emphasizes cultivating top talents, fostering innovative teachers, accelerating educational reform in the information age, opening up education internationally, and modernizing the education governance system.

Yunnan Province, an active member of the GMS is working to modernize and diversify its economy through investments in human resource development, particularly in technical and vocational education and training (TVET) (Greater Mekong Subregion Secretariat, 2024). Yunnan province has placed significant emphasis on vocational and technical education (TVET), especially for rural communities and ethnic minorities. As part of the Greater Mekong Subregion (GMS) cooperation, China has offered numerous scholarships each year to students from neighboring countries, enabling them to pursue higher education at universities in regions like Guangxi and Yunnan. Additionally, China has actively facilitated cooperation on healthcare matters, concentrating on border regions, public health preparedness, capacity building, research collaboration, information exchange, and disease control measures.

China's scholarship initiatives complement the GMS human resource development strategy and action plan, which aims to enhance cooperation in areas such as education, healthcare, labor migration, and social development across the subregion. Yunnan is home to the Kunming Railway Vocation and Technical College, which hosted a study tour during the Mekong Forum 2023 on "Driving Transformative Change in the GMS." This event, co-hosted by the People's Government of Yunnan Province, aimed to reaffirm the GMS's purpose, foster regional cooperation, and showcase Yunnan's potential to drive sustainable economic growth.

In summary, Yunnan Province actively engages with the GMS through investments in TVET, provision of scholarships for regional students, and participation in forums that promote human resource development and regional integration across the subregion.

### **Thailand Educational Strategies**

The Ministry of Education in Thailand has outlined six educational strategies in the National Education Plan (2017-2036) to align with 21st-century skills development. These strategies aim to prepare learners to become valuable human capital, contributing to national economic prosperity, well-being, and a robust societal foundation. The strategies include:

**Education for Social and National Security** - The focus is on creating a secure society through educational initiatives that promote social stability and national security (Rakowska, 2021).

**Production and Development of Human Resources, Research, and Innovation for National Competitiveness** - This strategy emphasizes producing skilled human resources and fostering research and innovation to enhance national competitiveness (Machmud et al., 2021).

**Development of Human Potential Across All Age Groups and Creating a**

**Learning Society** - The goal is to develop human potential at all stages of life and foster a society that values lifelong learning (Suwanroj et al., 2019).

**Creating Opportunities, Equity, and Equality in Education** - This strategy aims

to provide equitable and equal educational opportunities for all, ensuring that everyone has access to quality education (Limna et al., 2022).

**Education for Enhancing Quality of Life and Environmental Sustainability** - - The focus here is on improving the quality of life and promoting environmental sustainability through education (Kwangmuang et al., 2021).

**Improving the Efficiency of the Educational Management System** - This

strategy aims to enhance the efficiency and effectiveness of the educational management system to better meet the needs of learners and society (Chansanam et al., 2021; Saleekongchai et al., 2024).

The overarching goal of Thailand's educational strategies is to prepare the population, both within and outside the formal education system, to become valuable human capital. This involves fostering economic prosperity, well-being, and a stable social foundation through four dimensions:

**Socio-Economic Security** - Ensuring economic and social stability by providing education that meets the demands of the modern economy (Puriwat & Tripopsakul, 2020).

**Social Inclusion** - Offering opportunities for all groups to participate in various aspects of society, promoting inclusivity and equality (Symaco & Tee, 2019).

**Social Empowerment** - Empowering individuals through education to contribute positively to society and drive social progress (Nuangchalerm, 2020).

**Social Cohesion** - Building a sense of unity and togetherness within society through educational initiatives that foster shared values and mutual understanding (Yuenyong, 2019).

### **Vietnam's Fundamental and Comprehensive Education Reform (FCER) Educational Strategy**

Vietnam's education strategy focuses on transforming from quantity to quality education, within five key areas (Ho & Dimmock, 2023). These include:

- (1) Achieving comprehensive educational access.
- (2) Providing opportunities for lifelong learning.
- (3) Ensuring full community participation.
- (4) Establishing an efficient and reliable management system.
- (5) Enabling effective resource transformation.

A major strategy is to develop the next generation of youth to be insightful, highly patriotic, skilled, educated, competent across various skills, and socially responsible. Priorities include:

Elevating education to be efficient, skilled, and professional.

Providing crucial training and developing a high-quality youth workforce.

Utilizing science and technology for national development.

To achieve these goals, four key strategies are outlined:

Strategy 1: Defining new standards for knowledge and competencies.

Strategy 2: Accelerating development of the management and teaching teams based on the new standards.

Strategy 3: Accelerating effective development of education and training.

Strategy 4: Establishing financial mechanisms for education.

The focus is on transforming education quality through revised standards, professional development, optimized education/training processes, and sustainable financing mechanisms.

## **MATERIALS AND METHODS**

### **Step 1**

(1) Data sources were policy documents comprising education policies and strategies of each Greater Mekong Subregion (GMS) Economic Cooperation Program member.

(2) Research tools were summary forms and content analysis forms.

(3) Data collection was done by a research team that searched for education policies and strategies of GMS members from January to June 2019.

(4) Data analysis was conducted by summarizing and analyzing the education policies and strategies of each GMS Economic Cooperation Program member.

## Step 2

(1) Data sources were education policies and strategies of each GMS Economic Cooperation Program member summarized and analyzed from Step 1.

(2) Key informants comprised ministry-level administrators, school administrators, and teachers of basic education institutions from six GMS members, five individuals per GMS member with two serving as ministry-level administrators and three serving as school administrators, totaling 30 people selected by purposive sampling.

## Research Tools

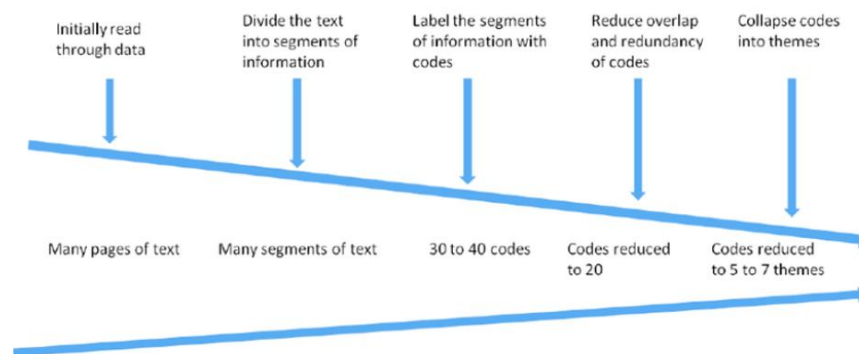
Interview forms with questions about education policies and strategies of each country during the GMS Economic Cooperation Program summarized and analyzed from Step 1, with an IOC of 1.00.

## Data Collection

Individual in-depth interviews using a semi-structured format were conducted by the research team with key informants from six GMS members, five people per member, from July 2019 to June 2020, coordinated through research networks from the Ministry of Education/ministry-level agencies of each country.

## Data analysis

Qualitative data was analyzed using the constant comparative method (Glaser & Strauss, 2017) adapted and explained by Buaraphan (2017), involving preparing data, segmenting data, coding data, comparing and categorizing data, constant comparison, and examining patterns and relationships (Figure 1). The extensive collected data was reduced and regrouped into a few main issues. This was to confirm if the qualitative data from the document summary and analysis (Step 1) was consistent with the actual education management practices (Step 2).



**Figure 1: Process of coding in qualitative research**

(Sources: Agumba et al., 2023; Creswell, 2005; Leavy, 2022)

## Sample

The sample consisted of 2,400 education administrators from GMS members, including 400 ministry-level administrators from the Ministry of Education, school administrators, and teachers of basic education institutions per country.

## Research Instrument

The research instrument was an opinion questionnaire on the appropriateness and feasibility (Wongwanich, 2007) of the educational development guidelines according to the 21st-century educational strategies of each country, using a 5-point rating scale.

The questionnaire was validated for content validity by a panel of five experts which included one high-level administrator from the Ministry of Education, two school administrators serving within Thailand's Office of the Basic Education Commission (OBEC), and two university lecturers in educational administration. This questionnaire was thereafter determined to have an IOC value between 0.80-1.00. The questionnaire was improved based on expert suggestions and then tried out with 50 school administrators and teachers similar to the research sample. The pilot-study survey was determined to have a reliability of 0.82.

## Data Collection

The research team collected data from the sample of basic education administrators from GMS countries using the questionnaire via:

Hard copies distributed through the research team's graduate student networks in those countries.

Google form was used during the team's participation in academic conferences in each GMS member area. Data collection using the questionnaire took place from July to December 2020. Individual in-depth interviews were conducted using a semi-structured interview format.

## Data Analysis

Quantitative data was analyzed by calculating means and standard deviations, then interpreting the mean scores of opinions on *appropriateness* and *feasibility* based on specified criteria as follows:

4.50 – 5.00: Highly appropriate and feasible, 3.50 – 4.49: Appropriate and feasible, 3.00 – 3.49: Neutral, 1.50 – 2.49: Not appropriate and feasible, and 1.00 – 1.49: Not appropriate and not feasible. This was to survey the opinions of the sample involved in education management (operational level) on the appropriateness and feasibility of educational development.

## RESULTS AND DISCUSSION

Table 1 details the analysis and synthesis results of the 22 educational strategies and 85 development approaches for 21<sup>st</sup>-century education within the ASEAN community's six Greater Mekong Subregion members.

**Table 1: Results of analysis and synthesis of strategies and approaches within the GMS members (Source: The Authors).**

<b>Development Guidelines</b>
<b>1. Educational equality and equity</b>
1.1 Ensure equal access to educational opportunities for all learners, regardless of their background or circumstances.
1.2 Provide comprehensive access to education by removing barriers that may prevent certain groups of learners from participating.
1.3 Offer free basic education to all learners to promote universal access without financial constraints.
<b>2. Educational quality and standards</b>
2.1 Enhance school quality and standards through quality assurance systems implemented at the institutional level.



<b>Development Guidelines</b>
2.2 Raise school quality and standards through a national education quality assurance system.
2.3 Strengthen systems for inspecting and monitoring educational quality.
2.4 Update the criteria for knowledge, skills, and competency standards in basic education to align with 21st-century needs.
2.5 Establish standards for knowledge, skills, and competencies in basic education that support ASEAN Community goals.
2.6 Implement accreditation and quality ranking for higher education institutions.
<b>3. Educational management systems development</b>
3.1 Implement flexible and efficient management systems and processes for education.
3.2 Develop educational management systems and processes that meet international standards.
3.3 Establish a system to allocate and utilize educational resources optimally for individual learner development.
3.4 Leverage ICT to build an educational management system suited to the educational context.
3.5 Deliver educational services with a focus on outcomes and results.
3.6 Conduct timely monitoring, reporting, and effective feedback mechanisms.
3.7 Create measures of accountability and policy adjustment processes aligned with national strategies.
<b>4. Research and innovation development</b>
4.1 Conduct research and drive innovations to enhance the country's competitiveness.
4.2 Implement educational innovations to enable effective management of education.
4.3 Research educational policies and strategies aligned with 21st-century needs.
4.4 Research educational policies and strategies that support ASEAN Community goals.
<b>5. Teacher development</b>
5.1 Enhance the quality of pre-service teacher education programs.
5.2 Improve professional development opportunities for in-service teachers.
5.3 Implement modern techniques and methods for teacher development.
5.4 Align teacher training with 21st-century learning management approaches.
5.5 Develop teacher training to support learning management for the ASEAN community.
5.6 Strengthen systems for teacher quality assurance and management.
5.7 Improve management systems and utilization of teachers at all levels.
5.8 Increase teacher salaries and benefits packages.
<b>6. Administrator and personnel development</b>
6.1 Build a robust system for professional training of educational administrators and staff.
6.2 Develop training programs for administrators and personnel aligned with 21st-century learning approaches.
6.3 Implement training for administrators and personnel to support learning management for the ASEAN Community.
6.4 Establish school administration standards that accommodate the changes of the 21st century.
<b>7. Curriculum development</b>
7.1 Revise the basic education curriculum to emphasize 21st-century skills.
7.2 Update the basic education curriculum to align with ASEAN Community requirements.
7.3 Build the professional capacity of curriculum development teams.
7.4 Develop school-based curricula tailored to the contexts of learners, communities, and societies.
7.5 Establish monitoring and evaluation systems for effective implementation of new curricula.

<b>Development Guidelines</b>
<b>8. Measurement and evaluation development</b>
8.1 Develop assessment, examination, and testing methods emphasizing 21st-century skills.
8.2 Establish assessment and examination systems allowing the transfer of educational standards across the ASEAN Community.
8.3 Implement assessment approaches aligned with the country's economic and social goals.
8.4 Adopt assessment methods relevant to local community contexts.
<b>9. Budget management</b>
9.1 Allocate sufficient budgets for educational needs.
9.2 Develop systems for planning and utilizing budgets efficiently and cost-effectively.
9.3 Implement appropriate financial and fiscal measures for effective education management.
9.4 Encourage foreign investment in education and training sectors.
<b>10. Environmentally friendly education</b>
10.1 Provide education that fosters environmentally friendly national growth.
10.2 Implement educational approaches that promote environmentally sustainable lifestyles.
10.3 Prioritize creating green environments that enable quality education delivery.
<b>11. Educational laws development</b>
11.1 Improving educational regulations to promote responsibility, cooperation, and orderliness.
11.2 Strengthening educational regulations that support decision-making at the school level.
11.3 Strengthening educational regulations that promote learning management to accommodate new changes.
<b>12. Education for security</b>
12.1 Education for people to live together safely, harmoniously, and peacefully.
12.2 Education that emphasizes values and culture as the foundation for sustainable development of people and the nation.
<b>13. Workforce education development</b>
13.1 Provide education to develop human resources with the characteristics, skills, and competencies aligned with 21st-century requirements.
13.2 Offer education that equips human resources with the desired characteristics, skills, and competencies for the ASEAN Community.
13.3 Implement educational programs to produce human resources with the ideal characteristics, skills, and competencies demanded by the job market and sustainable national development.
<b>14. Learning society development education</b>
14.1 Education that encourages people to learn by themselves throughout their lives.
14.2 Education that is open to accepting new ideas and adapting them to suit their educational context.
14.3 Education that builds self-learning skills and competencies.
<b>15. Lifelong Learning Education</b>
15.1 Elevate education to offer diverse choices, freedom to choose, and high efficiency.
15.2 Promote open and liberal education accessible to learners of all genders, ages, and backgrounds.
15.3 Foster diverse educational options that cater to the specific needs of individual learners.
<b>16. Adapting education for the 'New Normal'</b>
16.1 Develop education aligned with evolving 21st-century global trends.
16.2 Redesign education to accommodate disruptive changes and new paradigms.
16.3 Equip students with an understanding of life's needs and ability to build stable future careers.

<b>Development Guidelines</b>
16.4 Enable educational institutions to effectively respond to emerging needs at the school level.
<b>17. Inclusive education</b>
17.1 Support widespread and extensive implementation of inclusive education practices.
17.2 Foster societal acceptance and positive attitudes towards inclusive education.
17.3 Establish systems for monitoring and evaluating inclusive education programs.
17.4 Develop inclusive education approaches aligned with 21st-century goals.
<b>18. Educational cooperation development</b>
18.1 Promoting and supporting all sectors of society that have the potential and readiness to participate in fundraising and share in the burden of expenses for education.
18.2 Development of network mechanisms and alliances to support educational reform.
18.3 Organizing education and training according to the needs of the industrial sector.
18.4 Developing cooperation with foreign educational institutions to develop education and training that meets international standards.
18.5 Encouraging the domestic private sector to invest in education
18.6 Encouraging the foreign private sector to invest in education
<b>19. Internet-based education</b>
19.1 Opening the world of education where everyone can learn without limitations in time and place via the internet.
19.2 Promoting learning via the Internet to develop 21st-century skills
<b>20. Providing adequate educational resources</b>
20.1 Ensure sufficient provision of instructional media, equipment, libraries, and laboratories for quality education delivery.
20.2 Develop modern and appropriate educational media and technologies for 21st-century learning environments.
20.3 Implement up-to-date educational media and technologies suitable for learning approaches that support ASEAN community goals.
<b>21. Externally funded program management</b>
21.1 Developing and strengthening the management of programs that receive external budget support.
21.2 Developing and strengthening the supervision, monitoring, and evaluation of externally supported programs.
<b>22. Educational information dissemination</b>
22.1 Communication campaign about educational reform to raise awareness among stakeholders.
22.2 Strengthening the dissemination of educational information.

Table 2 presents data on 22 educational strategies. It reports the mean and standard deviation (SD) scores for each strategy's *appropriateness* and *feasibility* as perceived by educational administrators. Regarding *appropriateness*, the data shows that administrators found the guidelines for development to be highly appropriate overall (mean = 4.71, SD = 0.20). The strategy with the highest mean suitability score was "Educational management systems development" (mean = 4.83, SD = 0.15), followed by "Educational equality and equity" and "Educational quality and standards" (both with mean = 4.81).

Concerning *feasibility*, the administrators also perceived the educational strategies as highly feasible overall (mean = 4.74, SD = 0.19). The strategy with the highest feasibility mean was "Internet-based education" (mean = 4.88, SD = 0.39). It's worth noting that the study used a 5-point scale, with scores

from 4.50 to 5.00 representing a "highly suitable and feasible" (HSAF) level. Table 2 reveals if educational strategies are judged to be appropriate and feasible (Wongwanich, 2007).

**Table 2: Level of opinions of educational administrators regarding whether the educational strategies within the GMS members are appropriate and feasible.**

Educational Strategies (22)	Appropriate		Results	Feasible		Results
	Mean	SD		Mean	SD	
Educational equality and equity	4.81	0.23	HAAF	4.82	0.23	HAAF
Educational quality and standards	4.81	0.15	HAAF	4.82	0.15	HAAF
Educational management systems development	4.83	0.15	HAAF	4.85	0.14	HAAF
Research and innovation development	4.75	0.29	HAAF	4.77	0.29	HAAF
Teacher development	4.78	0.34	HAAF	4.80	0.32	HAAF
Administrator and personnel development	4.68	0.54	HAAF	4.71	0.48	HAAF
Curriculum development	4.65	0.52	HAAF	4.68	0.48	HAAF
Measurement and evaluation development	4.72	0.44	HAAF	4.77	0.35	HAAF
Budget management	4.69	0.56	HAAF	4.74	0.48	HAAF
Environmentally friendly education	4.61	0.63	HAAF	4.66	0.58	HAAF
Educational laws development	4.54	0.73	HAAF	4.58	0.69	HAAF
Education for security	4.59	0.75	HAAF	4.63	0.72	HAAF
Workforce education development	4.68	0.47	HAAF	4.65	0.62	HAAF
Learning society development education	4.71	0.49	HAAF	4.73	0.46	HAAF
Lifelong Learning Education	4.60	0.68	HAAF	4.75	0.48	HAAF
<b>Adapting education for the 'New Normal'</b>	4.69	0.50	HAAF	4.76	0.44	HAAF
Inclusive education	4.73	0.49	HAAF	4.81	0.46	HAAF
Educational cooperation development	4.73	0.44	HAAF	4.80	0.44	HAAF
Internet-based education	4.78	0.47	HAAF	4.88	0.39	HAAF
<b>Providing adequate educational resources</b>	4.77	0.46	HAAF	4.74	0.39	HAAF
Externally funded program management	4.84	0.44	HAAF	4.71	0.41	HAAF
Educational information dissemination	4.73	0.39	HAAF	4.75	0.45	HAAF
<b>ภาพรวม</b>	<b>4.71</b>	<b>0.20</b>	HAAF	<b>4.74</b>	<b>0.19</b>	HAAF

Note. 4.50 – 5.00 represents HAAF (highly appropriate and feasible).

The educational strategy for the 21st century, geared towards a sustainable ASEAN community in the Mekong subregion countries, encompasses 22 strategic issues. The strategy with the most development guidelines is Strategy 5: Teacher Development (8 guidelines), followed by Strategy 3: Development of the Educational Management System (7 guidelines), and Strategy 2: Educational Quality Assurance (6 guidelines). Strategy 18, focused on the development of educational cooperation, also includes 6 approaches.

According to the educational administrators surveyed, the development guidelines outlined in the educational strategy for 21st-century ASEAN community GMS members are considered highly appropriate and feasible overall.

### **SUGGESTIONS AND RECOMMENDATIONS**

The educational strategies and development guidelines for the 21st century, designed to promote a sustainable ASEAN community in the Mekong subregion, can be adapted and applied by administrators of educational institutions to suit their specific contexts. Factors to consider include the level of education offered, learner characteristics and backgrounds, local community contexts, institutional goals, and focus areas, obstacles encountered, and areas in need of improvement or development. The research team is confident that the presented educational approach will undoubtedly benefit educational management at the institutional level.

Senior executives or policymakers should consider selecting or adapting the educational strategies and guidelines for the 21st century, aimed at fostering a sustainable ASEAN community in the Mekong subregion, as identified and presented in this research. They may prioritize the importance and urgency of the guidelines or develop new approaches through appropriate processes, such as integrating and synthesizing various concepts presented in this study. The research team is confident that the implementation of these educational guidelines will benefit educational management at the ministerial or national level.

### **Declarations**

#### **Funding Statement**

This research was supported by a research grant from the KMITL Research and Innovation Services (KRIS), King Mongkut's Institute of Technology Ladkrabang (KMITL), Bangkok, Thailand.

#### **Acknowledgments**

The authors wish to thank Ajarn Charlie for his English language editing and final proofing.

#### **Declaration of conflicting interests**

The authors declare no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

#### **Informed Consent Statement**

Informed consent was obtained from all individual participants included in the study.

#### **Disclosure Statement**

The authors declare that they have no conflicts of interest.

### **REFERENCES**

- Agumba, H., Simpson, Z., & Ndofirepi, A. (2023). Towards understanding the influence of rurality on students' access to and participation in higher education. *Critical Studies in Teaching and Learning*, 11(1), 22-42.  
<https://hdl.handle.net/10520/ejc-cristal-v11-n1-a3>
- Buaraphan, K. (2017). *Qualitative research is not as difficult as you think*. 7<sup>th</sup> ed. Bangkok: Comma Design & Print.
- Camelia, A. I., & Hastuti, L. (2022). The Role of the ASEAN Socio-Cultural Community in Overcoming the COVID-19 Pandemic. *Yuridika*, 37(2).  
<https://doi.org/10.20473/ydk.v37i2.34227>

- Chansanam, W., Tuamsuk, K., Poonpon, K., & Ngootip, T. (2021). Development of online learning platform for Thai university students. *International Journal of Information and Education Technology*, 11(8), 348-355.  
<https://doi.org/10.18178/ijiet.2021.11.8.1534>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5<sup>th</sup> ed.). Sage. <https://tinyurl.com/9vbjfmw>
- Crocco, O. S. (2021). Culture, Policy, and ASEAN: The Macro Dimension. In *Developing Human Resources in Southeast Asia*. (pp. 47-78). Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-79697-6\\_3](https://doi.org/10.1007/978-3-030-79697-6_3)
- Crocco, O. S., Nguyen, L.A., & Tkachenko, O. (2021). Vietnam and Regional Human Resource Development in ASEAN. In Tran, H.T., Phuong, T.T., Van, H.T.M., McLean, G.N., Ashwill, M.A. (Eds.), *Human Resource Development in Vietnam*. Palgrave Macmillan. [https://doi.org/10.1007/978-3-030-51533-1\\_4](https://doi.org/10.1007/978-3-030-51533-1_4)
- Glaser, B., & Strauss, A. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Routledge. <https://doi.org/10.4324/9780203793206>
- Greater Mekong Subregion Secretariat. (2024). People's Republic of China (Yunnan Province and Guangxi Zhuang Autonomous Region).  
<https://greatermekong.org/g/prc>
- Ho, L. H. (2024). *Implementing education reforms: a multiple case study of Vietnamese primary schools*. (Ph.D dissertation, University of Glasgow). Scotland, U.K.
- Ho, L., & Dimmock, C. (2023). Changing teachers' beliefs and practices towards learners-centred education: experiences and lessons from Vietnam's education system reforms. *Practice*, 1-20. <https://doi.org/10.1080/25783858.2023.2177191>
- Hong, P. (2017, May). Strengthening national policy capacity for jointly building the Belt and Road towards the Sustainable Development Goals. In *Belt and Road Forum for International Cooperation*, Beijing China. <https://tinyurl.com/3d3mhc5z>
- International Education. (2020, April 1). China's education modernisation plan towards 2035. <https://tinyurl.com/3v9nktsv>
- Kwangmuang, P., Jarutkamolpong, S., Sangboonraung, W., & Daungtod, S. (2021). The development of learning innovation to enhance higher-order thinking skills for students in Thailand junior high schools. *Heliyon*, 7(6).  
<https://doi.org/10.1016/j.heliyon.2021.e07309>
- Lall, M. (2023). Overview of Education in Myanmar. In *International Handbook on Education in South East Asia*. (pp. 1-23). Springer Nature Singapore.  
<https://doi.org/10.1108/S1479-363620210000017016>
- Leavy, P. (2022). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications. <https://theses.gla.ac.uk/84275/4/2024hophd.pdf>
- Le, A. V., Han, P., Khaing, M. M., & Farrar, O. (2022). *An emerging dragon: Vietnamese education after Resolution 29*. In *Education to Build Back Better: What Can We Learn from Education Reform for a Post-pandemic World*. (pp. 99-123). Springer International Publishing. <https://tinyurl.com/4hmdvkj8>
- Lee, E. Y. J. (2022). Legal Development of the ASEAN Community Building. In Lee, E.Y.J. (Ed.). *ASEAN International Law*. (pp. 1-18). Springer.  
[https://doi.org/10.1007/978-981-16-3195-5\\_1](https://doi.org/10.1007/978-981-16-3195-5_1)
- Limna, P., Siripipatthanakul, S., Phayaphrom, B., & Siripipattanakul, S. (2022). The relationship between twenty-first-century learning model (4Cs), student satisfaction, and student performance-effectiveness. *International Journal of Behavioral Analytics*, 2(1), 1-18. <https://tinyurl.com/5n7taszp>

- Machmud, M. T., Widiyan, A. P., & Ramadhani, N. R. (2021). The Development and Policies of ICT Supporting Educational Technology in Singapore, Thailand, Indonesia, and Myanmar. *International Journal of Evaluation and Research in Education*, 10(1), 78-85.  
<http://files.eric.ed.gov/fulltext/EJ1285993.pdf>
- Manakul, T., Nguyen, T. L., & Tuamsuk, K. (2021). Digital intelligence among countries of the Greater Mekong Subregion. *Journal of Mekong Societies*, 17(3), 1-20.
- Ministry of Education and Sports. (2020). *Education and Sports Sector Development Plan 2021-2025*. Lao People's Democratic Republic. <https://tinyurl.com/58sctub9>
- Ministry of Education, Youth and Sport. (2019). *Education Strategic Plan 2019-2023*. Kingdom of Cambodia. <https://tinyurl.com/watu9wp4>
- Noonan, R., Phommalangsy, P. (2020). Major Education Policy Thrusts. In Noonan, R. (Ed.). *Education in the Lao People's Democratic Republic. Education in the Asia-Pacific Region: Issues, Concerns and Prospects*, vol 51. (31-62). Springer.  
[https://doi.org/10.1007/978-981-15-3319-8\\_2](https://doi.org/10.1007/978-981-15-3319-8_2)
- Nuangchalerm, P. (2020). TPACK in ASEAN Perspectives: Case Study on Thai Pre-Service Teacher. *International Journal of Evaluation and Research in Education*, 9(4), 993-999.  
<http://files.eric.ed.gov/fulltext/EJ1274635.pdf>
- Oo, Z. W., & Kawai, N. (2021). Collaborations to promote inclusive and special education in Myanmar. In *Instructional Collaboration in International Inclusive Education Contexts* (Vol. 17, pp. 167-183). Emerald Publishing Limited.  
<https://doi.org/10.1108/S1479-363620210000017016>
- Pimdee, P., & Pipitgool, S. (2023). Promoting Undergraduate Pre-Service Teacher Computational Thinking. *TEM Journal*, 12(1), 540-549.  
<https://doi.org/10.18421/TEM121-64>
- Puriwat, W., & Tripopsakul, S. (2020). Preparing for Industry 4.0--Will Youths Have Enough Essential Skills?: An Evidence from Thailand. *International Journal of Instruction*, 13(3), 89-104.  
<http://files.eric.ed.gov/fulltext/EJ1259688.pdf>
- Rakowska, A., & de Juana-Espinosa, S. (2021). Ready for the future? Employability skills and competencies in the twenty-first century: The view of international experts. *Human Systems Management*, 40(5), 669-684. <https://tinyurl.com/4td6rcav>
- Ranarendra, J. (2022). *Study on the ASEAN Socio-Cultural Community (ASCC) Blueprint Program with Six University Network Japan* (Doctoral dissertation, Universitas Gadjah Mada), India.  
<https://tinyurl.com/3bknnk9n>
- Saengrith, W., Viriyavejakul, C., & Pimdee, P. (2020). Personnel Learning Behavior in the Workplace: A Study of Workplace Habits. In *Innovative Technologies and Learning: Third International Conference, ICITL 2020, Porto, Portugal, November 23–25, 2020, Proceedings 3* (pp. 158-166). Springer International Publishing.  
[https://doi.org/10.1007/978-3-030-63885-6\\_18](https://doi.org/10.1007/978-3-030-63885-6_18)
- Saleekongchai, S., Bengthong, S., Boonphak, K., Kiddee, K., & Pimdee, P. (2024). Development assessment of a Thai university's demonstration school student behavior monitoring system. *Pakistan Journal of Life and Social Sciences*, 22(2), 1310-1320.  
<https://doi.org/10.57239/PJLSS-2024-22.2.0092>
- Stufflebeam, D. L. (2003). The CIPP model for evaluation. In T. Kellaghan, D. L. Stufflebeam, & L. A. Wingate (Eds.). *International handbook of educational evaluation* (pp. 31-62). Kluwer Academic Publishers.
- Suwanroj, T., Leekitchwatana, P., & Pimdee, P. (2019). Confirmatory factor analysis of the essential digital competencies for undergraduate students in Thai higher education institutions. *Journal of Technology and Science Education*, 9(3), 340-356. <https://tinyurl.com/bdfmnjv5>
- Symaco, L. P., & Tee, M. Y. (2019). Social responsibility and engagement in higher education: Case of the ASEAN. *International Journal of Educational Development*, 66, 184-192.

<https://doi.org/10.1016/j.ijedudev.2018.10.001>

Theppavaramethi, P. (2020). Educational Management for Unity and Peace in ASEAN Community: Research into Practice. *Journal of MCU Modern Education Studies*, 1(1), 1-8.

<https://tinyurl.com/4auwds42>

Tkachenko, O., Crocco, O. S., Nguyen, L. A., & Jonathan, V. (2022). Regional human resource development in ASEAN: An institutional theory perspective. *Human Resource Development Review*, 21(2), 225-248. <https://doi.org/10.1177/15344843221083190>

Vongsaly, C. (2024). Basic Education in Lao People's Democratic Republic. In Symaco, L.P., Hayden, M. (Eds.). *International Handbook on Education in South East Asia. Springer International Handbooks of Education*. (pp. 1-27). Springer.

[https://doi.org/10.1007/978-981-16-8136-3\\_57-1](https://doi.org/10.1007/978-981-16-8136-3_57-1)

Wongwanich, S. (2007). *Meta-evaluation: Methodology and Applications. Faculty of Education. Chulalongkorn University*. (In Thai)

Yuenyong, C. (2019, March). Lesson learned of building up community of practice for STEM education in Thailand. In *AIP Conference Proceedings* (Vol. 2081, No. 1).

AIP Publishing. <https://doi.org/10.1063/1.5093997>

Aref Alsehaimi, (2023). The Role of the Discipline of Social Work in Protecting the Environment from Pollution in Saudi Arabia. *Pakistan Journal of Life and Social Sciences*. E-ISSN: 2221-7630; P-ISSN: 1727-4915, Pak. j. life soc. Sci. (2023), 21(1): 294-312. [https://www.pjlss.edu.pk/pdf\\_files/2023\\_1/294-312.pdf](https://www.pjlss.edu.pk/pdf_files/2023_1/294-312.pdf)

Renecynth B. Jaurigue, Noemi G. Laspinas, Hyacin S. Inojales, Reygei B. Hermano. 2023. Rank-and-File Employees' Work Attitude, Motivation and Performance in an Academe. *Pakistan Journal of Life and Social Sciences*. E-ISSN: 2221-7630; P-ISSN: 1727-4915, Pak. j. life soc. Sci. (2023), 21(1): 236-254. [https://www.pjlss.edu.pk/pdf\\_files/2023\\_1/236-254.pdf](https://www.pjlss.edu.pk/pdf_files/2023_1/236-254.pdf)

Tangkin Hong, Panutporn Ruangchoengchum. 2024. Analyzing the Impact of Performance Metrics on Profitability: A Case Study of SMEs in Cambodian Food, Beverage, and Tobacco Industries. *Pakistan Journal of Life and Social Sciences*. E-ISSN: 2221-7630; P-ISSN: 1727-4915, Pak. j. life soc. Sci. (2024), 22(1): 394-408. [https://www.pjlss.edu.pk/pdf\\_files/2024\\_1/394-408.pdf](https://www.pjlss.edu.pk/pdf_files/2024_1/394-408.pdf)